As filed with the Securities and Exchange Commission on October 14, 2022

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

SESEN BIO, INC.
(Exact name of registrant as specified in its charter)

Delaware	**2834**	**26-2025616**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

245 First Street, Suite 1800
Cambridge, MA 02142
(617) 444-8550
(Address including zip code, and telephone number, including area code, of registrant's principal executive offices)

Thomas R. Cannell, D.V.M.
President and Chief Executive Officer
Sesen Bio, Inc.
245 First Street, Suite 1800
Cambridge, MA 02142
(617) 444-8550
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Steven J. Abrams Tiffany Posil Jessica A. Bisignano Hogan Lovells US LLP 1735 Market Street, 23rd Floor Philadelphia, PA 19103 (267) 675-4600	Steven Kelly President and Chief Executive Officer CARISMA Therapeutics Inc. 3675 Market Street, Suite 200 Philadelphia, PA 19104 (267) 491-6422	Brian A. Johnson Hal J. Leibowitz Christopher D. Barnstable-Brown Wilmer Cutler Pickering Hale and Dorr LLP 7 World Trade Center 250 Greenwich Street New York, NY 10007 (212) 230-8800

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the Merger Agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer) ☐

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) ☐

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Subject to completion, dated October 14, 2022

PROPOSED MERGER
YOUR VOTE IS VERY IMPORTANT

To the stockholders of Sesen Bio, Inc. and CARISMA Therapeutics Inc.:

Sesen Bio, Inc., a Delaware corporation, or Sesen Bio, and CARISMA Therapeutics Inc., a Delaware corporation, or Carisma, entered into an Agreement and Plan of Merger and Reorganization, or the Merger Agreement, on September 20, 2022, pursuant to which a wholly-owned subsidiary of Sesen Bio will merge with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio, which transaction is referred to herein as the merger. We refer to the surviving corporation following the merger as the combined company.

At the effective time of the merger, each outstanding share of Carisma capital stock (including shares of Carisma common stock issued in connection with the Carisma pre-closing financing described below) will be converted into the right to receive a number of shares of Sesen Bio common stock equal to the exchange ratio described in more detail in the section entitled "*The Merger Agreement — Exchange Ratio*" beginning on page 160 of the accompanying proxy statement/prospectus. Also at the effective time of the merger, each outstanding option to purchase shares of Carisma common stock will be assumed by Sesen Bio and will be converted into an option to purchase shares of Sesen Bio common stock, with necessary adjustments to reflect the exchange ratio. Based on Sesen Bio's capitalization and Carisma's capitalization as of September 20, 2022, the exchange ratio is estimated to be approximately 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock, which exchange ratio does not give effect to the proposed reverse stock split described in the accompanying proxy statement/prospectus. The final exchange ratio is subject to adjustment prior to the closing of the merger based on Sesen Bio's net cash at the closing of the merger and the aggregate proceeds from the sale of Carisma common stock in the Carisma pre-closing financing and, as a result, Sesen Bio stockholders could own more, and Carisma stockholders (including, for this purpose, investors in the Carisma pre-closing financing) could own less, or vice versa, of the combined company.

Immediately prior to the consummation of the merger, certain investors have agreed to purchase shares of Carisma common stock, at a purchase price of $15.60 per share, for an aggregate purchase price of approximately $30.6 million. We refer to this transaction as the Carisma pre-closing financing. The closing of the Carisma pre-closing financing is conditioned upon the satisfaction or waiver of the conditions to the closing of the merger set forth in the Merger Agreement. The shares of Carisma common stock that are issued in the Carisma pre-closing financing will be converted into the right to receive a number of shares of Sesen Bio common stock equal to the exchange ratio described in more detail in the section entitled "*The Merger Agreement — Exchange Ratio*" beginning on page 161 of the accompanying proxy statement/prospectus.

Each share of Sesen Bio common stock, each option to purchase Sesen Bio common stock and each Sesen Bio restricted stock unit that is outstanding at the effective time of the merger will remain outstanding in accordance with its terms and such shares of common stock, options and restricted stock units, subject to the proposed reverse stock split, will be unaffected by the merger. Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of closing of the merger being at least $125.0 million.

Additionally, at or prior to the effective time of the merger, Sesen Bio will enter into a Contingent Value Rights Agreement and, as provided in the Merger Agreement, Sesen Bio intends to declare a dividend payable to Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time of the merger with respect to the receipt of one contingent value right, or a CVR, for each outstanding share of Sesen Bio common stock held by such stockholders on such date. Each CVR will represent the contractual right to receive contingent cash payments upon the receipt by Sesen Bio of certain proceeds payable by F. Hoffmann-La Roche Ltd and Hoffman-La Roche Inc., or collectively, Roche, if any, pursuant to the Asset Purchase Agreement by and among Sesen Bio and Roche, or the Roche Asset Purchase Agreement, upon the achievement by Roche of a specified milestone set forth in the Roche Asset Purchase Agreement, subject to certain customary deductions, including for expenses and taxes.

In addition, prior to the closing of the merger, Sesen Bio may, in addition to the CVRs, declare a special cash dividend to Sesen Bio stockholders of record prior to the merger consisting of cash in an amount not to exceed an aggregate amount $25.0 million, subject to Sesen Bio having net cash as of closing of the merger greater than or equal to $100.0 million.

Sesen Bio common stock is currently listed on the Nasdaq Capital Market under the symbol "SESN." Sesen Bio intends to file an initial listing application for the combined company with the Nasdaq Capital Market. After completion of the merger, Sesen Bio is expected to be renamed "CARISMA Therapeutics Inc." and to trade under the symbol "CARM." On October 13, 2022, the last trading day before the date of the accompanying proxy statement/prospectus, the closing sale price of Sesen Bio common stock was $0.5001 per share.

Sesen Bio stockholders are cordially invited to attend the special meeting of Sesen Bio stockholders, or the Sesen Bio special meeting, which is being held in order to obtain the stockholder approvals necessary to complete the merger and related matters. The Sesen Bio special meeting will be held at , Eastern Time, on , , 2022, unless postponed or adjourned to a later date, for the purpose of considering and voting upon the matters set forth in the Notice of Special Meeting of Stockholders and the accompanying proxy statement/prospectus. The Sesen Bio special meeting will be a virtual meeting held exclusively via live webcast. Sesen Bio stockholders will be able to attend the meeting online, vote during the meeting until polls are closed, and submit questions during the meeting by registering in advance at www. .

As described in the accompanying proxy statement/prospectus, certain Carisma stockholders (solely in their respective capacities as Carisma stockholders) holding approximately 97.83% of the outstanding shares of Carisma capital stock as of September 20, 2022 (subject to customary cutbacks in the event of certain triggering events) and certain Sesen Bio stockholders (solely in their respective capacities as Sesen Bio stockholders), are parties to support agreements with Carisma and Sesen Bio whereby such stockholders have agreed, subject to the effectiveness of the registration statement on Form S-4, to vote their shares in favor of the transactions contemplated therein, including, with respect to such Carisma stockholders, adoption of the Merger Agreement and approval of the merger and, with respect to such Sesen Bio stockholders, the issuance of Sesen Bio common stock in the merger pursuant to the Merger Agreement, subject to the terms of the support agreements. Following the effectiveness of the registration statement on Form S-4, of which the accompanying proxy statement/prospectus is a part, and pursuant to the Merger Agreement and the support agreements, Carisma stockholders holding a sufficient number of shares of Carisma capital stock to adopt the Merger Agreement and approve the merger and related transactions are expected to execute written consents providing for such adoption and approval, subject to the terms and limitations set forth in the support agreements.

After careful consideration, each of the Sesen Bio and Carisma boards of directors have approved the Merger Agreement and have determined that it is advisable to consummate the merger. The Sesen Bio board of directors has approved the proposals described in the accompanying proxy statement/prospectus and unanimously recommends that its stockholders vote "FOR" the proposals described in the accompanying proxy statement/prospectus.

More information about Sesen Bio, Carisma, the Merger Agreement and the transactions contemplated thereby and the proposals being considered at the Sesen Bio special meeting is contained in the accompanying proxy statement/prospectus. Sesen Bio urges you to read the accompanying proxy statement/prospectus carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER THE SECTION ENTITLED "RISK FACTORS" BEGINNING ON PAGE 26 OF THE ACCOMPANYING PROXY STATEMENT/PROSPECTUS.

Sesen Bio and Carisma are excited about the opportunities the proposed merger brings to both Sesen Bio's and Carisma's stockholders, and thank you for your consideration and continued support.

Thomas R. Cannell, D.V.M.	Steven Kelly
President and Chief Executive Officer	*President and Chief Executive Officer*
Sesen Bio, Inc.	CARISMA Therapeutics Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the accompanying proxy statement/prospectus. Any representation to the contrary is a criminal offense.

The accompanying proxy statement/prospectus is dated , 2022, and is first being mailed to Sesen Bio stockholders on or about ,2022.

SESEN BIO, INC.
245 First Street, Suite 1800
Cambridge, MA 02142
(617) 444-8550

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
TO BE HELD ON , 2022

Dear stockholders of Sesen Bio, Inc.:

On behalf of the board of directors of Sesen Bio, Inc., a Delaware corporation, or Sesen Bio, we are pleased to deliver this proxy statement/prospectus for a special meeting of stockholders of Sesen Bio, including any adjournment or postponement thereof, or the Sesen Bio special meeting, and for the proposed transactions between Sesen Bio and CARISMA Therapeutics Inc., a Delaware corporation, or Carisma, pursuant to which Seahawk Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of Sesen Bio, or Merger Sub, will merge with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio, or the merger.

The Sesen Bio special meeting will be a virtual meeting held exclusively via live webcast on , 2022 at Eastern Time for the following purposes:

1. to consider and vote upon a proposal to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock, $0.001 par value per share, or Sesen Bio common stock, to stockholders of Carisma pursuant to the terms of the Agreement and Plan of Merger and Reorganization, dated as of September 20, 2022, by and among Sesen Bio, Merger Sub and Carisma, a copy of which is attached as *Annex A* to the accompanying proxy statement/prospectus, or the Merger Agreement, and the change of control of Sesen Bio resulting from the merger;

2. to consider and vote upon a proposal to approve an amendment to the restated certificate of incorporation of Sesen Bio, as amended, or the Sesen Bio Certificate of Incorporation, to (a) effect a reverse stock split of the issued and outstanding shares of Sesen Bio common stock, at a ratio in the range of 1-for- to 1-for- , with such ratio and implementation and timing of the reverse stock split to be determined in the discretion of the Sesen Bio board of directors and as agreed to by Carisma at or prior to the closing of the merger, or in the sole discretion of the Sesen Bio board of directors if Proposal No. 1 is not approved, and (b) if and when the reverse stock split is effected, implement a non-proportionate reduction in the number of authorized shares of Sesen Bio common stock, in the form attached as *Annex G* to the accompanying proxy statement/prospectus;

3. to consider and vote upon a proposal to approve an amendment and restatement of the Sesen Bio, Inc. 2014 Stock Incentive Plan, as amended, or the 2014 Incentive Plan, to, among other things, (a) increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan and provide for annual replenishment of the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan beginning with the fiscal year ending December 31, 2023, and (b) extend the term of the 2014 Incentive Plan to the tenth (10^{th}) anniversary of the closing of the merger;

4. to consider and vote upon a proposal to approve an amendment to the Sesen Bio, Inc. 2014 Employee Stock Purchase Plan, as amended, or the 2014 ESPP, to increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 ESPP to shares of Sesen Bio common stock;

5. to consider and vote upon a proposal to approve an adjournment of the Sesen Bio special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 and 2; and

6. to transact such other business as may properly come before the Sesen Bio special meeting or any adjournment or postponement thereof.

The Sesen Bio board of directors has fixed , 2022 as the record date for the determination of Sesen Bio stockholders entitled to notice of, and to vote at, the Sesen Bio special meeting and any adjournment or postponement thereof, or the record date. Only holders of record of shares of Sesen Bio common stock at the close of business on the record date are entitled to notice of, and to vote at, the Sesen Bio special meeting. At the close of business on the record date, Sesen Bio had shares of common stock outstanding and entitled to vote.

The Sesen Bio special meeting will be a virtual meeting held exclusively via live webcast. You may attend the Sesen Bio special meeting, vote your shares and submit questions electronically during the Sesen Bio special meeting. Whether or not you expect to attend the Sesen Bio special meeting, you are respectfully requested to promptly either (i) sign, date and return the enclosed proxy card or voting instruction form, or (ii) vote via telephone or the internet by following the instructions provided on the enclosed proxy card or voting instruction form.

In order to attend the Sesen Bio special meeting, you must register in advance at www. . After completing your registration, you will receive further instructions via email, including a unique link that will allow you to access the Sesen Bio special meeting and to vote and submit questions during the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your proxy card or voting instruction form. If you are a beneficial owner of shares registered in the name of a broker, bank or other nominee, you will also need to provide the registered name on your account and the name of your broker, bank or other nominee as part of the registration process. Please be sure to follow the instructions found on your proxy card or voting instruction form.

Your vote is important. The affirmative vote of a majority in voting power of the votes cast by the holders of all shares of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal Nos. 1, 3, 4 and 5. The affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock on the record date for the Sesen Bio special meeting entitled to vote on the matter is required for approval of Proposal No. 2.

Proposal No. 1 is conditioned upon the approval of Proposal No. 2, and the merger cannot be consummated without the approval of Proposal Nos. 1 and 2. Proposal Nos. 3 and 4 are conditioned upon the approval of Proposal Nos. 1 and 2. Proposal No. 2 is not conditioned on the approval of any other proposal.

Even if you plan to attend the Sesen Bio special meeting, Sesen Bio requests that you sign and return the enclosed proxy card or voting instruction form to ensure that your shares will be represented at the Sesen Bio special meeting if you are unable to attend.

THE SESEN BIO BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, SESEN BIO AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" EACH SUCH PROPOSAL.

By Order of the Sesen Bio Board of Directors,

Mark Sullivan
General Counsel and Corporate Secretary
Cambridge, Massachusetts
, 2022

REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus incorporates important business and financial information about Sesen Bio that is not included in or delivered with this document. You may obtain this information without charge through the Securities and Exchange Commission, or the SEC, website (www.sec.gov) or upon your written or oral request by contacting the Corporate Secretary of Sesen Bio, Inc., 245 First Street, Suite 1800, Cambridge, MA 02142 or by calling (617) 444-8550.

To ensure timely delivery of these documents, any request should be made no later than , 2022 to receive them before the Sesen Bio special meeting.

For additional details about where you can find information about Sesen Bio, see the section entitled "*Where You Can Find More Information*" on page 382 of this proxy statement/prospectus.

ABOUT THIS PROXY STATEMENT/PROSPECTUS

This proxy statement/prospectus, which forms part of a registration statement on Form S-4 filed with the SEC by Sesen Bio (File No. 333-), constitutes a prospectus of Sesen Bio under Section 5 of the Securities Act of 1933, as amended, or the Securities Act, with respect to the shares of Sesen Bio common stock to be issued pursuant to the Merger Agreement. This document also constitutes a notice of meeting and a proxy statement under Section 14(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, with respect to the Sesen Bio special meeting at which Sesen Bio stockholders will be asked to consider and vote on, among other matters, a proposal to approve the issuance of shares of Sesen Bio common stock pursuant to the Merger Agreement.

No one has been authorized to provide you with information that is different from that contained in, or incorporated by reference into, this proxy statement/prospectus. This proxy statement/prospectus is dated , 2022. The information contained in this proxy statement/prospectus is accurate only as of that date or, in the case of information in a document incorporated by reference, as of the date of such document, unless the information specifically indicates that another date applies.

This proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction in which or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction.

The information concerning Sesen Bio contained in this proxy statement/prospectus or incorporated by reference has been provided by Sesen Bio, and the information concerning Carisma contained in this proxy statement/prospectus has been provided by Carisma.

All references in this proxy statement/prospectus to "Sesen Bio" and "Carisma" refer to Sesen Bio, Inc. and CARISMA Therapeutics Inc., respectively. All references in this proxy statement/prospectus to "Merger Sub" refer to Seahawk Merger Sub, Inc., a newly formed, wholly-owned subsidiary of Sesen Bio. All references in this proxy statement/prospectus to the "combined company" refer to Sesen Bio and its wholly-owned subsidiary, Carisma, following completion of the merger. Except as otherwise noted, references to "we," "us" or "our" refer to both Sesen Bio and Carisma. All references in this proxy statement/prospectus to "Sesen Bio common stock" refer to the common stock of Sesen Bio, $0.001 par value per share, and all references in this proxy statement/prospectus to "Carisma common stock" refer to the common stock of Carisma, $0.0001 par value per share.

TABLE OF CONTENTS

	Page
QUESTIONS AND ANSWERS ABOUT THE MERGER	1
PROSPECTUS SUMMARY	12
MARKET PRICE AND DIVIDEND INFORMATION	25
RISK FACTORS	26
Risks Related to the Merger	26
Risks Related to the Proposed Reverse Stock Split	31
Risks Related to Sesen Bio	32
Risks Related to Carisma	55
CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS	114
THE SPECIAL MEETING OF SESEN BIO STOCKHOLDERS	118
THE MERGER	122
Background of the Merger	122
Sesen Bio Reasons for the Merger	128
Carisma Reasons for the Merger	130
Opinion of Sesen Bio's Financial Advisor	133
Certain Unaudited Financial Projections	137
Interests of Sesen Bio Directors and Executive Officers in the Merger	140
Interests of Carisma Directors and Executive Officers in the Merger	144
Form of the Merger	146
Effective Time of the Merger	146
Merger Consideration and Exchange Ratio	147
Sesen Bio's Final Net Cash	148
Procedures for Exchanging Carisma Stock Certificates	149
Regulatory Approvals	150
Material U.S. Federal Income Tax Consequences of the Merger	150
Material U.S. Federal Income Tax Consequences of the Special Cash Dividend	153
Nasdaq Listing	156
Anticipated Accounting Treatment	156
Appraisal Rights and Dissenters' Rights	156
THE MERGER AGREEMENT	160
AGREEMENTS RELATED TO THE MERGER	181
CVR Agreement	181
Support Agreements and Written Consents	186
Subscription Agreement	186
Lock-Up Agreements	188
MATTERS BEING SUBMITTED TO A VOTE OF SESEN BIO STOCKHOLDERS	189
Proposal No. 1: Approval, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement and the change of control of Sesen Bio resulting from the merger	189
Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split and reduce the number of authorized shares of Sesen Bio common stock	191
Proposal No. 3: Approval of an amendment and restatement of the 2014 Incentive Plan	200
Proposal No. 4: Approval of an amendment to the 2014 ESPP	211
Proposal No. 5: Approval of possible adjournment of the Sesen Bio special meeting	216
SESEN BIO BUSINESS	217
Overview	217
Current Strategy	217
Sesen Bio's Historical Pipeline Product Candidates	218
Competition	219
Sales and Marketing	220
Manufacturing	220
Intellectual Property	221
Sesen Bio's OUS Business Development Partnering	222

	Page
Government Regulation	222
Employees	231
Corporate Information	232
Legal Proceedings	233
CARISMA BUSINESS	235
Overview	235
Carisma's Team	238
Carisma's Strategy	238
Background	239
Manufacturing and Delivery	273
Intellectual Property	274
Competition	278
Government Regulation	280
Employees and Human Capital Resources	294
Facilities	294
Legal Proceedings	294
SESEN BIO MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	295
CARISMA MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	309
MANAGEMENT FOLLOWING THE MERGER	324
SESEN BIO EXECUTIVE COMPENSATION	330
CARISMA EXECUTIVE COMPENSATION	341
RELATED PARTY TRANSACTIONS OF DIRECTORS AND EXECUTIVE OFFICERS OF THE COMBINED COMPANY	349
UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION	353
DESCRIPTION OF SESEN BIO CAPITAL STOCK	363
COMPARISON OF RIGHTS OF HOLDERS OF SESEN BIO STOCK AND CARISMA STOCK	366
PRINCIPAL STOCKHOLDERS OF SESEN BIO	373
PRINCIPAL STOCKHOLDERS OF CARISMA	375
PRINCIPAL STOCKHOLDERS OF THE COMBINED COMPANY	378
LEGAL MATTERS	381
EXPERTS	381
WHERE YOU CAN FIND MORE INFORMATION	382
TRADEMARK NOTICE	383
OTHER MATTERS	384
Index to Sesen Bio's Consolidated Financial Statements	F-1
Index to Carisma's Consolidated Financial Statements	F-67
Annex A – Agreement and Plan of Merger and Reorganization	A-i
Annex B – Opinion of SVB Securities LLC	B-1
Annex C – Form of Carisma Support Agreement	C-1
Annex D – Form of Sesen Bio Support Agreement	D-1
Annex E – Form of Lock-Up Agreement	E-1
Annex F – Form of Contingent Value Rights Agreement	F-1
Annex G – Certificate of Amendment for the Reverse Stock Split	G-1
Annex H – Appraisal Rights (Section 262 of the Delaware General Corporation Law)	H-1

QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus does not give effect to the proposed reverse stock split described in the section entitled "Matters Being Submitted to a Vote of Sesen Bio Stockholders — Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split" beginning on page 189 of this proxy statement/prospectus.

The following section provides answers to frequently asked questions about the merger. This section, however, provides only summary information. For a more complete response to each of these questions and for additional information, refer to the cross-referenced sections in this proxy statement/prospectus.

Q: What is the merger?

A: Sesen Bio, Inc., or Sesen Bio, Seahawk Merger Sub, Inc., or Merger Sub, and CARISMA Therapeutics Inc., or Carisma, entered into an Agreement and Plan of Merger and Reorganization, or the Merger Agreement, on September 20, 2022. The Merger Agreement contains the terms and conditions of the proposed business combination of Sesen Bio and Carisma. Under the Merger Agreement, Merger Sub will merge with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio, or the merger. After the completion of the merger, Sesen Bio will change its corporate name from "Sesen Bio, Inc." to "CARISMA Therapeutics Inc." as contemplated by the Merger Agreement.

At the effective time of the merger, or the effective time, each outstanding share of Carisma common stock and Carisma preferred stock, or collectively, Carisma capital stock, including shares of Carisma common stock issued in connection with the Carisma pre-closing financing as defined below, will be converted into the right to receive a number of shares of Sesen Bio common stock equal to an exchange ratio, or the exchange ratio, described in more detail in the section entitled "*The Merger Agreement — Merger Consideration*" beginning on page 160 of this proxy statement/prospectus.

Also at the effective time, each outstanding option to purchase shares of Carisma common stock, or a Carisma option, will be assumed by Sesen Bio and will be converted into an option to purchase shares of Sesen Bio common stock, with necessary adjustments to reflect the exchange ratio.

Each share of Sesen Bio common stock, each option to purchase Sesen Bio common stock, or a Sesen Bio option, and each Sesen Bio restricted stock unit convertible into Sesen Bio common stock (including both time-based restricted stock units and performance-based restricted stock units), or a Sesen Bio RSU, that is outstanding at the effective time will remain outstanding in accordance with its terms and such shares of Sesen Bio common stock, Sesen Bio options and Sesen Bio RSUs, subject to the proposed reverse stock split, will be unaffected by the merger. Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company, and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, or the Carisma convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of closing of the merger being at least $125.0 million.

Q: Why are the two companies proposing to merge?

A: Sesen Bio and Carisma believe that the merger will provide Carisma with substantial capital resources, positioning it to become a pre-eminent clinical-stage biopharmaceutical company focused on advancement of Carisma's proprietary cell therapy platform that utilizes engineered macrophages and monocytes to potentially transform the treatment of cancer and other serious disorders. For a discussion of Sesen Bio's and Carisma's reasons for the merger, see the sections entitled "*The Merger — Sesen Bio Reasons for the Merger*" and "*The Merger — Carisma Reasons for the Merger*" beginning on pages 128 and 130, respectively, of this proxy statement/prospectus.

Q: Why am I receiving this proxy statement/prospectus?

A: You are receiving this proxy statement/prospectus because you have been identified as a Sesen Bio stockholder as of the record date and you are entitled to vote at the Sesen Bio special meeting to approve the matters set forth herein. This document serves as:

- a proxy statement of Sesen Bio used to solicit proxies for the Sesen Bio special meeting to vote on the matters set forth herein; and
- a prospectus of Sesen Bio used to offer shares of Sesen Bio common stock in exchange for shares of Carisma capital stock in the merger.

Q: What is the Carisma pre-closing financing?

A: On September 20, 2022, immediately prior to the execution and delivery of the Merger Agreement, Carisma entered into a subscription agreement with certain investors named therein, or the subscription agreement, pursuant to which such investors agreed to purchase shares of Carisma common stock at an aggregate purchase price of approximately $30.6 million, or the Carisma pre-closing financing. Immediately after the merger, the shares of Carisma common stock issued in the Carisma pre-closing financing are expected to represent approximately 7.4% of the outstanding shares of capital stock of the combined company. The closing of the Carisma pre-closing financing is conditioned upon the satisfaction or waiver of the conditions to the closing of the merger set forth in the Merger Agreement.

Q: What will Sesen Bio stockholders receive in the merger?

A: At the effective time, Sesen Bio stockholders will continue to own and hold their existing shares of Sesen Bio common stock.

All outstanding and unexercised Sesen Bio options granted (i) pursuant to the Sesen Bio, Inc. 2014 Stock Incentive Plan, as amended, or the 2014 Incentive Plan, or the Eleven Biotherapeutics, Inc. 2009 Stock Incentive Plan, as amended and restated, or the 2009 Incentive Plan, or (ii) as an inducement grant under Nasdaq Listing Rule 5635(c)(4) will remain in effect pursuant to their terms and will be unaffected by the merger. All outstanding and unvested Sesen Bio RSUs granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan will remain in effect pursuant to their terms and will be unaffected by the merger. All outstanding and unexercised warrants to purchase Sesen Bio common stock, or Sesen Bio warrants, immediately prior to the effective time (other than certain Sesen Bio warrants that Sesen Bio may be required to repurchase at such warrant holder's option as of a result of the merger) will remain in effect pursuant to their terms and will be unaffected by the merger.

Additionally, at or prior to the effective time, Sesen Bio will enter into a Contingent Value Rights Agreement, or the CVR Agreement, and, as provided in the Merger Agreement, Sesen Bio intends to declare a dividend payable to Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time with respect to the receipt of one contingent value right, or a CVR, for each outstanding share of Sesen Bio common stock held by such stockholders on such date. Each CVR will represent the contractual right to receive contingent cash payments upon the receipt by Sesen Bio of certain proceeds payable by F. Hoffmann-La Roche Ltd and Hoffman-La Roche Inc., or Roche, if any, pursuant to the Asset Purchase Agreement by and among Sesen Bio and Roche, or the Roche Asset Purchase Agreement, upon the achievement by Roche of a specified milestone set forth in the Roche Asset Purchase Agreement, subject to certain customary deductions, including for expenses and taxes. For a more detailed description of the CVRs and the CVR Agreement, see the section entitled "*Agreements Related to the Merger — CVR Agreement*" beginning on page 181 of this proxy statement/prospectus.

Further, prior to the closing of the merger, Sesen Bio may, in addition to the CVRs, declare a special cash dividend, or the special cash dividend, to Sesen Bio stockholders of record prior to the merger consisting of cash in an aggregate amount not to exceed $25.0 million, subject to Sesen Bio having net cash as of the closing of the merger greater than or equal to $100.0 million. The special cash dividend would be contingent upon the closing of the merger and subject to approval of the Sesen Bio board of directors.

Q: What will Carisma stockholders and Carisma optionholders receive in the merger?

A: Carisma stockholders will receive shares of Sesen Bio common stock, and Carisma optionholders will receive options to purchase Sesen Bio common stock. Applying the exchange ratio, immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger

Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of the Carisma convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of the closing of the merger being at least $125.0 million.

In connection with the merger, each outstanding and unexercised Carisma option will be assumed by Sesen Bio and converted into an option to purchase Sesen Bio common stock, with the number of shares and exercise price being appropriately adjusted to reflect the exchange ratio between Sesen Bio common stock and Carisma common stock determined in accordance with the Merger Agreement.

For a more complete description of what Carisma stockholders and optionholders will receive in the merger, see the sections entitled "*The Merger Agreement — Merger Consideration*" and "*The Merger Agreement — Exchange Ratio*" beginning on pages 160 and 161, respectively, of this proxy statement/prospectus. For a description of the effect of the Carisma pre-closing financing on current Sesen Bio and Carisma stockholders, see the section entitled "*Agreements Related to the Merger — Subscription Agreement*" beginning on page 186 of this proxy statement/prospectus.

Q: What will happen to Sesen Bio if, for any reason, the merger does not close?

A: If, for any reason, the merger does not close, the Sesen Bio board of directors may elect to, among other things, review and evaluate another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Sesen Bio, resume its research and development activities and continue to operate the business of Sesen Bio or dissolve and liquidate its assets. If Sesen Bio decides to dissolve and liquidate its assets, Sesen Bio would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims. There can be no assurances as to the amount or timing of available cash left, if any, to distribute to Sesen Bio stockholders after paying the debts and other obligations of Sesen Bio and setting aside funds for reserves.

Q: What is required to consummate the merger?

A: Pursuant to the terms of the Merger Agreement, in order for the merger to close, the following proposals must be approved by the requisite vote of Sesen Bio stockholders at the Sesen Bio special meeting:

- **Proposal No. 1:** to consider and vote upon a proposal to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement, a copy of which is attached as *Annex A* to this proxy statement/prospectus, and the change of control of Sesen Bio resulting from the merger; and

- **Proposal No. 2:** to consider and vote upon a proposal to approve an amendment to the Sesen Bio Certificate of Incorporation, to (a) effect a reverse stock split of the issued and outstanding shares of Sesen Bio common stock at a ratio in the range of 1-for- to 1-for- , with such ratio and implementation and timing of the reverse stock split to be determined in the discretion of the Sesen Bio board of directors and as agreed to by Carisma at or prior to the closing of the merger, or in the sole discretion of the Sesen Bio board of directors if Proposal No. 1 is not approved, and (b) if and when the reverse stock split is effected, implement a non-proportionate reduction in the number of authorized shares of Sesen Bio common stock, in the form attached as *Annex G* to this proxy statement/prospectus.

Carisma stockholders must adopt the Merger Agreement, thereby approving the merger and the related transactions. The adoption of the Merger Agreement and the approval of the merger and related transactions by the Carisma stockholders requires the affirmative vote (or written consent) of the holders of a majority of the Carisma capital stock, voting together as a single class, (ii) at least two-thirds of the Carisma Series A preferred stock, Carisma special voting preferred stock, Carisma Series B preferred stock and Carisma Series B special voting preferred stock, voting together as a single class, (iii) a majority of the Carisma Series A preferred stock and Carisma special voting preferred stock, voting together as a single class and (iv) at least two-thirds of the Carisma Series B preferred stock and Carisma Series B special voting preferred stock, voting together as a single class.

As of September 20, 2022, certain Carisma stockholders (solely in their respective capacities as Carisma stockholders) holding approximately 97.83% of the outstanding shares of Carisma capital stock (subject to customary cutbacks in the event of certain triggering events) are parties to support agreements with Sesen Bio and Carisma, whereby such stockholders have agreed, subject to the effectiveness of the registration statement on Form S-4, to vote their shares in favor of, among other things, the adoption or

approval of the Merger Agreement and the transactions contemplated therein, subject to the terms of the support agreements. In addition, following the effectiveness of the registration statement on Form S-4, of which this proxy statement/prospectus is a part, and pursuant to the conditions of the Merger Agreement and the support agreements, Carisma stockholders who are party to the support agreements will each execute written consents approving the merger and related transactions, subject to the terms and limitations set forth in the support agreements. Therefore, holders of a sufficient number of shares of Carisma common stock required to adopt the Merger Agreement, thereby approving the merger, have agreed to adopt the Merger Agreement via written consent, subject to the terms and limitations set forth in the support agreements. Carisma stockholders, including those who are parties to support agreements, are being requested to execute written consents providing such approvals.

In addition to the requirement of obtaining the stockholder approvals described above, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived. For a more complete description of the closing conditions under the Merger Agreement, see the section entitled "*The Merger Agreement — Conditions to the Completion of the Merger*" beginning on page 165 of this proxy statement/prospectus.

Q: What stockholder votes are required to approve the proposals at the Sesen Bio special meeting?

A: Approval of Proposal Nos. 1, 3, 4 and 5 each requires the affirmative vote of a majority in voting power of the votes cast by the holders of all shares of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote thereon. Approval of Proposal No. 2 requires the affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock on the record date, , 2022, for the Sesen Bio special meeting, or the record date, entitled to vote on the matter.

Votes will be counted by the inspector of election appointed for the Sesen Bio special meeting, who will separately count "FOR" and "AGAINST" votes, abstentions and broker non-votes. Abstentions and broker non-votes will be treated as shares of Sesen Bio common stock present for the purpose of determining the presence of a quorum for the transaction of business at the Sesen Bio special meeting. Abstentions and broker non-votes will have the same effect as "AGAINST" votes for Proposal No. 2, but will have no effect on the outcome of Proposal Nos. 1, 3, 4 and 5. Proposal Nos. 2 and 5 are matters on which Sesen Bio expects brokers, banks or other nominees to have authority to vote uninstructed shares and, therefore, broker non-votes are not expected with respect to these proposals.

Q: Who will be the directors of the combined company following the merger?

A: Immediately following completion of the merger, the combined company's board of directors is expected to be composed of seven directors, consisting of six directors designated by Carisma and one director designated by Sesen Bio. It is anticipated that Thomas R. Cannell will be the Sesen Bio designated director following the closing of the merger, and that all other current Sesen Bio directors will resign as of the closing of the merger. Carisma will appoint the remaining directors to the Sesen Bio board of directors to fill the resulting vacancies. It is anticipated that Sanford Zweifach, Regina Hodits, Briggs Morrison, Björn Odlander, Chidozie Ugwumba and Steven Kelly will be appointed to the board of directors of the combined company by Carisma. Sanford Zweifach is expected to be appointed as chair of the board of the directors of the combined company.

The staggered structure of the Sesen Bio board of directors will remain in place for the combined company following the completion of the merger.

Q: Who will be the executive officers of the combined company immediately following the merger?

A: Immediately following completion of the merger, the combined company's executive management team is expected to consist of the members of Carisma's executive management team prior to the merger, including:

Name	Title
Steven Kelly	President and Chief Executive Officer
Richard Morris	Chief Financial Officer
Michael Klichinsky, Pharm.D., Ph.D.	Chief Scientific Officer

Q: What are the material U.S. federal income tax consequences of the merger to Sesen Bio stockholders?

A: Sesen Bio stockholders will not sell, exchange or dispose of any shares of Sesen Bio common stock as a result of the merger. Thus, there will be no material U.S. federal income tax consequences to Sesen Bio stockholders as a result of the merger.

Q: What are the material U.S. federal income tax consequences of the merger to Carisma U.S. holders?

A: The merger is intended to qualify as a "reorganization" within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. Assuming the merger constitutes a reorganization, subject to the qualifications and limitations set forth in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Merger,*" a Carisma U.S. holder (as defined on page 150) will not recognize gain or loss for U.S. federal income tax purposes upon the receipt of shares of Sesen Bio common stock in exchange for shares of Carisma capital stock in the merger, except to the extent such a Carisma U.S. holder receives cash in lieu of a fractional share of Sesen Bio common stock.

See the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 150 of this proxy statement/prospectus for a more complete description of the material U.S. federal income tax consequences of the merger to Carisma U.S. holders.

Q: What are the material U.S. federal income tax consequences of the receipt of CVRs to Sesen Bio U.S. holders?

A: The U.S. federal income tax treatment of Sesen Bio U.S. holders' (as defined on page 183) receipt of the CVRs is unclear. Sesen Bio intends to report the issuance of the CVRs to Sesen Bio U.S. holders under the terms expressed in the form of the CVR Agreement included in *Annex F* to this proxy statement/prospectus as a distribution of property with respect to Sesen Bio common stock. In such case, each Sesen Bio U.S. holder will be treated as receiving a distribution in an amount equal to the fair market value of the CVRs issued to such Sesen Bio U.S. holder on the date of the issuance. This distribution should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes and after taking into account the special cash dividend paid to Sesen Bio U.S. holders, if any, as described below), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining value. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of this distribution to be treated as other than a dividend for U.S. federal income tax purposes. See the section entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*" beginning on page 181 of this proxy statement/prospectus for a more complete description of the material U.S. federal income tax consequences of the receipt of CVRs to Sesen Bio U.S. holders, including possible alternative treatments.

The tax consequences to you of the receipt of CVRs will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Q: What are the material U.S. federal income tax consequences of the special cash dividend that Sesen Bio may declare and pay to Sesen Bio U.S. holders?

A: In connection with the merger, the Sesen Bio board of directors may declare and pay a special cash dividend to Sesen Bio stockholders of record prior to the effective time consisting of cash in an aggregate amount not to exceed $25.0 million, subject to Sesen Bio having net cash as of the closing of the merger greater than or equal to $100.0 million. The U.S. federal income tax consequences of the Sesen Bio U.S. holders' receipt of a special cash dividend generally should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining amount. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of the special cash dividend to be treated as other than a dividend for U.S. federal income tax purposes.

See the section entitled *"The Merger — Material U.S. Federal Income Tax Consequences of the Special Cash Dividend*" beginning on page 153 of this proxy statement/prospectus for a general description of the tax consequences of the special cash dividend that Sesen Bio may pay.

The tax consequences to you of the special cash dividend will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Q: What are the material U.S. federal income tax consequences of the proposed reverse stock split to Sesen Bio U.S. holders?

A: Sesen Bio intends to report the proposed reverse stock split as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code. In general, and subject to the qualifications and limitations set forth in the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" beginning on page 197 of this proxy statement/prospectus, if the proposed reverse stock split qualifies as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code, a Sesen Bio U.S. holder should not recognize gain or loss upon the proposed reverse stock split, except to the extent a Sesen Bio U.S. holder receives cash in lieu of a fractional share of Sesen Bio common stock. As discussed in more detail in the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" on page 197 of this proxy statement/prospectus, these consequences assume that distribution of the CVRs and any cash distributed pursuant to a special cash dividend will be treated for U.S. federal income tax purposes as separate and distinct from the proposed reverse stock split. See the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" beginning on page 197 of this proxy statement/prospectus for a more complete description of the material U.S. federal income tax consequences of the proposed reverse stock split to Sesen Bio U.S. holders.

The tax consequences to you of the proposed reverse stock split will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Q: As a Sesen Bio stockholder, how does the Sesen Bio board of directors recommend that I vote?

A: After careful consideration, the Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote "FOR" all of the proposals described in this proxy statement/prospectus.

Q: What risks should I consider in deciding whether to vote in favor of the merger?

A: You should carefully review the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus which sets forth certain risks and uncertainties related to the merger, risks and uncertainties to which the combined company's business will be subject, and risks and uncertainties to which each of Sesen Bio and Carisma, as independent companies, are subject.

Q: Who can vote at the Sesen Bio special meeting?

A: Only Sesen Bio stockholders of record at the close of business on the record date will be entitled to vote at the Sesen Bio special meeting. The Sesen Bio board of directors has fixed , 2022 as the record date for the Sesen Bio special meeting. As of the record date, there were shares of Sesen Bio common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If, at the close of business on the record date, your shares of Sesen Bio common stock were registered directly in your name with Sesen Bio's transfer agent, Computershare Trust Company, Inc., then you are a Sesen Bio stockholder of record. As a Sesen Bio stockholder of record, you may vote virtually at the Sesen Bio special meeting or vote by proxy. Whether or not you plan to attend the Sesen Bio special meeting, please vote as soon as possible by completing and returning the enclosed proxy card or vote by proxy over the telephone or on the internet as instructed on the proxy card to ensure your vote is counted.

Sesen Bio stockholders are invited to attend the special meeting, which will be a virtual meeting held exclusively via live webcast. In order to attend the Sesen Bio special meeting, you must register in advance at . After completing your registration, you will receive further instructions via email, including a unique link that will allow you to access the Sesen Bio special meeting and to vote and submit questions during the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your proxy card.

Beneficial Owner: Shares Registered in the Name of a Broker, Bank or Other Similar Organization

If, at the close of business on the record date, your shares of Sesen Bio common stock were not held in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in "street name" and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Sesen Bio special meeting. As a beneficial owner, you have the right to direct your broker or other agent how to vote the shares in your account.

You are also invited to attend and vote at the Sesen Bio special meeting. After completing your registration in advance at , you will receive further instructions via email, including a unique link to access the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your voting instruction form. You will also need to provide the registered name on your account and the name of your broker, bank or other nominee as part of the registration process. You may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

Q: How many votes do I have?

A: On each matter to be voted upon, you have one vote for each share of Sesen Bio common stock you own as of the record date.

Q: What is the quorum requirement?

A: A quorum of Sesen Bio stockholders is necessary to hold a valid meeting. A quorum will be present if Sesen Bio stockholders holding at least a majority in voting power of the shares of Sesen Bio common stock outstanding and entitled to vote at the Sesen Bio special meeting are present or represented by proxy at the Sesen Bio special meeting. As of the record date, there were shares of Sesen Bio common stock outstanding and entitled to vote. Your shares of Sesen Bio common stock will be counted toward the quorum at the Sesen Bio special meeting only if you attend the Sesen Bio special meeting or are represented by proxy at the Sesen Bio special meeting. Abstentions and broker non-votes will be counted towards the quorum requirement.

Q: What are "broker non-votes?"

A: If you hold shares beneficially in "street name" and do not provide your broker, bank or other nominee with voting instructions, your shares may constitute "broker non-votes." Broker non-votes occur on a matter when banks, brokers and other nominees are not permitted to vote on certain non-discretionary matters without instructions from the beneficial owner and instructions are not given. These matters are referred to as "non-routine" matters. Proposal Nos. 1, 3 and 4 are anticipated to be non-routine matters, and Proposal Nos. 2 and 5 are anticipated to be routine matters.

Q: If my shares of Sesen Bio common stock are held in "street name," will my broker, bank or other nominee vote my shares for me?

A: Unless your broker, bank or other nominee has discretionary authority to vote on certain matters, your broker will not be able to vote your shares of Sesen Bio common stock on matters without instructions from you. If you do not give instructions to your broker, your broker can vote your shares of Sesen Bio common stock with respect to discretionary, routine items but not with respect to non-discretionary, non-routine items. Brokers are not expected to have discretionary authority to vote for any of the proposals other than Proposal Nos. 2 and 5. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker.

Q: How can I view the list of Sesen Bio stockholders eligible to vote at the Sesen Bio special meeting?

A: The list of Sesen Bio stockholders of record entitled to vote at the Sesen Bio special meeting will be made available for ten days prior to the Sesen Bio special meeting, at the Sesen Bio offices at 245 First Street, Suite 1800, Cambridge, MA 02142. Please contact Sesen Bio's Corporate Secretary at (617) 444-8550 if you wish to inspect the list of stockholders eligible to vote at the Sesen Bio special meeting prior to the Sesen Bio special meeting.

Q: When do you expect the merger to be consummated?

A: Sesen Bio and Carisma currently anticipate that the merger will close in approximately three to four months following the date of the Merger Agreement, but the companies cannot predict the exact timing. For more information, see the section entitled "*The Merger Agreement — Conditions to the Completion of the Merger*" beginning on page 165 of this proxy statement/prospectus.

Q: What do I need to do now?

A: Sesen Bio urges you to read this proxy statement/prospectus carefully, including its annexes, and to consider how the merger affects you.

If you are a Sesen Bio stockholder of record, you may provide your proxy instructions in one of three ways prior to the Sesen Bio special meeting:

- *Over the internet.* You may vote your shares over the internet by following the instructions in the enclosed proxy card.
- *By telephone.* You may vote your shares by telephone by following the instructions in the enclosed proxy card.
- *By mail.* You may vote your shares by completing, dating and signing the proxy card and promptly mailing it in the postage-paid envelope provided.

Please provide your proxy instructions only once, unless you are revoking a previously delivered proxy instruction, and as soon as possible so that your shares can be voted at the Sesen Bio special meeting.

Q: When and where is the Sesen Bio special meeting and may I vote in person?

A: The Sesen Bio special meeting will be a virtual meeting held exclusively via live webcast at , Eastern Time, on , 2022.

In order to attend the Sesen Bio special meeting, you must register in advance at www. . After completing your registration, you will receive further instructions via email, including a unique link that will allow you to access the Sesen Bio special meeting and to vote and submit questions during the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your proxy card.

If your shares are held in "street name" by a broker, bank or other nominee, you are also invited to attend and vote your shares at the Sesen Bio special meeting. After completing your registration in advance at www. , you will receive further instructions via email, including a unique link to access the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your voting instruction form. You will also need to provide the registered name on your account and the name of your broker, bank or other nominee as part of the registration process. You may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

Even if you plan to attend the Sesen Bio special meeting, Sesen Bio requests that you sign and return the enclosed proxy card or voting instruction form to ensure that your shares will be represented at the Sesen Bio special meeting if you become unable to attend. Please be sure to follow the instructions found on your proxy card or voting instruction form.

Q: What if I have technical difficulties or trouble accessing the Sesen Bio special meeting?

A: Technical assistance will be available one hour prior to and during the Sesen Bio special meeting. Information related to technical assistance will be provided in the email you receive with your unique link that will allow you to access the Sesen Bio special meeting. We recommend that you log in at least 15 minutes before the Sesen Bio special meeting to ensure you are logged in when the Sesen Bio special meeting starts.

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?

A: If you are a Sesen Bio stockholder of record, the failure to return your proxy card or otherwise provide proxy instructions will have the same effect as voting "AGAINST" Proposal No. 2, and will have no effect with respect to Proposal Nos. 1, 3, 4, and 5. If

your shares of Sesen Bio common stock are held in "street name," and you do not provide voting instructions, your broker, bank or other nominee may still vote your shares of Sesen Bio common stock with respect to discretionary, routine items, but may not vote your shares of Sesen Bio common stock with respect to non-discretionary, non-routine items. Brokers are not expected to have discretionary authority to vote for any of the proposals other than Proposal Nos. 2 and 5. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker.

Q: May I change or revoke my vote after I have submitted a proxy or provided proxy instructions?

A: Sesen Bio stockholders of record may change or revoke their vote at any time before their proxy is voted at the Sesen Bio special meeting by doing any one of the following things:

- submitting a new proxy via the internet or telephone by following the instructions on the enclosed proxy card;
- signing another proxy card and arranging for delivery of that proxy card by mail by , Eastern Time, the day before the Sesen Bio special meeting;
- giving Sesen Bio's Corporate Secretary a written notice before the Sesen Bio special meeting that you want to revoke your proxy; or
- voting during the Sesen Bio special meeting. Your attendance at the Sesen Bio special meeting alone will not revoke a previously submitted proxy.

If a Sesen Bio stockholder who owns shares of Sesen Bio common stock in "street name" has instructed a broker to vote its shares of Sesen Bio common stock, the stockholder must follow directions received from its broker to change those instructions.

Your vote will be counted in accordance with the last instruction received prior to the closing of the polls, whether your instruction is received by internet, telephone, mail or at the Sesen Bio special meeting.

Q: Who is paying for this proxy solicitation?

A: Sesen Bio and Carisma will share equally the cost of printing and filing this proxy statement/prospectus and the proxy card. Sesen Bio also may be required to reimburse banks, brokers and other custodians, nominees and fiduciaries or their respective agents for reasonable expenses incurred in forwarding proxy materials to beneficial owners of Sesen Bio common stock.

Sesen Bio has engaged MacKenzie Partners, Inc., or MacKenzie Partners, to assist in the solicitation of proxies and provide related advice and informational support. Sesen Bio will pay the fees of MacKenzie Partners, which Sesen Bio expects to be approximately $, plus reimbursement of out-of-pocket expenses.

Q: Who can help answer my questions?

A: If you would like to request documents from Sesen Bio or Carisma, please send a request in writing or by telephone to either Sesen Bio or Carisma at the following addresses:

Sesen Bio, Inc.
245 First Street, Suite 1800
Cambridge, Massachusetts 02142
Telephone: (617) 444-8550
Attn: Corporate Secretary
Email: ir@sesenbio.com

CARISMA Therapeutics Inc.
3675 Market Street, Suite 200
Philadelphia, PA 19104
Telephone: (267) 491-6422
Attn: Corporate Secretary
Email: info@carismatx.com

If you are a Sesen Bio stockholder and would like additional copies, without charge, of this proxy statement/prospectus or if you have questions about the merger, including the procedures for voting your shares, you should contact Sesen Bio's proxy solicitor:

MacKenzie Partners, Inc.
1407 Broadway, 27th Floor
New York, New York 10018
(800) 322-2885
proxy@mackenziepartners.com

PROSPECTUS SUMMARY

This summary highlights selected information from this proxy statement/prospectus and may not contain all of the information that is important to you. To better understand the merger, the proposals being considered at the Sesen Bio special meeting, you should read this entire proxy statement/prospectus carefully, including the Merger Agreement, attached as Annex A, the opinion of SVB Securities LLC, or SVB Securities, attached as Annex B and the other annexes to which you are referred herein. For more information, see the section entitled "Where You Can Find More Information" on page 382 of this proxy statement/prospectus. Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus does not give effect to the proposed reverse stock split described in the section entitled "Matters Being Submitted to a Vote of Sesen Bio Stockholders — Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split" beginning on page 197 of this proxy statement/prospectus.

The Companies

Sesen Bio, Inc.
245 First Street, Suite 1800
Cambridge, MA 02142
(617) 444-8550

Sesen Bio is a late-stage clinical company focused on targeted fusion protein therapeutics for the treatment of patients with cancer. Sesen Bio's most advanced product candidate, Vicineum™, also known as VB4-845, is a locally-administered targeted fusion protein composed of an anti-epithelial cell adhesion molecule antibody fragment tethered to a truncated form of Pseudomonas exotoxin A for the treatment of non-muscle invasive bladder cancer, or NMIBC. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the United States. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following Sesen Bio's discussions with the United States Food and Drug Administration, or FDA. Sesen Bio has turned its primary focus to consummating a strategic transaction with the goal of maximizing shareholder value. Additionally, Sesen Bio intends to seek a partner for the further development of Vicineum.

CARISMA Therapeutics Inc.
3675 Market Street, Suite 200
Philadelphia, Pennsylvania 19104
(267) 491-6422

Carisma is a biopharmaceutical company dedicated to developing a differentiated and proprietary cell therapy platform focused on engineered macrophages, cells that play a crucial role in both the innate and adaptive immune response. The first applications of the platform, developed in collaboration with the University of Pennsylvania, are autologous chimeric antigen receptor macrophages for the treatment of solid tumors.

Seahawk Merger Sub, Inc.

Merger Sub is a wholly-owned subsidiary of Sesen Bio, formed solely for the purposes of carrying out the merger.

The Merger (see page 122)

If the merger is completed, Merger Sub will merge with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio. After the completion of the merger, Sesen Bio will change its corporate name from "Sesen Bio, Inc." to "CARISMA Therapeutics Inc." as contemplated by the Merger Agreement.

At the effective time, each outstanding share of Carisma capital stock will be converted into the right to receive a number of shares of Sesen Bio common stock equal to the exchange ratio described in more detail in the section entitled "*The Merger Agreement — Exchange Ratio*" beginning on page 161 of this proxy statement/prospectus. Based on Sesen Bio's capitalization and Carisma's capitalization as of September 20, 2022, the date the Merger Agreement was executed, the exchange ratio is estimated to be approximately 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock, which exchange ratio does not give effect to the proposed reverse stock split. The final exchange ratio is subject to adjustment prior to the closing of the merger based on Sesen Bio's net cash at the closing of the merger and the aggregate proceeds from the sale of Carisma common stock in the Carisma

pre-closing financing and, as a result, Sesen Bio stockholders could own more, and Carisma stockholders (including, for this purpose, investors in the Carisma pre-closing financing) could own less, or vice versa, of the combined company.

Also at the effective time, each outstanding Carisma option will be assumed by Sesen Bio and will be converted into an option to purchase shares of Sesen Bio common stock, with the number of shares and exercise price being appropriately adjusted to reflect the exchange ratio between Sesen Bio common stock and Carisma common stock determined in accordance with the Merger Agreement.

Each share of Sesen Bio common stock, each Sesen Bio option and each Sesen Bio RSU that is outstanding at the effective time will remain outstanding in accordance with its terms and each such share of Sesen Bio common stock, Sesen Bio option and Sesen Bio RSU, subject to the proposed reverse stock split, will be unaffected by the merger. Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of the Carisma convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of the closing of the merger being at least $125.0 million.

Reasons for the Merger (see page 128)

After consideration and consultation of its senior management, consultants and advisors, outside legal counsel and financial advisor, the Sesen Bio board of directors unanimously determined that the Merger Agreement, the merger and other transactions contemplated thereby are advisable and in the best interests of Sesen Bio and Sesen Bio stockholders. The Sesen Bio board of directors considered various reasons to reach its determination. For example:

- the financial condition and prospects of Sesen Bio and the risks associated with continuing to operate Sesen Bio on a stand-alone basis, particularly in light of Sesen Bio's July 2022 decision to voluntarily pause further development of Vicineum for the treatment of NMIBC and reduce its workforce, which was based on a thorough reassessment of Vicineum following FDA feedback on the requirements for an additional Phase 3 clinical trial, the evolving competitive landscape and the resulting financial analysis;

- that the Sesen Bio board of directors and its financial advisor undertook a comprehensive and thorough process of reviewing and analyzing potential strategic alternatives and merger partner candidates and Sesen Bio board of directors' view that no alternatives to the merger, including a liquidation and dissolution of Sesen Bio and the distribution of any available cash, were reasonably likely to create greater value to Sesen Bio stockholders;

- the Sesen Bio board of directors' conclusion that the merger would provide existing Sesen Bio stockholders a significant opportunity to participate in the potential growth of the combined company following the merger, while also potentially receiving certain cash payments following the closing of the merger on account of the CVR Agreement and the special cash dividend;

- the Sesen Bio board of directors' belief, after a thorough review of strategic alternatives and discussions with Sesen Bio's senior management, outside legal counsel and financial advisor, that the merger is more favorable to Sesen Bio stockholders than the potential value that might have resulted from other strategic alternatives available to Sesen Bio, including a liquidation and dissolution of Sesen Bio and the distribution of any available cash;

- the Sesen Bio board of directors' belief, after thorough discussion with Sesen Bio management and Sesen Bio's consultants and advisors, that a potential liquidation and dissolution was not reasonably likely to create greater value for Sesen Bio stockholders than a strategic alternative transaction based on, among other things, the need to hold back a meaningful amount of the Company's current cash balance to cover current and potential future liabilities, including those triggered by a liquidation strategy;

- the Sesen Bio board of directors' belief that, as a result of arm's length negotiations with Carisma, Sesen Bio and its representatives negotiated the highest exchange ratio to which Carisma was willing to agree, and that the other terms of the Merger Agreement include the most favorable terms to Sesen Bio in the aggregate to which Carisma was willing to agree; and

- the Sesen Bio board of directors' positive view, based on the scientific, regulatory and technical due diligence conducted by Sesen Bio management and advisors, of the regulatory pathway for, and potential significant market opportunity of, Carisma's product candidates.

After consideration and consultation with Carisma senior management, its financial advisors and legal counsel,and consideration of a wide variety of factors, the Carisma board of directors concluded that a merger with Sesen Bio, together with the additional financing committed from the Carisma pre-closing financing, was the best option to generate capital resources to support the advancement of Carisma's pipeline and fund a combined organization. The Carisma board of directors considered various reasons to reach its determination. For example:

- the merger will provide current Carisma stockholders with greater liquidity by owning publicly-traded stock, and expanding both the access to capital for Carisma and the range of investors potentially available as a public company, compared to the investors Carisma could otherwise gain access to if it continued to operate as a privately-held company;
- the potential benefits from increased public market awareness of Carisma and its pipeline;
- the historical and current information concerning Carisma's business, including its financial performance and condition, operations, management and pre-clinical and clinical data;
- the competitive nature of the industry in which Carisma operates;
- the Carisma board of directors' fiduciary duties to Carisma stockholders;
- the Carisma board of directors' belief that no alternatives to the merger were reasonably likely to create greater value for Carisma stockholders, after reviewing the various financing and other strategic alternatives that were considered by the Carisma board of directors; and
- the projected financial position, operations, management structure, operating plans, and anticipated cash burn rate of the combined company, including the ability to support the combined company's current and planned clinical trials and operations).

For additional information, see the sections entitled "*The Merger — Sesen Bio Reasons for the Merger*" and "*The Merger — Carisma Reasons for the Merger*" in this proxy statement/prospectus.

Opinion of Sesen Bio's Financial Advisor (see page 133)

Sesen Bio retained SVB Securities as its financial advisor in connection with the merger and the other transactions contemplated by the Merger Agreement. On September 20, 2022, SVB Securities rendered to the Sesen Bio board of directors its oral opinion, which was subsequently confirmed by delivery of a written opinion to the Sesen Bio board of directors dated September 20, 2022, that, as of such date and based upon and subject to the various assumptions made, and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement was fair, from a financial point of view, to Sesen Bio.

The full text of the written opinion of SVB Securities, dated September 20, 2022, which describes the assumptions made and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, is attached as *Annex B* to this proxy statement/prospectus and is incorporated herein by reference. **SVB Securities' financial advisory services and opinion were provided for the information and assistance of Sesen Bio board of directors (in their capacity as directors and not in any other capacity) in connection with and for purposes of the Sesen Bio board of directors' consideration of the merger and the opinion of SVB Securities addressed only the fairness, from a financial point of view, as of the date thereof, to Sesen Bio of the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement. The opinion of SVB Securities did not address any other term or aspect of the Merger Agreement or the merger and does not constitute a recommendation to any stockholder of Sesen Bio as to whether or how such holder should vote with respect to the merger or otherwise act with respect to the merger or any other matter.**

The full text of the written opinion of SVB Securities should be read carefully in its entirety for a description of the assumptions made and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion.

Overview of the Merger Agreement

Merger Consideration *(see page 160)*

At the effective time, each outstanding share of Carisma capital stock will be converted into the right to receive a number of shares of Sesen Bio common stock equal to the exchange ratio described in more detail in the section entitled "*The Merger Agreement — Exchange Ratio*" beginning on page 161 of this proxy statement/prospectus. Based on Sesen Bio's capitalization and Carisma's capitalization as of September 20, 2022, the date the Merger Agreement was executed, the exchange ratio is estimated to be approximately 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock, which exchange ratio does not give effect to the proposed reverse stock split. The final exchange ratio is subject to adjustment prior to the closing of the merger based on Sesen Bio's net cash at the closing of the merger and the aggregate proceeds from the sale of Carisma common stock in the Carisma pre-closing financing and, as a result, Sesen Bio stockholders could own more, and Carisma stockholders (including, for this purpose, investors in the Carisma pre-closing financing) could own less, or vice versa, of the combined company.

Also at the effective time, each outstanding Carisma option will be assumed by Sesen Bio and will be converted into an option to purchase shares of Sesen Bio common stock, with the number of shares and exercise price being appropriately adjusted to reflect the exchange ratio between Sesen Bio common stock and Carisma common stock determined in accordance with the Merger Agreement.

Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of the closing of the merger being at least $125.0 million.

For a more complete description of the merger consideration, see the sections entitled "*The Merger Agreement — Merger Consideration" and "The Merger Agreement — Exchange Ratio*" in this proxy statement/prospectus.

Treatment of Sesen Bio Equity Awards and Warrants *(see page 163)*

Sesen Bio Equity Awards

At the effective time, all outstanding and unexercised Sesen Bio options granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan or as an inducement grant under Nasdaq Listing Rule 5635(c)(4) will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying the Sesen Bio options and the exercise prices for such Sesen Bio options will be appropriately adjusted to reflect the proposed reverse stock split, if approved and implemented.

At the effective time, all outstanding Sesen Bio RSUs granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying the Sesen Bio RSUs will be appropriately adjusted to reflect the proposed reverse stock split, if approved and implemented.

Sesen Bio Warrants

At the effective time, all Sesen Bio warrants (other than certain Sesen Bio warrants that Sesen Bio may be required to repurchase at such warrant holder's option as of a result of the merger) will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying such Sesen Bio warrants and the exercise prices for such Sesen Bio warrants will be appropriately adjusted to reflect the proposed reverse stock split, if approved.

Treatment of Carisma Options and Carisma Plan *(see page 163)*

At the effective time, Sesen Bio will assume the CARISMA Therapeutics Inc. 2017 Stock Incentive Plan, as amended, or the Carisma Plan, and each Carisma option in accordance with the terms of the Carisma Plan and the terms of the stock option agreement by which such Carisma option is evidenced but with such changes to such documents as Carisma and Sesen Bio mutually agree are appropriate to reflect the substitution of each Carisma option for a Sesen Bio option.

At the effective time, each Carisma option outstanding and unexercised immediately prior to the effective time, whether or not vested, will be converted into a Sesen Bio option. From and after the effective time, each Carisma option assumed by Sesen Bio may be exercised for such number of shares of Sesen Bio common stock as is determined by multiplying the number of shares of Carisma common stock subject to the Carisma option, as in effect immediately prior to the effective time, by the exchange ratio and rounding that result down to the nearest whole number of shares of Sesen Bio common stock. The per share exercise price of the converted Carisma option will be determined by dividing the per share exercise price of the Carisma option, as in effect prior to the effective time, by the exchange ratio and rounding that result up to the nearest whole cent.

Conditions to the Completion of the Merger *(see page 165)*

To complete the merger, Sesen Bio stockholders must approve Proposal Nos. 1 and 2 and Carisma stockholders must adopt the Merger Agreement and approve the merger and the related transactions. Additionally, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived (including Sesen Bio having net cash as of the closing of the merger greater than or equal to $100.0 million).

No Solicitation *(see page 168)*

Each of Sesen Bio and Carisma agreed that during the period commencing on the date of the Merger Agreement and continuing until the earlier to occur of the termination of the Merger Agreement and the effective time, or the pre-closing period, except as described below, Sesen Bio and Carisma will not, nor will either party authorize any of the directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors or representatives retained by it or any of its subsidiaries to, directly or indirectly:

- solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of, any "acquisition proposal" or "acquisition inquiry" (each as defined in the Merger Agreement) or take any action that could reasonably be expected to lead to an acquisition proposal or acquisition inquiry;
- furnish any non-public information regarding the party and its subsidiaries to any person in connection with or in response to an acquisition proposal or acquisition inquiry;
- engage in discussions or negotiations with any person with respect to any acquisition proposal or acquisition inquiry;
- approve, endorse or recommend an acquisition proposal;
- execute or enter into any letter of intent or any contract contemplating or otherwise relating to any "acquisition transaction" as defined below (other than a confidentiality agreement permitted by the Merger Agreement); or
- publicly propose to do any of the above.

Termination of the Merger Agreement *(see page 177)*

Either Sesen Bio or Carisma can terminate the Merger Agreement under certain circumstances, which would prevent the merger from being consummated.

Termination Fees *(see page 179)*

If the Merger Agreement is terminated under certain circumstances, Sesen Bio may be required to pay Carisma a termination fee of $7.6 million and/or reimburse Carisma's expenses up to a maximum of $1.75 million, and Carisma may be required to pay Sesen Bio a termination fee of $5.49 million and/or reimburse Sesen Bio's expenses up to a maximum of $1.75 million.

CVR Agreement (see page 181)

Pursuant to the Merger Agreement and the CVR Agreement, Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time will receive one CVR for each share of Sesen Bio common stock held of record as of immediately prior to the effective time. Each CVR will represent the right to receive contingent cash payments upon the occurrence of a certain triggering event. In particular, CVR holders will be entitled to a pro rata portion of the $30.0 million milestone payment to be made by Roche to Sesen Bio upon Roche's initiation of a Phase 3 clinical trial with legacy IL-6 antagonist antibody technology previously owned by Sesen Bio for a certain indication if initiated prior to December 31, 2026, pursuant to the Roche Asset Purchase Agreement, less certain permitted deductions.

The sole right of the holders of the CVRs is to receive cash from Sesen Bio, if any, through the rights agent in accordance with the CVR Agreement. The CVRs are not transferable, except in certain limited circumstances, will not be certificated or evidenced by any instrument and will not be registered with the SEC or listed for trading on any exchange. The CVRs will not have any voting or dividend rights, will not represent any equity or ownership interest in Sesen Bio or its subsidiaries, and interest will not accrue on any amounts payable on the CVRs. The CVR Agreement will be effective prior to the closing of the merger and will continue in effect until the earlier of March 31, 2027 or the payment of all amounts payable thereunder, unless and until earlier termination of the Merger Agreement.

Support Agreements and Written Consents (see page 186)

In order to induce Sesen Bio to enter into the Merger Agreement, certain stockholders of Carisma (solely in their respective capacities as Carisma stockholders) are parties to a support agreement with Sesen Bio and Carisma pursuant to which, among other things, each such stockholder has agreed (a) to vote all of his, her or its shares of Carisma capital stock (subject to customary cutbacks in the event of certain triggering events) in favor of (i) adoption and approval of the Merger Agreement and the transactions contemplated thereby; (ii) adoption and approval of an amendment to Carisma's certificate of incorporation, or the Carisma Certificate of Incorporation, to increase the authorized shares of Carisma common stock; (iii) acknowledgement that the approval given thereby is irrevocable and that the stockholder is aware of the stockholder's rights to demand appraisal for its shares pursuant to Section 262 of the Delaware General Corporation Law, or the DGCL; and (iv) acknowledgement that by the stockholder's approval of the merger, the stockholder is (a) waiving its appraisal rights under the DGCL with respect to its shares, and (b) waiving any notice that may have been or may be required relating to the merger or any other transactions contemplated thereby. Additionally, each such signatory has agreed, solely in his, her or its capacity as a Carisma stockholder, to vote against (subject to customary cutbacks in the event of certain triggering events) any such competing acquisition proposal and any action in furtherance of any competing acquisition proposal. These signatories have also granted an irrevocable proxy to Carisma and its designee to vote their respective shares of Carisma common stock in accordance with the support agreements.

In addition, in order to induce Carisma to enter into the Merger Agreement, certain stockholders of Sesen Bio (solely in their respective capacities as Carisma stockholders) are parties to a support agreement with Sesen Bio and Carisma pursuant to which, among other things, each such stockholder has agreed, to vote all of his, her or its shares of Sesen Bio common stock in favor of (i) adoption and approval of the Merger Agreement and the transactions contemplated thereby; (ii) the issuance of shares of Sesen Bio common stock to Carisma stockholders in connection with the Merger Agreement and the transactions contemplated thereby; (iii) the change of control of Sesen Bio resulting from the Merger pursuant to Nasdaq rules; (iv) the approval of the equity plan amendment proposals; and (v) a waiver of any notice that may have been or may be required relating to the Merger or any other transactions contemplated thereby. Additionally, each such signatory has agreed, solely in his, her or its capacity as a Sesen Bio stockholder, to vote against any competing acquisition proposal and any action in furtherance of any such competing acquisition proposal. These signatories have also granted an irrevocable proxy to Sesen Bio and its designee to vote their respective shares of Sesen Bio common stock in accordance with the support agreements.

Lock-Up Agreements (see page 188)

As a condition to the closing of the merger, certain stockholders of each of Sesen Bio and Carisma and their affiliates have entered into lock-up agreements, pursuant to which such parties have agreed not to, except in limited circumstances, and among other restrictions, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of or lend, directly or indirectly, any shares of Sesen Bio common stock or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Sesen Bio common stock (including, Sesen Bio common stock or such other securities which may be deemed to be beneficially owned by the signatory in accordance with the rules and regulations of the SEC and securities of Sesen Bio which may be

issued upon exercise of a Sesen Bio option, Sesen Bio RSU or Sesen Bio warrant) during the period commencing at the effective time and continuing until the date that is 180 days after the effective time.

Certain directors and executive officers of both Sesen Bio and Carisma are party to a lock-up agreement. Carisma stockholders who have executed lock-up agreements, as of September 20, 2022, beneficially owned in the aggregate approximately 97.83% of the outstanding shares of Carisma capital stock on an as converted to Carisma common stock basis.

Subscription Agreement (see page 186)

On September 20, 2022, immediately prior to the execution and delivery of the Merger Agreement, Carisma entered into a subscription agreement with certain investors named therein, pursuant to which such investors have agreed to purchase shares of Carisma common stock at an aggregate purchase price of approximately $30.6 million. The subscription agreement contains customary representations and warranties of Carisma and also contains customary representations and warranties of the purchasers party thereto.

The subscription agreement may not be changed, waived, amended or modified, except by an instrument in writing executed by Carisma and the purchasers then committed to purchase a majority of the shares to be sold in the Carisma pre-closing financing. The subscription agreement will terminate upon the earlier to occur of (i) such date and time that the Merger Agreement is terminated in accordance with its terms, (ii) upon the mutual written agreement of Carisma and the purchasers then committed to purchase a majority of the shares to be sold in the Carisma pre-closing financing (provided that Carisma and a purchaser may terminate the commitment of the applicable purchaser without the consent of any other party), and (iii) if the closing of the merger has not occurred on or before January 31, 2023 (as such date may be extended in the event that a request for additional information is made by any governmental body or in the event that the SEC has not declared the registration statement on Form S-4, of which this proxy statement/prospectus is a part, effective under the Securities Act by the date which is 60 days prior to the end date), other than as a result of a willful breach of a purchaser's obligations under the subscription agreement.

Nasdaq Stock Market Listing (see page 156)

Sesen Bio intends to file an initial listing application for the combined company with Nasdaq. If such application is accepted, Sesen Bio anticipates that the combined company's common stock will be listed on the Nasdaq Capital Market following the closing of the merger under the trading symbol "CARM."

Management Following the Merger (see page 324)

The following table lists the names, ages as of September 20, 2022 and positions of the individuals who are expected to serve as executive officers and directors of the combined company following completion of the merger.

Name	Age	Position
Executive Officers		
Steven Kelly	57	President and Chief Executive Officer
Richard Morris	49	Chief Financial Officer
Michael Klichinsky, Pharm.D., Ph.D.	32	Chief Scientific Officer
Non-Employee Directors		
Sanford Zweifach	66	Director, Chair of the Board
Thomas R. Cannell, D.V.M.	61	Director
Regina Hodits, Ph.D.	52	Director
Briggs Morrison, M.D.	63	Director
Björn Odlander, M.D., Ph.D.	64	Director
Chidozie Ugwumba	40	Director

Interests of Sesen Bio Directors and Executive Officers in the Merger (see page 140)

In considering the recommendation of the Sesen Bio board of directors with respect to issuing shares of Sesen Bio common stock as contemplated by the Merger Agreement and the other matters to be acted upon by Sesen Bio stockholders at the Sesen Bio special meeting, Sesen Bio stockholders should be aware that certain members of the Sesen Bio board of directors and certain Sesen Bio executive officers have interests in the merger that may be different from, or in addition to, the interests of Sesen Bio stockholders,

including, among others, severance benefits, the acceleration of equity vesting, continued indemnification and the potential ability to sell an increased number of shares of common stock of the combined company in accordance with Rule 144 under the Securities Act. As of September 20, 2022, Sesen Bio's directors, executive officers and affiliates of Sesen Bio's directors and executive officers, owned, in the aggregate, less than 1% of the shares of Sesen Bio common stock, which for purposes of this subsection excludes any Sesen Bio common stock issuable upon exercise of Sesen Bio options or vesting of Sesen Bio RSUs held by such individual. As of September 20, 2022, Sesen Bio's directors and current executive officers owned, in the aggregate, (i) unvested Sesen Bio options covering 4,432,406 shares of Sesen Bio common stock and vested Sesen Bio options covering 7,282,057 shares of Sesen Bio common stock and (ii) unvested Sesen Bio RSUs covering 1,997,500 shares of Sesen Bio common stock. Each of Sesen Bio's executive officers and directors have also entered into a support agreement in connection with the merger, whereby such executive officers and directors have agreed to vote their shares in favor of the proposals described in this proxy statement/prospectus.

Further, Thomas R. Cannell, D.V.M., Sesen Bio's President and Chief Executive Officer and a member of the Sesen Bio board of directors, is expected to continue as a member of the combined company's board of directors following the merger. The compensation arrangements with Sesen Bio's directors and executive officers are discussed in greater detail in the sections entitled "*The Merger — Interests of Sesen Bio Directors and Executive Officers in the Merger*" and "*Sesen Bio Executive Compensation*" in this proxy statement/prospectus.

Interests of Carisma Directors and Executive Officers in the Merger (see page 140)

In considering the recommendation of the Carisma board of directors with respect to approving the merger and related transactions, Carisma stockholders should be aware that certain members of the Carisma board of directors and certain Carisma executive officers have interests in the merger that may be different from, or in addition to, the interests of Carisma stockholders. As of September 20, 2022, Carisma's current directors and executive officers owned, in the aggregate, approximately 2.37% of the outstanding shares of Carisma capital stock, excluding, for this purpose any Carisma shares issuable upon exercise or settlement of Carisma stock options held by such individuals. Each of Carisma's executive officers and the majority of Carisma's directors have also entered into a support agreement in connection with the merger, whereby such executive officers and directors have agreed to vote their shares in favor of adoption of the Merger Agreement and approval of the merger.

Further, certain Carisma directors and executive officers are expected to become directors and executive officers of the combined company following the merger. The compensation arrangements with Carisma's directors and executive officers are discussed in greater detail in the sections entitled "*The Merger — Interests of Carisma Directors and Executive Officers in the Merger*" and "*Carisma Executive Compensation*" in this proxy statement/prospectus.

Material U.S. Federal Income Tax Consequences of the Merger (see page 150)

The merger is intended to qualify as a "reorganization" within the meaning of Section 368(a) of the Code. Assuming the merger constitutes a reorganization, subject to the qualifications and limitations set forth in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Merger*," a Carisma U.S. holder will not recognize gain or loss for U.S. federal income tax purposes upon the receipt of shares of Sesen Bio common stock in exchange for shares of Carisma capital stock in the merger, except to the extent such a Carisma U.S. holder receives cash in lieu of a fractional share of Sesen Bio common stock.

If the merger does not qualify as a "reorganization" within the meaning of Section 368(a) of the Code, then each Carisma U.S. holder would recognize gain or loss upon the exchange of shares of Carisma capital stock for Sesen Bio common stock in the merger equal to the difference between the fair market value of the shares of Sesen Bio common stock received in exchange for the shares of Carisma capital stock (plus any cash received in lieu of a fractional share) and such Carisma U.S. holder's adjusted tax basis in the shares of Carisma capital stock surrendered.

Since the Sesen Bio stockholders will not sell, exchange or dispose of any shares of Sesen Bio common stock as a result of the merger, there will be no material U.S. federal income tax consequences to Sesen Bio stockholders as a result of the merger.

See the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Merger*" for a more complete description of the material U.S. federal income tax consequences of the merger to U.S. holders of Carisma capital stock.

Material U.S. Federal Income Tax Consequences of Receipt of CVRs (see pages 181)

The U.S. federal income tax treatment of the Sesen Bio U.S. holders' receipt of the CVRs is unclear. Sesen Bio intends to report the issuance of the CVRs to Sesen Bio U.S. holders under the terms expressed in the form of the CVR Agreement included in *Annex F* to this proxy statement/prospectus as a distribution of property with respect to Sesen Bio common stock. In such case, each Sesen Bio U.S. holder will be treated as receiving a distribution in an amount equal to the fair market value of the CVRs issued to such Sesen Bio U.S. holder on the date of the issuance. This distribution should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes after taking into account the special cash dividend as described below), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining value. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of this distribution to be treated as other than a dividend for U.S. federal income tax purposes. See the section entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*" beginning on page 181 of this proxy statement/prospectus for a more complete description of the material U.S. federal income tax consequences of the receipt of CVRs to Sesen Bio U.S. holders, including possible alternative treatments.

The tax consequences to you of the receipt of CVRs will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Material U.S. Federal Income Tax Consequences of Receipt of the Special Cash Dividend (see pages 153)

In connection with the merger, the Sesen Bio board of directors may declare and pay a special cash dividend to Sesen Bio stockholders of record prior to the effective time consisting of cash in an aggregate amount not to exceed $25.0 million, subject to Sesen Bio having net cash as of closing of the merger greater than or equal to $100.0 million. The U.S. federal income tax consequences of the Sesen Bio U.S. holders' receipt of such special cash dividend generally should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining amount. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of the special cash dividend to be treated as other than a dividend for U.S. federal income tax purposes.

See the section entitled *"The Merger — Material U.S. Federal Income Tax Consequences of the Special Cash Dividend*" beginning on page 153 of this proxy statement/prospectus for a general description of the tax consequences of the special cash dividend that Sesen Bio may pay in connection with the merger.

The tax consequences to you of the special cash dividend will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split (see pages 197)

Sesen Bio intends to report the proposed reverse stock split as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code. In general, and subject to the qualifications and limitations set forth in the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" beginning on page 197 of this proxy statement/prospectus, if the proposed reverse stock split qualifies as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code, a Sesen Bio U.S. holder should not recognize gain or loss upon the proposed reverse stock split, except to the extent a Sesen Bio U.S. holder receives cash in lieu of a fractional share of Sesen Bio common stock. As discussed in more detail in the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" on page 197 of this proxy statement/prospectus, these consequences assume that distribution of the CVRs and any cash distributed pursuant to a special cash dividend will be treated for U.S. federal income tax purposes as separate and distinct from the proposed reverse stock split. See the section entitled "*Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split — Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*" beginning on page 197 of this proxy statement/prospectus for a more complete description of the material U.S. federal income tax consequences of the proposed reverse stock split to Sesen Bio U.S. holders.

The tax consequences to you of the proposed reverse stock split will depend on your particular facts and circumstances. You should consult your tax advisors as to the specific tax consequences to you.

Risk Factors (see page 26)

Both Sesen Bio and Carisma are subject to various risks associated with their businesses and their industries. In addition, the merger poses a number of risks to each company and its respective stockholders, including the possibility that the merger may not be completed and the following risks:

Risks Related to the Merger

- The exchange ratio will not change or otherwise be adjusted based on the market price of Sesen Bio common stock as the exchange ratio depends on the Sesen Bio net cash at the closing of the merger and not the market price of Sesen Bio common stock, so the merger consideration at the closing of the merger may have a greater or lesser value than at the time the Merger Agreement was signed.
- Sesen Bio stockholders and Carisma stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger and the Carisma pre-closing financing and the conversion of the Carisma convertible note.
- Failure to complete the merger may result in either Sesen Bio or Carisma paying a termination fee to the other party and could significantly harm the market price of Sesen Bio common stock and negatively affect the future business and operations of each company.
- The issuance of Sesen Bio common stock to Carisma stockholders pursuant to the Merger Agreement and the resulting change in control from the merger must be approved by Sesen Bio stockholders, and the Merger Agreement and transactions contemplated thereby must be approved by the Carisma stockholders. Failure to obtain these approvals would prevent the closing of the merger.
- Some Sesen Bio and Carisma executive officers and directors have interests in the merger that are different from the Sesen Bio stockholders and Carisma stockholders and that may influence them to support or approve the merger without regard to the interests of the Sesen Bio stockholders and Carisma stockholders.
- If the conditions to the merger are not satisfied or waived, the merger will not occur.

Risks Related to Sesen Bio

- If the merger is not completed, the Sesen Bio board of directors may decide to pursue a liquidation and dissolution of Sesen Bio. In such an event, there can be no assurances as to the amount or timing of available cash left, if any, to distribute to Sesen Bio stockholders after paying its debts and other obligations and setting aside funds for reserves.
- Sesen Bio stockholders may not receive any payment on the CVRs and the CVRs may otherwise expire valueless.
- Sesen Bio is substantially dependent on its remaining employees to facilitate the consummation of the merger.
- Sesen Bio has incurred significant losses since its inception and anticipates that it will continue to incur losses for the foreseeable future if the merger is not completed.
- With the exception of specified regulatory, development and commercial milestones under the Roche Asset Purchase Agreement, Sesen Bio currently has no potential source of revenue and may never become profitable.
- If the merger is not completed and Sesen Bio resumes clinical development of Vicineum, Sesen Bio will need substantial additional funding. If Sesen Bio is unable to raise capital when needed, Sesen Bio could be forced to delay, reduce or eliminate its product development programs or commercialization efforts.

- If Sesen Bio is unable to regain compliance with the listing requirements of the Nasdaq Capital Market, Sesen Bio common stock may be delisted from the Nasdaq Capital Market which could have a material adverse effect on Sesen Bio's business and could make it more difficult for Sesen Bio stockholders to sell their shares of Sesen Bio common stock.

Risks Related to Carisma

- Carisma has incurred significant losses since its inception. Carisma expects to continue to incur significant expenses and operating losses for the foreseeable future and may never achieve or maintain profitability.
- Carisma has never generated revenue from product sales and may never achieve or maintain profitability.
- Carisma is heavily dependent on the success of its lead product candidate, CT-0508, which will require significant clinical testing before it can seek marketing approval and potentially launch commercial sales. If CT-0508 does not receive marketing approval or is not successfully commercialized, or if there is significant delay in doing so, Carisma's business will be harmed.
- Carisma will need substantial additional funding for its continuing operations. If Carisma is unable to raise capital when needed or on acceptable terms, it could be forced to delay, reduce or eliminate its discovery or product development programs or commercialization efforts.
- Cell therapy is a rapidly evolving area of science, and the approach Carisma is taking to discover and develop product candidates by utilizing genetically modified macrophages is novel and may never lead to approved or marketable products.
- Even if any of Carisma's product candidates receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, and the market opportunity for any of its product candidates, if approved, may be smaller than it estimates.
- Carisma relies, and expects to continue to rely, on third parties to conduct its clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, which may prevent or delay Carisma's ability to seek or obtain marketing approval for or commercialize its product candidates or otherwise harm its business. If Carisma is not able to maintain these third-party relationships or if these arrangements are terminated, it may have to alter its development and commercialization plans and its business could be adversely affected.
- If Carisma is unable to obtain, maintain and enforce patent protection for its technology and product candidates or if the scope of the patent protection obtained is not sufficiently broad, its competitors could develop and commercialize technology and products similar or identical to Carisma's, and its ability to successfully develop and commercialize its technology and product candidates may be adversely affected and Carisma may not be able to compete effectively in its market.

Risks Related to the Ownership of the Common Stock of the Combined Company

- The market price of the combined company's common stock is expected to be volatile, and the market price of the combined company's common stock may drop following the merger.
- The combined company will incur additional costs and increased demands upon management as a result of complying with the laws and regulations affecting public companies.
- Once the combined company is no longer a "smaller reporting company" or otherwise no longer qualifies for applicable exemptions, the combined company will be subject to additional laws and regulations affecting public companies that will increase the combined company's costs and the demands on management and could harm the combined company's operating results.
- Provisions that will be in the combined company's certificate of incorporation and bylaws and provisions under Delaware law could make an acquisition of the combined company, which may be beneficial to its stockholders, more difficult and may prevent attempts by its stockholders to replace or remove its management.

- An active trading market for the combined company's common stock may not develop and its stockholders may not be able to resell their shares of common stock for a profit, if at all.

These risks and other risks are discussed in greater detail under the section entitled "*Risk Factors*" in this proxy statement/prospectus. Sesen Bio and Carisma both encourage you to read and consider all of these risks carefully.

Regulatory Approvals (see page 150)

In the U.S., Sesen Bio must comply with applicable federal and state securities laws and the rules and regulations of Nasdaq in connection with the issuance of shares of Sesen Bio common stock and the filing of this proxy statement/prospectus with the SEC. Sesen Bio does not intend to seek any regulatory approval from antitrust authorities to consummate the transactions.

Anticipated Accounting Treatment (see page 156)

The merger is expected to be accounted for as a reverse recapitalization under U.S. generally accepted accounting principles, or U.S. GAAP, because the primary assets of Sesen Bio are cash, cash equivalents and marketable securities. For financial reporting purposes, Carisma has been determined to be the accounting acquirer based upon the terms of the merger including: (i) Carisma stockholders and holders of securities convertible into Carisma common stock are expected to own approximately 66% of the combined company (based on estimates made at the time of signing the Merger Agreement), (ii) Carisma will hold the majority (six of seven) of board seats of the combined company and (iii) Carisma management will hold all key positions in the management of the combined company. Accordingly, the merger is expected to be treated as the equivalent of Carisma issuing stock to acquire the net assets of Sesen Bio. As a result of the merger, the net assets of Sesen Bio will be recorded at their acquisition-date fair value in the consolidated financial statements of Carisma and the reported operating results prior to the merger will be those of Carisma. See the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information*" in this proxy statement/prospectus for additional information.

Appraisal Rights and Dissenters' Rights (see page 156)

Holders of Sesen Bio common stock are not entitled to appraisal rights in connection with the merger under Delaware law. Holders of Carisma capital stock are entitled to appraisal rights in connection with the merger under Delaware law. For more information about such rights, see the provisions of Section 262 of the DGCL attached as *Annex H* and the section entitled "*The Merger — Appraisal Rights and Dissenters' Rights*" in this proxy statement/prospectus.

Comparison of Stockholder Rights (see page 366)

Both Sesen Bio and Carisma are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the merger is completed, Carisma stockholders will become stockholders of Sesen Bio, and their rights will be governed by the DGCL, Sesen Bio's amended and restated bylaws, or the Sesen Bio Bylaws, and the Sesen Bio Certificate of Incorporation, as may be further amended by Proposal No. 2 if approved by the Sesen Bio stockholders at the Sesen Bio special meeting. The rights of Sesen Bio stockholders contained in the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws differ from the rights of Carisma stockholders under the Carisma Certificate of Incorporation, and Carisma's bylaws, or the Carisma Bylaws, as more fully described under the section entitled "*Comparison of Rights of Holders of Sesen Bio Stock and Carisma Stock*" in this proxy statement/prospectus.

MARKET PRICE AND DIVIDEND INFORMATION

Sesen Bio common stock is listed on the Nasdaq Capital Market under the symbol "SESN." Carisma is a private company and shares of Carisma common stock are not publicly traded. The closing price of Sesen Bio common stock on September 20, 2022, the last trading day prior to the public announcement of the merger, was $0.6692 per share, and the closing price of Sesen Bio common stock on October 13, 2022, the last practicable trading day prior to the date of this proxy statement/prospectus, was $0.5001 per share, each as reported on the Nasdaq Capital Market. Because the market price of Sesen Bio common stock is subject to fluctuation, the market value of the shares of Sesen Bio common stock that Carisma stockholders will be entitled to receive in the merger may increase or decrease.

Assuming stockholder approval of Proposal Nos. 1 and 2 and successful application for initial listing on the Nasdaq Capital Market, following the consummation of the merger, the Sesen Bio common stock will trade on the Nasdaq Capital Market under the new name, "CARISMA Therapeutics Inc.," and new trading symbol "CARM."

As of , 2022, the record date for the Sesen Bio special meeting, there were approximately holders of record of Sesen Bio common stock. As of , 2022, there were holders of record of Carisma capital stock. This number does not include stockholders for whom shares were held in "street name." For detailed information regarding the beneficial ownership of certain Sesen Bio stockholders upon consummation of the merger, see the section entitled "*Principal Stockholders of the Combined Company*" beginning on page 378 of this proxy statement/prospectus.

Dividends

Sesen Bio has never declared or paid any cash dividends on the Sesen Bio common stock and does not anticipate paying cash dividends on the Sesen Bio common stock for the foreseeable future, other than the special cash dividend that Sesen Bio may pay to Sesen Bio stockholders in connection with the consummation of the merger. Carisma has never declared or paid any cash dividends on the Carisma common stock and does not anticipate paying cash dividends on the Carisma common stock for the foreseeable future. Notwithstanding the foregoing, any determination to pay cash dividends subsequent to the merger will be at the discretion of the combined company's then-current board of directors and will depend upon a number of factors, including the combined company's results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors the then-current board of directors deems relevant.

RISK FACTORS

The combined company will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus, you should carefully consider the material risks described below and those described in the section entitled "Cautionary Statement Concerning Forward-Looking Statements" beginning on page 114 of this proxy statement/prospectus before deciding how to vote your shares of Sesen Bio common stock.

Risks Related to the Merger

The exchange ratio will not change or otherwise be adjusted based on the market price of Sesen Bio common stock as the exchange ratio depends on the Sesen Bio net cash at the closing of the merger and not the market price of Sesen Bio common stock, so the merger consideration at the closing of the merger may have a greater or lesser value than at the time the Merger Agreement was signed.

The Merger Agreement has set the calculation of the exchange ratio for the Carisma capital stock, and the exchange ratio is based on the fully-diluted capitalization of Carisma and Sesen Bio, in each case immediately prior to the closing of the merger (after giving effect to the Carisma pre-closing financing) as described in the section entitled "*The Merger Agreement — Exchange Ratio*" beginning on page 147 of this proxy statement/prospectus.

The Merger Agreement does not include a price-based termination right. Therefore, if before the completion of the merger the market price of Sesen Bio common stock declines from the market price on the date of the Merger Agreement, then Carisma stockholders could receive merger consideration with substantially lower value than the value of such merger consideration on the date of the Merger Agreement. Similarly, if before the completion of the merger the market price of Sesen Bio common stock increases from the market price of Sesen Bio common stock on the date of the Merger Agreement, then Carisma stockholders could receive merger consideration with substantially greater value than the value of such merger consideration on the date of the Merger Agreement. Because the exchange ratio does not adjust as a direct result of changes in the market price of Sesen Bio common stock, changes in the market price of Sesen Bio common stock will change the value of the total merger consideration payable to Carisma stockholders pursuant to the Merger Agreement.

Stock price changes may result from a variety of factors, including changes in Sesen Bio's or Carisma's respective businesses, operations and prospects, reductions or changes in U.S. government spending or budgetary policies, market assessments of the likelihood that the merger will be completed, interest rates, federal, state and local legislation, governmental regulation, legal developments in the industry segments in which Sesen Bio or Carisma operate, the timing of the merger, and general market, industry and economic conditions, including pandemics and other public health emergencies. Recent events surrounding the global economy, geopolitics and the COVID-19 pandemic continue to evolve and have introduced unusually high levels of volatility into financial and stock markets, and may affect the value of Sesen Bio common stock.

Sesen Bio stockholders and Carisma stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger and the Carisma pre-closing financing and the conversion of the Carisma convertible note.

If the combined company is unable to realize the full strategic and financial benefits currently anticipated from the merger, Sesen Bio stockholders and Carisma stockholders will have experienced substantial dilution of their ownership interests in their respective companies, including as a result of the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, without receiving any commensurate benefit, or only receiving part of the commensurate benefit to the extent the combined company is able to realize only part of the strategic and financial benefits currently anticipated from the merger and the Carisma pre-closing financing.

Failure to complete the merger may result in either Sesen Bio or Carisma paying a termination fee to the other party and could significantly harm the market price of Sesen Bio common stock and negatively affect the future business and operations of each company.

If the merger is not completed and the Merger Agreement is terminated under certain circumstances, Sesen Bio may be required to pay Carisma a termination fee of $7.6 million and/or reimburse Carisma's expenses up to a maximum of $1.75 million, and Carisma may be required to pay Sesen Bio a termination fee of $5.49 million and/or reimburse Sesen Bio's expenses up to a maximum of $1.75 million. Even if a termination fee or reimbursement of expenses of the other party are not payable in connection with a termination of the Merger Agreement, each of Sesen Bio and Carisma will have incurred significant fees and expenses, which must be paid whether or not the merger is completed.

In addition, if the Merger Agreement is terminated and the Sesen Bio board of directors or Carisma board of directors determines to seek another business combination, there can be no assurance that either Sesen Bio or Carisma will be able to find a partner and close an alternative transaction on terms that are as favorable or more favorable than the terms set forth in the Merger Agreement.

The issuance of Sesen Bio common stock to Carisma stockholders pursuant to the Merger Agreement and the resulting change in control from the merger must be approved by Sesen Bio stockholders, and the Merger Agreement and transactions contemplated thereby must be approved by the Carisma stockholders. Failure to obtain these approvals would prevent the closing of the merger.

Before the merger can be completed, the Sesen Bio stockholders must approve, among other things, the issuance of Sesen Bio common stock to Carisma stockholders pursuant to the Merger Agreement and the resulting change in control from the merger, and Carisma stockholders must adopt the Merger Agreement and approve the merger and the related transactions. Failure to obtain the required stockholder approvals may result in a material delay in, or the abandonment of, the merger. Any delay in completing the merger may materially adversely affect the timing and benefits that are expected to be achieved from the merger.

The merger may be completed even though certain events occur prior to the closing of the merger that materially and adversely affect Sesen Bio or Carisma.

The Merger Agreement provides that either Sesen Bio or Carisma can refuse to complete the merger if there is a material adverse change affecting the other party between September 20, 2022, the date of the Merger Agreement, and the closing of the merger. However, certain types of changes do not permit either party to refuse to complete the merger, even if such change could be said to have a material adverse effect on Sesen Bio or Carisma, including:

- general business, economic or political conditions or conditions generally affecting the industries in which Sesen Bio or Carisma, as applicable, operates;
- any natural disaster, epidemic, pandemic (including COVID-19), certain COVID-19 measures or responses, any acts of war, armed hostilities or terrorism;
- with respect to Sesen Bio, any change in the trading price or trading volume of Sesen Bio common stock, excluding any underlying effect that may have caused such change, unless such effect is otherwise exempt from causing a material adverse effect under the Merger Agreement;
- any change in, or any compliance with or action taken for the purpose of complying with, applicable laws or U.S. GAAP, or interpretations thereof;
- with respect to any product or product candidate of Sesen Bio or its subsidiaries or Carisma or its subsidiaries, as applicable, the request of the FDA to refile, amend, or temporarily delay making any regulatory application or filing related to such product or product candidate or the protocol for any clinical trial relating to such product or product candidate, unless in the event of repeated or continued adverse decisions with respect to the applicable party's product or product candidates by the FDA; and

- the taking of any action or failure to take action by Sesen Bio or Carisma, as applicable, expressly required to comply with the terms of the Merger Agreement.

If adverse changes occur and Sesen Bio and Carisma still complete the merger, the market price of the combined company's common stock may suffer. This in turn may reduce the value of the merger to the Sesen Bio stockholders, Carisma stockholders or both.

Some Sesen Bio and Carisma executive officers and directors have interests in the merger that are different from the Sesen Bio stockholders and Carisma stockholders and that may influence them to support or approve the merger without regard to the interests of the Sesen Bio stockholders and Carisma stockholders.

Certain executive officers and directors of Sesen Bio and Carisma participate in arrangements that provide them with interests in the merger that are different from the interests of the Sesen Bio stockholders and Carisma stockholders, including, among others, severance benefits, the acceleration of equity vesting, continued indemnification and the potential ability to sell an increased number of shares of common stock of the combined company in accordance with Rule 144 under the Securities Act. Further, Thomas R. Cannell, D.V.M., Sesen Bio's President and Chief Executive Officer and a current member of the Sesen Bio board of directors, is expected to continue as a member of the combined company's board of directors following the merger. The compensation arrangements with Sesen Bio's executive officers and directors are discussed in greater detail in the sections entitled "*The Merger — Interests of Sesen Bio Directors and Executive Officers in the Merger*" and "*Sesen Bio Executive Compensation — Director Compensation*" beginning on pages 140 and 338, respectively, of this proxy statement/prospectus.

These interests, among others, may influence the executive officers and directors of Sesen Bio and Carisma to support or approve the merger. For more information concerning the interests of Sesen Bio's and Carisma's respective executive officers and directors, see the sections entitled "*The Merger — Interests of Sesen Bio Directors and Executive Officers in the Merger"* and "*The Merger — Interests of Carisma Directors and Executive Officers in the Merger*" beginning on pages 140 and 144, respectively, of this proxy statement/prospectus.

The market price of the combined company's common stock following the merger may decline as a result of the merger.

The market price of the combined company's common stock may decline as a result of the merger for a number of reasons, including if:

- investors react negatively to the prospects of the combined company's product candidates, business and financial condition following the merger;
- the effect of the merger on the combined company's business and prospects is not consistent with the expectations of financial or industry analysts; or
- the combined company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

Sesen Bio stockholders and Carisma stockholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the combined company following the closing of the merger as compared to their current ownership and voting interest in the respective companies.

If the merger is completed, the current Sesen Bio stockholders and Carisma stockholders will own a smaller percentage of the combined company than their ownership in their respective companies prior to the merger. Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including Sesen Bio's net cash as of closing being $125.0 million.

Raising additional capital may cause dilution to the combined company's stockholders, restrict its operations or require it to relinquish rights to its technologies or product candidates.

Until such time, if ever, as the combined company, operating as Carisma, can generate substantial revenues from product sales, Carisma expects to finance its cash needs through a combination of public and private equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or licensing arrangements. Although Carisma may receive future payments under its collaboration with Moderna Inc., or Moderna, Carisma does not currently have any other committed external source of funds. The terms of any financing may adversely affect the holdings or the rights of the combined company's stockholders and the issuance of additional securities, whether equity or debt, by the combined company, or the possibility of such issuance, may cause the market price of the combined company's shares of common stock to decline. To the extent that the combined company raises additional capital through the sale of equity or convertible debt securities, the ownership interest of the combined company's stockholders will be diluted, and the terms of those securities may include liquidation or other preferences that adversely affect the rights of such stockholders. Debt financing and preferred equity financing, if available, would increase the combined company's fixed payment obligations and may involve agreements that include covenants limiting or restricting the combined company's operations and ability to take specific actions, such as incurring additional debt, making acquisitions, engaging in acquisition, merger or collaboration transactions, selling or licensing the combined company's assets, making capital expenditures, redeeming its stock, making certain investments, declaring dividends or other operating restrictions that could adversely impact the combined company's ability to conduct its business. The combined company could also be required to meet certain milestones in connection with debt financing and the failure to achieve such milestones by certain dates may force the combined company to relinquish rights to some of its technologies or product candidates or otherwise agree to terms unfavorable to the combined company which could have a material adverse effect on the combined company's business, operating results and prospects. The combined company also could be required to seek funds through arrangements with collaborators or otherwise at an earlier stage than otherwise would be desirable. If the combined company raises funds through additional collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, the combined company may have to relinquish valuable rights to its intellectual property, future revenue streams, discovery programs or product candidates, grant licenses on terms that may not be favorable to the combined company or grant rights to develop and market product candidates that the combined company would otherwise prefer to develop and market itself, any of which may have a material adverse effect on the combined company's business, operating results and prospects.

During the pendency of the merger, Sesen Bio and Carisma may not be able to enter into a business combination with another party on more favorable terms because of restrictions in the Merger Agreement, which could adversely affect their respective business prospects.

Covenants in the Merger Agreement impede the ability of Sesen Bio and Carisma to make acquisitions during the pendency of the merger, subject to specified exceptions. As a result, if the merger is not completed, the parties may be at a disadvantage to their competitors during such period. In addition, while the Merger Agreement is in effect, each party is generally prohibited from soliciting, initiating or knowingly encouraging, inducing or facilitating any inquiries, indications of interest, proposals or offers that constitute or may reasonably be expected to lead to certain transactions involving a third party, including a merger, sale of assets or other business combination, subject to specified exceptions. Any such transactions could be favorable to such party's stockholders, but the parties may be unable to pursue them. For more information, see the section entitled "*The Merger Agreement — No Solicitation*" beginning on page 168 of this proxy statement/prospectus.

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the transactions contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit each of Sesen Bio and Carisma from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when the Sesen Bio board of directors or the Carisma board of directors, as applicable, determines in good faith that an unsolicited alternative takeover proposal is or is reasonably likely to result in a superior takeover proposal and that failure to cooperate with the proponent of the proposal is reasonably likely to be inconsistent with the applicable board's fiduciary duties. Any such transactions could be favorable to Sesen Bio stockholders or Carisma stockholders, as applicable. In addition, if Sesen Bio terminates the Merger Agreement under certain circumstances, including terminating because of a decision of Sesen Bio to enter into a definitive agreement with respect to a superior offer, Sesen Bio would be required to pay a termination fee of $7.6 million to Carisma and/or reimburse Carisma's expenses up to a maximum of $1.75 million. This termination fee described above may discourage third parties from submitting alternative takeover

proposals to Sesen Bio stockholders, and may cause the Sesen Bio board of directors to be less inclined to recommend an alternative takeover proposal.

Because the lack of a public market for Carisma common stock makes it difficult to evaluate the value of Carisma common stock, the Carisma stockholders may receive shares of Sesen Bio common stock in the merger that have a value that is less than, or greater than, the fair market value of Carisma common stock.

The outstanding common stock of Carisma is privately held and is not traded in any public market. The lack of a public market makes it extremely difficult to determine the fair market value of Carisma. Because the percentage of Sesen Bio common stock to be issued to Carisma stockholders was determined based on negotiations between the parties, it is possible the value of Sesen Bio common stock to be received by Carisma stockholders will be less than the fair market value of Carisma, or the value of Sesen Bio's common stock to be received by Carisma stockholders may be more than the aggregate fair market value for Carisma.

If the conditions to the merger are not satisfied or waived, the merger will not occur.

Even if the transactions contemplated by the Merger Agreement are approved by Sesen Bio stockholders and Carisma stockholders, certain other specified conditions set forth in the Merger Agreement must be satisfied, to the extent permitted by applicable law, or waived to complete the merger, including approval from Nasdaq to maintain the listing of the Sesen Bio common stock on the Nasdaq Capital Market following the merger and the listing of the shares of Sesen Bio common stock being issued in the merger and the conversion of the Carisma convertible note. These conditions are set forth in the Merger Agreement and each material condition to the completion of the merger is described in the section entitled "*The Merger Agreement — Conditions to the Completion of the Merger*" beginning on page 165 of this proxy statement/prospectus. Sesen Bio and Carisma cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the merger will not occur or will be delayed, and Sesen Bio and Carisma each may lose some or all of the intended benefits of the merger.

The merger may fail to qualify as a "reorganization" for U.S. federal income tax purposes, resulting in recognition of taxable gain or loss by Carisma stockholders in respect of their Carisma capital stock.

Sesen Bio and Carisma intend for the merger to qualify as a "reorganization" within the meaning of Section 368(a) of the Code, as described in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 150 of this proxy statement/prospectus. In the event that the merger does not qualify as a "reorganization," the merger would result in taxable gain or loss for each Carisma stockholder, with the amount of such gain or loss determined by the amount that each Carisma stockholder's adjusted tax basis in the Carisma capital stock surrendered is less or more than the fair market value of the Sesen Bio common stock and any cash in lieu of a fractional share received in exchange therefor. Each Carisma stockholder is urged to consult with his, her or its own tax advisor with respect to the tax consequences of the merger.

Future sales of shares by existing stockholders could cause the combined company's stock price to decline.

If existing Sesen Bio stockholders and Carisma stockholders sell, or indicate an intention to sell, substantial amounts of the combined company's common stock in the public market after the merger, the trading price of the common stock of the combined company could decline. Based on shares outstanding as of September 20, 2022 and taking into account the consummation of the Carisma pre-closing financing (including the conversion of the Carisma convertible note) and an assumed exchange ratio of 24.5844, the combined company is expected to have outstanding a total of approximately 656,865,489 shares of common stock (prior to giving effect to the proposed reverse stock split) immediately following the completion of the merger. Not all shares of Sesen Bio common stock will be freely tradable, without restriction, in the public market. For example, an aggregate of 265,069,468 shares of the combined company's common stock will be subject to the lock-up agreements required under the Merger Agreement as of the closing of the merger.

The historical unaudited pro forma condensed combined financial information may not be representative of the combined company's results after the merger.

The historical unaudited pro forma condensed combined financial information included elsewhere in this proxy statement/prospectus has been presented for informational purposes only and is not necessarily indicative of the financial position or

results of operations that actually would have occurred had the merger been completed as of the date indicated, nor is it indicative of future operating results or financial position.

Lawsuits may be filed against Sesen Bio, the members of the Sesen Bio board of directors, Carisma and/or the members of the Carisma board of directors arising out of the merger, which may delay or prevent the merger.

Putative stockholder complaints, including stockholder class action complaints, and other complaints may be filed against Sesen Bio, the Sesen Bio board of directors, Carisma, and/or the Carisma board of directors in connection with the transactions contemplated by the merger agreement. The outcome of litigation is uncertain, and Sesen Bio and Carisma may not be successful in defending against any such future claims. Lawsuits that may be filed against Sesen Bio, the Sesen Bio board of directors, Carisma, and the Carisma board of directors could delay or prevent the merger, divert the attention of the management teams and employees of Sesen Bio and Carisma from day-to-day business and otherwise adversely affect the business and financial condition of Sesen Bio, Carisma or the combined company.

Risks Related to the Proposed Reverse Stock Split

The proposed reverse stock split may not increase the combined company's stock price over the long-term.

One of the purposes of the proposed reverse stock split is to increase the per-share market price of the Sesen Bio common stock. It cannot be assured, however, that the proposed reverse stock split will accomplish this objective for any meaningful period of time. While it is expected that the reduction in the number of outstanding shares of Sesen Bio common stock will proportionally increase the per-share market price of Sesen Bio common stock, it cannot be assured that the proposed reverse stock split will increase the per-share market price of Sesen Bio common stock by a multiple of the proposed reverse stock split ratio, or result in any permanent or sustained increase in the per-share market price of Sesen Bio common stock, which is dependent upon many factors, including the combined company's business and financial performance, general market conditions and prospects for future success. Thus, while the stock price of the combined company might meet the continued listing requirements for the Nasdaq Capital Market initially, it cannot be assured that it will continue to do so.

The proposed reverse stock split may decrease the liquidity of the combined company's common stock.

Although the Sesen Bio board of directors believes that the anticipated increase in the per-share market price of the combined company's common stock as a result of the proposed reverse stock split could encourage interest in the combined company's common stock and possibly promote greater liquidity for stockholders of the combined company, such liquidity could also be adversely affected by the reduced number of shares outstanding after the proposed reverse stock split. The reduction in the number of outstanding shares may lead to reduced trading and a smaller number of market makers for the combined company's common stock.

Should the market price of the combined company's common stock decline after the proposed reverse stock split, the percentage decline may be greater, due to the smaller number of shares outstanding, than it would have been prior to the proposed reverse stock split. The proposed reverse stock split may be viewed negatively by the market and, consequently, may lead to a decrease in the combined company's overall market capitalization. If the per-share market price does not increase in proportion to the exact ratio of the proposed reverse stock split, then the value of the combined company, as measured by its stock capitalization, will be reduced. In some cases, the per-share market price of companies that have effected reverse stock splits subsequently declined back to pre-reverse split levels, and accordingly, it cannot be assured that the total market value of the combined company's common stock will remain the same after the proposed reverse stock split is effected, or that the proposed reverse stock split will not have an adverse effect on the price of the combined company's common stock due to the reduced number of outstanding shares after the proposed reverse stock split.

Risks Related to Sesen Bio

If the merger is not completed, the Sesen Bio board of directors may decide to pursue a liquidation and dissolution of Sesen Bio. In such an event, there can be no assurances as to the amount or timing of available cash left, if any, to distribute to Sesen Bio stockholders after paying its debts and other obligations and setting aside funds for reserves.

While Sesen Bio has entered into the Merger Agreement with Carisma, the closing of the merger may be delayed or may not occur at all and there can be no assurance that the merger will deliver the anticipated benefits Sesen Bio expects or enhance stockholder value. If the merger is not completed and the Merger Agreement is terminated under certain circumstances, Sesen Bio may be required to pay Carisma a termination fee of $7.6 million and/or reimburse Carisma's expenses up to a maximum of $1.75 million. Even if a termination fee is not payable in connection with a termination of the Merger Agreement, Sesen Bio will have incurred significant fees and expenses, which must be paid whether or not the merger is completed.

If, for any reason, the merger does not close, the Sesen Bio board of directors may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Sesen Bio, resume its research and development activities and continue to operate the business of Sesen Bio. Any of these alternatives would be costly and time-consuming and would require that Sesen Bio obtain additional funding. Sesen Bio expects that it would be difficult to secure financing in a timely manner, on favorable terms or at all. Sesen Bio can make no assurances that it would be able to obtain additional financing or find a partner and close an alternative transaction on terms that are as favorable or more favorable than the terms set forth in the Merger Agreement or that any such alternatives are possible or would be successful, if pursued. To the extent that Sesen Bio seeks and is able to raise additional capital through the sale of equity or convertible debt securities, Sesen Bio stockholders' ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect their rights as a common stockholder. Debt financing or preferred equity financing, if available, may involve agreements that include covenants limiting or restricting Sesen Bio's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Sesen Bio raises funds through strategic transactions or marketing, distribution, or licensing arrangements with third parties, Sesen Bio may have to relinquish valuable rights to its technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to it. Even if Sesen Bio is able to pursue such alternatives, the failure to complete the merger may result in negative publicity and/or a negative impression of Sesen Bio in the investment community, could significantly harm the market price of Sesen Bio common stock and may affect Sesen Bio's relationship with employees and other partners in the business community.

If the merger is not completed, the Sesen Bio board of directors may decide that it is in the best interests of the Sesen Bio stockholders to dissolve the company and liquidate its assets. In that event, the amount of cash available for distribution to the Sesen Bio stockholders would depend heavily on the timing of such decision and, ultimately, such liquidation since the amount of cash available for distribution continues to decrease as Sesen Bio funds its operations and incurs fees and expenses related to the merger. In addition, if the Sesen Bio board of directors were to approve and recommend, and the Sesen Bio stockholders were to approve, a dissolution of Sesen Bio, it would be required under the DGCL to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to the Sesen Bio stockholders. As a result of this requirement, a portion of Sesen Bio's assets may need to be reserved pending the resolution of such obligations. In addition, Sesen Bio may be subject to litigation or other claims related to a liquidation and dissolution of the company. If a liquidation and dissolution were pursued, the Sesen Bio board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, the Sesen Bio stockholders could lose all or a significant portion of their investment in the event of a liquidation and dissolution of Sesen Bio.

Sesen Bio stockholders may not receive any payment on the CVRs and the CVRs may otherwise expire valueless.

The right of Sesen Bio stockholders to receive any future payment on or derive any value from the CVRs will be contingent solely upon the occurrence of a certain triggering event. In particular, CVR holders will be entitled to a pro rata portion of the $30.0 million milestone payment to be made by Roche to Sesen Bio upon Roche's initiation of a Phase 3 clinical trial with legacy IL-6 antagonist antibody technology previously owned by Sesen Bio for a certain indication if initiated prior to December 31, 2026, pursuant to the Roche Asset Purchase Agreement, less certain permitted deductions. Sesen Bio may not receive any future payment pursuant to the Roche Asset Purchase Agreement after the closing of the merger. If this milestone is not achieved for any reason within the time period specified in the CVR Agreement or the consideration received is not greater than the amounts permitted to be retained or deducted by Sesen Bio, no payments will be made under the CVRs, and the CVRs will expire valueless.

Furthermore, the CVRs will be unsecured obligations of the combined company and all payments under the CVRs, all other obligations under the CVR Agreement and the CVRs and any rights or claims relating thereto will be subordinated in right of payment to the prior payment in full of all current or future senior obligations of the combined company. For more information about the CVR Agreement, see the section entitled "*Agreements Related to the Merger — CVR Agreement*" beginning on page 181 of this proxy statement/prospectus.

The U.S. federal income tax treatment of the CVRs is unclear and there can be no assurance that the Internal Revenue Service would not assert, or that a court would not sustain, a position that could result in adverse U.S. federal income tax consequences to holders of the CVRs.

The U.S. federal income tax treatment of the CVRs is unclear. There is no legal authority directly addressing the U.S. federal income tax treatment of the receipt of, and payments on, the CVRs, and there can be no assurance that the Internal Revenue Service, or the IRS, would not assert, or that a court would not sustain, a position that could result in adverse U.S. federal income tax consequences to holders of the CVRs.

As discussed in the section entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs,*" Sesen Bio intends to treat the issuance of the CVRs as a distribution of property with respect to its stock. However, there is no authority directly addressing whether contingent value rights with characteristics similar to the CVRs should be treated as a distribution of property with respect to the corporation's stock, a distribution of equity, a "debt instrument" or an "open transaction" for U.S. federal income tax purposes. Although Sesen Bio will estimate the value of the CVRs for purposes of reporting on Form 1099 to Sesen Bio stockholders, the value of the CVRs is uncertain and the IRS or a court could determine that the value of the CVRs at the time of issuance was higher. In such case, the Sesen Bio stockholders could be treated as having additional income or gain upon receipt of the CVRs as described further in the section entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*" beginning on page 181 of this proxy statement/prospectus. Further, notwithstanding Sesen Bio's position that the receipt of CVRs, the receipt of any cash distributed pursuant to a special cash dividend and the proposed reverse stock split are appropriately treated as separate transactions, it is possible that the IRS or a court could determine that the Sesen Bio stockholders' receipt of the CVRs, the receipt of any cash distributed pursuant to a special cash dividend and the proposed reverse stock split constitute a single "recapitalization" for U.S. federal income tax purposes. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to Sesen Bio's position, which could result in adverse U.S. federal income tax consequences to holders of the CVRs. The tax consequences of such alternative treatments are described below under the section entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs,*" beginning on page 181 of this proxy statement/prospectus.

Sesen Bio is substantially dependent on its remaining employees to facilitate the consummation of the merger.

As of September 20, 2022, Sesen Bio had 17 full-time employees. Sesen Bio's ability to successfully complete the merger depends in large part on its ability to retain certain remaining personnel. Despite Sesen Bio's efforts to retain these employees, one or more may terminate their employment with Sesen Bio on short notice. The loss of the services of certain employees could potentially harm Sesen Bio's ability to consummate the merger, to run its day-to-day business operations, as well as to fulfill its reporting obligations as a public company.

Sesen Bio has never paid and, other than in connection with the merger, does not intend to pay any cash dividends in the foreseeable future.

Sesen Bio has never paid cash dividends on any of its capital stock. Pursuant to the terms of the Merger Agreement, Sesen Bio may, in addition to the CVRs, declare and pay a special cash dividend to its stockholders of record prior to the merger consisting of cash in an amount not to exceed $25.0 million, subject to Sesen Bio having net cash as of the closing of the merger greater than or equal to $100.0 million. The amount of such special cash dividend is currently uncertain, pending the determination of Sesen Bio's outstanding obligations and net cash position as of the closing of the merger. Other than such potential special cash dividend in connection with the closing of the merger, Sesen Bio does not currently anticipate declaring or paying cash dividends on its capital stock in the foreseeable future.

Risks Related to Sesen Bio's Financial Position and Need for Additional Capital if the Merger is Not Completed

Sesen Bio has incurred significant losses since its inception and anticipates that it will continue to incur losses for the foreseeable future if the merger is not completed.

Sesen Bio is a specialty pharmaceutical company with a limited operating history. Over the past few years, Sesen Bio has focused primarily on developing its lead product candidate, Vicineum for the treatment of NMIBC. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. to conserve cash while considering strategic alternatives. Since its inception, Sesen Bio has received no revenues from sales of its products, has incurred significant operating losses and expects to continue to incur operating losses for the foreseeable future. Sesen Bio had net losses of $0.3 million, $22.4 million and $107.5 million for the years ended December 31, 2021, 2020 and 2019, respectively. Sesen Bio incurred negative cash flows from operating activities of $68.9 million, $30.8 million and $37.5 million for the years ended December 31, 2021, 2020 and 2019, respectively. As of June 30, 2022, Sesen Bio had cash, cash equivalents and marketable securities of $161.2 million, net working capital (current assets less current liabilities) of $124.4 million and an accumulated deficit of $349.0 million. Sesen Bio has financed its operations to date primarily through private placements of its common stock, preferred stock, common stock warrants and convertible bridge notes, venture debt borrowings, its initial public offering, its follow-on public offerings, sales effected in at-the-market, or ATM offerings, and its out-licensing and outside the U.S., or OUS, business development partnership agreements. The majority of Sesen Bio's revenue to date has been from milestone payments received under its out-licensing and OUS business development partnership agreements. If the merger is not completed and Sesen Bio does not pursue a liquidation and dissolution or alternative strategic transaction and despite the 2022 restructuring plan, as defined below, Sesen Bio expects to continue to incur significant expenses and operating losses for the foreseeable future.

Sesen Bio expects to incur losses for the foreseeable future, and Sesen Bio expects these losses to continue as it:

- addresses its ongoing securities litigation and derivative litigation;
- maintains, expands and protects its intellectual property portfolio;
- reduces its personnel and incurs related severance and employee-related costs in connection with the restructuring plan announced following the decision to pause further development of Vicineum in the U.S., or the 2022 restructuring plan;
- winds down and disposes of the equipment and physical infrastructure that had been used to support its research and development activities and exploring and evaluating a strategic partner for Vicineum;
- winds down activities with its contract manufacturing organizations, or CMOs; and
- explores, evaluates and pursues a liquidation and dissolution or alternative strategic transaction if the merger is not completed.

With the exception of specified regulatory, development and commercial milestones under the Roche Asset Purchase Agreement, Sesen Bio currently has no potential source of revenue and may never become profitable.

Sesen Bio is a late-stage clinical company with a limited operating history. Sesen Bio's ability to become and remain profitable depends on its ability to generate revenue. Although Sesen Bio may be entitled to certain payments under the Roche Asset Purchase Agreement, Sesen Bio has not commercialized any of its product candidates. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development in the U.S. of Vicineum. This decision enables Sesen Bio to conserve cash while it prepares to consummate the merger. There can be no guarantee that the merger will be completed within the anticipated timing or at all. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, it does not expect to generate significant revenue unless and until Sesen Bio or one of its business development partners, if any, obtains marketing approval for, and commercializes, Vicineum for the treatment of NMIBC. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio's ability to generate revenue from Vicineum will depend on a number of factors, including:

- Sesen Bio's ability to obtain regulatory approval for, and successfully commercialize, Vicineum for the treatment of NMIBC;

- Sesen Bio's ability to complete and submit applications to, and obtaining regulatory approval from, non-U.S. regulatory authorities;
- the size of the markets in the territories for which Sesen Bio or its business development partners, if any, gain regulatory approval;
- Sesen Bio's ability to find a suitable contract sales organization, or CSO, to help it market and promote Vicineum, if approved;
- Sesen Bio's ability to develop and maintain effective medical affairs, sales, marketing and distribution to market and sell Vicineum, if approved;
- Sesen Bio's ability to enter into and maintain commercially reasonable agreements with wholesalers, distributors and other third parties in its supply chain;
- Sesen Bio's success in establishing a commercially viable price for Vicineum, if approved;
- Sesen Bio's success in defending against potential competition and other developments in its market generally;
- Sesen Bio's ability to manufacture commercial quantities of Vicineum at acceptable cost levels;
- Sesen Bio's ability to obtain coverage and adequate reimbursement from third-party payors, including government payors; and
- Sesen Bio's or any business development partners' ability to successfully complete development activities, including necessary clinical trials, for Vicineum for the treatment of NMIBC.

Even if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and Vicineum is approved for commercial sale, Vicineum may not gain market acceptance or achieve commercial success. If Sesen Bio's addressable market is not as significant as Sesen Bio estimates, the indication approved by regulatory authorities is narrower than Sesen Bio expects or the treatment population is narrowed by competition, physician choice or clinical practice guidelines, Sesen Bio may not generate significant revenue from sales of Vicineum. In addition, if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio would anticipate incurring significant costs associated with commercializing Vicineum, if approved. Sesen Bio may not achieve profitability soon after generating product sales from Vicineum, if ever. If Sesen Bio is unable to generate product revenues from Vicineum, Sesen Bio may not become profitable and may be unable to continue operations without continued funding.

Even if Sesen Bio achieves profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. Its failure to become and remain profitable would depress the value of Sesen Bio and could impair its ability to raise capital, expand its business, maintain its development efforts, obtain drug approvals, diversify its offerings or continue its operations. A decline in the value of Sesen Bio could also cause you to lose all or part of your investment.

If the merger is not completed and Sesen Bio resumes clinical development of Vicineum, Sesen Bio will need substantial additional funding. If Sesen Bio is unable to raise capital when needed, Sesen Bio could be forced to delay, reduce or eliminate its product development programs or commercialization efforts.

Sesen Bio has devoted substantial financial resources to clinical trial for Vicineum for the treatment of NMIBC and functions associated with operating as a public company. If the merger is not completed, Sesen Bio expects to continue to spend substantial amounts if it were to continue the clinical development of Vicineum for the treatment of NMIBC, and, if approved, commercialize Vicineum. Accordingly, Sesen Bio would need to obtain substantial additional funding in connection with its continuing operations if the merger is not completed. If Sesen Bio is unable to raise capital when needed or on attractive terms, Sesen Bio could be forced to delay, reduce or eliminate its research and development programs or any future commercialization efforts.

Sesen Bio's future capital requirements will depend on many factors, including:

- the costs and timing of continuing the clinical development of Vicineum for the treatment of NMIBC;
- the success of its commercialization of Vicineum for the treatment of NMIBC, if approved;
- the outcome, timing and cost of the regulatory approval process for Vicineum for the treatment of NMIBC by the FDA and comparable non-U.S. regulatory authorities, including the potential for the FDA to require that Sesen Bio perform more studies and clinical trials than those Sesen Bio currently expects;
- the costs and timing of the implementation of commercial-scale manufacturing activities;
- Sesen Bio's ability to establish and maintain commercial arrangements on favorable terms, if at all, particularly manufacturing, marketing and distribution arrangements for Vicineum for the treatment of NMIBC;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing Sesen Bio's intellectual property rights and defending any intellectual property-related claims;
- Sesen Bio's obligation to make milestone, royalty and other payments to third-party licensors under its in-licensing agreements;
- the extent to which Sesen Bio in-license or acquire rights to other products, product candidates or technologies; and
- the effect of competing technological and market developments.

Sesen Bio cannot be certain that additional funding will be available when needed on acceptable terms, or at all. If Sesen Bio is unable to raise additional capital in sufficient amounts, when required or on acceptable terms, Sesen Bio also could be required to:

- seek out-licensing or commercialization partners to assist in the clinical development or commercialization of Vicineum for the treatment of NMIBC in the U.S. and other markets;
- delay, limit, reduce or terminate the clinical development of Vicineum for the treatment of NMIBC; or
- significantly curtail Sesen Bio's operations.

Risks Related to Clinical Development and Regulatory Approval of Vicineum if the Merger is Not Completed

Sesen Bio has been dependent on its lead product candidate, Vicineum for the treatment of NMIBC. If Sesen Bio resumes clinical development of Vicineum and is unable to obtain marketing approval for or successfully commercialize its lead product candidate, either alone or through an out-license or OUS business development partnership, or experiences significant delays in doing so, its business could be materially harmed.

Sesen Bio currently has no products approved for sale and has invested a significant portion of its efforts and financial resources in the development of Vicineum. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following Sesen Bio's discussions with the FDA. As a result of this decision, Sesen Bio no longer plans to pursue regulatory approval of Vicineum for NMIBC in the European Union, or the E.U.

If the merger is not completed and even if Sesen Bio resumes clinical development of Vicineum for NMIBC, Sesen Bio may be unable to address the issues identified in the complete response letter, or CRL, from the FDA or resubmit a biologics license application, or BLA, for Vicineum, or address the concerns identified in the European Medicines Agency, or EMA, Withdrawal Assessment Report or resubmit its marketing authorization application, or MAA, for Vysyneum, including because of a lack of capital or otherwise.

Even if the issues identified in the CRL or the concerns identified in the EMA Withdrawal Assessment Report are resolved to the satisfaction of the FDA or the EMA, respectively, the FDA and the European Commission retain the right not to approve a BLA or MAA, respectively, or to require additional information, or to raise additional issues with regard to regulatory approval, which could further delay or prevent its approval or limit product labelling claims.

If the merger is not completed and Sesen Bio resumes clinical development, Sesen Bio's prospects would be substantially dependent on its ability to obtain marketing approval for and commercialize Vicineum for the treatment of NMIBC. In addition, either the substance of the issues identified by the FDA in the CRL, or the CRL itself, or the concerns identified in the EMA Withdrawal Assessment Report could have an adverse impact on future efforts to obtain marketing authorization for Vicineum from other non-U.S. regulatory authorities, or on Sesen Bio's future efforts to commercialize Vicineum and gain acceptance of Vicineum from third-party payors. The success of Vicineum would depend on several factors, including the following:

- successfully completing the clinical development of Vicineum for the treatment of NMIBC;
- addressing the issues identified in the CRL that Sesen Bio received from the FDA and the concerns identified in the EMA Withdrawal Assessment Report;
- receiving marketing approvals from the FDA, the European Commission or comparable non-U.S. regulatory authorities, including Sesen Bio's ability to address the issues identified by the FDA in the CRL or the EMA Withdrawal Assessment Report;
- developing and maintaining the commercial manufacturing supply and distribution chain for Vicineum;
- performance of future out-licensing or OUS business development partners (if any);
- the extent of any required post-marketing approval commitments to applicable regulatory authorities;
- obtaining and maintaining patent, trade secret protection and regulatory exclusivity, both in the U.S. and internationally;
- protecting Sesen Bio's rights in its intellectual property portfolio;
- launching commercial sales, if and when marketing approval is received;
- demonstrating an acceptable safety profile prior to and following any marketing approval;
- obtaining marketplace acceptance, if approved, by patients, the medical community and third-party payors;
- establishing and maintaining pricing sufficient to realize a meaningful return on Sesen Bio's investment; and
- competition with other therapies.

If Sesen Bio is unable to develop, receive marketing approval for, or successfully commercialize Vicineum or experience delays as a result of any of these factors or otherwise, its business could be materially harmed.

If additional clinical trials of Vicineum for the treatment of NMIBC fail to demonstrate safety and efficacy to the satisfaction of the FDA, the EMA or other non-U.S. regulatory authorities or do not otherwise produce favorable results, Sesen Bio will be unable to complete the development and potential commercialization of Vicineum for the treatment of NMIBC.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and additional clinical trials of Vicineum fail to demonstrate safety and efficacy to the satisfaction of the FDA, the EMA or other non-U.S. regulatory authorities or do not otherwise produce favorable results, Sesen Bio will be unable to complete the development and potential commercialization of Vicineum for the treatment of NMIBC.

Before obtaining marketing approval from regulatory authorities for the sale of Vicineum for the treatment of NMIBC, Sesen Bio must complete pre-clinical development and conduct extensive clinical trials to demonstrate the safety and efficacy of Vicineum in humans. In order to address the issues identified in the CRL that Sesen Bio received from the FDA for the BLA for Vicineum and the concerns identified in the EMA Withdrawal Assessment Report, Sesen Bio would need to complete one or more additional clinical trials. Such trials would require Sesen Bio to incur substantial additional costs and would delay the potential commercialization of Vicineum for the treatment of NMIBC. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. Further, the outcome of pre-clinical studies and early clinical trials may not be predictive of the success of later clinical trials, and preliminary results of a clinical trial do not necessarily predict final results.

Even if such clinical trials are successfully completed as planned, the results may not support approval of Vicineum for the treatment of NMIBC under the laws and regulations of the FDA, the European Commission or comparable non-U.S. regulatory authorities. Even if Sesen Bio resumes clinical development of Vicineum, Sesen Bio cannot be certain that additional clinical data will demonstrate Vicineum is both safe and effective for its intended uses to the satisfaction of the FDA, the EMA or comparable non-U.S. regulatory authorities. Pre-clinical and clinical data and analyses are often able to be interpreted in different ways. Even if Sesen Bio views its results favorably, it may be unable to demonstrate safety and efficacy of Vicineum for the treatment of NMIBC to the satisfaction of the FDA, the EMA or other non-U.S. regulatory authorities. If a regulatory authority has a different view, Sesen Bio may still fail to obtain regulatory approval of Vicineum. This, in turn, would prevent Sesen Bio from commercializing Vicineum and its ability to generate revenues in the future would be materially impaired.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and Sesen Bio experiences delays or difficulties in the enrollment of patients in clinical trials, its receipt of necessary regulatory approvals could be delayed or prevented.

Even if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio may not be able to initiate or continue clinical trials for Vicineum if Sesen Bio is unable to locate and enroll a sufficient number of patients to participate in these trials as required by the FDA or similar non-U.S. regulatory authorities. Sesen Bio has previously experienced difficulties with clinical trial enrollment and retention, which led to the early termination of its Phase 3 trial of Vicineum for the treatment of squamous cell carcinoma of the head and neck, or SCCHN, in 2008, and Sesen Bio may experience difficulties in patient enrollment in its clinical trials in the future for a variety of reasons.

Subject enrollment is affected by a number of factors, including:

- the severity of the disease under investigation;
- the eligibility criteria for the clinical trial in question;
- the size of the patient population for the disease;
- the size of the patient population required for statistically significant analysis of the clinical trial's primary endpoints;
- the design of the clinical trial;
- the clinicians' and patients' perceived risks and benefits of the product candidate under study, including relative to alternative treatments;
- the efforts to facilitate timely enrollment in clinical trials;

- the patient referral practices of physicians;
- any ongoing clinical trials conducted by competitors for the same indication;
- the risk that patients enrolled in clinical trials will drop out of the clinical trials before completion;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Further, Sesen Bio's ability to successfully initiate, enroll and complete a clinical trial in any country outside of the U.S., should Sesen Bio decide to do so, is subject to numerous risks unique to conducting business in such countries, including:

- difficulty in establishing or managing relationships with contract research organizations, or CROs, and physicians;
- different or additional standards for the conduct of clinical trials;
- absence in some countries of established groups with sufficient regulatory expertise for review of the protocols associated with Vicineum;
- ensuring that clinical trial quality is sufficient to meet the standards of the FDA or other regulatory authorities;
- Sesen Bio's inability to locate qualified local consultants, physicians and partners; and
- the potential burden of complying with a variety of non-U.S. laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatments.

In addition, Sesen Bio's clinical trials would compete with other clinical trials for other product candidates that are in the same therapeutic areas as Vicineum, and this competition will reduce the number and types of patients available to Sesen Bio, because some patients who might have opted to enroll in Sesen Bio's trials may instead opt to enroll in a trial being conducted by one of its competitors. Since the number of qualified clinical investigators is limited, Sesen Bio expects to conduct some of its clinical trials at the same clinical trial sites that some of its competitors use, which will reduce the number of patients who are available for Sesen Bio's clinical trials in such clinical trial site. Moreover, because Vicineum represents a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, such as chemotherapy, rather than enroll patients in any of Sesen Bio's clinical trials.

Sesen Bio's inability to enroll a sufficient number of patients for its clinical trials would result in significant delays, could require Sesen Bio to abandon one or more clinical trials altogether and could delay or prevent its receipt of necessary regulatory approvals. Enrollment delays in its clinical trials may result in increased development costs for its product candidates, which would cause the value of the company to decline and limit its ability to obtain additional financing.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Vicineum for the treatment of NMIBC may cause undesirable side effects, serious adverse events or have other properties that could delay or halt clinical trials, delay or prevent its regulatory approval, limit the commercial profile of its labeling, if approved, or result in significant negative consequences following any marketing approval.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, undesirable side effects or serious adverse events caused by Vicineum for the treatment of NMIBC could cause Sesen Bio or regulatory authorities to interrupt, delay or halt respective clinical trials and could result in a restrictive label or the delay or denial of regulatory approval by the FDA or other comparable non-U.S. regulatory authorities.

There were no Grade 4 or Grade 5 serious adverse events that were considered by the clinical investigators to be related to Vicineum during the Phase 1 and Phase 2 clinical trials of Vicineum for the treatment of bacillus Calmette-Guérin, or BCG,

unresponsive NMIBC. There was one Grade 5 serious adverse event, or death, which was determined by the clinical investigator to be unrelated to Vicineum. The most common reported treatment-related adverse events were an abnormally frequent passage of small amounts of urine, blood in the urine and painful urination, the majority of which were considered to be mild or moderate in severity. No patients discontinued treatment due to a Vicineum-related adverse event during the Phase 1 and Phase 2 clinical trials.

As of the May 29, 2019 data cutoff date, in patients across all cohorts (n=133) of Sesen Bio's Phase 3 VISTA Trial of Vicineum for the treatment of BCG-unresponsive NMIBC, 88% experienced at least one adverse event, with 95% of adverse events being Grade 1 or 2. The most commonly reported treatment-related adverse events were dysuria (14%), hematuria (13%) and urinary tract infection (12%) — all of which are consistent with the profile of bladder cancer patients and the use of catheterization for treatment delivery. These adverse events were determined by the clinical investigators to be manageable and reversible, and only four patients (3%) discontinued treatment due to an adverse event. Serious adverse events, regardless of treatment attribution, were reported in 14% of patients. There were four treatment-related serious adverse events reported in three patients including acute kidney injury (Grade 3), pyrexia (Grade 2), cholestatic hepatitis (Grade 4) and renal failure (Grade 5 or death). There were no age-related increases in adverse events observed in the VISTA Trial.

In addition, side effects and serious adverse events or further safety or toxicity issues that Sesen Bio may experience in its clinical trials or in post-marketing experience, if approved, could lead to the FDA's or other comparable non-U.S. regulatory authority's imposition of a risk evaluation and mitigation strategy, or REMS, or other post-marketing obligations, which could hinder Sesen Bio from generating revenues or achieving profitability. Results of Sesen Bio's clinical trials could reveal an unacceptably high severity and prevalence of side effects or serious adverse events. As a result, Sesen Bio's clinical trials could be suspended or terminated, and the FDA or comparable non-U.S. regulatory authorities could order Sesen Bio to cease further development or deny approval of Vicineum for the treatment of NMIBC. The related drug-side effects or serious adverse events in Sesen Bio's clinical trials could affect clinical trial patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims.

Additionally, even if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and receives marketing approval, and Sesen Bio or others later identify undesirable side effects or serious adverse events caused by Vicineum, a number of potentially significant negative consequences could result, including:

- Sesen Bio may suspend or be forced to suspend marketing of Vicineum for the treatment of NMIBC;
- Sesen Bio may be obliged to conduct a product recall or product withdrawal;
- regulatory authorities may suspend, vary, or withdraw their approvals of Vicineum for the treatment of NMIBC;
- regulatory authorities may order the seizure or recall of Vicineum;
- regulatory authorities may require additional warnings on the label or a REMS or other post-marketing obligations that could diminish the usage or otherwise limit the commercial success of Vicineum for the treatment of NMIBC;
- Sesen Bio may be required to conduct post-marketing studies;
- Sesen Bio could be sued and held liable for harm caused to patients;
- Sesen Bio could be required to pay fines and face other administrative, civil and criminal penalties; and
- Sesen Bio's reputation may suffer.

Any of these events could prevent Sesen Bio from achieving or maintaining market acceptance of Vicineum for the treatment of NMIBC, if approved.

The marketing approval process is expensive, time-consuming and uncertain. As a result, even if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, it cannot predict when or if it, or any licensees or partners, if any, will obtain marketing approval to commercialize Vicineum for the treatment of NMIBC.

Securing marketing approval requires the submission of extensive pre-clinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's quality, safety, and efficacy. The process of obtaining marketing approvals, both in the U.S. and abroad, is expensive and may take many years, especially if additional clinical trials are required, if approval is obtained at all. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following its discussions with the FDA. As a result of this decision, Sesen Bio no longer plans to pursue regulatory approval of Vysyneum for the treatment of NMIBC in the E.U.

Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, the FDA or other comparable non-U.S. regulatory authorities may determine that Vicineum is not safe, effective or of appropriate quality, is only moderately effective or has undesirable or unintended side effects, toxicities or other characteristics that preclude Sesen Bio obtaining marketing approval or prevent or limit commercial use. Any marketing approval Sesen Bio ultimately obtains may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

The different requirements and expectations of the non-U.S. regulatory authorities compared with the FDA may lengthen the regulatory review process, require Sesen Bio to conduct additional studies or clinical trials, increase its development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of these product candidates or lead to significant post approval limitations or restrictions. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and experiences delays in obtaining regulatory approvals, the commercial prospects for its product candidates may be harmed and its ability to generate revenues will be materially impaired.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, failure to obtain marketing approval in non-U.S. jurisdictions would prevent Vicineum for the treatment of NMIBC from being marketed abroad, and any approval Sesen Bio may be granted for Vicineum for the treatment of NMIBC in the U.S. would not assure approval of product candidates in non-U.S. jurisdictions.

In order to market and sell any product candidate that Sesen Bio may develop outside of the U.S., Sesen Bio or its third-party licensees or commercialization partners, if any, must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the U.S. generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the U.S. it is required that the product be approved for reimbursement before the product can be sold in that country. Sesen Bio or these third parties may not obtain approvals from regulatory authorities outside the U.S. on a timely basis, if at all. For example, on March 5, 2021, Sesen Bio submitted its MAA to the EMA for Vicineum for the treatment of BCG-unresponsive NMIBC under the EMA's centralized procedure. On August 20, 2021, Sesen Bio withdrew its MAA to the EMA for Vysyneum for the treatment of BCG-unresponsive NMIBC. Additionally, on October 20, 2021, the EMA issued its Withdrawal Assessment Report relating to Sesen Bio's MAA for Vysyneum, as is consistent with the EMA's standard practice when an MAA is withdrawn. The Assessment Report reflects the initial assessment and corresponding questions from the EMA and identifies major objections in the areas of quality, good clinical practice, efficacy and safety. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following its discussions with the FDA. As a result of this decision, Sesen Bio no longer plans to pursue regulatory approval of Vysyneum for the treatment NMIBC in the E.U.

Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the U.S. does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio may not be able to file for marketing approvals and may not receive necessary approvals to commercialize its products in any market. If Sesen Bio is unable to

obtain approval of its product candidates by regulatory authorities in other jurisdictions, the commercial prospects of its product candidates may be significantly diminished, and its business prospects could decline.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio would face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than Sesen Bio does.

The development and commercialization of new biologics products is highly competitive. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio would face competition from both large and small pharmaceutical, biopharmaceutical and biotechnology companies, academic institutions and other research organizations. There are a number of large pharmaceutical, biopharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of NMIBC. For instance, in January 2020, the FDA approved Merck & Co., Inc.'s Keytruda (pembrolizumab) as a systemic monotherapy to treat patients with BCG-unresponsive NMIBC with non-muscle invasive carcinoma in situ, or CIS, with or without papillary tumors who are ineligible for or have elected not to undergo cystectomy. In addition, FerGene Inc. is developing Adstiladrin (nadofaragene firadenovec (rAd-IFN/Syn3) for BCG-unresponsive NMIBC for the U.S. market. On May 17, 2020, the FDA issued a CRL that indicated outstanding questions regarding chemistry, manufacturing and controls, or CMC, issues of Adstiladrin. In September 2020, CG Oncology (CG0070, a recombinant adenovirus type 5, same type as Adstiladrin) initiated a Phase 3 study for the treatment of BCG-unresponsive patients with expected primary and study completion dates of December 2022 and December 2024, respectively. A combination trial with CG0070 and pembrolizumab was initiated in December 2020 (active not recruiting) with a primary completion date of June 2023. In December 2020, ImmunityBio (Anktiva/N-803 in combination with BCG) released preliminary Phase 2 data for the CIS cohort and filed its BLA with the FDA in May 2022. However, the Phase 2 trial did not include a BCG only control arm. The BLA for Anktiva was accepted by the FDA in July 2022 and a PDUFA date of May 23, 2023 has been set. In May 2020, the preliminary results of the Phase 2 study of Tecentriq for the treatment of BCG-unresponsive CIS patients were presented at American Society of Clinical Oncology, or ASCO, by the National Cancer Institute, or the NCI, which sponsored the trial. The data showed that the trial did not meet its primary endpoint and further development of Tecentriq remains uncertain. Finally, another route of administration for checkpoint inhibitors is currently being evaluated by Pfizer with the subcutaneous administration of Sasanlimab (PF-06801591) for the treatment of BCG-unresponsive NMIBC patients. There is intense and rapidly evolving competition in the biotechnology, biopharmaceutical and antibody fragment and immuno-oncology therapeutics fields. Some of these competitive products and therapies are based on scientific approaches that are similar to Sesen Bio's approach, and others are based on entirely different approaches, including the emerging use of generic intravesical chemotherapy agents, such as mytomycin-C, Gemcytabine and Gemcytobine + Docetaxel.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, its commercial opportunity could be reduced or eliminated if its competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than product candidates that Sesen Bio may develop. Sesen Bio's competitors also may obtain FDA or other regulatory approval for their products more rapidly than Sesen Bio may obtain approval for Vicineum, which could result in its competitors establishing a strong market position before Sesen Bio is able to enter the market.

In addition, Sesen Bio's ability to compete may be affected in many cases by insurers or other third-party payors, particularly Medicare, seeking to encourage the use of generic drug products. Generic products are currently being used as part of the standard of care for the indications that Sesen Bio has been pursuing, and additional products are expected to become available on a generic basis over the coming years. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and Vicineum achieves marketing approval, Sesen Bio expects that it will be priced at a significant premium over competitive generic products.

More established companies may have a competitive advantage over Sesen Bio due to their greater size, cash resources and institutional experience. Compared to Sesen Bio, many of its competitors may have significantly greater financial, technical and human resources. As a result of these factors, its competitors may obtain regulatory approval of their product candidates before Sesen Bio is able to, which may limit its ability to develop or commercialize its product candidates. Sesen Bio's competitors may also develop drugs that are safer, more effective, more widely used and less expensive than Sesen Bio's and may also be more successful than Sesen Bio in manufacturing and marketing their products. These appreciable advantages could render Vicineum obsolete or non-competitive before Sesen Bio can recover the expenses of development and commercialization.

Risks Related to Sesen Bio's Dependence on Third Parties if the Merger is Not Completed

Sesen Bio will depend on Qilu Pharmaceutical Co., Ltd., or Qilu, for the development and commercialization of Vicineum in Greater China.

On July 30, 2020, Sesen Bio entered into a license agreement, with Qilu, or the Qilu License Agreement. Under the terms of the Qilu License Agreement, Qilu has an exclusive license to manufacture, develop and commercialize Vicineum in Greater China, including mainland China, Hong Kong, Macau and Taiwan. The timing and amount of any milestone and royalty payments Sesen Bio may receive under the Qilu License Agreement will depend in part on Qilu's efforts. Sesen Bio will also depend on Qilu to comply with all applicable laws relative to the manufacturing, development and commercialization of Vicineum in Greater China. Sesen Bio does not control the individual efforts of Qilu, and any failure by Qilu to devote sufficient time and effort to the manufacture, development and commercialization of Vicineum could have a material adverse impact on Sesen Bio's financial results and operations, such as by a failure of Qilu to meet its obligations to Sesen Bio, including future milestone and royalty payments. In addition, if Qilu were to violate, or was alleged to have violated, any laws or regulations during the performance of its obligations for Sesen Bio, it is possible that Sesen Bio could suffer financial and reputational harm or other negative outcomes, including possible legal consequences.

Any termination, breach or expiration of the Qilu License Agreement could have a material adverse effect on Sesen Bio's financial position by reducing or eliminating the potential for Sesen Bio to receive milestones and royalties. In such an event, Sesen Bio may be required to devote additional efforts and to incur additional costs associated with pursuing the manufacture, development and commercialization of Vicineum in Greater China. If Sesen Bio breaches its obligations under the Qilu License Agreement and is unable to cure such breach, Qilu may terminate the Qilu License Agreement and retain all rights to manufacture, develop and commercialize Vicineum in Greater China with no obligation to make any additional milestone or royalty payments. Qilu has the right to receive a refund of all amounts paid to Sesen Bio in the event the Qilu License Agreement is terminated under certain circumstances. In addition, the royalty rate is subject to reduction under certain circumstances, including when there is no valid claim of a licensed patent for Vicineum in a particular region or no data or regulatory exclusivity for Vicineum in a particular region.

Sesen Bio has historically relied on third parties to conduct its pre-clinical studies and clinical trials. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and if these third parties do not successfully carry out their contractual duties or meet expected deadlines, Sesen Bio may not be able to obtain regulatory approval for or commercialize Vicineum for the treatment of NMIBC.

Sesen Bio relies on domestic and international third-party CROs to monitor and manage data for its pre-clinical and clinical programs. Sesen Bio relies on these parties for execution of its pre-clinical studies and clinical trials, and Sesen Bio controls only some aspects of their activities. Nevertheless, Sesen Bio is responsible for ensuring that each of its pre-clinical studies and clinical trials is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and its reliance on the CROs does not relieve Sesen Bio of its regulatory responsibilities. Sesen Bio also relies on third parties to assist in conducting its pre-clinical studies in accordance with the FDA's current Good Laboratory Practice, or GLP, and the Animal Welfare Act requirements. Sesen Bio and its CROs are required to comply with U.S. federal regulations and current Good Clinical Practices, or GCP, which are international standards meant to protect the rights and health of patients and assure the credibility of clinical trial data that are enforced by the FDA and comparable non-U.S. regulatory authorities for all of its product candidates in clinical development. Regulatory authorities enforce GCP through periodic inspections of trial sponsors, principal investigators and trial sites. If Sesen Bio or any of its CROs fail to comply with applicable GCP, the clinical data generated in its clinical trials may be deemed unreliable and the FDA or comparable non-U.S. regulatory authorities may require Sesen Bio to perform additional clinical trials before approving its marketing applications.

On October 27, 2021, the FDA published a Warning Letter, or the FDA Warning Letter, issued to a former clinical investigator in Sesen Bio's VISTA trial for Vicineum arising from a 2021 FDA inspection related to the review of Sesen Bio's BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. Sesen Bio discontinued use of the clinical site and the clinical investigator over four years ago when it learned of professional misconduct by the clinical investigator that was unrelated to the VISTA trial. The FDA Warning Letter indicated that the clinical investigator did not comply with applicable statutory requirements and applicable regulations regarding conduct of clinical investigations. The clinical investigator's medical license was temporarily suspended on May 29, 2017, due to inaccurate recordkeeping, which was unassociated with Sesen Bio and the patients in the VISTA trial. Sesen Bio notified the FDA of the misconduct at that time. There was no evidence found that patients were harmed by the clinical investigator's

actions. Sesen Bio included the corresponding patient data from the clinical site in the BLA submission to the FDA, which were thoroughly analyzed and discussed during the BLA review.

Sesen Bio cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of its clinical trials comply with GCP requirements. In addition, its clinical trials must be conducted with product produced under current good manufacturing process, or cGMP, requirements. Failure to comply with these regulations may require Sesen Bio to repeat pre-clinical studies and clinical trials, which would delay the regulatory approval process.

Sesen Bio's CROs are not its employees, and except for remedies available to Sesen Bio under its agreements with such CROs, Sesen Bio cannot control whether or not they devote sufficient time and resources to its ongoing clinical, non-clinical and pre-clinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to its protocols, regulatory requirements or for other reasons, its pre-clinical studies and clinical trials may be extended, delayed or terminated and Sesen Bio may not be able to obtain regulatory approval for or successfully commercialize its product candidates. As a result, its results of operations and the commercial prospects for its product candidates would be harmed, its costs could increase and its ability to generate revenues could be delayed.

Because Sesen Bio relied, and will continue to rely, on third parties, its internal capacity to perform these functions is limited. Outsourcing these functions involves risk that third parties may not perform to its standards, may not produce results in a timely manner or may fail to perform at all. In addition, the use of third-party service providers requires Sesen Bio to disclose its proprietary information to these parties, which could increase the risk that this information will be misappropriated. Sesen Bio currently has a small number of employees, which limits the internal resources Sesen Bio has available to identify and monitor its third-party providers. To the extent Sesen Bio is unable to identify and successfully manage the performance of third-party service providers in the future, its business may be adversely affected. Though Sesen Bio carefully manages its relationships with its CROs, there can be no assurance that Sesen Bio will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on its business, financial condition and prospects.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio would likely be dependent on third-party manufacturers, as well as third parties for Sesen Bio's supply chain, which would expose Sesen Bio to a number of risks that may delay development, regulatory approval and commercialization or result in higher product costs.

In connection with Sesen Bio's decision to voluntarily pause further development of Vicineum, Sesen Bio terminated its agreements with its CMOs and requested that such manufacturers cease all work under the respective agreements and refrain from incurring any additional costs or expenses.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio would likely be dependent on third-party manufacturers, as well as third parties for Sesen Bio's supply chain. Sesen Bio's reliance on third-party manufacturers would expose it to certain risks that it would not be subject to if Sesen Bio manufactured Vicineum itself, including:

- It may be difficult or impossible for Sesen Bio to find replacement manufacturers on acceptable terms quickly, or at all. Identifying alternate manufacturers may be difficult because the number of potential manufacturers that have the necessary expertise to produce biologics is limited. Additionally, the FDA must approve any alternative manufacturer before Sesen Bio may use the alternative manufacturer to produce clinical supply of Vicineum.

- The development of manufacturing capabilities to produce clinical supply of Vicineum may require Sesen Bio's third-party manufacturers to invest substantial additional funds and to hire and retain technical personnel who have the necessary manufacturing experience. Sesen Bio's third-party manufacturers may fail to devote sufficient time and resources to develop the capabilities to manufacture Vicineum.

- Because of the complex nature of Vicineum, Sesen Bio's third-party manufacturers, or other third parties it relies on, may encounter difficulties in achieving the volume of production needed to satisfy its clinical supply demands, may not be able to achieve such volume at an acceptable cost, may experience technical issues that impact comparability, quality, or compliance with applicable regulations governing the manufacture of biological products, and may experience shortages of qualified personnel to adequately staff production operations.

- Sesen Bio's third-party manufacturers could default on their agreements with Sesen Bio to meet its requirements for supply of Vicineum, or they may terminate or decide not to renew their agreements with Sesen Bio, based on their own business priorities, at a time that is costly or damaging to Sesen Bio. If Sesen Bio's third-party manufacturers were to terminate its arrangements or fail to meet its manufacturing demands, Sesen Bio may be delayed in its ability to obtain and maintain regulatory approval of Vicineum for the treatment of NMIBC.

- If any third-party manufacturer makes improvements in the manufacturing process for Vicineum, Sesen Bio may not own, or may have to share, the intellectual property rights to such improvements.

- A third-party manufacturer may gain knowledge from working with Sesen Bio that could be used to supply one of its competitors with a product that competes with Sesen Bio's.

Sesen Bio's reliance on third-party manufacturers reduces its control over production and supply of Vicineum but does not relieve Sesen Bio of its responsibility to ensure compliance with applicable legal and regulatory standards. The FDA and other non-U.S. regulatory authorities require that Sesen Bio's product candidates and any products that it may eventually commercialize be manufactured according to cGMP and similar non-U.S. standards. Methods of manufacture as well as validation of manufacturing procedures and quality control systems are reviewed by regulatory authorities, such as the FDA and other comparable non-U.S. regulatory authorities, to determine their effect on the quality, purity and potency of product candidates. All such manufacturing procedures, validation programs and quality assessment activities must be properly documented in accordance with regulatory requirements. Any failure by Sesen Bio's third-party manufacturers to comply with cGMP or similar non-U.S. standards, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in or failure to obtain regulatory approval of Vicineum for the treatment of NMIBC if Sesen Bio resumes clinical development of Vicineum. For example, Sesen Bio may be unable to resolve the issues raised in the CRL pertaining to a recent pre-approval inspection and product quality.

In addition, a failure by Sesen Bio's third-party manufactures to comply with cGMP or similar non-U.S. standards could be the basis for the FDA or any other non-U.S. regulatory authorities to issue a warning or untitled letter, withdraw approvals for product candidates previously granted to Sesen Bio or take other regulatory or legal action, including recall or seizure, total or partial suspension of production, suspension of ongoing clinical trials, refusal to approve pending applications or supplemental applications, detention of product, refusal to permit the import or export of products, injunction, imposing administrative or civil penalties or pursuing criminal prosecution.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and if Sesen Bio or its third-party manufacturers fail to comply with environmental, health and safety laws and regulations, Sesen Bio could become subject to fines or penalties or incur significant costs.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMBIC and engages third-party manufacturers, such manufacturers would be subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Any such operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may produce hazardous waste products. Historically, Sesen Bio has generally contracted with third parties for the disposal of these materials and wastes. Sesen Bio cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from its use of hazardous materials, Sesen Bio could be held liable for any resulting damages and any liability could exceed its resources. Sesen Bio also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Although Sesen Bio maintains workers' compensation insurance to cover it for costs and expenses it may incur due to injuries to its employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. Sesen Bio does not maintain insurance for environmental liability or toxic tort claims that may be asserted against it in connection with its storage or disposal of biological, hazardous or radioactive materials.

In addition, if Sesen Bio resumes clinical development of Vicineum, Sesen Bio may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair its research, development or production efforts. Sesen Bio's failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Further, with respect to the operations of third-party contract manufacturers, if any, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with its products, Sesen Bio could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of its product candidates or products.

Risks Related to Sesen Bio's Intellectual Property if the Merger is Not Completed

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC and is unable to obtain and maintain patent protection for its technology or products, or if its licensors are unable to obtain and maintain patent protection for the technology or products that Sesen Bio licenses from them, or if the scope of the patent protection obtained is not sufficiently broad, Sesen Bio's competitors could develop and commercialize technology and products similar or identical to theirs, and its ability to successfully commercialize it technology and products may be impaired.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio's success depends in large part on the ability of both it and its licensors' to obtain and maintain patent protection in the U.S. and other countries with respect to Vicineum and its other proprietary technology and product candidates. Sesen Bio and its licensors have sought to protect Sesen Bio's proprietary position by filing patent applications in the U.S. and abroad related to its novel technologies and product candidates. The patent prosecution process is expensive and time-consuming, and Sesen Bio may not be able to file and prosecute all necessary or desirable patent applications in jurisdictions of interest at a reasonable cost or in a timely manner. It is also possible that Sesen Bio will fail to identify patentable aspects of its research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, Sesen Bio does not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that it licenses from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of Sesen Bio's business. If such licensors fail to maintain such patents, or lose rights to those patents, the rights Sesen Bio has licensed may be reduced or eliminated.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of Sesen Bio's and its licensors' patent rights are highly uncertain. Sesen Bio's and its licensors' pending and future patent applications may not result in patents being issued which protect its technology or products or which effectively prevent others from commercializing competitive technologies and products. In addition, the laws of non-U.S. countries may not protect Sesen Bio's rights to the same extent as the laws of the U.S. For example, European patent law restricts the patentability of methods of treatment of the human body more than U.S. law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the U.S. and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, Sesen Bio cannot know with certainty whether it or its licensors were the first to make the inventions claimed in its owned or licensed patents or pending patent applications, or that Sesen Bio or its licensors were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of Sesen Bio's owned or licensed patent rights are highly uncertain. Sesen Bio's pending and future patent applications may not result in patents being issued which protect its technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. In particular, during prosecution of any patent application, the issuance of any patents based on the application may depend upon Sesen Bio's ability to generate additional pre-clinical or clinical data that support the patentability of its proposed claims. Sesen Bio may not be able to generate sufficient additional data on a timely basis, or at all. Moreover, changes in either the patent laws or interpretation of the patent laws in the U.S. and other countries may diminish the value of Sesen Bio's patents or narrow the scope of Sesen Bio's patent protection.

Moreover, Sesen Bio may be subject to a third-party preissuance submission of prior art to the U.S. Patent and Trademark Office, or the USPTO, or become involved in opposition, derivation, reexamination, inter partes review, post-grant review or interference proceedings challenging its patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, Sesen Bio's patent rights, allow third parties to commercialize its technology or products and compete directly with Sesen Bio, without payment to it, or result in Sesen Bio's inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by Sesen Bio's patents and patent applications is threatened, it could dissuade companies from collaborating with Sesen Bio to license, develop or commercialize current or future product candidates. In addition, invalidation of Sesen Bio's patent rights by third parties could jeopardize the anticipated revenue streams from current licensees.

Even if Sesen Bio's owned and licensed patent applications issue as patents, they may not issue in a form that will provide Sesen Bio with any meaningful protection, prevent competitors from competing with Sesen Bio or otherwise provide Sesen Bio with any competitive advantage. Sesen Bio's competitors may be able to circumvent Sesen Bio's owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and Sesen Bio's owned and licensed patents may be challenged in the courts or patent offices in the U.S. and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit Sesen Bio's ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of its technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, Sesen Bio's owned and licensed patent portfolio may not provide it with sufficient rights to exclude others from commercializing products similar or identical to Sesen Bio's.

Sesen Bio may not be able to protect its intellectual property rights throughout the world.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, filing, prosecuting and defending patents on Vicineum and Sesen Bio's other product candidates and technologies throughout the world would be prohibitively expensive, and Sesen Bio's or its licensors' intellectual property rights in some countries outside the U.S. can be less extensive than those in the U.S. In addition, the laws and practices of countries outside the U.S. do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Moreover, the intellectual property laws of the U.S. change over time. For example, several United States Supreme Court cases have redefined what is considered to be patentable subject matter. Consequently, if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, Sesen Bio and its licensors may not be able to prevent third parties from practicing Sesen Bio's and its licensors' inventions in all countries inside or outside the U.S., or from selling or importing products made using Sesen Bio's and its licensors' inventions in and into the U.S. or other jurisdictions. Competitors may use Sesen Bio's technologies in jurisdictions where it has not obtained patent protection to develop their own products and may export infringing products to territories where Sesen Bio or its licensors have patent protection, but where enforcement is not as strong as in the U.S. These products may compete with Sesen Bio's products in jurisdictions where it does not have any issued patents and Sesen Bio's patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in non-U.S. jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for Sesen Bio to stop the infringement of Sesen Bio's or its licensor's patents or marketing of competing products in violation of Sesen Bio's proprietary rights generally in those countries. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, proceedings to enforce Sesen Bio's patent rights in non-U.S. jurisdictions could result in substantial cost and divert its efforts and attention from other aspects of its business, could put Sesen Bio's and its licensors' patents at risk of being invalidated or being interpreted narrowly and put Sesen Bio's and its licensors' patent applications at risk of not issuing and could provoke third parties to assert claims against Sesen Bio or its licensors. Sesen Bio or its licensors may not prevail in any lawsuits that Sesen Bio or its licensors initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

The laws of certain countries outside of the U.S. may not protect Sesen Bio's rights to the same extent as the laws of the U.S., and such laws may also be subject to change. For example, methods of treatment and manufacturing processes may not be patentable in certain jurisdictions, and the requirements for patentability may differ in certain countries, particularly developing countries. Furthermore, generic and/or biosimilar product manufacturers or other competitors may challenge the scope, validity or enforceability of Sesen Bio's or its licensors' patents, requiring Sesen Bio or its licensors to engage in complex, lengthy and costly litigation or other proceedings.

Generic or biosimilar product manufacturers may develop, seek approval for, and generic versions or biosimilar versions, respectively, of Sesen Bio's products. The FDA has published several guidance documents on biosimilar product development. If a biosimilar product is also found to be interchangeable with a reference product, it may be substituted for the reference product. Complexities associated with the larger, and often more complex, structures of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation, which are still being worked out by the FDA. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and if Vicineum is approved by the FDA, the approval of

a biologic product biosimilar to or interchangeable with Vicineum could have a material impact on Sesen Bio's business. In particular, a biosimilar could be significantly less costly to bring to market and priced significantly lower than Sesen Bio's products, if approved by the FDA.

Many countries, including E.U. countries, have compulsory licensing laws under which a patent owner may be compelled under certain circumstances to grant licenses to third parties. In those countries, Sesen Bio and its licensors may have limited remedies if patents are infringed or if Sesen Bio or its licensors are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit Sesen Bio's potential revenue opportunities. Accordingly, Sesen Bio's and its licensors' efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that Sesen Bio owns or licenses.

Sesen Bio has been dependent on its license agreements with the University of Zurich, or Zurich, Micromet AG, or Micromet, and XOMA Ireland Limited, or XOMA, and if Sesen Bio cannot meet the requirements under the agreements, it could lose important rights to Vicineum, which could have material adverse effect on Sesen Bio's business if it resumes clinical development of Vicineum for the treatment of NMIBC.

Sesen Bio has an exclusive license agreement with Zurich, or the Zurich License Agreement. Pursuant to the Zurich License Agreement, Sesen Bio was granted an exclusive license, with the right to sublicense, under certain patents primarily relating, in part, to Sesen Bio's targeting agents, EpCAM chimera and immunoconjugates (including aspects of Vicineum for the treatment of NMIBC and Vicineum for the treatment of SCCHN) and methods of use, to make, use, sell and import products that would otherwise infringe such patents in the field of the treatment, stasis and palliation of disease in humans. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and if Sesen Bio fails to meet its obligations under the Zurich License Agreement, Zurich may have the right to terminate Sesen Bio's license, and upon the effective date of such termination, Sesen Bio's right to use the licensed Zurich patent rights would end. To the extent such licensed technology or patent rights relate to Sesen Bio's product candidates, Sesen Bio would expect to exercise all rights and remedies available to it, including attempting to cure any breach by Sesen Bio, and otherwise seek to preserve its rights under the patent rights licensed to Sesen Bio, but it may not be able to do so in a timely manner, at an acceptable cost to Sesen Bio or at all. Any uncured, material breach under the Zurich License Agreement could result in Sesen Bio's loss of rights to practice the patent rights licensed to it under the Zurich License Agreement, and to the extent such patent rights and other technology relate to its product candidates or other of its compounds, it could have a material adverse effect on Sesen Bio's ability to complete a sale of its Vicineum asset to a potential partner or the ability of Qilu to commercialize Vicineum in Greater China.

Sesen Bio also has a license agreement with Micromet, or the Micromet License Agreement, which grants it non-exclusive rights, with certain sublicense rights, for know-how and patents allowing exploitation of certain single chain antibody products. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and if Sesen Bio fails to meet its obligations under the Micromet License Agreement, Micromet may have the right to terminate Sesen Bio's license, and upon the effective date of such termination, Sesen Bio's right to use the licensed Micromet patent rights would end. To the extent such licensed technology or patent rights relate to Sesen Bio's product candidates, Sesen Bio would expect to exercise all rights and remedies available to it, including attempting to cure any breach by Sesen Bio, and otherwise seek to preserve its rights under the patent rights licensed to it, but Sesen Bio may not be able to do so in a timely manner, at an acceptable cost to Sesen Bio or at all. Any uncured, material breach under the Micromet License Agreement could result in Sesen Bio's loss of rights to practice the patent rights licensed to it under the Micromet License Agreement, and to the extent such patent rights and other technology relate to its product candidates or other of its compounds, it could have a material adverse effect on Sesen Bio's ability to complete a sale of its Vicineum asset to a potential partner or the ability of Qilu to commercialize Vicineum in Greater China.

Sesen Bio also has a license agreement with XOMA, or the XOMA License Agreement, which grants Sesen Bio non-exclusive rights, with certain sublicense rights, to certain XOMA patent rights and know-how related to certain expression technology, including plasmids, expression strains, plasmid maps and production systems. If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and if Sesen Bio's fails to meet its obligations under the XOMA License Agreement, XOMA may have the right to terminate Sesen Bio's license, and upon the effective date of such termination, Sesen Bio's right to use the licensed XOMA patent rights and related know-how would end. To the extent such licensed technology or patent rights relate to Sesen Bio's product candidates, Sesen Bio would expect to exercise all rights and remedies available to it, including attempting to cure any breach by Sesen Bio, and otherwise seek to preserve its rights under the patent rights licensed to it, but Sesen Bio may not be able to do so in a timely manner, at an acceptable cost to Sesen Bio or at all. Any uncured, material breach under the XOMA License Agreement could

result in Sesen Bio's loss of rights to practice the patent rights licensed to it under the XOMA License Agreement, and to the extent such patent rights and other technology relate to Sesen Bio's product candidates or other of its compounds, it could have a material adverse effect on Sesen Bio's ability to complete a sale of its Vicineum asset to a potential partner or the ability of Qilu to commercialize Vicineum in Greater China.

Sesen Bio may become involved in lawsuits to protect or enforce its patents or other intellectual property, which could be expensive, time consuming and unsuccessful.

If the merger is not completed and Sesen Bio does not pursue a liquidation and dissolution or alternative strategic transaction, competitors may infringe Sesen Bio's issued patents or other intellectual property. To counter infringement or unauthorized use, Sesen Bio may be required to file infringement claims, which can be expensive and time consuming. Any claims Sesen Bio asserts against perceived infringers could provoke these parties to assert counterclaims against it alleging that Sesen Bio infringes their patents, trademarks or other intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of Sesen Bio's is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that Sesen Bio's patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of Sesen Bio's patents at risk of being invalidated or interpreted narrowly. In a trademark infringement proceeding, Sesen Bio could be enjoined from continued use of a trademark deemed to be infringing and forced to rebrand product packaging, product inserts, market and advertising materials, resulting in a loss of sales and established goodwill in that name or mark. In addition, Sesen Bio could be found liable for monetary damages, including treble damages and attorneys' fees if it is found to have willfully infringed a trademark.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Sesen Bio's confidential information could be compromised by disclosure during this type of litigation. Even if resolved in Sesen Bio's favor, litigation or other legal proceedings relating to intellectual property claims may cause Sesen Bio to incur significant expenses and could distract its technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of Sesen Bio's common stock.

Third parties may initiate legal proceedings alleging that Sesen Bio is infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of Sesen Bio's business.

Sesen Bio's only prospective revenue streams currently depends upon the ability of Roche and Qilu to develop, manufacture, market and/or sell certain of Sesen Bio's legacy technology and Vicineum, respectively, without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. Sesen Bio, Roche or Qilu may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to Sesen Bio's current or former products and technology, including interference or derivation proceedings before the USPTO. The risks of being involved in such litigation and proceedings may increase as Sesen Bio gains the greater visibility associated with seeking strategic alternatives. Third parties may assert infringement claims against Sesen Bio, Roche or Qilu based on existing patents or patents that may be granted in the future. Sesen Bio may not be aware of all such intellectual property rights potentially relating to its former product candidates and their uses. Thus, Sesen Bio does not know with certainty that any product candidate, or commercialization thereof, does not and will not infringe or otherwise violate any third party's intellectual property.

If Sesen Bio, Roche or Qilu are found to infringe a third party's intellectual property rights, Sesen Bio could be required to obtain a license from such third party to continue developing and marketing Sesen Bio's products and technology. However, Sesen Bio may not be able to obtain any required license on commercially reasonable terms or at all. Even if Sesen Bio were able to obtain a license, it could be non-exclusive, thereby giving its competitors access to the same technologies licensed to Sesen Bio. Sesen Bio, Roche or Qilu could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, Sesen Bio, Roche or Qilu could be found liable for monetary damages, including treble damages and attorneys' fees if Sesen Bio, Roche or Qilu is found to have willfully infringed a patent. A finding of infringement could prevent Roche or Qilu from commercializing Sesen Bio's former product candidates. Claims that Sesen Bio has misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on Sesen Bio's ability to profit from the Roche Asset Purchase Agreement or the Qilu License Agreement.

Risks Related to Regulatory Compliance if the Merger is Not Completed

Sesen Bio's failure to comply with data protection laws and regulations could lead to government enforcement actions and significant penalties against Sesen Bio, and adversely impact its operating results.

The regulatory environment surrounding information security, data collection, and privacy is increasingly demanding. In the U.S., Sesen Bio is subject to a number of data protection laws and regulations (i.e., laws and regulations that address privacy and data security) at both the federal and state levels. The legislative and regulatory landscape for data protection continues to evolve, and in recent years there has been an increasing focus on privacy and data security issues. Numerous federal and state laws, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws, such as Section 5 of the Federal Trade Commission Act, govern the collection, use, and disclosure of health-related and other personal information.

In addition, Sesen Bio may obtain health information from third parties that are subject to privacy and security requirements in the U.S. under the Health Insurance Portability and Accountability Act, or HIPAA. Although Sesen Bio is not directly subject to HIPAA — other than potentially with respect to providing certain employee benefits — Sesen Bio could be subject to criminal penalties if Sesen Bio knowingly obtains, uses or discloses individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA. Finally, a data breach affecting sensitive personal information, including health information, could result in significant legal and financial exposure and reputational damages that could potentially have an adverse effect on Sesen Bio's business.

In addition to U.S. data protection laws and regulations, Sesen Bio also may be subject to European and other international data protection requirements, such as the E.U. General Data Protection Regulation. Sesen Bio failures to comply with data privacy and security laws and regulations, or changes in the way in which these laws are implemented, could lead to unfavorable outcomes, including increased compliance costs, delays or impediments in the development of new products, increased operating costs, diversion of management time and attention, regulatory liability as a result of government enforcement actions and significant penalties against Sesen Bio, civil liability as a result of claims initiated by data subjects (including claims initiated as class actions) contracting parties or other third parties as a result of non-compliance with data protection laws and/or contractual obligations, and adverse publicity that could negatively affect Sesen Bio's operating results, financial condition and Sesen Bio's overall and business. Federal regulators, state attorneys general, and plaintiffs' attorneys, including class action attorneys, have been and will likely continue to be active in this space. Such liabilities could adversely impact Sesen Bio's results of operations, financial condition and its overall business.

If Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, laws and regulations governing any international operations Sesen Bio may have in the future may preclude Sesen Bio from developing, manufacturing and selling certain products outside of the U.S. and require Sesen Bio to develop and implement costly compliance programs.

If the merger is not consummated and Sesen Bio does not decide to pursue a liquidation and dissolution or alternative strategic transaction, Sesen Bio must dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which Sesen Bio operates. The Foreign Corrupt Practices Act, or the FCPA, prohibits any U.S. individual or business from paying, offering, authorizing payment or offering of anything of value, directly or indirectly, to any non-U.S. official, political party or candidate for the purpose of influencing any act or decision of the non-U.S. entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the U.S. to comply with certain accounting provisions requiring Sesen Bio to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered non-U.S. officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the U.S., or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If the merger is not consummated and Sesen Bio does not decide to pursue a liquidation and dissolution or alternative strategic transaction, and if Sesen Bio expands its presence outside of the U.S., it will require Sesen Bio to dedicate

additional resources to comply with these laws, and these laws may preclude Sesen Bio from developing, manufacturing, or selling certain products and product candidates outside of the U.S., which could limit Sesen Bio's growth potential and increase its development costs.

The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

If the merger is not consummated and Sesen Bio does not decide to pursue a liquidation and dissolution or alternative strategic transaction, Sesen Bio's employees may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, which could cause significant liability for Sesen Bio and harm its reputation.

If the merger is not consummated and Sesen Bio does not decide to pursue a liquidation and dissolution or alternative strategic transaction, Sesen Bio could be exposed to the risk of employee fraud or other misconduct, including intentional failure to comply with FDA regulations or similar regulations of comparable non-U.S. regulatory authorities, failure to provide accurate information to the FDA or comparable non-U.S. regulatory authorities, including the competent authorities of the E.U. member states, failure to comply with manufacturing standards Sesen Bio has established, if any, failure to comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable non-U.S. regulatory authorities, and failure to report financial information or data accurately or disclose unauthorized activities to Sesen Bio. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Sesen Bio's reputation. It is not always possible to identify and deter employee misconduct, and the precautions Sesen Bio takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting Sesen Bio from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards or regulations. If any such actions are instituted against Sesen Bio, and it is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business and results of operations, including the imposition of significant fines or other sanctions.

Risks Related to Sesen Bio's Business if the Merger is Not Completed

Sesen Bio relies significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cyber security incidents, could materially adversely affect its business.

In the ordinary course of business, Sesen Bio relies on information technology networks and systems, some of which are provided, hosted or managed by third parties, to collect, store, process and transmit electronic data. In addition, Sesen Bio handles certain data, including proprietary business information and personal information that is subject to data protection laws and regulations. Despite the implementation of security measures, Sesen Bio's internal computer systems and those of third parties with which it contracts are vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. System failures, accidents or security breaches could cause interruptions in Sesen Bio's operations and could result in a material disruption of its clinical and commercialization activities, if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. The loss of clinical trial data could result in delays in Sesen Bio's regulatory approval efforts, if Sesen Bio resumes clinical development of Vicineum for the treatment of NMIBC, and significantly increase its costs to recover or reproduce the data.

Although Sesen Bio has implemented processes, procedures, and controls to help mitigate the risks associated with a cyber security incident, there can be no assurance that these measures will be sufficient for all possible situations. Even security measures that are appropriate, reasonable, and/or in accordance with applicable legal requirements may not be able to protect the networks, systems and information that Sesen Bio maintains and those of third parties with which Sesen Bio contracts. Unauthorized parties, whether within or outside Sesen Bio, may disrupt or gain access to its systems, or those of third parties with whom Sesen Bio does business, through human error, misfeasance, fraud, trickery or other forms of deceit, including break-ins, use of stolen credentials, social engineering, phishing, ransomware, computer viruses or other malicious codes, and similar means of unauthorized and destructive tampering. Even the most well-protected information, networks, systems and facilities remain potentially vulnerable because the techniques used in such attempted cyber security incidents evolve and generally are not recognized until launched against a target. Accordingly, Sesen Bio may be unable to anticipate these techniques or to implement adequate security barriers or other

preventative measures, making it impossible for Sesen Bio to entirely mitigate this risk. While Sesen Bio has experienced, and expects to continue to experience, threats and disruptions to its information technology infrastructure, none of them to date has had a material impact on its business or operations. To the extent that any disruption or security breach were to result in a loss of, or damage to, its data or applications, or inappropriate disclosure of confidential or proprietary information, its clinical development of Vicineum for the treatment of NMIBC could be delayed if Sesen Bio resumes such clinical development, or Sesen Bio could be subject to regulatory and other government investigations, enforcement actions, or incur liability, substantial fines or costs, any of which could materially adversely affect its business, its reputation, results of operations and financial condition. Although Sesen Bio maintains insurance coverage for various cyber security risks, there can be no guarantee that all costs or losses incurred will be fully insured.

Sesen Bio and certain of its officers have been named as defendants in three pending securities class action lawsuits and three related shareholder derivative lawsuits have been filed. These lawsuits, and potential similar or related lawsuits, could result in substantial damages, divert Sesen Bio management's time and attention from Sesen Bio's business, and have a material adverse effect on Sesen Bio's results of operations. These lawsuits, and any other lawsuits to which Sesen Bio is subject, will be costly to defend and are uncertain in their outcome.

On August 19, 2021, August 31, 2021, and October 7, 2021, three substantially identical securities class action lawsuits captioned *Bibb v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-07025, *Cizek v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-07309 and *Markman v. Sesen Bio, Inc. et al.*, Case No. 1:21-cv-08308 were filed against Sesen Bio and certain of its officers in the U.S. District Court for the Southern District of New York. The three complaints alleged violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder based on statements made by Sesen Bio concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The three complaints sought compensatory damages and costs and expenses, including attorneys' fees. On October 29, 2021, the court consolidated the three cases under the caption *In re Sesen Bio, Inc. Securities Litigation*, Master File No. 1:21-cv-07025-AKH, or the Securities Litigation, and appointed Ryan Bibb, Rodney Samaan, Lionel Dreshaj and Benjamin Dreshaj as the lead plaintiffs, or collectively, the Lead Plaintiffs, under the Private Securities Litigation Reform Act. On November 1, 2021, two stockholders filed motions to reconsider asking the court to appoint a different lead plaintiff. On November 24, 2021, defendants filed a motion to transfer venue to the U.S. District Court for the District of Massachusetts. That motion was fully briefed as of December 13, 2021, but the court has not ruled on that motion. On December 6, 2021, the Lead Plaintiffs filed an amended class action complaint, or the Amended Complaint. The Amended Complaint alleges the same violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder on the same theory as the prior complaints. The defendants moved to dismiss the Amended Complaint on March 7, 2022, and that motion was fully briefed on May 6, 2022. On June 3, 2022, before the court ruled on the motion to dismiss, the parties requested that the court hold any decision on the motion to dismiss in abeyance to provide the parties with an opportunity to engage in mediation. On June 30, 2022 and July 6, 2022, Sesen Bio and the plaintiffs engaged in mediation sessions in an attempt to resolve the Securities Litigation and continued to discuss a potential settlement over the following weeks. On July 19, 2022, the parties reached an agreement in principle to settle the Securities Litigation. Pursuant to that agreement, Sesen Bio and the individual defendants will pay or cause to be paid to members of the class who submit timely and valid proofs of claims. In exchange, the Lead Plaintiffs will dismiss the action and all class members who do not timely and validly opt-out of the settlement will provide broad customary releases to Sesen Bio and the individual defendants. On August 3, 2022, the parties entered into a Stipulation and Agreement of Settlement to settle the Securities Litigation, which was filed with the court on August 17, 2022. The Stipulation and Agreement of Settlement related to the Securities Litigation provides for a settlement payment of $21.0 million to the class and the dismissal of all claims against Sesen Bio and the other defendants. The settlement payment is being funded by Sesen Bio and its insurance carriers. On September 1, 2022, the U.S. District Court for the Southern District of New York issued an order denying the motions to appoint a different lead plaintiff. On September 28, 2022, the court issued an order granting preliminary approval of the proposed settlement of the Securities Litigation. The court has set a final settlement approval hearing for January 23, 2023 at 10:00 a.m. local time.

On September 20, 2021 and September 24, 2021, two substantially similar derivative lawsuits captioned *Myers v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-11538 and *D'Arcy v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-11577 were filed against the Sesen Bio board of directors and certain of its officers in the U.S. District Court for the District of Massachusetts, with Sesen Bio, Inc. named as nominal defendant. On January 12, 2022, a third derivative complaint captioned *Tang v. Sesen Bio, Inc., et al.*, was filed in Superior Court in Massachusetts against the Sesen Bio board of directors and certain of its officers, or the State Derivative Litigation. The three derivative complaints allege breach of fiduciary duties, waste of corporate assets, and violations of federal securities laws based on statements made by Sesen Bio concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The D'Arcy complaint further alleges unjust enrichment, abuse of control, gross mismanagement and aiding and abetting thereof. The three derivative complaints seek unspecified damages, restitution and disgorgement of profits, benefits and compensation obtained by the

defendants and costs and expenses, including attorneys' fees. On October 18, 2021, the court consolidated the two federal court cases under the caption *In re Sesen Bio, Inc. Derivative Litigation*, Lead Case No. 1:21-cv-11538, or the Federal Derivative Litigation. On December 22, 2021, the court entered a joint stipulation among the parties to stay the Federal Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. On May 1, 2022, the plaintiffs filed a verified consolidated shareholder derivative complaint in the Federal Derivative Litigation. On May 18, 2022, the court entered a joint stipulation among the parties to stay the State Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. On July 6, 2022, Sesen Bio and the plaintiffs to the Federal Derivative Litigation and the State Derivative Litigation engaged in mediation in an attempt to resolve the litigation, with settlement discussions continuing over the following days. On July 19, 2002, the parties reached an agreement in principle to settle the Federal Derivative Litigation, the State Derivative Litigation and other potential related derivative claims, or collectively, the Derivative Litigation. Pursuant to that agreement, the individual defendants will cause Sesen Bio to adopt certain enhancements to its corporate governance policies and procedures. In exchange, plaintiffs will dismiss the Derivative Litigation and, on behalf of Sesen Bio, provide broad customary releases to the individual defendants. On August 22, 2002, the parties entered into a Stipulation of Settlement to settle the Derivative Litigation, which was filed with the court on August 30, 2022. The Stipulation of Settlement related to the Derivative Litigation confirms that Sesen Bio previously adopted certain corporate governance enhancements in response to, among other things, the filing of the Derivative Litigation, and that, subject to final court approval, Sesen Bio will adopt additional corporate governance enhancements. The Stipulation of Settlement also provides for a $630,000 payment for plaintiffs' attorneys fees due to the benefits the corporate governance enhancements are intended to provide to Sesen Bio. The payment of plaintiffs' attorneys fees is being funded by Sesen Bio and its insurance carriers. On September 2, 2022, the court issued an order granting preliminary approval of the Stipulation of Settlement related to the Derivative Litigation. The court has set a final settlement approval hearing for November 8, 2022 at 2:00 p.m. local time.

Sesen Bio, the Sesen Bio board of directors and the individual defendants continue to deny all allegations of any wrongdoing, but are seeking to settle the Securities Litigation, the State Derivative Litigation and the Federal Derivative Litigation to avoid the uncertainty, risk, expense and distraction of protracted litigation.

Sesen Bio may be the target of similar litigation in the future. The market price of its common stock has experienced and may continue to experience volatility, and in the past, companies that have experienced volatility in the market price of their stock have been subject to securities litigation. Any future litigation could result in substantial costs and divert Sesen Bio management's attention from other business concerns, which could seriously harm its business. Sesen Bio maintains liability insurance; however, if any costs or expenses associated with the pending lawsuits or any other litigation exceed Sesen Bio's insurance coverage, Sesen Bio may be forced to bear some or all costs and expenses directly, which could adversely affect its business, financial condition, results of operations or stock price.

Risks Related to Ownership of Sesen Bio Common Stock if the Merger is Not Completed

If Sesen Bio is unable to regain compliance with the listing requirements of the Nasdaq Capital Market, Sesen Bio common stock may be delisted from the Nasdaq Capital Market which could have a material adverse effect on Sesen Bio's business and could make it more difficult for Sesen Bio stockholders to sell their shares of Sesen Bio common stock.

Sesen Bio common stock is listed on the Nasdaq Capital Market, and Sesen Bio is therefore subject to Nasdaq's continued listing requirements, including requirements with respect to the market value of publicly-held shares, market value of listed shares, minimum bid price per share, and minimum stockholders' equity, among others, and requirements relating to board and committee independence. If Sesen Bio fails to satisfy one or more of the requirements, it may be delisted from the Nasdaq Capital Market.

On January 24, 2022, Sesen Bio received notice from Nasdaq that it was not currently in compliance with the $1.00 minimum bid price requirement for continued listing on the Nasdaq Global Market, as set forth in Nasdaq Listing Rule 5450(a)(1). The Nasdaq notice indicated that, consistent with Nasdaq Listing Rule 5810(c)(3)(A), Sesen Bio had 180 calendar days, or until July 25, 2022, to regain compliance with the minimum bid price requirement by having the closing bid price of Sesen Bio common stock meet or exceed $1.00 per share for at least ten consecutive business days. On July 26, 2022, Sesen Bio received approval to transfer the listing of Sesen Bio common stock from the Nasdaq Global Market to the Nasdaq Capital Market. As a result, Sesen Bio was granted a second 180-day grace period, or until January 23, 2023, to regain compliance with the minimum bid price requirement.

If Sesen Bio does not regain compliance by January 23, 2023, it will receive notification from Nasdaq that Sesen Bio common stock is subject to delisting. At that time, Sesen Bio may then appeal the delisting determination to a Nasdaq hearings panel. Such notification will have no immediate effect on Sesen Bio's listing on the Nasdaq Capital Market, nor will it have an immediate effect on the trading of Sesen Bio common stock pending such hearing. However, there can be no assurance that Sesen Bio will be able to regain compliance with Nasdaq's minimum bid price requirement. If Sesen Bio regains compliance with Nasdaq's minimum bid price requirement, there can be no assurance that Sesen Bio will be able to maintain compliance with the continued listing requirements for the Nasdaq Capital Market or that Sesen Bio common stock will not be delisted from the Nasdaq Capital Market in the future. In addition, Sesen Bio may be unable to meet other applicable listing requirements of the Nasdaq Capital Market, including maintaining minimum levels of stockholders' equity or market values of Sesen Bio common stock in which case, Sesen Bio common stock could be delisted notwithstanding Sesen Bio's ability to demonstrate compliance with the minimum bid price requirement.

Delisting from the Nasdaq Capital Market would adversely affect Sesen Bio's ability to consummate the merger and may adversely affect Sesen Bio's ability to raise additional financing through the public or private sale of equity securities, significantly affect the ability of investors to trade Sesen Bio common stock, or negatively affect the value and liquidity of Sesen Bio common stock. Delisting also could have other negative results, including the potential loss of employee confidence, the loss of institutional investors or interest in business development opportunities.

If Sesen Bio is delisted from Nasdaq and Sesen Bio is not able to list Sesen Bio common stock on another exchange, Sesen Bio common stock could be quoted on the OTC Bulletin Board or in the "pink sheets." As a result, Sesen Bio could face significant adverse consequences including, among others:

- a limited availability of market quotations for Sesen Bio common stock;
- a determination that Sesen Bio common stock is a "penny stock" which will require brokers trading in Sesen Bio common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for Sesen Bio's securities;
- a limited amount of news and little or no analyst coverage for Sesen Bio;
- Sesen Bio would no longer qualify for exemptions from state securities registration requirements, which may require Sesen Bio to comply with applicable state securities laws; and
- a decreased ability to issue additional securities (including pursuant to short-form Registration Statements on Form S-3) or obtain additional financing in the future.

If Sesen Bio common stock becomes subject to the penny stock rules, it would become more difficult to trade shares of Sesen Bio common stock.

The SEC has adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. Penny stocks are generally equity securities with a price of less than $5.00, other than securities registered on certain national securities exchanges or authorized for quotation on certain automated quotation systems, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system. If Sesen Bio does not retain its listing on Nasdaq and if the price of Sesen Bio common stock is less than $5.00, Sesen Bio common stock may be deemed a penny stock. The penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document containing specified information. In addition, the penny stock rules require that before effecting any transaction in a penny stock not otherwise exempt from those rules, a broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive: (i) the purchaser's written acknowledgment of the receipt of a risk disclosure statement; (ii) a written agreement to transactions involving penny stocks; and (iii) a signed and dated copy of a written suitability statement. These disclosure requirements may have the effect of reducing the trading activity in the secondary market for Sesen Bio common stock, and therefore stockholders may have difficulty selling their shares of Sesen Bio common stock.

Provisions in the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws and under Delaware law could make an acquisition of Sesen Bio, which may be beneficial to Sesen Bio stockholders, more difficult and may prevent attempts by Sesen Bio stockholders to replace or remove Sesen Bio's current management.

Provisions in the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws may discourage, delay or prevent a merger, acquisition or other change in control of Sesen Bio that Sesen Bio stockholders may consider favorable, including transactions in which Sesen Bio stockholders might otherwise receive a premium for their shares of Sesen Bio common stock. These provisions could also limit the price that investors might be willing to pay in the future for shares of Sesen Bio common stock, thereby depressing the market price of Sesen Bio common stock. In addition, because the Sesen Bio board of directors is responsible for appointing the members of Sesen Bio's management team, these provisions may frustrate or prevent any attempts by Sesen Bio stockholders to replace or remove Sesen Bio's current management by making it more difficult for Sesen Bio stockholders to replace members of the Sesen Bio board of directors. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of directors to be changed only by resolution of the Sesen Bio board of directors;
- limit the manner in which stockholders can remove directors from the Sesen Bio board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to the Sesen Bio board of directors;
- require that Sesen Bio stockholder actions must be affected at a duly called stockholder meeting and prohibit actions by Sesen Bio stockholders by written consent;
- limit who may call stockholder meetings;
- authorize the Sesen Bio board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by the Sesen Bio board of directors; and
- require the approval of the holders of at least 75% of the votes that all Sesen Bio stockholders would be entitled to cast to amend or repeal specified provisions of the Sesen Bio Certificate of Incorporation or Sesen Bio Bylaws.

Moreover, because Sesen Bio is incorporated in Delaware, Sesen Bio is governed by the provisions of Section 203 of the DGCL, which prohibits a person who owns in excess of 15% of Sesen Bio's outstanding voting stock from merging or combining with Sesen Bio for a period of three years after the date of the transaction in which the person acquired in excess of 15% of Sesen Bio's outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Risks Related to Carisma

Risks Related to Carisma's Financial Position and Need for Additional Capital

Carisma has incurred significant losses since its inception. Carisma expects to continue to incur significant expenses and operating losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, Carisma has incurred significant operating losses. Carisma's net losses were $40.8 million for the year ended December 31, 2021 and $28.3 million for the year ended December 31, 2020. As of June 30, 2022, Carisma had $81.6 million in cash, cash equivalents and marketable securities and an accumulated deficit of $123.2 million. To date, Carisma has not yet commercialized any products or generated any revenue from product sales and has financed its operations primarily with proceeds from sales of Carisma's preferred stock, proceeds from Carisma's collaboration with Moderna, research tax credits and convertible debt financing. Carisma has devoted substantially all of its financial resources and efforts to pursuing discovery, research and development of its

product candidates. Carisma is still in the early stages of development of its lead product candidate, CT-0508, and initiated its first clinical trial in 2021.

Carisma expects to continue to incur significant expenses and operating losses for the foreseeable future. Upon the closing of the merger, Carisma will also incur additional costs associated with operating as a public company. Carisma anticipates that its expenses will increase substantially if and as it:

- enhances the capabilities of its CAR-M platform;
- conducts its ongoing Phase 1 clinical trial of CT-0508;
- prepares for, initiates and conducts a planned clinical trial utilizing CT-0508 in combination with pembrolizumab;
- develops other CT-0508 combination studies;
- advances CT-0508 for additional indications or any other product candidate into clinical development;
- prepares for, initiates and conducts a planned clinical trial of CT-1119 for advanced mesothelin-positive solid tumors;
- prepares for, initiates and conducts a planned clinical trial of CT-0729 for PSMA positive castrate resistant prostate cancer;
- conducts discovery and pre-clinical testing of the development of *in vivo* CAR-M therapeutics for up to twelve oncology targets, as well as multiple other targets and indications;
- conducts discovery and pre-clinical testing of its autologous cell therapy pipeline to gather information to apply to the development of off-the-shelf engineered macrophage therapeutics;
- develops iPSC-derived iCAR-M, or iCAR-M, and other macrophage therapies;
- develops *in vivo* reprogrammed LNP/mRNA CAR-M therapies for cancer;
- develops viral vectors to effectively engineer human monocytes and macrophages, including the Vpx lentiviral vector and Carisma's Ad5f35 vector;
- conducts discovery and pre-clinical testing of other product candidates;
- seeks marketing approval for CT-0508 or any other product candidate if it successfully completes clinical trials;
- scales up its external manufacturing capabilities and capabilities to support clinical trials of CT-0508 or any other product candidates and for commercialization of any product candidate for which it may obtain marketing approval;
- establishes a sales, marketing and distribution infrastructure to commercialize any product candidate for which it may obtain marketing approval;
- in-licenses or acquires additional technologies or product candidates;
- makes any payments under its existing or future strategic collaboration agreements, global exclusive rights licensing agreements or sponsored research agreements, including with Moderna, University of Pennsylvania and New York University;
- maintains, expands, enforces and protects its intellectual property portfolio;

- hires additional clinical, regulatory, manufacturing, quality control, development and scientific personnel; and
- adds operational, financial and management information systems and personnel, including personnel to support its discovery, product development and planned future commercialization efforts and its operations as a public company.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, Carisma is unable to accurately predict the timing or amount of increased expenses or when, or if, it will be able to achieve or maintain profitability. Carisma's expenses could increase beyond its expectations if, among other things:

- Carisma is required by regulatory authorities in the United States, Europe or other jurisdictions to perform trials or studies in addition to, or different than, those that it currently expects;
- there are any delays in establishing appropriate manufacturing arrangements for or completing the development of any of Carisma's product candidates; or
- there are any third-party challenges to Carisma's intellectual property or Carisma needs to defend against any intellectual property-related claim.

Even if Carisma obtains marketing approval for and is successful in commercializing one or more of its product candidates, Carisma expects to incur substantial additional discovery and product development and other expenditures to develop and market additional product candidates or to expand the approved indications of any marketed product. Carisma may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect its business. The size of Carisma's future net losses will depend, in part, on the rate of future growth of its expenses and Carisma's ability to generate revenue.

Carisma has never generated revenue from product sales and may never achieve or maintain profitability.

Carisma only recently initiated clinical development of its lead product candidate, CT-0508, and is in the pre-clinical testing stages for its other product candidates. Carisma expects that it will be a number of years, if ever, before it has a product candidate ready for commercialization. To become and remain profitable, Carisma must succeed in completing development of, obtaining marketing approval for and eventually commercializing, one or more products that generate significant revenue. The ability to achieve this success will require Carisma to be effective in a range of challenging activities, including completing clinical development of CT-0508, completing discovery, pre-clinical testing and clinical development of CT-0508 in the combination setting and for additional indications, timely filing and receiving acceptance of its Investigational New Drug applications, or INDs, in order to commence its planned or future clinical trials, including for CT-1119 and CT-0729, successfully enrolling subjects in, and completing, its ongoing and planned clinical trials, scaling up its manufacturing processes and capabilities to support clinical trials of CT-0508 or of other product candidates, obtaining marketing approval for CT-0508 or any other product candidates, manufacturing, marketing and selling any products for which Carisma may obtain marketing approval and maintaining a continued acceptable safety profile of its products following approval. Carisma may never succeed in these activities and, even if it does, may never generate revenues that are significant enough to achieve profitability.

Even if Carisma does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. Carisma's failure to become and remain profitable would depress the value of its company and could impair its ability to raise capital, expand its business, maintain its discovery and product development efforts, diversify its pipeline of product candidates or even continue its operations.

Carisma is heavily dependent on the success of its lead product candidate, CT-0508, which will require significant clinical testing before it can seek marketing approval and potentially launch commercial sales. If CT-0508 does not receive marketing approval or is not successfully commercialized, or if there is significant delay in doing so, Carisma's business will be harmed.

Carisma only recently initiated its first clinical trial, has no products that are approved for commercial sale and may never be able to develop marketable products. Carisma expects that a substantial portion of its efforts and expenditures for the foreseeable future will be devoted to CT-0508 and related combination sub-studies of the synergistic potential and utility of CT-0508. Carisma's business currently depends heavily on the successful development, marketing approval and commercialization of CT-0508 and the

success of related combination sub-studies. Carisma cannot be certain that CT-0508 or any combination therapy will achieve success in ongoing or future clinical trials, receive marketing approval or be successfully commercialized.

If Carisma were required to discontinue development of CT-0508, or if CT-0508 does not receive marketing approval for one or more of the indications Carisma pursues, fails to achieve significant market acceptance, or fails to receive adequate reimbursement, Carisma may be delayed by many years in its ability to achieve profitability, if ever, and may not be able to generate sufficient revenue to continue its business.

Carisma will need substantial additional funding for its continuing operations. If Carisma is unable to raise capital when needed or on acceptable terms, it could be forced to delay, reduce or eliminate its discovery or product development programs or commercialization efforts.

Carisma expects to devote substantial financial resources to its ongoing and planned activities, particularly as it conducts its ongoing clinical trial of CT-0508 and pursues related combination strategies, prepares for, initiates and conducts its planned clinical trials of CT-1119 and CT-0729 and advances its discovery programs and continues its product development efforts. Carisma expects its expenses to increase substantially in connection with its ongoing activities, particularly as it advances its pre-clinical activities and clinical trials. In addition, if Carisma obtains marketing approval for CT-0508 or any other product candidate it is developing or develops in the future, it expects to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution. Furthermore, upon the closing of the merger, it expects to incur additional costs associated with operating as a public company. Accordingly, Carisma will need to obtain substantial additional funding in connection with its continuing operations. If Carisma is unable to raise capital or obtain adequate funds when needed or on acceptable terms, it may be required to delay, limit, reduce or terminate its discovery and product development programs or any future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself. In addition, attempting to secure additional financing may divert the time and attention of Carisma management from day-to-day activities and distract from its discovery and product development efforts.

Carisma's future capital requirements will depend on many factors, including:

- the progress, costs and results of its ongoing clinical trial of CT-0508 and other planned and future clinical trials;
- the scope, progress, costs and results pre-clinical testing and clinical trials of CT-0508 for additional combinations, targets and indications;
- the number of and development requirements for additional indications for CT-0508 or for any other product candidates;
- the success of its collaborations with Moderna or others;
- its ability to scale up its manufacturing processes and capabilities to support clinical trials of CT-0508 and other product candidates it is developing and develops in the future;
- the costs, timing and outcome of regulatory review of CT-0508 and other product candidates it is developing and may develop in the future;
- potential changes in the regulatory environment and enforcement rules;
- its ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the payment of license fees and other costs of its technology license arrangements;
- the costs and timing of future commercialization activities, including product manufacturing, sales, marketing and distribution, for CT-0508 and other product candidates it is developing and may develop in the future for which it may receive marketing approval;

- its ability to obtain and maintain acceptance of any approved products by patients, the medical community and third-party payors;
- the amount and timing of revenue, if any, received from commercial sales of CT-0508 and any other product candidates it is developing or develops in the future for which it receives marketing approval;
- potential changes in pharmaceutical pricing and reimbursement infrastructure;
- the availability of raw materials for use in production of its product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing its intellectual property and proprietary rights and defending any intellectual property-related claims; and
- the extent to which it in-licenses or acquires additional technologies or product candidates.

Carisma management has concluded that there is substantial doubt about Carisma's ability to continue as a going concern. As a result, Carisma management has included disclosures in Note 2 of the consolidated financial statements and Carisma's independent auditor included an explanatory paragraph in its report on Carisma's consolidated financial statements as of and for the year ended December 31, 2021 with respect to this uncertainty.

As of June 30, 2022, Carisma had cash, cash equivalents and marketable securities of $81.6 million. Immediately prior to the consummation of the merger, certain investors have agreed to purchase shares of Carisma common stock for an aggregate purchase price of approximately $30.6 million. Carisma believes that following consummation of the pre-closing financing and the merger, it will have cash, cash equivalents and marketable securities sufficient to sustain its operating expenses and capital expenditure requirements at least through the end of 2024. However, Carisma has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to Carisma. In addition, changing circumstances could cause Carisma to consume capital significantly faster than it currently anticipates, and Carisma may need to spend more than currently expected because of circumstances beyond its control. As a result, Carisma could deplete its capital resources sooner than it currently expects. In addition, because the successful development of CT-0508, CT-1119, CT-0729 and any combination studies or other product candidates that it pursues is highly uncertain, at this time Carisma cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidate.

Identifying potential product candidates and conducting pre-clinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and Carisma may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, Carisma's product candidates, if approved, may not achieve commercial success. Carisma will not generate commercial revenues unless and until it can achieve sales of products, which it does not anticipate for a number of years, if at all. Accordingly, Carisma will need to obtain substantial additional financing to achieve its business objectives. Adequate additional financing may not be available to Carisma on acceptable terms, or at all, and may be impacted by the economic climate and market conditions. For example, market volatility resulting from the COVID-19 pandemic, any other future infectious diseases, epidemics or pandemics or general U.S. or global economic or market conditions could also adversely impact Carisma's ability to access capital as and when needed. Alternatively, Carisma may seek additional capital due to favorable market conditions or strategic considerations, even if it believes it has sufficient funds for its current or future operating plans.

Carisma's limited operating history may make it difficult for you to evaluate the success of Carisma's business to date and to assess the combined company's future viability.

Carisma was formed as Carma Therapeutics LLC, a Pennsylvania limited liability company, in April 2016 and converted to a Delaware corporation in May 2017. Carisma is a clinical-stage cell therapy company with a limited operating history. Cell therapy product development is a highly speculative undertaking and involves a substantial degree of risk. Carisma's operations to date have been limited to organizing and staffing its company, business planning, capital raising, establishing and maintaining its intellectual property portfolio, building its pipeline of product candidates, conducting drug discovery activities, undertaking pre-clinical studies, manufacturing process development studies, conducting early-stage clinical trials, and providing general and administrative support for these operations. Carisma's prospects must be considered in light of the uncertainties, risks, expenses and difficulties frequently

encountered by companies in their early stages of operations. Carisma has not yet demonstrated its ability to successfully develop any product candidate, obtain marketing approvals, manufacture a commercial scale product or arrange for a third party to do so on its behalf, or conduct sales, marketing and distribution activities necessary for successful product commercialization. Consequently, any predictions you make about the combined company's future success or viability may not be as accurate as they could be if Carisma had a longer operating history or a history of successfully developing, obtaining marketing approval for and commercializing products.

In addition, as Carisma's business grows, Carisma may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown obstacles. Carisma will need to transition at some point from a company with a discovery and pre-clinical and clinical focus to a company capable of supporting commercial activities. Carisma may not be successful in such a transition.

As Carisma continues to build its business, Carisma expects its financial condition and operating results to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond Carisma's control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

The COVID-19 pandemic may affect Carisma's pre-clinical studies and clinical trials, disrupt regulatory activities, disrupt Carisma's manufacturing and supply chain or have other adverse effects on Carisma's business and operations.

The COVID-19 pandemic has caused many governments to implement measures to slow the spread of the virus through quarantines, travel restrictions, heightened border scrutiny and other measures. The pandemic and government measures taken in response have also had a significant impact, both directly and indirectly, on businesses and commerce, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. The future progression of the pandemic and its effects on Carisma's business and operations are uncertain.

Carisma and the third-party manufacturers and clinical research organizations that it engages may face disruptions that could affect Carisma's ability to initiate and complete pre-clinical studies or clinical trials, including disruptions in procuring items that are essential for Carisma's discovery and product development activities, such as, for example, raw materials used in the manufacturing of its product candidates, laboratory supplies for its ongoing and planned pre-clinical studies and clinical trials, or animals that are used for pre-clinical testing, in each case, for which there may be shortages because of ongoing efforts to address the pandemic, or disruptions in Carisma's ability to obtain necessary site approvals or other delays at clinical trial sites.

As a result of the COVID-19 pandemic, Carisma may experience further disruptions that could severely impact Carisma's business, including:

- disruptions related to Carisma's ongoing and planned clinical trials or future clinical trials arising from delays in completing pre-clinical studies required to begin clinical development;
- manufacturing disruptions;
- the inability to obtain necessary site approvals or other delays at clinical trial sites;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as Carisma's clinical trial sites and hospital staff supporting the conduct of Carisma's clinical trials;
- interruption of key clinical trial activities, such as clinical trial site data monitoring, due to limitations on travel imposed or recommended by foreign, federal or state governments, employers and others;
- interruption of clinical trial subject visits and study procedures, which may impact the integrity of subject data and clinical study endpoints;
- interruption or delays in the operations of the FDA, or other regulatory authorities, which may impact review and approval timelines;

- limitations on employee resources that would otherwise be focused on the conduct of Carisma's pre-clinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;

- difficulties recruiting or retaining patients for Carisma's clinical trials if patients are affected by the virus or are fearful of visiting or traveling to clinical trial sites because of the virus; and

- risk that participants enrolled in its clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events and refusal of the FDA, to accept data from clinical trials in these affected geographies.

The response to the COVID-19 pandemic may redirect resources with respect to regulatory and intellectual property matters in a way that would adversely impact its ability to pursue marketing approvals and protect its intellectual property. In addition, Carisma may face impediments to regulatory meetings and potential approvals due to measures intended to limit in-person interactions.

Furthermore, third parties, including manufacturers, medical institutions, clinical investigators, contract research organizations and consultants with whom Carisma conducts business, are similarly adjusting their operations and assessing their capacity in light of the COVID-19 pandemic. If these third parties continue to experience shutdowns or business disruptions, Carisma's ability to conduct its business in the manner and on the timelines presently planned could be materially and negatively impacted.

The COVID-19 pandemic continues to evolve and has already caused significant disruptions in the financial markets, and may continue to cause such disruptions, which could impact Carisma's ability to raise additional funds through public offerings and may also impact the volatility of Carisma's stock price and trading in its stock. Moreover, it is possible the pandemic will further significantly impact economies worldwide, which could result in adverse effects on Carisma's business and operations. Carisma cannot be certain what the overall impact of the COVID-19 pandemic will be on its business, and it has the potential to materially and adversely affect Carisma's business, financial condition, results of operations and prospects. To the extent the COVID-19 pandemic adversely affects Carisma's business, financial condition and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described in this "Risk Factors" section.

Changes in tax law may adversely affect Carisma or its investors.

The rules dealing with U.S. federal, state and local income taxation are constantly under review by persons involved in the legislative process and by the IRS and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect Carisma or holders of Carisma's common stock. In recent years, many such changes have been made and changes are likely to continue to occur in the future. It cannot be predicted whether, when, in what form or with what effective dates tax laws, regulations and rulings may be enacted, promulgated or issued, which could result in an increase in Carisma's or its stockholders' tax liability or require changes in the manner in which Carisma operates in order to minimize or mitigate any adverse effects of changes in tax law. Prospective investors should consult their tax advisors regarding the potential consequences of changes in tax law on Carisma's business and on the ownership and disposition of Carisma common stock.

Carisma's ability to use its net operating loss carryforwards, or NOLs, and research and development tax credit carryforwards to offset future taxable income may be subject to certain limitations.

Carisma has a history of cumulative losses and anticipates that it will continue to incur significant losses in the foreseeable future. As a result, Carisma does not know whether or when it will generate taxable income necessary to utilize its NOLs or research and development tax credit carryforwards. As of December 31, 2021, Carisma had federal, state and local NOLs of $76.4 million, $76.4 million and $71.2 million, respectively, and federal research and development tax credit carryforwards totaling $3.9 million.

In general, under Section 382 of the Code and corresponding provisions of state law, a corporation that undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three year period, is subject to limitations on its ability to utilize its pre-change NOLs and research and development tax credit carryforwards to offset future taxable income. Carisma has not conducted a study to assess whether any such ownership changes have occurred. Carisma may have experienced such ownership changes in the past and may experience such ownership changes in the

future (which may be outside its control). As a result, if and to the extent Carisma earns net taxable income, its ability to use its pre-change NOLs and research and development tax credit carryforwards to offset such taxable income may be subject to limitations.

Risks Related to Carisma's Discovery Programs and Research and Development of Carisma's Product Candidates

Cell therapy is a rapidly evolving area of science, and the approach Carisma is taking to discover and develop product candidates by utilizing genetically modified macrophages is novel and may never lead to approved or marketable products.

Cell therapy has yet to be broadly applied to solid tumors, inflammatory disease, fibrotic disease or neurodegeneration. The discovery, research and development of engineered macrophages to treat disease is an emerging field and Carisma's CAR-M platform, which is the first CAR-M to be evaluated in a human clinical trial, is a relatively new technology. Carisma's future success depends on the successful development of this novel therapeutic approach. The scientific evidence to support the feasibility of developing product candidates based on these discoveries is both preliminary and limited. Carisma has only preliminary results from its Phase 1 clinical trial of CT-0508 and expects clinical updates in the next 18 months. As such, there may be adverse effects or limited favorable results from treatment with any of Carisma's current or future product candidates that it cannot predict at this time.

Carisma's success also depends on its successful application of its proprietary macrophage engineering platform in the combination setting and to other indications by reprogramming the target specificity of its CAR-M cell product and developing product candidates against a plethora of tumor associated antigens, including in therapeutic areas beyond oncology. However, Carisma's macrophage engineering platform may not allow it to rapidly generate new INDs to expand its pipeline as anticipated in a cost-efficient manner or at all, which could cause the potential value of Carisma's business to decline and materially harm Carisma's business prospects.

As a result of these factors, it is more difficult for Carisma to predict the time and cost of product candidate development, and Carisma cannot predict whether the application of macrophage engineering platform will result in the development and marketing approval of any products. Any development problems Carisma experiences in the future related to its macrophage engineering platform or any of its discovery programs may cause significant delays or unanticipated costs or may prevent the development of a commercially viable product. Any of these factors may prevent Carisma from completing its clinical trials or pre-clinical studies or commercializing any product candidates it may develop on a timely or profitable basis, if at all.

Carisma is early in its development efforts. If Carisma is unable to commercialize its product candidates or experiences significant delays in doing so, its business will be materially harmed.

Carisma is early in its development efforts. Carisma initiated its first Phase 1 clinical trial of CT-0508 in 2021 and expects to evaluate a combination of CT-0508 with pembrolizumab in an upcoming Phase 1 clinical trial. Carisma expects to submit INDs for the first anti-HER2 CAR-Mono product in the second half of 2023 and for CT-1119 in 2024. CT-0729 is still in the discovery stage.

Carisma's ability to generate revenues from product sales, which it does not expect will occur for a number of years, if ever, will depend heavily on the successful development, marketing approval and eventual commercialization of CT-0508, including in the combination setting, or one or more of its other product candidates, which may never occur. The success of CT-0508 and Carisma's other product candidates will depend on several factors, including the following:

- successfully completing pre-clinical studies;
- successfully initiating future clinical trials;
- successfully enrolling patients in and completing clinical trials;
- scaling up manufacturing processes and capabilities to support clinical trials of CT-0508 and any other product candidate;
- applying for and receiving marketing approvals from applicable regulatory authorities;

- obtaining and maintaining intellectual property protection and regulatory exclusivity for CT-0508 and any other product candidates it is developing or may develop in the future;
- making arrangements with third-party manufacturers, or establishing commercial manufacturing capabilities, for both clinical and commercial supplies of its product candidates;
- establishing sales, marketing and distribution capabilities and launching commercial sales of its products, if and when approved, whether alone or in collaboration with others;
- acceptance of CT-0508 and any other product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage, adequate pricing and adequate reimbursement from third-party payors, including government payors;
- maintaining, enforcing, defending and protecting its rights in its intellectual property portfolio;
- not infringing, misappropriating or otherwise violating others' intellectual property or proprietary rights; and
- maintaining a continued acceptable safety profile of its products following receipt of any marketing approvals.

If Carisma does not achieve one or more of these factors in a timely manner or at all, it could experience significant delays or an inability to successfully develop and commercialize its product candidates, which would materially harm Carisma's business. As a company, Carisma has limited experience in clinical development, having only recently advanced CT-0508 into an early-stage clinical trial. Any predictions about the future success or viability of CT-0508 or any product candidates Carisma is developing or may develop in the future may not be as accurate as they could be if Carisma had a history of conducting clinical trials.

Drug development involves a lengthy and expensive process, with an uncertain outcome. The results of pre-clinical studies and early clinical trials may not be predictive of future results. Carisma may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of CT-0508 or its other product candidates.

Carisma only recently initiated its first clinical trial of CT-0508 and its other product candidates are in pre-clinical development. The risk of failure for CT-0508 and Carisma's other product candidates is high. It is impossible to predict when or if CT-0508 or any of Carisma's other product candidates will prove effective or safe in humans or will receive marketing approval. Before obtaining marketing approval from regulatory authorities for the sale of a product candidate, Carisma must complete pre-clinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of such product candidate in humans. Clinical trials may fail to demonstrate that CT-0508 or any of Carisma's other product candidates are safe for humans and effective for indicated uses. Even if the clinical trials are successful, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application.

Before Carisma can commence clinical trials for a product candidate, it must complete extensive pre-clinical testing and studies, manufacturing process development studies, and analytical development studies that support its planned INDs and other applications to regulatory authorities in the United States or similar applications in other jurisdictions. Carisma cannot be certain of the timely completion or outcome of its pre-clinical testing and studies and cannot predict if the outcome of its pre-clinical testing and studies will ultimately support the further development of its current or future product candidates or whether regulatory authorities will accept its proposed clinical programs. As a result, Carisma may not be able to submit applications to initiate clinical development of product candidates on the timelines Carisma expects, if at all, and the submission of these applications may not result in regulatory authorities allowing clinical trials to begin. Furthermore, product candidates are subject to continued pre-clinical safety studies, which may be conducted concurrently with Carisma's clinical testing. The outcomes of these safety studies may delay the launch of or enrollment in future clinical trials and could impact Carisma's ability to continue to conduct its clinical trials.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to the outcome. Carisma cannot guarantee that any of its clinical trials will be conducted as planned or completed on schedule, or at all. A failure of one or more clinical trials can occur at any stage of testing, which may result from a multitude of factors, including, among other things, flaws in study design, dose selection issues, placebo effects, patient enrollment criteria and failure to demonstrate favorable safety or efficacy traits.

Moreover, pre-clinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in pre-clinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. Furthermore, the failure of any of Carisma's product candidates to demonstrate safety and efficacy in any clinical trial could negatively impact the perception of its other product candidates or cause regulatory authorities to require additional testing before approving any of its product candidates.

Carisma may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent its ability to receive marketing approval or commercialize any product candidates, including:

- regulators or institutional review boards, or IRBs, may not authorize Carisma or its investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site or at all;
- Carisma may experience delays in reaching, or fail to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- regulators may determine that the planned design of Carisma's clinical trials is flawed or inadequate;
- clinical trials of Carisma's product candidates may produce negative or inconclusive results, and Carisma may decide, or regulators may require Carisma, to conduct additional clinical trials or abandon product development programs;
- Carisma may be unable to establish clinical endpoints that applicable regulatory authorities consider clinically meaningful, or, if Carisma seeks accelerated approval, biomarker efficacy endpoints that applicable regulatory authorities consider likely to predict clinical benefit;
- pre-clinical testing may produce results based on which Carisma may decide, or regulators may require Carisma, to conduct additional pre-clinical studies before it proceeds with certain clinical trials, limits the scope of its clinical trials, halt ongoing clinical trials or abandon product development programs;
- the number of patients required for clinical trials of Carisma's product candidates may be larger than it anticipates, enrollment in these clinical trials may be slower than Carisma anticipates or participants may drop out of these clinical trials at a higher rate than Carisma anticipates;
- third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to Carisma in a timely manner, or at all;
- Carisma may decide, or regulators or IRBs may require Carisma, to suspend or terminate clinical trials of its product candidates for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- regulators or IRBs may require Carisma to perform additional or unanticipated clinical trials to obtain approval or Carisma may be subject to additional post-marketing testing requirements to maintain marketing approval;
- regulators may revise the requirements for approving Carisma's product candidates, or such requirements may not be as it anticipates;
- the cost of clinical trials of Carisma's product candidates may be greater than it anticipates;

- the supply or quality of Carisma's product candidates or other materials necessary to conduct clinical trials of its product candidates may be insufficient or inadequate;
- Carisma's product candidates may have undesirable side effects or other unexpected characteristics, causing Carisma or its clinical investigators, regulators or IRBs to suspend or terminate the trials;
- regulators may withdraw their approval of a product or impose restrictions on its distribution; and
- business interruptions resulting from the COVID-19 pandemic may result in adverse effects on Carisma's business and operations.

If Carisma is required to conduct additional clinical trials or other testing of its product candidates beyond those that it currently contemplates, if Carisma is unable to successfully complete clinical trials of its product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive, if there are safety concerns or if Carisma determines that the observed safety or efficacy profile would not be competitive in the marketplace, it may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for its product candidates;
- not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Carisma's product development costs will also increase if it experiences delays in pre-clinical studies or clinical trials or in obtaining marketing approvals. Carisma does not know whether any of its pre-clinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Carisma may also determine to change the design or protocol of one or more of its clinical trials, including to add additional patients or arms, which could result in increased costs and expenses or delays. Significant pre-clinical study or clinical trial delays also could shorten any periods during which Carisma may have the exclusive right to commercialize its product candidates or allow its competitors to bring products to market before Carisma does and impair Carisma's ability to successfully commercialize its product candidates and may harm Carisma's business and results of operations.

Further, cancer therapies are sometimes characterized as first-line, second-line, or third-line, and the FDA often approves new therapies initially only for second-line or third-line use. When cancer is detected early enough, first-line therapy, usually hormone therapy, surgery, radiation therapy or a combination of these, is sometimes adequate to cure the cancer or prolong life without a cure. Second- and third-line therapies are administered to patients when prior therapy is not effective. For any of Carisma's products that prove to be sufficiently beneficial, Carisma would expect to seek approval potentially as a first-line therapy, but any product candidates Carisma develops, even if approved, may not be approved for first-line therapy, and, prior to any such approvals, Carisma may have to conduct additional clinical trials.

The results of early-stage clinical trials and pre-clinical studies may not be predictive of future results. Initial success in clinical trials may not be indicative of results obtained when these trials are completed or in later stage trials.

The outcome of pre-clinical testing and early clinical trials may not be predictive of the success of later clinical trials, and preliminary or interim results of a clinical trial do not necessarily predict final results. In addition, initial success in clinical trials may not be indicative of results obtained when such trials are completed. In particular, the small number of patients in Carisma's ongoing early clinical trials may make the results of these trials less predictive of the outcome of later clinical trials. For example, even if successful, the results of Carisma's Phase 1 clinical trial of CT-0508 may not be predictive of the results of further clinical trials of CT-0508 or any of Carisma's other product candidates. Carisma's product candidates may also fail to show the desired safety and efficacy in clinical development despite positive results in pre-clinical studies or having successfully advanced through initial clinical trials.

Moreover, pre-clinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in pre-clinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. Carisma's current or future clinical trials may not ultimately be successful or support further clinical development of any of its product candidates and Carisma cannot assure you that any clinical trials that it may conduct will demonstrate consistent or adequate efficacy and safety to support marketing approval. There is a high failure rate for product candidates proceeding through clinical trials. Many companies in the biopharmaceutical industry have suffered significant setbacks in late-stage clinical trials even after achieving promising results in pre-clinical testing and earlier-stage clinical trials, and Carisma cannot be certain that it will not face similar setbacks. Any such setbacks in Carisma's clinical development could materially harm Carisma's business and results of operations.

Interim and preliminary results from Carisma's clinical trials that it announces or publishes from time to time may change as more participant data become available and are subject to audit and verification procedures, which could result in material changes in the final data.

From time to time, Carisma may announce or publish interim or preliminary results from its clinical trials, including its Phase 1 clinical trial of CT-0508. Interim results from clinical trials that Carisma may complete are subject to the risk that one or more of the clinical outcomes may materially change as participant enrollment continues and more participant data become available. Carisma also makes assumptions, estimations, calculations, and conclusions as part of its analyses of data, and Carisma may not have received or had the opportunity to fully evaluate all data. Preliminary or interim results also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data Carisma previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could be material and could significantly harm Carisma's reputation and business prospects and may cause the trading price of Carisma common stock to fluctuate significantly.

If Carisma experiences delays or difficulties in the enrollment of patients in its clinical trials for CT-0508 or any of its other product candidates, its receipt of necessary marketing approvals could be delayed or prevented.

Identifying and qualifying patients to participate in clinical trials for CT-0508 and any other product candidates in the future is critical to Carisma's success. Successful and timely completion of clinical trials will require that Carisma enroll a sufficient number of patients who remain in the trial until its conclusion. Carisma may not be able to initiate or continue clinical trials for its product candidates if it is unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside of the United States. In particular, group 2 for Carisma's Phase 1 clinical trial of CT-0508 is currently open for enrollment with an additional nine patients to be dosed in the study and Carisma is preparing to advance other products into clinical development. In addition, some of Carisma's competitors have ongoing clinical trials for product candidates that treat the same indications as Carisma's product candidates, and patients who would otherwise be eligible for Carisma's clinical trials may instead enroll in clinical trials of Carisma's competitors' product candidates. Carisma cannot predict how successful it will be at enrolling subjects in future clinical trials. Patient enrollment is affected by a variety of other factors, including:

- the prevalence and severity of the disease under investigation;
- the eligibility criteria for the trial in question;

- the perceived risks and benefits of the product candidate under trial;
- the requirements of the trial protocols;
- the availability of existing treatments for the indications for which Carisma is conducting clinical trials;
- the ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the efforts to facilitate timely enrollment in clinical trials;
- the ability to identify specific patient populations based on specific genetic mutations or other factors;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment;
- Carisma's ability to obtain and maintain patient consents;
- the proximity and availability of clinical trial sites for prospective patients;
- the conduct of clinical trials by competitors for product candidates that treat the same indications or address the same patient populations as Carisma's product candidates;
- the cost to, or lack of adequate compensation for, prospective patients; and
- the impact of the ongoing COVID-19 pandemic.

Carisma's inability to locate and enroll a sufficient number of patients for its clinical trials would result in significant delays, could require it to abandon one or more clinical trials altogether and could delay or prevent its receipt of necessary marketing approvals. Enrollment delays in Carisma's clinical trials may result in increased development costs for its product candidates, which could cause the value of Carisma's business to decline and limit its ability to obtain additional financing.

If serious adverse events, undesirable side effects or unexpected characteristics are identified during the development of CT-0508 or any of Carisma's other product candidates, Carisma may need to abandon or limit its further clinical development of those product candidates.

Enrollment in group 1 of Carisma's first in human Phase 1 clinical trial of CT-0508 has been completed with nine patients successfully dosed and group 2 is currently open for enrollment with nine additional patients to be dosed in the trial. If CT-0508 or any other product candidate is associated with serious adverse events or undesirable side effects in clinical trials or have characteristics that are unexpected in clinical trials or pre-clinical testing, Carisma may need to abandon development of such product candidate or limit development to more narrow uses or subpopulations in which the serious adverse events, undesirable side effects or unexpected characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. In pharmaceutical development, many compounds that initially show promise in early-stage or clinical testing are later found to cause side effects that delay or prevent further development of the compound. For example, while Carisma's preliminary clinical results from its Phase 1 clinical trial of CT-0508 demonstrated a favorable safety profile, such results may not be predictive or indicative of the successful development, marketing approval and eventual commercialization of CT-0508.

Additionally, if results of Carisma's clinical trials reveal undesirable side effects, Carisma, regulatory authorities or the IRBs at the institutions in which Carisma's studies are conducted could suspend or terminate its clinical trials, regulatory authorities could order Carisma to cease clinical trials or deny approval of its product candidates for any or all targeted indications or Carisma could be forced to materially modify the design of its clinical trials. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete any of Carisma's clinical trials or result in potential liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff.

If Carisma elects or is forced to suspend or terminate any clinical trial of its product candidates, the commercial prospects of such product candidate will be harmed, and Carisma's ability to generate revenues from sales of such product candidate will be delayed or eliminated. Any of these occurrences could materially harm Carisma's business.

If any of Carisma's product candidates receives marketing approval and Carisma, or others, later discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, Carisma's ability to market the drug could be compromised.

Carisma only recently initiated clinical development of its lead product candidate, CT-0508, and is in the pre-clinical testing stages for its other product candidates. Clinical trials will be conducted in carefully defined subsets of patients who have agreed to enter into clinical trials. Consequently, it is possible that Carisma's clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects. If one or more of Carisma's product candidates receives marketing approval, and Carisma, or others, later discover that they are less effective than previously believed, or cause undesirable side effects, a number of potentially significant negative consequences could result, including:

- withdrawal or limitation by regulatory authorities of approvals of such product;
- seizure of the product by regulatory authorities;
- recall of the product;
- restrictions on the marketing of the product or the manufacturing process for any component thereof;
- requirement by regulatory authorities of additional warnings on the label;
- requirement that Carisma implement a risk evaluation and mitigation strategy or create a medication guide outlining the risks of such side effects for distribution to patients;
- commitment to expensive post-marketing studies as a prerequisite of approval by regulatory authorities of such product;
- the product may become less competitive;
- initiation of regulatory investigations and government enforcement actions;
- initiation of legal action against Carisma to hold it liable for harm caused to patients; and
- harm to Carisma's reputation and resulting harm to physician or patient acceptance of its products.

Any of these events could prevent Carisma from achieving or maintaining market acceptance of a particular product candidate, if approved, and could significantly harm Carisma's business, financial condition, and results of operations.

Carisma may expend its limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because Carisma has limited financial and managerial resources, it focuses on discovery programs and product candidates that it identifies for specific indications. As a result, Carisma may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Carisma's resource allocation decisions may cause it to fail to capitalize on viable commercial products or profitable market opportunities. Carisma's spending on current and future discovery and product development programs and product candidates for specific indications may not yield any commercially viable products. If Carisma does not accurately evaluate the commercial potential or target market for a particular product candidate, it may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have

been more advantageous for Carisma to retain sole development and commercialization rights to such product candidate. Failure to allocate resources or capitalize on strategies in a successful manner will have an adverse impact on Carisma's business.

Carisma may develop CT-0508 in combination with other drugs. If the FDA or similar regulatory authorities outside of the United States do not approve these other drugs, revoke their approval of such drugs, or if safety, efficacy, manufacturing or supply issues arise with the drugs Carisma chooses to evaluate in combination with CT-0508, Carisma may be unable to obtain approval of CT-0508 or market CT-0508.

In September 2022, Carisma submitted a clinical protocol amendment to the CT-0508 IND for a CAR-M / anti-PD-1 (CT-0508 and pembrolizumab) combination strategy.

Carisma did not develop or obtain marketing approval for, nor has Carisma manufactured or sold, any of the currently approved drugs that it may study in combination with CT-0508. If the FDA or similar regulatory authorities outside of the United States revoke their approval of any drug or drugs in combination with which Carisma determines to develop CT-0508, Carisma will not be able to market CT-0508 in combination with such revoked drugs.

If safety or efficacy issues arise with any of these drugs, Carisma could experience significant regulatory delays, and the FDA or similar regulatory authorities outside of the United States may require Carisma to redesign or terminate the applicable clinical trials. If the drugs Carisma uses are replaced as the standard of care for the indications it chooses for CT-0508, the FDA or similar regulatory authorities outside of the United States may require Carisma to conduct additional clinical trials. In addition, if manufacturing or other issues result in a shortage of supply of the drugs with which Carisma determines to combine with CT-0508, it may not be able to complete clinical development of CT-0508 on its current timeline or at all.

Even if CT-0508 were to receive marketing approval or be commercialized for use in combination with other existing drugs, Carisma would continue to be subject to the risks that the FDA or similar regulatory authorities outside of the United States could revoke approval of the drug used in combination with CT-0508 or that safety, efficacy, manufacturing or supply issues could arise with these existing drugs. Combination therapies are commonly used for the treatment of cancer, and Carisma would be subject to similar risks if it develops any of its other product candidates for use in combination with other drugs or for indications other than cancer. This could result in Carisma's own products being removed from the market or being less successful commercially.

Carisma may not be successful in its efforts to identify or discover additional potential product candidates.

A key element of Carisma's strategy is to apply its macrophage engineering platform to address a broad array of indications and targets to generate next-generation therapeutics, including three programs for indications outside of oncology. The discovery efforts that Carisma is conducting may not be successful in identifying product candidates that are useful in treating cancer or other diseases. Carisma's discovery engine may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for a number of reasons, including:

- potential product candidates may, on further study, be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be drugs that will receive marketing approval or achieve market acceptance; or

- potential product candidates may not be effective in treating their targeted diseases.

Discovery programs to identify new product candidates require substantial technical, financial and human resources. Carisma may choose to focus its efforts and resources on a potential product candidate that ultimately proves to be unsuccessful. If Carisma is unable to identify additional suitable product candidates for pre-clinical and clinical development, it will limit its potential to obtain revenues from sale of products in future periods, which likely would result in significant harm to Carisma's financial position and adversely impact its stock price.

Adverse public perception of genetic medicine, and gene therapy in particular, may negatively impact regulatory approval of, or demand for, Carisma's potential products.

The clinical and commercial success of Carisma's potential products will depend in part on public acceptance of the use of gene therapy for the prevention or treatment of human diseases. Public attitudes may be influenced by claims that gene therapy is unsafe,

unethical, or immoral, and, consequently, Carisma's products may not gain the acceptance of the public or the medical community. Adverse public attitudes may adversely impact Carisma's ability to enroll clinical trials. Moreover, Carisma's success will depend upon physicians prescribing, and their patients being willing to receive, treatments that involve the use of product candidates that Carisma may develop in lieu of, or in addition to, existing treatments with which they are already familiar and for which greater clinical data may be available.

Risks Related to the Commercialization of Carisma's Product Candidates

Even if any of Carisma's product candidates receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, and the market opportunity for any of its product candidates, if approved, may be smaller than it estimates.

If any of Carisma's product candidates receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. For example, current cancer treatments, such as chemotherapy and radiation therapy, are well established in the medical community and doctors may continue to rely on these and similar treatments. Efforts to educate the medical community and third-party payors on the benefits of Carisma's product candidates may require significant resources and may not be successful. If Carisma's product candidates do not achieve an adequate level of acceptance, Carisma may not generate significant revenues from product sales and it may not become profitable. The degree of market acceptance of Carisma's product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages of Carisma's product candidates compared to the advantages and relative risks of alternative treatments;
- the effectiveness of sales and marketing efforts;
- Carisma's ability to offer its products, if approved, for sale at competitive prices;
- the clinical indications for which the product is approved;
- the cost of treatment in relation to alternative treatments;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the timing of market introduction of competitive products;
- the availability of third-party coverage and adequate reimbursement, and patients' willingness to pay out of pocket for required co-payments or in the absence of third-party coverage or adequate reimbursement;
- product labeling or product insert requirements of the FDA, the EMA or other regulatory authorities, including any limitations or warnings contained in a product's approved labeling;
- the prevalence and severity of any side effects;
- support from patient advocacy groups; and
- any restrictions on the use of Carisma's products, if approved, together with other medications.

Carisma's assessment of the potential market opportunity for its product candidates is based on industry and market data that it obtained from industry publications, research, surveys and studies conducted by third parties and Carisma's analysis of these data,

research, surveys and studies. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While Carisma believes these industry publications and third-party research, surveys and studies are reliable, it has not independently verified such data. Carisma's estimates of the potential market opportunities for its product candidates include a number of key assumptions based on its industry knowledge, industry publications and third-party research, surveys and studies, which may be based on a small sample size and fail to accurately reflect market opportunities. While Carisma believes that its internal assumptions are reasonable, no independent source has verified such assumptions. If any of Carisma's assumptions or estimates, or these publications, research, surveys or studies prove to be inaccurate, then the actual market for any of its product candidates may be smaller than it expects, and as a result Carisma's revenues from product sales may be limited and it may be more difficult for Carisma to achieve or maintain profitability.

If Carisma is unable to establish sales, marketing and distribution capabilities or enter into sales, marketing and distribution agreements with third parties, it may not be successful in commercializing its product candidates if and when they are approved.

Carisma does not have a sales or marketing infrastructure and has no experience as a company in the sale, marketing or distribution of biopharmaceutical products. To achieve commercial success for any product for which Carisma may obtain marketing approval, it will need to establish a sales, marketing and distribution organization, either itself or through collaborations or other arrangements with third parties.

Carisma currently expects that it would build its own focused, specialized sales and marketing organization to support the commercialization in the United States of product candidates for which it receives marketing approval and that can be commercialized with such capabilities. There are risks involved with Carisma establishing its own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which Carisma recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, Carisma would have prematurely or unnecessarily incurred these commercialization expenses. These efforts may be costly, and Carisma's investment would be lost if it cannot retain or reposition its sales and marketing personnel. In general, the cost of establishing and maintaining a sales and marketing organization may exceed the cost-effectiveness of doing so.

Factors that may inhibit Carisma's efforts to commercialize its products on its own include:

- its inability to recruit, train and retain adequate numbers of effective sales, marketing, coverage or reimbursement, customer service, medical affairs and other support personnel;
- its inability to equip sales personnel with effective materials;
- its inability to effectively manage a geographically dispersed sales and marketing team;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;
- the inability of reimbursement professionals to negotiate arrangements for formulary access, reimbursement and other acceptance by payors;
- the inability to price its products at a sufficient price point to ensure an adequate and attractive level of profitability;
- restricted or closed distribution channels that make it difficult to distribute its products to segments of the patient population;
- the lack of complementary products to be offered by sales personnel, which may put Carisma at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If Carisma is unable to establish its own sales, marketing and distribution capabilities and it enters into arrangements with third parties to perform these services, Carisma's revenues from product sales and its profitability, if any, are likely to be lower than if it were to market, sell and distribute any products that it develops itself. In addition, Carisma may not be successful in entering into arrangements with third parties to sell, market and distribute its product candidates or may be unable to do so on terms that are acceptable to Carisma. Carisma likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market its products effectively. If Carisma does not establish sales, marketing and distribution capabilities successfully, either on its own or in collaboration with third parties, it will not be successful in commercializing its product candidates.

Carisma faces substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than it does, thus rendering Carisma's products non-competitive, obsolete or reducing the size of its market.

The biopharmaceutical industry, and in particular the cell therapy field, is characterized by intense investment and competition aimed at rapidly advancing new technologies. Carisma's platform and therapeutic product candidates are expected to face substantial competition from multiple technologies, marketed products and numerous other therapies being developed by third parties that use protein degradation, antibody therapy, inhibitory nucleic acid, gene editing or gene therapy development platforms and from companies focused on more traditional therapeutic modalities, such as small molecule inhibitors. The competition is likely to come from multiple sources, including biopharmaceutical companies, academic research institutions, governmental agencies and private research institutions that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. The competition is likely to come from multiple sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, government agencies and public and private research institutions.

Carisma is aware of a number of companies generally pursuing the development of myeloid cell therapies, including, among others Myeloid Therapeutics, Shoreline Biosciences, Inceptor Bio, Thunder Bio, Resolution Therapeutics, CellOrigin, Sirpant Therapeutics, and others. Carisma is also facing competition from companies pursuing autologous T-cell therapies, allogenic T-cell therapies, NK and other cell therapies, direct *in vivo* reprogrammed cell therapies and other macrophage-targeted oncology therapeutics.

Many of the companies against which Carisma is competing or against which it may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical testing, conducting clinical trials, obtaining marketing approvals and marketing approved products than Carisma does. These competitors also compete with Carisma in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, its development programs. Carisma's commercial opportunity could be reduced or eliminated if its competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that Carisma may develop. Carisma's competitors also may obtain FDA or other marketing approval for their products more rapidly than Carisma may obtain approval for its products, which could result in Carisma's competitors establishing a strong market position before Carisma is able to enter the market. In addition, Carisma's ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. There are generic products currently on the market for certain of the indications that Carisma is pursuing, and additional products are expected to become available on a generic basis over the coming years. If Carisma's product candidates are approved, it expects that they will be priced at a significant premium over competitive generic products.

Technology in the biopharmaceutical industry has undergone rapid and significant change, and Carisma expects that it will continue to do so. Any products or processes that Carisma develops may become obsolete or uneconomical before it recovers any expenses incurred in connection with their development.

Mergers and acquisitions in the biopharmaceutical industry may result in even more resources being concentrated among a smaller number of Carisma's competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with Carisma in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, Carisma's programs.

Carisma has pursued and may in the future pursue the in-license or acquisition of rights to complementary technologies and product candidates on an opportunistic basis. However, Carisma may be unable to in-license or acquire any additional technologies or product candidates from third parties. The acquisition and licensing of technologies and product candidates is a competitive area, and a number of more established companies also have similar strategies to in-license or acquire technologies and product candidates that Carisma may consider attractive. These established companies may have a competitive advantage over Carisma due to their size, cash resources and greater development and commercialization capabilities. In addition, companies that perceive Carisma to be a competitor may be unwilling to assign or license rights to Carisma. Carisma also may be unable to in-license or acquire the relevant technology or product candidate on terms that would allow Carisma to make an appropriate return on its investment.

Even if Carisma is able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third-party coverage or reimbursement practices or healthcare reform initiatives, which could harm its business.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. To obtain reimbursement or pricing approval in some countries, Carisma may be required to conduct a clinical trial that compares the cost effectiveness of its product candidate to other available therapies. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, Carisma might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay its commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues, if any, Carisma is able to generate from the sale of the product in that country. Adverse pricing limitations may hinder Carisma's ability to recoup its investment in one or more product candidates, even if its product candidates obtain marketing approval.

Carisma's ability to commercialize any product candidates successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. The availability of coverage and adequacy of reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford medical services and pharmaceutical products, including Carisma's product candidates. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, government authorities and third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Coverage and reimbursement may not be available for any product that Carisma commercializes and, even if these are available, the level of reimbursement may not be satisfactory. Reimbursement may affect the demand for, or the price of, any product candidate for which it obtains marketing approval. Obtaining and maintaining adequate reimbursement for Carisma's products may be difficult. Carisma may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. If coverage and adequate reimbursement are not available or reimbursement is available only to limited levels, Carisma may not be able to successfully commercialize any product candidate for which it obtains marketing approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside of the United States. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers its costs, including research, development, intellectual property, manufacture, sale and distribution expenses. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover Carisma's costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Carisma's inability to promptly obtain coverage and adequate reimbursement rates from both government-

funded and private payors for any approved products that it develops could have a material adverse effect on its operating results, its ability to raise capital needed to commercialize products and its overall financial condition.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require Carisma to provide scientific and clinical support for the use of its product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and Carisma believes that changes in these rules and regulations are likely.

There can be no assurance that Carisma's product candidates, even if they are approved for sale in the United States, in the European Union or in other countries, will be considered medically reasonable and necessary for a specific indication or cost-effective by third-party payors, or that coverage and an adequate level of reimbursement will be available or that third-party payors' reimbursement policies will not adversely affect Carisma's ability to sell its product candidates profitably.

Clinical trial and product liability lawsuits against Carisma could divert its resources and could cause Carisma to incur substantial liabilities and to limit commercialization of any products that it may develop.

Carisma faces an inherent risk of clinical trial and product liability exposure related to the testing of its product candidates in human clinical trials and will face an even greater risk if it commercially sells any products that it may develop. While Carisma currently has no products that have been approved for commercial sale, the ongoing, planned and future use of product candidates by Carisma in clinical trials, and the sale of any approved products in the future, may expose Carisma to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies or others selling such products. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated adverse effects. If Carisma cannot successfully defend itself against claims that its product candidates or products caused injuries, it will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that it may develop;
- termination of clinical trials;
- withdrawal of marketing approval, recall, restriction on the approval or a "black box" warning or contraindication for an approved drug;
- withdrawal of clinical trial participants;
- significant costs to defend any related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- injury to Carisma's reputation and significant negative media attention;
- reduced resources of Carisma management to pursue its business strategy;
- distraction of management's attention from Carisma's primary business; and
- the inability to commercialize any products that Carisma may develop.

Carisma currently holds $10.0 million in product liability insurance coverage in the aggregate, with a per incident limit of $10.0 million, which may not be adequate to cover all liabilities that it may incur. Carisma may need to increase its insurance coverage as it expands its clinical trials or if it commences commercialization of its product candidates. Insurance coverage is

increasingly expensive. Carisma may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If a successful clinical trial or product liability claim or series of claims is brought against Carisma for uninsured liabilities or in excess of insured liabilities, its assets may not be sufficient to cover such claims and its business operations could be impaired.

Risks Related to Carisma's Dependence on Third Parties

Carisma relies, and expects to continue to rely, on third parties to conduct its clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, which may prevent or delay Carisma's ability to seek or obtain marketing approval for or commercialize its product candidates or otherwise harm its business. If Carisma is not able to maintain these third-party relationships or if these arrangements are terminated, it may have to alter its development and commercialization plans and its business could be adversely affected.

Carisma relies, and expects to continue to rely, on third-party clinical research organizations, in addition to other third parties such as research collaboratives, clinical data management organizations, medical institutions and clinical investigators, to conduct its ongoing Phase 1 clinical trial of CT-0508 and related combinations studies, its planned clinical trials of CT-1119 and CT-0729 and any other clinical trials it conducts. Carisma does not plan to independently conduct clinical trials of its product candidates or any other product candidates that it may develop. These contract research organizations and other third parties play a significant role in the conduct and timing of these trials and subsequent collection and analysis of data. These third-party arrangements might terminate for a variety of reasons, including a failure to perform by the third parties. If Carisma needs to enter into alternative arrangements, its product development activities might be delayed.

Carisma's reliance on these third parties for discovery and product development activities reduces its control over these activities but does relieve Carisma of its responsibilities. For example, Carisma will remain responsible for ensuring that each of its clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires Carisma to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities in Europe and other jurisdictions have similar requirements. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If Carisma or any of its contract research organizations or trial sites fail to comply with applicable GCPs, the clinical data generated in its clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require Carisma to perform additional clinical trials before approving its marketing applications. Carisma is also required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct Carisma's clinical trials in accordance with regulatory requirements or Carisma's stated protocols, Carisma will not be able to obtain, or may be delayed in obtaining, marketing approvals for its product candidates and will not be able to, or may be delayed in its efforts to, successfully develop and commercialize its product candidates. Furthermore, these third parties may also have relationships with other entities, some of which may be Carisma's competitors. In addition, principal investigators for Carisma's clinical trials may serve as scientific advisors or consultants to Carisma from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the trial, the integrity of the data generated at the applicable clinical trial site may be questioned, and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of any marketing application Carisma submits to the FDA. Any such delay or rejection could prevent Carisma from commercializing its product candidates.

If any of Carisma's relationships with these third parties terminate, it may not be able to enter into arrangements with alternative third parties or do so on commercially reasonable terms. Switching or adding additional contract research organizations, investigators and other third parties involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new contract research organization commences work. As a result, delays can occur, which could materially impact Carisma's ability to meet its desired clinical development timelines. The COVID-19 pandemic and government measures taken in response have also had a significant impact on many contract research organizations. Although Carisma plans to carefully manage its

relationships with its contract research organizations, investigators and other third parties, it may nonetheless encounter challenges or delays in the future, which could have a material and adverse impact on Carisma's business, financial condition and prospects.

Carisma relies on third-party contract manufacturing organizations for the manufacture of both drug substance and finished drug product of its product candidates for pre-clinical and clinical testing and expect to continue to do so for commercialization. This reliance on third parties increases the risk that Carisma will not have sufficient quantities of its product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair Carisma's development or commercialization efforts.

Carisma does not own or operate, and currently has no plans to establish, any manufacturing facilities. Carisma relies, and expects to continue to rely, on third-party contract manufacturing organizations for both drug substance and finished drug product, as well as for commercial manufacture if any of its product candidates receive marketing approval. Carisma also currently relies on these third parties for the manufacture of plasmid and viral vectors, patient leukapheresis material logistics, as well as packaging, labeling, sterilization, storage, distribution and other production logistics. This reliance on third parties increases the risk that Carisma will not have sufficient quantities of its product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair Carisma's development or commercialization efforts. Carisma may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if Carisma is able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the potential failure to manufacture Carisma's product candidate or product according to its specifications;
- the potential failure to manufacture Carisma's product candidate or product according to its schedule or at all;
- the possible misappropriation of Carisma's proprietary information, including its trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for Carisma.

Carisma or its third-party manufacturers may encounter shortages in the raw materials or active pharmaceutical ingredients necessary to produce Carisma's product candidates in the quantities needed for its clinical trials or, if its product candidates are approved, in sufficient quantities for commercialization or to meet an increase in demand, as a result of capacity constraints or delays or disruptions in the market for the raw materials or active pharmaceutical ingredients, including shortages caused by the purchase of such raw materials or active pharmaceutical ingredients by its competitors or others. The failure of Carisma or its third-party manufacturers to obtain the raw materials or active pharmaceutical ingredients necessary to manufacture sufficient quantities of its product candidates, may have a material adverse effect on Carisma's business.

Carisma's third-party manufacturers are subject to inspection and approval by regulatory authorities before Carisma can commence the manufacture and sale of any of its product candidates, and thereafter subject to ongoing inspection from time to time. Third-party manufacturers may not be able to comply with cGMP, regulations or similar regulatory requirements outside of the United States. Carisma's failure, or the failure of its third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on Carisma, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of Carisma's products.

Carisma's product candidates and any products that it may develop may compete with other product candidates and products for access to manufacturing facilities. As a result, Carisma may not obtain access to these facilities on a priority basis or at all. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for Carisma. Any performance failure on the part of Carisma's existing or future manufacturers could delay clinical development or marketing approval. Carisma does not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If any of

Carisma's current contract manufacturers cannot perform as agreed, it may be required to replace such manufacturers. Although Carisma believes that there are several potential alternative manufacturers who could manufacture its product candidates, it may incur added costs and delays in identifying and qualifying any such replacement or be unable to reach agreement with an alternative manufacturer. In addition, the COVID-19 pandemic may impact Carisma's ability to procure sufficient supplies for the development of its product candidates. The extent of this impact will depend on the severity and duration of the spread of the virus, and the actions undertaken to contain COVID-19 or treat its effects.

Carisma's current and anticipated future dependence upon others for the manufacture of its product candidates or products may adversely affect its future profit margins and its ability to commercialize any products that receive marketing approval on a timely and competitive basis.

Carisma expects to depend on collaborations with third parties for the research, development and commercialization of certain of its product candidates. If Carisma's collaborations are not successful, it may not be able to capitalize on the market potential of these product candidates and its business could be adversely affected.

Carisma anticipates seeking third-party collaborators for the research, development and commercialization of certain of its product candidates. For example, Carisma entered into a strategic collaboration with Moderna in January 2022 focused on the development of *in vivo* CAR-M therapeutics for up to twelve product candidates. In collaboration with Moderna, Carisma has established a myeloid tropic LNP/mRNA *in vivo* CAR-M platform for oncology targets, which enables an off-the-shelf approach wherein the patient's own myeloid cells are engineered directly within their body via the administration of a myeloid-tropic LNP encapsulating macrophage reprogramming mRNA CAR constructs, removing the requirement for *ex vivo* cell manufacturing entirely. As part of the collaboration, Carisma received a $45.0 million up-front cash payment from Moderna, in addition to future research funding, milestone payments and royalties. Concurrent with entering into the collaboration agreement, Moderna made an investment in Carisma in the form of a $35.0 million convertible note.

Carisma's likely collaborators for any other collaboration arrangements include large and mid-size pharmaceutical companies and biotechnology companies.

Any such arrangements with third parties will likely limit Carisma's control over the amount and timing of resources that its collaborators dedicate to the development or commercialization of its product candidates Carisma may seek to develop with them. Carisma's ability to generate revenues from these arrangements will depend on its collaborators' abilities and efforts to successfully perform the functions assigned to them in these arrangements. Carisma cannot predict the success of any collaboration that it enters into.

Collaborations involving Carisma's discovery programs or any product candidates it may develop, including its collaboration with Moderna, pose the following risks to Carisma:

- collaborators have significant discretion in determining the amount and timing of efforts and resources that they will apply to these collaborations; for example, Carisma's collaboration with Moderna is managed by a joint steering committee, which is comprised of representatives from Carisma and Moderna, with Moderna having final decision-making authority, subject to specified limitations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development of Carisma's product candidates or may elect not to continue or renew development programs based on results of clinical trials or other studies, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition or business combination, that divert resources or create competing priorities;
- collaborators may not pursue development and commercialization of any product candidates that achieve marketing approval or may elect not to continue or renew commercialization programs based on results of clinical trials or other studies, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition or business combination, that may divert resources or create competing priorities;

- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

- Carisma may not have access to, or may be restricted from disclosing, certain information regarding product candidates being developed or commercialized under a collaboration and, consequently, may have limited ability to inform its stockholders about the status of such product candidates on a discretionary basis; for example, data, results and know-how generated in the performance of the Moderna collaboration is deemed the confidential information of Moderna, which Carisma may not disclose except under limited circumstances;

- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with Carisma's product candidates and products if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than Carisma's;

- product candidates discovered in collaboration with Carisma may be viewed by Carisma's collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of Carisma's product candidates;

- a collaborator may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution or marketing of a product candidate or product;

- a collaborator may seek to renegotiate or terminate their relationship with Carisma due to unsatisfactory clinical results, manufacturing issues, a change in business strategy, a change of control or other reasons;

- a collaborator with marketing and distribution rights to one or more of Carisma's product candidates that achieve marketing approval may not commit sufficient resources to the marketing and distribution of such product or products;

- disagreements with collaborators, including disagreements over intellectual property or proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of product candidates, might lead to additional responsibilities for Carisma with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- Carisma may lose certain valuable rights under circumstances identified in its collaborations, including if it undergoes a change of control;

- collaborators may not properly obtain, maintain, enforce, defend or protect Carisma's intellectual property or proprietary rights or may use its proprietary information in such a way as to potentially lead to disputes or legal proceedings that could jeopardize or invalidate its intellectual property or proprietary information or expose Carisma to potential litigation; for example, Moderna has the first right to prosecute, enforce or defend certain patent rights under its agreement with Carisma, and although Carisma may have the right to assume the prosecution, enforcement or defense of such patent rights if Moderna does not, Carisma's ability to do so may be compromised by Moderna's actions;

- disputes may arise with respect to the ownership of intellectual property developed pursuant to Carisma's collaborations;

- collaborators may infringe, misappropriate or otherwise violate the intellectual property or proprietary rights of third parties, which may expose Carisma to litigation and potential liability;

- collaborations may be terminated, and, if terminated, Carisma could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates; for example, Moderna has the right to terminate its agreement with Carisma for convenience in its entirety or with respect to a specific product or target on ninety days' prior notice, in connection with a material breach of the agreement by Carisma that remains uncured for a specified period of time or in the event of specified insolvency events involving Carisma; and

- collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner, or at all. If a present or future collaborator of Carisma's were to be involved in a business combination, the continued pursuit and emphasis on its product development or commercialization program under such collaboration could be delayed, diminished or terminated.

If any collaborations that Carisma enters into do not result in the successful development and commercialization of products or if one of Carisma's collaborators terminates its agreement with it, Carisma may not receive any future research funding or milestone or royalty payments under the collaboration. If Carisma does not receive the funding it expects under these agreements, its development of its product candidates could be delayed and it may need additional resources to develop its product candidates. All of the risks relating to product development, marketing approval and commercialization described in this proxy statement/prospectus also apply to the activities of Carisma's collaborators.

Carisma may in the future decide to collaborate with biopharmaceutical companies for the development and potential commercialization of any product candidates it may develop. These relationships, or those like them, may require Carisma to incur non-recurring and other charges, increase Carisma's near- and long-term expenditures, issue securities that dilute Carisma's existing stockholders, or disrupt Carisma's management and business. In addition, Carisma could face significant competition in seeking appropriate collaborators, and the negotiation process is time-consuming and complex. Carisma's ability to reach a definitive collaboration agreement will depend, among other things, upon its assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration, and the proposed collaborator's evaluation of several factors. If Carisma licenses rights to any product candidates it or its collaborators may develop, Carisma may not be able to realize the benefit of such transactions if it is unable to successfully integrate them with its existing operations and company culture.

Carisma may seek to establish additional collaborations. If Carisma is not able to establish or maintain additional collaborations, on commercially reasonable terms, it may have to alter its development and commercialization plans and its business could be adversely affected.

To realize the full potential of Carisma's macrophage engineering platform and accelerate the development of additional macrophage engineering programs, Carisma plans to continue to selectively pursue collaborations with leading biopharmaceutical companies with particular experience, including development and commercial expertise and capabilities. Carisma faces significant competition in attracting appropriate collaborators, and a number of more established companies may also be pursuing strategies to license or acquire third-party intellectual property rights that it considers attractive. These established companies may have a competitive advantage over Carisma due to their size, financial resources and greater clinical development and commercialization capabilities. In addition, companies that perceive Carisma to be a competitor may be unwilling to assign or license rights to Carisma. Whether Carisma reaches a definitive agreement for a collaboration will depend, among other things, upon its assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or other regulatory authorities, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to Carisma's ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, the terms of any existing collaboration agreements, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with Carisma for its product candidate. Carisma may also be restricted under future license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate, document and execute. In addition, there have been a significant number of recent business combinations among large biopharmaceutical companies that have resulted in a reduced number of potential future collaborators. Any collaboration Carisma may enter into may limit its ability to enter into future agreements on particular terms or covering similar target indications with other potential collaborators.

If Carisma is unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms or at all, it may have to curtail the development of a product candidate, reduce or delay its development program or one or more of Carisma's other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase its expenditures and undertake development or commercialization activities at its own expense. If Carisma elects to fund and undertake development or commercialization activities on its own, it may need to obtain additional expertise and additional capital, which may not be available to Carisma on acceptable terms or at all. If Carisma fails to enter into collaborations and does not have sufficient

funds or expertise to undertake the necessary development and commercialization activities, it may not be able to further develop its product candidates or bring them to market and generate revenue from product sales, which could have an adverse effect on its business, prospects, financial condition and results of operations.

Carisma has a number of academic collaborations to supplement its internal discovery and product development program. If any such collaborator decides to discontinue or devote less resources to such research, Carisma's discovery programs could be diminished.

Carisma's discovery engine is supplemented by academic collaborations to expand its platform, which Carisma relies upon to advance its development and commercialization plans for its product candidates. In August 2020, Carisma entered into a scientific research and licensing agreement with Nathaniel R. Landau, Ph.D. and NYU Langone Health through which it attached exclusive rights to develop their Vpx lentiviral vector globally for all indications. In April 2021, Carisma established an academic partnership with cell therapy expert Bruce Blazar, M.D., Regents Professor of Pediatrics, Division of Blood and Marrow Transplantation and Cellular Therapy at the University of Minnesota, to explore and develop an allogeneic, iPSC-derived monocyte and macrophage platform with the potential to develop iPSC-derived CAR-M and other macrophage therapies for indications in oncology and beyond, such as fibrosis, auto-immunity, chronic inflammation, and others. Carisma also has an ongoing discovery program in neurodegeneration being pursued through a sponsored research agreement with Dr. Saar Gill, Associate Professor of Medicine at the University of Pennsylvania and co-founder of Carisma, to develop CAR macrophages and microglia targeted against protein aggregates associated with neurodegenerative disease pathology.

While these academic institutions have contractual obligations to Carisma, they are independent entities and are not under Carisma's control or the control of Carisma's officers or directors. Carisma's research and licensing agreements with academic collaborators generally provide academic collaborators with license maintenance fees, development and regulatory milestone payments, royalties on net sales of products and a portion of sublicense income that Carisma receives. Upon the scheduled expiration of any academic collaboration, Carisma may not be able to renew the related agreement or any renewal could be on terms less favorable to Carisma than those contained in the existing agreement. Furthermore, either Carisma or the academic institution generally may terminate the sponsored research agreement for convenience following a specified notice period. If any of these academic institutions decides to not renew or to terminate the related agreement or decides to devote fewer resources to such activities, Carisma's discovery efforts would be diminished, while its royalty obligations, if any, would continue unmodified.

Any acquisitions or in-license transactions that Carisma completes could disrupt its business, cause dilution to its stockholders or reduce its financial resources.

Carisma has licensed three patent families from the University of Pennsylvania and one patent family from New York University and may enter into transactions to in-license or acquire other businesses, intellectual property, technologies, product candidates or products. If Carisma determines to pursue a particular transaction, it may not be able to complete the transaction on favorable terms, or at all. Any in-licenses or acquisitions Carisma completes may not strengthen its competitive position, and these transactions may be viewed negatively by customers or investors. Carisma may decide to incur debt in connection with an in-license or acquisition or issue its common stock or other equity securities to the stockholders of the target company, which would reduce the percentage ownership of its existing stockholders. Carisma could incur losses resulting from undiscovered liabilities that are not covered by the indemnification it may obtain from the seller. In addition, Carisma may not be able to successfully integrate the acquired personnel, technologies and operations into its existing business in an effective, timely and nondisruptive manner. In-license and acquisition transactions may also divert management attention from day-to-day responsibilities, increase its expenses and reduce its cash available for operations and other uses. Carisma cannot predict the number, timing or size of additional future in-licenses or acquisitions or the effect that any such transactions might have on its operating results.

Risks Related to Carisma's Intellectual Property

If Carisma is unable to obtain, maintain and enforce patent protection for its technology and product candidates or if the scope of the patent protection obtained is not sufficiently broad, its competitors could develop and commercialize technology and products similar or identical to Carisma's, and its ability to successfully develop and commercialize its technology and product candidates may be adversely affected and Carisma may not be able to compete effectively in its market.

Carisma's commercial success depends in part on its ability to obtain, maintain and enforce protection of the intellectual property it may own solely and jointly with others or may license from others, particularly patents, in the United States and other countries with respect to any proprietary technology and product candidates. Carisma seeks to protect its proprietary position by filing patent applications in the United States and abroad related to its technologies and product candidates that are important to its business and by in-licensing intellectual property related to such technologies and product candidates. If Carisma is unable to obtain, maintain or enforce patent protection with respect to any proprietary technology or product candidate, its business, financial condition, results of operations and prospects could be materially harmed. Any disclosure to or misappropriation by third parties of Carisma's confidential proprietary information could enable competitors to quickly duplicate or surpass Carisma's technological achievements, thus eroding Carisma's competitive position in its market. Moreover, the patent applications Carisma owns, co-owns or licenses may fail to result in issued patents in the United States or in other foreign countries.

The patent prosecution process is expensive, time-consuming and complex, and Carisma may not be able to file, prosecute, maintain, defend or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that Carisma will fail to identify patentable aspects of its research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, Carisma does not have the right to control the preparation, filing and prosecution of patent applications, or to maintain, enforce and defend the patents, covering technology that Carisma licenses from third parties. Therefore, these in-licensed patents and applications may not be prepared, filed, prosecuted, maintained, defended and enforced in a manner consistent with the best interests of its business.

The patent position of biopharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the scope of patent protection outside of the United States is uncertain and laws of foreign countries may not protect Carisma's rights to the same extent as the laws of the United States or vice versa. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. With respect to both owned and in-licensed patent rights, Carisma cannot predict whether the patent applications Carisma and its licensors are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors. Further, Carisma may not be aware of all third-party intellectual property rights potentially relating to its product candidates. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not published at all. Therefore, neither Carisma nor its licensors can know with certainty whether either Carisma or its licensors were the first to make the inventions claimed in the patents and patent applications Carisma owns or in-licenses now or in the future, or that either Carisma or its licensors were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of its patent rights are highly uncertain. Moreover, its owned or in-licensed pending and future patent applications may not result in patents being issued which protects its technology and product candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of its patents and its ability to obtain, protect, maintain, defend and enforce its patent rights, narrow the scope of its patent protection and, more generally, could affect the value or narrow the scope of its patent rights.

Moreover, Carisma or its licensors may be subject to a third-party preissuance submission of prior art to the USPTO or become involved in opposition, derivation, revocation, reexamination, inter partes review, post-grant review or interference proceedings challenging its patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, its patent rights, allow third parties to commercialize its technology or product candidates and compete directly with it, without payment to it, or result in its inability to manufacture or commercialize products without infringing third-party patent rights. If the breadth or strength of protection provided by its patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with it to license, develop or commercialize current or future product candidates.

Carisma's owned or licensed patent estate includes patent applications, many of which are at an early stage of prosecution. The coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if its owned or in-licensed patent applications issue as patents, they may not issue in a form that will provide it with any meaningful protection, prevent competitors from competing with it or otherwise provide it with any competitive advantage. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and its owned and in-licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit its ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of its technology and product candidates. Such proceedings also may result in substantial cost and require significant time from its management and employees, even if the eventual outcome is favorable to Carisma. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. Furthermore, its competitors may be able to circumvent its owned or in-licensed patents by developing similar or alternative technologies or products in a non-infringing manner. As a result, its patent portfolio may not provide it with sufficient rights to exclude others from commercializing technology and products similar or identical to any of its technology and product candidates.

Patent terms may be inadequate to protect Carisma's competitive position with respect to its current or future product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but there is no assurance that any such extensions will be obtained, and the life of a patent, and the protection it affords, is limited. Even if patents covering Carisma's current or future product candidates are obtained, once the patent life has expired, it may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, its patent portfolio may not provide it with sufficient rights to exclude others from commercializing products similar or identical to Carisma's.

In the United States, patent term can also be adjusted due to delays that occur during examination of patent

applications, which may extend the term of a patent beyond 20 years. There is a risk that Carisma may take action that detracts from any accrued patent term adjustment.

It is necessary to pay certain maintenance fees, also referred to as annuities or renewal fees in some countries, throughout the lifetime of a patent at regular intervals. Failure to pay these fees can cause a granted patent to prematurely expire, without an opportunity for revival. There is a risk that Carisma may be unable to maintain patent protection for certain patents in all markets due to finite availability of resources.

If Carisma is unable to obtain licenses from third parties on commercially reasonable terms or fail to comply with its obligations under such agreements, its business could be harmed.

It may be necessary for it to use the patented or proprietary technology of third parties to commercialize its products, in which case Carisma would be required to obtain a license from these third parties. If Carisma is unable to license such technology, or if Carisma is forced to license such technology on unfavorable terms, its business could be materially harmed. If Carisma is unable to obtain a necessary license, Carisma may be unable to develop or commercialize the affected product candidate(s), which could materially harm its business and the third parties owning such intellectual property rights could seek either an injunction prohibiting its sales or an obligation on its part to pay royalties and/or other forms of compensation. Even if Carisma is able to obtain a license, it may be non-exclusive, thereby giving its competitors access to the same technologies licensed to it.

If Carisma is unable to obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights Carisma has, Carisma may be required to expend significant time and resources to redesign its technology, product candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If Carisma is unable to do so, Carisma may be unable to develop or commercialize the affected

technology and product candidates, which could harm its business, financial condition, results of operations and prospects significantly.

Additionally, if Carisma fails to comply with its obligations under any license agreements, its counterparties may have the right to terminate these agreements, in which event Carisma might not be able to develop, manufacture or market, or may be forced to cease developing, manufacturing or marketing, any product that is covered by these agreements or may face other penalties under such agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of its rights under these agreements, or restrictions on its ability to freely assign or sublicense its rights under such agreements when it is in the interest of its business to do so, may result in it having to negotiate new or restated agreements with less favorable terms, cause it to lose its rights under these agreements, including its rights to important intellectual property or technology or impede, or delay or prohibit the further development or commercialization of one or more product candidates that rely on such agreements.

If Carisma does not obtain patent term extension for any product candidates it may develop, its business may be materially harmed.

In the United States, the term of a patent that covers an FDA-approved drug may, in certain cases, be eligible for a patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, as compensation for the loss of a patent term during the FDA regulatory review process for a drug product subject to the provisions of the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent term extension of up to five years, but patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent among those eligible for an extension and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and certain other non-United States jurisdictions to extend the term of a patent that covers an approved drug. While, in the future, if and when its product candidates receive FDA approval, Carisma expects to apply for patent term extensions on patents covering those product candidates, there is no guarantee that the applicable authorities, including the FDA, will agree with its assessment of whether such extensions should be granted, and even if granted, the length of such extensions. Carisma may not be granted patent term extension either in the United States or in any foreign country because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than requests. If Carisma is unable to obtain any patent term extension or the term of any such extension is less than it requests, its competitors may obtain approval of competing products following the expiration of its patent rights, and its business, financial condition, results of operations and prospects could be materially harmed.

Changes to patent laws in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing its ability to protect its products.

Changes in either the patent laws or interpretation of patent laws in the United States, including patent reform legislation such as the Leahy-Smith America Invents Act, or the Leahy-Smith Act, could increase the uncertainties and costs surrounding the prosecution of its owned or in-licensed patent applications and the maintenance, enforcement or defense of its owned or in-licensed issued patents.

In addition, the patent positions of companies in the development and commercialization of pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and wakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on Carisma's patent rights and its ability to protect, defend and enforce its patent rights in the future. Similarly, changes in patent law and regulations in other countries or jurisdictions, changes in the governmental bodies that enforce them or changes in how the relevant governmental authority enforces patent laws or regulations may weaken Carisma's ability to obtain new patents or to enforce patents that Carisma owns or has licensed or that Carisma may obtain in the future.

The federal government retains certain rights in inventions created using its financial assistance under the Bayh-Dole Act. The federal government retains a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit. The Bayh-Dole Act also provides federal agencies with "march-in rights". March-in rights allow the government, in specified circumstances, to require the

contractor or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself. Carisma collaborates with a number of universities with respect to certain of its research and development. Carisma cannot be sure that any co-developed intellectual property will be free from government rights pursuant to the Bayh-Dole Act. If, in the future, Carisma co-owns or in-licenses technology which is critical to its business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, its ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

Although Carisma or its licensors are not currently involved in any litigation, Carisma may become involved in lawsuits to protect or enforce its patent, the patents of its licensors or other intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors and other third parties may infringe, misappropriate or otherwise violate Carisma's or its licensor's issued patents, the patents of its licensors or other intellectual property. It may be difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's product. To counter infringement or misappropriation, Carisma or its licensors may need to file infringement, misappropriation or other intellectual property related claims, which can be expensive and time-consuming and can distract its management and scientific personnel. There can be no assurance that Carisma will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Any claims Carisma asserts against perceived infringers could provoke such parties to assert counterclaims against it, alleging that it infringes, misappropriates or otherwise violates their intellectual property.

In addition, in a patent infringement proceeding, such parties could counterclaim that the patents Carisma or its licensors have asserted are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including novelty, non-obviousness, enablement, or written description. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may institute such claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, inter partes review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions, such as opposition proceedings. The outcome following legal assertions of invalidity and unenforceability is unpredictable. Similarly, if Carisma or its licensors assert trademark infringement claims, a court may determine that the marks Carisma or its licensors have asserted are invalid or unenforceable, or that the party against whom Carisma or its licensors have asserted trademark infringement has superior rights to the marks in question. In this case, Carisma could ultimately be forced to cease use of such trademarks, which could materially harm its business and negatively affect its position in the marketplace.

An adverse result in any such proceeding could put one or more of its owned or in-licensed patents at risk of being invalidated, held unenforceable or interpreted narrowly, could put any of its owned or in-licensed patent applications at risk of not yielding an issued patent, and could limit its or its licensor's ability to assert those patents against those parties, or other competitors, and curtail or preclude its ability to exclude third parties from developing and commercializing similar or competitive products. A court may also refuse to stop the third party from using the technology at issue in a proceeding on the grounds that its owned or in-licensed patents do not cover such technology. Even if Carisma establishes infringement, a court may not order the third party to stop using the technology at issue and instead award only monetary damages to Carisma, which may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of its confidential information or trade secrets could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions, or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of its common stock. Any of the foregoing could allow such third parties to develop and commercialize competing technologies and products and have a material adverse impact on its business, financial condition, results of operations and prospects.

Interference or derivation proceedings provoked by third parties or brought by Carisma or declared by the USPTO may be necessary to determine the priority of inventions with respect to its patents or patent applications. An unfavorable outcome could require it to cease using the related technology or to attempt to license rights to it from the prevailing party. Carisma's business could be harmed if the prevailing party does not offer it a license on commercially reasonable terms or at all, or if a non-exclusive license is offered and its competitors gain access to the same technology. Its defense of litigation or interference or derivation proceedings may

fail and, even if successful, may result in substantial costs and distract its management, technical personnel and other employees. In addition, the uncertainties associated with litigation could have a material adverse effect on its ability to raise the funds necessary to continue its clinical trials, continue its research programs, license necessary technology from third parties, or enter into development partnerships that would help it bring its product candidates to market.

Any such litigation or proceedings could substantially increase Carisma's operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. Carisma may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of Carisma's competitors may be able to sustain the costs of such litigation or proceedings more effectively than Carisma can because of their greater financial resources in one or more aspects, or for other reasons. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise Carisma's ability to compete in the marketplace.

Carisma may need to license intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights, that are important or necessary to the development of Carisma's products. It may be necessary for it to use the patented or proprietary technology of a third party to commercialize its own technology or products, in which case it would be required to obtain a license from such third party. A license to such intellectual property may not be available or may not be available on commercially reasonable terms, which could have a material adverse effect on Carisma's business and financial condition.

The licensing and acquisition of third-party intellectual property rights is a competitive practice, and companies that may be more established, or have greater resources than Carisma, may also be pursuing strategies to license or acquire third-party intellectual property rights that it may consider necessary or attractive in order to commercialize its product candidates. More established companies may have a competitive advantage over Carisma due to their larger size and cash resources or greater clinical development and commercialization capabilities. Carisma may not be able to successfully complete such negotiations and ultimately acquire the rights to the intellect al property surrounding the additional product candidates that it may seek to acquire.

Third parties may initiate legal proceedings alleging that Carisma is infringing, misappropriating or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of its business.

Carisma's commercial success depends upon its ability and the ability of its collaborators to develop, manufacture, market and sell its product candidates and use its proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. There is considerable patent and other intellectual property litigation in the biopharmaceutical industry. Carisma may become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to its technology and product candidates, including interference proceedings, post grant review, *inter partes* review, and derivation proceedings before the USPTO and similar proceedings in foreign jurisdictions, such as opposition proceedings before the European Patent Office. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which Carisma is pursuing development candidates. As the biopharmaceutical industry expands and more patents are issued, the risk increases that its technologies or product candidates that Carisma may identify may be subject to claims of infringement of the patent rights of third parties.

The legal threshold for initiating litigation or contested proceedings is low, so even lawsuits or proceedings with a low probability of success might be initiated and require significant resources to defend. Litigation and contested proceedings can also be expensive and time-consuming, and its adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than Carisma can. The risks of being involved in such litigation and proceedings may increase if and as its product candidates near commercialization and as Carisma gains the greater visibility associated with being a public company. Third parties may assert infringement claims against it based on existing patents or patents that may be granted in the future, regardless of merit. Even if Carisma diligently searches third-party patents for potential infringement by its products or product candidates, it may not successfully find patents its products or product candidates may infringe. Carisma may not be aware of all such intellectual property rights potentially relating to its technology and product candidates and their uses, or Carisma may incorrectly conclude that third-party intellectual property is invalid or that its activities and product candidates do not infringe such intellectual

property. Thus, Carisma does not know with certainty that its technology and product candidates, or its development and commercialization thereof, do not and will not infringe, misappropriate or otherwise violate any third party's intellectual property.

Third parties may assert that Carisma is employing its proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations or methods, such as methods of manufacture or methods for treatment, related to the discovery, use or manufacture of the product candidates that Carisma may identify or related to its technologies. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that the product candidates that Carisma may identify may infringe. In addition, third parties may obtain patents in the future and claim that use of its technologies infringe upon these patents. Moreover, as noted above, there may be existing patents that Carisma is not aware of or that Carisma has incorrectly concluded are invalid or not infringed by its activities. If any third-party patents were held by a court of competent jurisdiction to cover, for example, the manufacturing process of the product candidates that Carisma may identify, any molecules formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block its ability to commercialize such product candidate unless Carisma obtained a license under the applicable patents, or until such patents expire.

Parties making claims against it may obtain injunctive or other equitable relief, which could effectively block its ability to further develop and commercialize the product candidates that Carisma may identify. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from its business. In the event of a successful claim of infringement against us, Carisma may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign its infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

Carisma may choose to take a license or, if it is found to infringe, misappropriate or otherwise violate a third party's intellectual property rights, it could also be required to obtain a license from such third party to continue developing, manufacturing and marketing its technology and product candidates. However, it may not be able to obtain any required license on commercially reasonable terms or at all. Even if it is able to obtain a license, it could be non-exclusive, thereby giving its competitors and other third parties access to the same technologies licensed to it and could require it to make substantial licensing and royalty payments. Carisma could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or product. In addition, Carisma could be found liable for significant monetary damages, including treble damages and attorneys' fees, if Carisma is found to have willfully infringed a patent or other intellectual property right, it could be forced to indemnify its customers or collaborators. A finding of infringement could prevent it from commercializing its product candidates or force it to cease some of its business operations, which could materially harm its business. In addition, Carisma may be forced to redesign its product candidates, seek new regulatory approvals and indemnify third parties pursuant to contractual agreements. Claims that Carisma has misappropriated the confidential information or trade secrets of third parties could have a similar material adverse effect on its business, financial condition, results of operations and prospects.

If its trademarks and trade names are not adequately protected, then Carisma may not be able to build name recognition in its markets of interest and its business may be adversely affected.

While Carisma seeks to protect the trademarks and trade names it uses in the United States and in other countries, it may be unsuccessful in obtaining registrations or otherwise protecting these trademarks and trade names, which it needs to build name recognition in its markets of interest and among potential partners or customers. Carisma relies on both registration and common law protection for its trademarks. Its registered or unregistered trademarks or trade names may be challenged, infringed, diluted or declared generic, or determined to be infringing on other marks. At times, competitors may adopt trademarks and trade names similar to ours, or collaborators may fail to use Carisma's trade names or trademarks, thereby impeding its ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of its registered or unregistered trademarks. If Carisma is unable to protect its rights to trademarks and trade names, Carisma may be prevented from using such marks and names unless Carisma enters into appropriate royalty, license or coexistence agreements, which may not be available or may not be available on commercially reasonable terms.

During trademark registration proceedings, Carisma may receive rejections. Although Carisma would be given an opportunity to respond to those rejections, it may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel

registered trademarks. Opposition or cancellation proceedings may be filed against its trademarks, and its trademarks may not survive such proceedings. Effective trademark protection may not be available or may not be sought in every country in which its products are made available. Any name Carisma proposes to use for its products in the United States must be approved by the FDA, regardless of whether Carisma has registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of its proposed product names, Carisma may be required to expend significant additional resources in an effort to identify a usable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. If Carisma is unable to establish name recognition based on its trademarks and trade names, Carisma may not be able to compete effectively and its business may be adversely affected.

Carisma may license its trademarks and trade names to third parties, such as distributors and collaborators. Though these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of or failure to use our trademarks and trade names by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks, and trade names. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, trade secrets, know-how, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect Carisma's business, financial condition, results of operations and prospects.

Intellectual property litigation or other legal proceedings relating to intellectual property could cause it to spend substantial resources and distract its personnel from their normal responsibilities.

Even if resolved in its favor, litigation or other legal proceedings relating to intellectual property claims may cause it to incur significant expenses and could distract its technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of its common stock. Such litigation or proceedings could substantially increase its operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. Carisma may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of its competitors may be able to sustain the costs of such litigation or proceedings more effectively than Carisma can because of their greater financial resources and may also have an advantage in such proceedings due to their more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of intellectual property litigation or other proceedings could compromise its ability to compete in the marketplace.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and its patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance, renewal and annuity fees and various other government fees on any issued patent and pending patent application must be paid to the USPTO and foreign patent agencies in several stages or annually over the lifetime of its patents and patent applications. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain circumstances, Carisma relies on its licensing partners to pay these fees to, or comply with the procedural and documentary rules of, the relevant patent agency. With respect to its patents, Carisma relies on an annuity service, outside firms and outside counsel to remind it of the due dates and to make payment after Carisma instructs them to do so. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, potential competitors might be able to enter the market with similar or identical products or technology. If Carisma or its licensors fail to maintain the patents and patent applications covering its product candidates, it would have a material adverse effect on its business, financial condition, results of operations and prospects.

If Carisma fails to comply with its obligations in its current and future intellectual property licenses and funding arrangements with third parties, or otherwise experience disruptions to its business relationships with its licensors, Carisma could lose intellectual property rights that are important to its business.

Carisma is party to a number license and research agreements. Some of these agreements provide Carisma with the intellectual property rights required for the development of its product candidates, including the license agreement with the University of Pennsylvania. These licenses and research agreements and similar agreements in the future may impose diligence, development and commercialization timelines, and milestone payment, royalty, insurance and other obligations on Carisma. If Carisma fails to comply with such obligations, the parties to these agreements may decide to terminate the agreements or require Carisma to grant them certain rights, in which Carisma may not be able to develop, manufacture, or market any products without the rights granted to it by these agreements and may face other penalties. Any such occurrences could adversely affect the value of any product candidate being developed, including CT-508.

For a variety of purposes, Carisma will likely enter into additional licensing and funding arrangements with third parties that may impose similar obligations on Carisma. Termination of these agreements or reduction or elimination of its rights under these agreements may result in it having to negotiate new or restated agreements with less favorable terms, or cause it to lose its rights under these agreements, including its rights to important intellectual property or technology, which would have a material adverse effect on its business, financial condition, results of operations and prospects. While Carisma still faces all of the risks described herein with respect to such agreements, Carisma cannot prevent third parties from also accessing those technologies. In addition, its licenses may place restrictions on its future business opportunities.

In addition to the above risks, intellectual property rights that Carisma licenses in the future may include sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of its licensors may therefore affect its rights to use its sublicensed intellectual property, even if Carisma is in compliance with all of the obligations under its license agreements. Should its licensors or any of the upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to Carisma, or should such agreements be terminated or amended, its ability to develop and commercialize its product candidates may be materially harmed.

Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation related issues;
- the extent to which its technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under its collaborative development relationships;
- its diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by its licensors and it and its partners; and
- the payment obligations with respect to licensed technology.

In addition, the agreements under which Carisma currently licenses intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what Carisma believes to be the scope of its rights to the relevant intellectual property or technology or increase what Carisma believes to be its financial or other obligations under the relevant agreement, either of which could have a material adverse effect on its business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that Carisma has licensed prevent or impair its ability to maintain its current licensing arrangements on commercially acceptable terms, Carisma may be unable to successfully develop and commercialize the affected technology and product candidates, which could have a material adverse effect on its business, financial conditions, results of operations and prospects.

Further, licensors could retain the right to prosecute and defend the intellectual property rights licensed to Carisma, in which case Carisma would depend on its licensors to control the prosecution, maintenance and enforcement of all of its licensed and sublicensed intellectual property, and even when it does have such rights, Carisma may require the cooperation of its licensors and upstream licensors, which may not be forthcoming. Licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than Carisma would. Its business could be adversely affected if Carisma or its licensors are unable to prosecute, maintain and enforce its licensed and sublicensed intellectual property effectively.

Carisma's current or future licensors may have relied on third-party consultants or collaborators or on funds from third parties such that its licensors are not the sole and exclusive owners of the patents and patent applications Carisma in-licenses. If other third parties have ownership rights to patents or patent applications Carisma in-licenses, they may be able to license such patents to its competitors, and its competitors could market competing products and technology. This could have a material adverse effect on its competitive position, business, financial conditions, results of operations and prospects.

In spite of its best efforts, its licensors might conclude that Carisma has materially breached its license agreements and might therefore terminate the license agreements, thereby removing its ability to develop and commercialize product candidates and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying intellectual property fails to provide the intended exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products and technologies identical to its. This could have a material adverse effect on its competitive position, business, financial condition, results of operations and prospects.

Carisma may not be able to protect its intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect its rights to the same extent as the laws of the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States, and even where such protection is nominally available, judicial and governmental enforcement of such intellectual property rights may be lacking. Consequently, Carisma may not be able to prevent third parties from practicing its inventions in all countries outside the United States, or from selling or importing products made using its inventions in and into the United States or other jurisdictions. Competitors may use its technologies in jurisdictions where Carisma has not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where Carisma has patent protection or licenses but enforcement is not as strong as that in the United States. These products may compete with its products, and its patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for it to stop the infringement of its patents or marketing of competing products in violation of its intellectual property and proprietary rights generally. In addition, certain jurisdictions do not protect to the same extent or at all inventions that constitute new methods of treatment.

Proceedings to enforce its intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert its efforts and attention from other aspects of its business, could put its patents at risk of being invalidated, held unenforceable or interpreted narrowly, could put its patent applications at risk of not issuing, and could provoke third parties to assert claims against Carisma. Carisma may not prevail in any lawsuits that Carisma initiates, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, its efforts to enforce its intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that Carisma develops or licenses.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If Carisma or any of its licensors are forced to grant a license to third parties with respect to any patents relevant to its business, its competitive position may be impaired, and its business, financial condition, results of operations and prospects may be adversely affected.

Carisma may be subject to claims challenging the inventorship or ownership of its patents and other intellectual property.

Carisma or its licensors may be subject to claims that former employees, collaborators or other third parties have an interest in its owned or in-licensed patents, trade secrets or other intellectual property as an inventor or co-inventor. For example, Carisma or its licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing its product candidates. Although it is Carisma's policy to require its employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, Carisma may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that Carisma regards as its own, and Carisma cannot be certain that its agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which Carisma may not have an adequate remedy. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and litigation may be necessary to defend against these and other claims challenging inventorship or its or its licensors' ownership of its owned or in-licensed patents, trade secrets or other intellectual property. If Carisma or its licensors fail in defending any such claims, in addition to paying monetary damages, Carisma may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to its product candidates. Even if Carisma is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on its business, financial condition, results of operations and prospects.

Carisma may be subject to claims by third parties asserting that its employees, consultants or contractors have wrongfully used or disclosed confidential information of third parties, including of their current or former employers or claims asserting Carisma has misappropriated their intellectual property, or is claiming ownership of what Carisma regards as its own intellectual property.

Many of Carisma's employees, consultants and contractors have been previously employed at universities or other biopharmaceutical companies, including its competitors or potential competitors. Although Carisma tries to ensure that its employees, consultants and contractors do not use the proprietary information or know-how of others in their work for Carisma, Carisma may be subject to claims that these individuals or Carisma have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims.

If Carisma fails in prosecuting or defending any such claims, in addition to paying monetary damages, Carisma may lose valuable intellectual property rights or personnel, which could have a material adverse effect on its competitive business position and prospects. Such intellectual property rights could be awarded to a third party, and Carisma could be required to obtain a license from such third party to commercialize its technology or products, which license may not be available on commercially reasonable terms, or at all, or such license may be non-exclusive. Even if Carisma is successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to its management and employees.

If Carisma is unable to protect the confidentiality of its trade secrets, its business and competitive position would be harmed.

In addition to seeking patents for some of its technology and product candidates, Carisma also relies on trade secrets and confidentiality agreements to protect its unpatented know-how, technology and other proprietary information, to maintain its competitive position. Carisma seeks to protect its trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as its employees, corporate collaborators, outside scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties. Carisma may have also entered into confidentiality and invention or patent assignment agreements with its employees and consultants, but Carisma cannot guarantee that it has entered into such agreements with each party that may have or has had access to its trade secrets or proprietary technology. To the extent Carisma becomes involved in litigation that may require discovery of its trade secrets, know-how and other proprietary technology, Carisma will seek to secure protective orders from the court that bind the parties with access to the discovered information. Despite these efforts, any of these parties may breach the agreements and disclose its proprietary information, including its trade secrets, and Carisma may not be able to obtain adequate remedies for such breaches. Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside of the United States are less willing or unwilling to protect trade secrets. In addition, Carisma cannot be certain that proprietary technical information and related confidential documents that Carisma has shared with its collaborators and/or submitted to governmental agencies, including regulatory agencies for evaluation and supervision of pharmaceutical products, will be kept confidential. If any of

its trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, Carisma would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with Carisma. If any of its trade secrets were to be disclosed to or independently developed by a competitor or other third party, its competitive position would be materially and adversely harmed.

Intellectual property rights do not necessarily address all potential threats to Carisma.

The degree of future protection afforded by Carisma's intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect its business or permit it to maintain its competitive advantage. For example:

- others may be able to make product candidates that are similar to Carisma's but that are not covered by the claims of the patents that it owns or licenses;
- Carisma, or its license partners or current or future collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent applications that it licenses or may own in the future;
- Carisma, or its license partners or current or future collaborators, might not have been the first to file patent applications covering its inventions;
- others may independently develop similar or alternative technologies or duplicate any of its technologies without infringing its owned or in-licensed intellectual property rights;
- it is possible that its owned or in-licensed pending patent applications or those Carisma may own or in-license in the future will not lead to issued patents;
- claims of issued patents that Carisma holds rights to may be held invalid or unenforceable, including as a result of legal challenges by its competitors;
- its competitors might conduct research, development, testing or commercialization activities in countries where Carisma does not have patent rights and then use the information learned from such activities to develop competitive products for sale in its major commercial markets;
- Carisma cannot ensure that any of its patents, or any of its pending patent applications, if issued, or those of its licensors, will include claims having a scope sufficient to protect its product candidates;
- Carisma cannot ensure that any patents issued to it or its licensors will provide a basis for an exclusive market for its commercially viable product candidates or will provide it with any competitive advantages;
- the U.S. Supreme Court, other federal courts, Congress, the USPTO or similar foreign authorities may change the standards of patentability and any such changes could narrow or invalidate, or change the scope of, Carisma's or its licensors' patents;
- patent terms may be inadequate to protect its competitive position on its product candidates for an adequate amount of time;
- Carisma cannot ensure that its commercial activities or product candidates will not infringe upon the patents of others;
- Carisma cannot ensure that it will be able to successfully commercialize its product candidates on a substantial scale, if approved, before the relevant patents that it owns or licenses expire;
- Carisma may not develop additional proprietary technologies that are patentable;
- the patents of others may harm its business; and

- Carisma may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on its business, financial condition, results of operations and prospects.

Risks Related to Regulatory Approval and Other Legal Compliance Matters

The regulatory approval process of the FDA is lengthy, time-consuming and inherently unpredictable, and if Carisma is ultimately unable to obtain marketing approval for its product candidates, its business will be substantially harmed.

The time required to obtain approval by the FDA is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. Carisma has not obtained marketing approval for any product candidate and it is possible that none of its existing product candidates, or any product candidates it may seek to develop in the future will ever obtain marketing approval.

Carisma's product candidates could fail to receive marketing approval for many reasons, including the following:

- the FDA may disagree with the design or implementation of Carisma's clinical trials;
- Carisma may be unable to demonstrate to the satisfaction of the FDA that a product candidate is safe and effective for its proposed indication;
- results of clinical trials may not meet the level of statistical significance required by the FDA for approval;
- Carisma may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA may disagree with Carisma's interpretation of data from pre-clinical studies or clinical trials;
- data collected from clinical trials of Carisma's product candidates may not be sufficient to support the submission of an NDA to the FDA or other submission or to obtain marketing approval in the United States;
- the FDA may find deficiencies with or fail to approve the manufacturing processes or facilities of third-party manufacturers with which Carisma contracts for clinical and commercial supplies; and
- the approval policies or regulations of the FDA may significantly change in a manner rendering Carisma's clinical data insufficient for approval.

This lengthy approval process as well as the unpredictability of future clinical trial results may result in Carisma failing to obtain marketing approval to market any of its product candidates, which would significantly harm its business, results of operations and prospects. The FDA has substantial discretion in the approval process and determining when or whether marketing approval will be obtained for any of Carisma's product candidates. Even if Carisma believes the data collected from clinical trials of its product candidates are promising, such data may not be sufficient to support approval by the FDA.

In addition, even if Carisma were to obtain approval, regulatory authorities may approve any of Carisma's product candidates for fewer or more limited indications than it requests, may not approve the price it intends to charge for its products, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for Carisma's product candidates.

Even if Carisma completes the necessary pre-clinical studies and clinical trials, the marketing approval process is expensive, time-consuming and uncertain and may prevent Carisma from obtaining approvals for the commercialization of some or all of its product candidates. If Carisma is not able to obtain, or if there are delays in obtaining, required regulatory approvals, it will not be able to commercialize, or will be delayed in commercializing, its product candidates, and its ability to generate revenue will be materially impaired.

Carisma's product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, export and import are subject to comprehensive regulation by the FDA and other regulatory authorities in the United States and by the EMA and other regulatory authorities outside of the United States. Failure to obtain marketing approval for a product candidate will prevent Carisma from commercializing the product candidate. Carisma has not submitted an application for or received marketing approval for any of its product candidates in the United States or in any other jurisdiction.

Carisma has only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party clinical research organizations or other third-party consultants or vendors to assist it in this process. Securing marketing approval requires the submission of extensive pre-clinical and clinical data and supporting information, including manufacturing information, to the various regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Carisma's product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude Carisma obtaining marketing approval or prevent or limit commercial use. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that Carisma's data is insufficient for approval and require additional pre-clinical, clinical or other studies. In addition, varying interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval Carisma ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If Carisma experiences delays in obtaining approval or if it fails to obtain approval of its product candidates, the commercial prospects for its product candidates may be harmed and its ability to generate revenues will be materially impaired.

Failure to obtain marketing approval in foreign jurisdictions would prevent Carisma's product candidates from being marketed in such jurisdictions, which, in turn, would materially impair Carisma's ability to generate revenue.

In order to market and sell its products in the European Union and many other foreign jurisdictions, Carisma and its collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The marketing approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. Carisma or these third parties may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. The failure to obtain approval in one jurisdiction may negatively impact Carisma's ability to obtain approval elsewhere. Carisma may not be able to file for marketing approvals and may not receive necessary approvals to commercialize its products in any jurisdiction, which would materially impair its ability to generate revenue.

Additionally, Carisma could face heightened risks with respect to seeking marketing approval in the United Kingdom as a result of the withdrawal of the United Kingdom from the European Union, commonly referred to as Brexit. The United Kingdom is no longer part of the European Single Market and European Union Customs Union. As of January 1, 2021, the Medicines and Healthcare

products Regulatory Agency, or the MHRA, became responsible for supervising medicines and medical devices in Great Britain, comprising England, Scotland and Wales under domestic law, whereas Northern Ireland will continue to be subject to European Union rules under the Northern Ireland Protocol. The MHRA will rely on the Human Medicines Regulations 2012 (SI 2012/1916) (as amended), or the HMR, as the basis for regulating medicines. The HMR has been incorporated into the domestic law of the body of European Union law instruments governing medicinal products that pre-existed prior to the United Kingdom's withdrawal from the European Union. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, may force Carisma to restrict or delay efforts to seek regulatory approval in the United Kingdom for its product candidates, which could significantly and materially harm Carisma's business.

Carisma expects that it will be subject to additional risks in commercializing any of its product candidates that receive marketing approval outside the United States, including tariffs, trade barriers and regulatory requirements; economic weakness, including inflation, or political instability in particular foreign economies and markets; compliance with tax, employment, immigration and labor laws for employees living or traveling abroad; foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country; and workforce uncertainty in countries where labor unrest is more common than in the United States.

Inadequate funding for the FDA, the SEC and other government agencies, including from government shutdowns, or other disruptions to these agencies' operations, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of Carisma's business may rely, which could negatively impact its business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the agency have fluctuated in recent years as a result. Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect Carisma's business. In addition, government funding of the SEC and other government agencies on which Carisma's operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect Carisma's business. For example, over the last several years the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process Carisma's regulatory submissions, which could have a material adverse effect on Carisma's business. Further, future government shutdowns could impact Carisma's ability to access the public markets and obtain necessary capital in order to properly capitalize and continue Carisma's operations.

Separately, in response to the COVID-19 pandemic, a number of companies announced in 2021 receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. Following a period of false starts and temporary suspensions due to the omicron variant, the FDA resumed domestic inspections in February 2022 and indicated that it would conduct foreign inspections beginning in April 2022 on a prioritized basis. However, the FDA may not be able to continue its current pace and review timelines could be extended, including where a pre-approval inspection or an inspection of clinical sites is required and due to the ongoing COVID-19 pandemic and travel restrictions, the FDA is unable to complete such required inspections during the review period.

If a prolonged government shutdown or other disruption occurs, it could significantly impact the ability of the FDA to timely review and process Carisma's regulatory submissions, which could have a material adverse effect on its business. Future shutdowns or other disruptions could also affect other government agencies such as the SEC, which may also impact Carisma's business by delaying review of its public filings, to the extent such review is necessary, and Carisma's ability to access the public markets.

Regulatory requirements governing gene therapy products are periodically updated and may continue to change in the future.

The FDA has established the Office of Tissues and Advanced Therapies, or the OTAT, within the Center for Biologics Evaluation and Research, or the CBER, to consolidate the review of gene therapy and related products, and has established the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER in its review. Gene therapy clinical trials conducted at institutions that receive funding for recombinant DNA research from the U.S. National Institutes of Health, or the NIH, also are potentially subject to review by the Office of Biotechnology Activities' Recombinant DNA Advisory Committee, or the RAC; however, the NIH announced that the RAC will only publicly review clinical trials if the trials cannot be evaluated by standard oversight bodies and pose unusual risks. Although the FDA decides whether individual gene therapy protocols may proceed, the RAC public review process, if undertaken, can delay the initiation of a clinical trial, even if the FDA has reviewed the trial design and details and approved its initiation. Conversely, the FDA can put an IND on a clinical hold even if the RAC has provided a favorable review or an exemption from in-depth, public review. If Carisma were to engage an NIH-funded institution to conduct a clinical trial, that institution's institutional biosafety committee, or IBC, as well as its IRB would need to review the proposed clinical trial to assess the safety of the trial. In addition, adverse developments in clinical trials of gene therapy products conducted by others may cause the FDA or other oversight bodies to change the requirements for approval of Carisma's product candidates.

The FDA has issued various guidance documents regarding gene therapies, including final guidance documents released in January 2020 relating to chemistry, manufacturing and controls information for gene therapy INDs, gene therapies for rare diseases and gene therapies for retinal disorders. Although the FDA has indicated that these and other guidance documents it previously issued are not legally binding, Carisma believes that its compliance with them is likely necessary to gain approval for any gene therapy product candidate that Carisma may develop. The guidance documents provide additional factors that the FDA will consider at each of the above stages of development and relate to, among other things, the proper pre-clinical assessment of gene therapies; the chemistry, manufacturing, and control information that should be included in an IND application; the proper design of tests to measure product potency in support of an IND or BLA application; and measures to observe delayed adverse effects in subjects who have been exposed to investigational gene therapies when the risk of such effects is high. Further, the FDA usually recommends that sponsors observe subjects for potential gene therapy-related delayed adverse events for a 15-year period, including a minimum of five years of annual examinations followed by 10 years of annual queries, either in person or by questionnaire.

Further, for a gene therapy product, the FDA also will not approve the product if the manufacturer is not in compliance with good tissue practices, or GTP. These standards are found in FDA regulations and guidance that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission, and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing.

Finally, ethical, social and legal concerns about gene therapy, genetic testing and genetic research could result in additional regulations or prohibiting the processes that Carisma may use. Federal and state agencies, congressional committees and foreign governments have expressed their intentions to further regulate biotechnology. More restrictive regulations or claims that Carisma's product candidates are unsafe or pose a hazard could prevent Carisma from commercializing any products. New government requirements may be established that could delay or prevent regulatory approval of Carisma's product candidates under development. It is impossible to predict whether legislative changes will be enacted, regulations, policies or guidance changed, or interpretations by agencies or courts changed, or what the impact of such changes, if any, may be.

As Carisma advances its product candidates through clinical development, it will be required to consult with these regulatory and advisory groups, and comply with applicable guidelines. These regulatory review committees and advisory groups and any new guidelines they promulgate may lengthen the regulatory review process, require Carisma to perform additional studies, increase Carisma's development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of Carisma's product candidates or lead to significant post-approval limitations or restrictions. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease Carisma's ability to generate sufficient product revenue.

Even if Carisma, or any collaborators, obtains marketing approvals for its product candidates, the terms of approvals and ongoing regulation of its products may limit how Carisma, or any collaborators, manufacture and market its products, which could materially impair Carisma's ability to generate revenue.

Once marketing approval has been granted, an approved product and its manufacturer and marketer are subject to ongoing review and extensive regulation. Carisma, and any collaborators, must therefore comply with requirements concerning advertising and promotion for any of its product candidates for which Carisma or they obtain marketing approval. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, Carisma, and any collaborators will not be able to promote any products developed for indications or uses for which they are not approved.

In addition, manufacturers of approved products and those manufacturers' facilities are required to comply with extensive FDA requirements, including ensuring that quality control and manufacturing procedures conform to cGMPs, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. Carisma, its third-party manufacturers, any collaborators and their third-party manufacturers could be subject to periodic unannounced inspections by the FDA to monitor and ensure compliance with cGMPs.

Accordingly, assuming Carisma, or any collaborators, receive marketing approval for one or more of their product candidates, Carisma, and any collaborators, and Carisma and any collaborators' respective third-party manufacturers will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control.

If Carisma and such collaborators are not able to comply with post-approval regulatory requirements, Carisma and such collaborators could have the marketing approvals for their products withdrawn by regulatory authorities and Carisma or such collaborators', ability to market any future products could be limited, which could adversely affect Carisma's ability to achieve or sustain profitability. Further, the cost of compliance with post-approval regulations may have a negative effect on Carisma's business, operating results, financial condition and prospects.

Carisma may seek certain designations for its product candidates, including Breakthrough Therapy, Fast Track and Priority Review designations in the United States, but it might not receive such designations, and even if it does, such designations may not lead to a faster development or regulatory review or approval process.

Carisma may seek certain designations for one or more of its product candidates that could expedite review and approval by the FDA. A Breakthrough Therapy product is defined as a product that is intended, alone or in combination with one or more other products, to treat a serious condition, and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For products that have been designated as Breakthrough Therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens.

The FDA may also designate a product for Fast Track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For Fast Track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a Fast Track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a Fast Track product may be effective.

Carisma may also seek a priority review designation for one or more of its product candidates. If the FDA determines that a product candidate offers major advances in treatment or provides a treatment where no adequate therapy exists, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months.

These designations are within the discretion of the FDA. Accordingly, even if Carisma believes that one of its product candidates meets the criteria for these designations, the FDA may disagree and instead determine not to make such designation. Further, even if Carisma receives a designation, the receipt of such designation for a product candidate may not result in a faster development or

regulatory review or approval process compared to products considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA, including the Fast Track designation Carisma received in for CT-0508. In addition, even if one or more of Carisma's product candidates qualifies for these designations, the FDA may later decide that the product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Carisma, or its collaborators, may seek approval from the FDA or comparable foreign regulatory authorities to use accelerated development pathways for its product candidates. If Carisma, or its collaborators, are not able to use such pathways, Carisma, or they, may be required to conduct additional clinical trials beyond those that are contemplated, which would increase the expense of obtaining, and delay the receipt of, necessary marketing approvals, if Carisma, or they, receive them at all. In addition, even if an accelerated approval pathway is available to Carisma, or its collaborators, it may not lead to expedited approval of Carisma's product candidates, or approval at all.

Under the Federal Food, Drug, and Cosmetic Act and implementing regulations, the FDA may grant accelerated approval to a product candidate to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies, upon a determination that the product has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. Prior to seeking such accelerated approval, Carisma, or its collaborators, will continue to seek feedback from the FDA or comparable foreign regulatory agencies and otherwise evaluate Carisma's, or their, ability to seek and receive such accelerated approval.

There can be no assurance that the FDA or foreign regulatory agencies will agree with Carisma's, or its collaborators', surrogate endpoints or intermediate clinical endpoints in any of Carisma's, or their, clinical trials, or that Carisma, or its collaborators, will decide to pursue or submit any additional application for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that, after feedback from the FDA or comparable foreign regulatory agencies, Carisma, or its collaborators, will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval. Furthermore, for any submission of an application for accelerated approval or application under another expedited regulatory designation, there can be no assurance that such submission or application will be accepted for filing or that any expedited development, review or approval will be granted on a timely basis, or at all.

A failure to obtain accelerated approval or any other form of expedited development, review or approval for Carisma's product candidates, or withdrawal of a product candidate, would result in a longer time period until commercialization of such product candidate, could increase the cost of development of such product candidate and could harm Carisma's competitive position in the marketplace.

Carisma may not be able to obtain orphan drug exclusivity for any product candidates it may develop, and even if it does, that exclusivity may not prevent the FDA or the EMA from approving other competing products.

Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug or biologic intended to treat a rare disease or condition. A similar regulatory scheme governs approval of orphan products by the EMA in the European Union. Generally, if a product candidate with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA or the EMA from approving another marketing application for the same product for the same therapeutic indication for that time period. The applicable period is seven years in the United States and ten years in the European Union. The exclusivity period in the European Union can be reduced to six years if a product no longer meets the criteria for orphan drug designation, in particular if the product is sufficiently profitable so that market exclusivity is no longer justified.

In order for the FDA to grant orphan drug exclusivity to one of Carisma's products, the agency must find that the product is indicated for the treatment of a condition or disease with a patient population of fewer than 200,000 individuals annually in the United

States. The FDA may conclude that the condition or disease for which Carisma seeks orphan drug exclusivity does not meet this standard. Even if Carisma obtains orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. In addition, even after an orphan drug is approved, the FDA and comparable foreign regulatory authorities such as the EMA can subsequently approve the same product for the same condition if the FDA or such other authorities conclude that the later product is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity may also be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of the patients with the rare disease or condition.

In 2017, the Congress passed the FDA Reauthorization Act of 2017, or the FDARA. The FDARA, among other things, codified the FDA's pre-existing regulatory interpretation, to require that a drug sponsor demonstrate the clinical superiority of an orphan drug that is otherwise the same as a previously approved drug for the same rare disease in order to receive orphan drug exclusivity. Under omnibus legislation signed by former President Trump in December 2020, the requirement for a product to show clinical superiority applies to drugs and biologics that received orphan drug designation before enactment of FDARA in 2017, but have not yet been approved or licensed by the FDA.

The FDA and Congress may further reevaluate the Orphan Drug Act and its regulations and policies. This may be particularly true in light of a decision from the Court of Appeals for the [1]1th Circuit in September 2021 finding that, for the purpose of determining the scope of exclusivity, the term "same disease or condition" means the designated "rare disease or condition" and could not be interpreted by the FDA to mean the "indication or use." Thus, the court concluded, orphan drug exclusivity applies to the entire designated disease or condition rather than the "indication or use." Carisma does not know if, when, or how the FDA may change the orphan drug regulations and policies in the future, and it is uncertain how any changes might affect Carisma's business. Depending on what changes the FDA may make to its orphan drug regulations and policies, Carisma's business could be adversely impacted.

If Carisma is unable to successfully develop companion diagnostics for its product candidates and secure clearance or approval of such devices by the FDA and other regulatory authorities, or Carisma experiences significant delays in doing so, Carisma may not realize the full commercial potential of its therapeutics.

Carisma believes that its success will depend, in part, on its ability to develop companion diagnostics, which are assays or tests to identify an appropriate patient population for these product candidates. Carisma has little experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of its therapeutic product candidates that receive marketing approval. Companion diagnostics are subject to regulation by the FDA and similar regulatory authorities outside the United States as medical devices and require separate regulatory approval prior to commercialization. Given Carisma's limited experience in developing diagnostics, it relies and expects to continue to rely in part or in whole on third parties for their design and manufacture. Carisma also may in the future depend on other third parties for the development of other companion diagnostics for its therapeutic product candidates. If Carisma or its collaborators are unable to successfully develop companion diagnostics for Carisma's therapeutic product candidates, or experience delays in doing so:

- the development of Carisma's therapeutic product candidates may be adversely affected if Carisma is unable to appropriately select patients for enrollment in its clinical trials;
- Carisma's therapeutic product candidates may not receive marketing approval if safe and effective use of a therapeutic product candidate depends on an in vitro diagnostic; and
- Carisma may not realize the full commercial potential of any therapeutics that receive marketing approval if, among other reasons, Carisma is unable to appropriately select patients who are likely to benefit from therapy with its medicines.

As a result of any of these events, Carisma's business would be harmed, possibly materially.

Any product candidate for which Carisma, or any collaborators, obtain marketing approval could be subject to post-marketing restrictions or withdrawal from the market and Carisma, or any collaborators, may be subject to substantial penalties if Carisma, or any collaborators, fail to comply with regulatory requirements or if Carisma, or any collaborators, experience unanticipated problems with its products when and if any of them are approved.

Any product candidate for which Carisma, or any collaborators, obtain marketing approval, as well as the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA, EMA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including the requirement to implement a risk evaluation and mitigation strategy. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed. If any of Carisma's product candidates receives marketing approval, the accompanying label may limit the approved use of its drug in this way, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product, including the adoption and implementation of risk evaluation and mitigation strategies. The FDA and other regulatory agencies, including the Department of Justice, or the DOJ, closely regulate and monitor the post-approval marketing and promotion of drugs to ensure they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA, DOJ and other regulatory agencies impose stringent restrictions on manufacturers' communications regarding off-label use, and if Carisma does not market its products for their approved indications, it may be subject to enforcement action for off-label marketing by the FDA and other federal and state enforcement agencies. Violations of the Federal Food, Drug, and Cosmetic Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription drugs may lead to investigations and enforcement actions alleging violations of federal and state healthcare fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown side effects or other problems with Carisma's products or its manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions and warnings on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- receipt of warning letters or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that Carisma submits;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- suspension of any ongoing clinical trials;
- damage to relationships with any potential collaborators;

- unfavorable press coverage and damage to Carisma's reputation;
- refusal to permit the import or export of Carisma's products;
- product seizure;
- injunctions or the imposition of civil or criminal penalties; or
- litigation involving patients using Carisma's products.

In addition, manufacturers of approved products and those manufacturers' facilities are required to comply with extensive FDA requirements, including ensuring that quality control and manufacturing procedures conform to cGMPs applicable to drug manufacturers or quality assurance standards applicable to medical device manufacturers, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. Carisma, any contract manufacturers it may engage in the future, its collaborators and their contract manufacturers will also be subject to other regulatory requirements, including submissions of safety and other post-marketing information and reports, registration and listing requirements, requirements regarding the distribution of samples to clinicians, recordkeeping, and costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product such as the requirement to implement a risk evaluation and mitigation strategy.

Carisma's relationships with healthcare providers, physicians and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose Carisma to civil, criminal and administrative sanctions, contractual damages, reputational harm and diminished future profits and earnings.

Healthcare providers, physicians and third-party payors will play a primary role in the recommendation and prescription of any drugs for which Carisma obtains marketing approval. Carisma's future arrangements with third-party payors, healthcare providers and physicians may expose it to broadly applicable state and federal fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which Carisma markets, sells and distributes any drugs for which it obtains marketing approval. These include the following:

- *Anti-Kickback Statute,* which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, or receiving remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchasing, ordering, leasing, arranging for, or recommending the purchasing, ordering, or leasing of, any good or service for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare or Medicaid;
- *False Claims Act* — the federal civil and criminal false claims laws, including the civil False Claims Act, and Civil Monetary Penalties Law, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, false or fraudulent claims for payment or knowingly making, using or causing to made or used a false record or statement material to a false or fraudulent claim or to avoid, decrease or conceal an obligation to pay money to the federal government, or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government;
- *HIPAA* — the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created additional federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters, and apply regardless of the payor (e.g., public or private);
- *HIPAA and HITECH* — HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their implementing regulations, which impose obligations on HIPAA covered entities and their business associates, including mandatory contractual terms and required implementation of administrative, physical and technical safeguards to maintain the privacy and security of individually identifiable health information;

- *Transparency Requirements* — the federal physician transparency requirements known as the Physician Payments Sunshine Act, under the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or the Affordable Care Act, which requires manufacturers of drugs, medical devices, biological and medical supplies covered by Medicare, Medicaid, or State Children's Health Insurance Program to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the United States Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians, other healthcare providers and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and

- *Analogous State, Local and Foreign Laws* — analogous state, local and foreign fraud and abuse laws and regulations, such as state anti-kickback and false claims laws, which may be broader than similar federal laws, can apply to claims involving healthcare items or services regardless of payor, and are enforced by many different federal and state agencies as well as through private actions.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not pre-empted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that Carisma's business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that Carisma's business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If Carisma's operations are found to be in violation of any of these laws or any other governmental regulations that may apply to Carisma, it may be subject to significant civil, criminal and/or administrative penalties, damages, fines, individual imprisonment, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, additional reporting obligations and oversight if Carisma becomes subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and the curtailment or restructuring of its operations. If any of the physicians or other healthcare providers or entities with whom Carisma expects to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

The provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is also prohibited in the European Union. The provision of benefits or advantages to physicians is governed by the national anti-bribery laws of European Union Member States.

Compliance with global privacy and data security requirements could result in additional costs and liabilities to Carisma or inhibit its ability to collect and process data globally, and the failure to comply with such requirements could subject Carisma to significant fines and penalties, which may have a material adverse effect on its business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. Globally, virtually every jurisdiction in which Carisma operates has established its own data security and privacy frameworks with which it must comply. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the European Union, including personal health data, is subject to the E.U. General Data Protection Regulation, or the GDPR, which took effect across all member states of the European Economic Area, or EEA, in May 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third-party processors. The GDPR increases Carisma's obligations with respect to clinical trials conducted in the EEA by expanding the definition of personal data to include coded data and requiring changes to informed consent practices and more detailed notices for clinical trial subjects and investigators. In addition, the GDPR also imposes strict rules on the transfer of personal data to countries outside the European Union, including the United States and, as a result, increases the scrutiny that clinical trial sites located in the EEA should apply to transfers of personal data from such sites to countries that are considered to lack an

adequate level of data protection, such as the United States. The GDPR also permits data protection authorities to require destruction of improperly gathered or used personal information and/or impose substantial fines for violations of the GDPR, which can be up to four percent of global revenues or 20.0 million Euros, whichever is greater, and it also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. In addition, the GDPR provides that European Union member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric or health data.

Similar actions are either in place or under way in the United States. There are a broad variety of data protection laws that are applicable to Carisma's activities, and a wide range of enforcement agencies at both the state and federal levels that can review companies for privacy and data security concerns based on general consumer protection laws. The Federal Trade Commission and state Attorneys General all are aggressive in reviewing privacy and data security protections for consumers. New laws also are being considered at both the state and federal levels. For example, the California Consumer Privacy Act, or CCPA, which went into effect on January 1, 2020, is creating similar risks and obligations as those created by the GDPR, though CCPA does exempt certain information collected as part of a clinical trial subject to the Federal Policy for the Protection of Human Subjects (the Common Rule). Many other states are considering similar legislation. A broad range of legislative measures also have been introduced at the federal level. Accordingly, failure to comply with federal and state laws (both those currently in effect and future legislation) regarding privacy and security of personal information could expose Carisma to fines and penalties under such laws. There also is the threat of consumer class actions related to these laws and the overall protection of personal data. Even if Carisma is not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm Carisma's reputation and business.

Given the breadth and depth of changes in data protection obligations, preparing for and complying with such requirements is rigorous and time intensive and requires significant resources and a review of Carisma's technologies, systems and practices, as well as those of any third-party collaborators, service providers, contractors or consultants that process or transfer personal data. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from Carisma's clinical trials, could require Carisma to change its business practices and put in place additional compliance mechanisms, may interrupt or delay its development, regulatory and commercialization activities and increase its cost of doing business, and could lead to government enforcement actions, private litigation and significant fines and penalties against Carisma and could have a material adverse effect on its business, financial condition or results of operations. Similarly, failure to comply with federal and state laws regarding privacy and security of personal information could expose Carisma to fines and penalties under such laws. Even if Carisma is not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm Carisma's reputation and business.

Current and future legislation may increase the difficulty and cost for Carisma and any collaborators to obtain marketing approval of and commercialize product candidates and affect the prices Carisma, or any collaborators, may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of Carisma's product candidates, restrict or regulate post-approval activities, impact pricing and reimbursement and affect Carisma's ability, or the ability of any collaborators, to profitably sell or commercialize any product candidates for which Carisma, or any collaborators, obtain marketing approval. The pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by legislative initiatives. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. Current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that Carisma, or any collaborators, may receive for any FDA approved products.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for prescription drugs purchased through a pharmacy by the elderly and disabled and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this statute provides authority for limiting the number of drugs that will be covered in any therapeutic class, subject to certain exceptions. Cost reduction initiatives and other provisions of this statute could decrease the coverage and price that Carisma receives for any approved products. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own

reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

In March 2010, then-President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the ACA. In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2031 under the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act. The American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. Further, with passage of the Inflation Reduction Act in August 2022, Congress extended the expansion of the Patient Protection and Affordable Care Act premium tax credits through 2025. Those subsidies were originally extended through 2022 under the American Rescue Plan Act of 2021. These laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices Carisma may obtain for any of its product candidates for which it may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used.

Since enactment of the ACA, there have been and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts for Jobs Act, or TCJA, in 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, became effective in 2019. Further, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseverable feature of the ACA and therefore because the mandate was repealed as part of the TCJA, the remaining provisions of the ACA are invalid as well. The U.S. Supreme Court heard this case on November 10, 2020 and on June 17, 2021, dismissed this action after finding that the plaintiffs do not have standing to challenge the constitutionality of the ACA. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

The Trump Administration also took executive actions to undermine or delay implementation of the ACA, including directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. On January 28, 2021, however, President Biden rescinded those orders and issued a new Executive Order which directs federal agencies to reconsider rules and other policies that limit Americans' access to health care, and consider actions that will protect and strengthen that access. Under this Order, federal agencies are directed to re-examine: policies that undermine protections for people with pre-existing conditions, including complications related to COVID-19; demonstrations and waivers under Medicaid and the ACA that may reduce coverage or undermine the programs, including work requirements; policies that undermine the Health Insurance Marketplace or other markets for health insurance; policies that make it more difficult to enroll in Medicaid and the ACA; and policies that reduce affordability of coverage or financial assistance, including for dependents. This Executive Order also directs the U.S. Department of Health and Human Services to create a special enrollment period for the Health Insurance Marketplace in response to the COVID-19 pandemic.

Carisma expects that these healthcare reforms, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that Carisma receives for any approved product and/or the level of reimbursement physicians receive for administering any approved product it might bring to market. Reductions in reimbursement levels may negatively impact the prices Carisma receives or the frequency with which its products are prescribed or administered. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. Accordingly, such reforms, if enacted, could have an adverse effect on anticipated revenue from product candidates that Carisma may successfully develop and for which it may obtain marketing approval and may affect Carisma's overall financial condition and ability to develop or commercialize product candidates.

The prices of prescription pharmaceuticals in the United States and foreign jurisdictions are subject to considerable legislative and executive actions and could impact the prices Carisma obtains for its drug products, if and when approved.

The prices of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. There have been several recent U.S. congressional inquiries, as well as proposed and enacted state and federal legislation designed to, among other things, bring more transparency to pharmaceutical pricing, review the relationship between pricing and manufacturer patient programs, and reduce the costs of pharmaceuticals under Medicare and Medicaid. In 2020, President Trump issued several executive orders intended to lower the costs of prescription products and certain provisions in these orders have been incorporated into regulations. These regulations include an interim final rule implementing a most favored nation model for prices that would tie Medicare Part B payments for certain physician-administered pharmaceuticals to the lowest price paid in other economically advanced countries, effective January 1, 2021. That rule, however, has been subject to a nationwide preliminary injunction and, on December 29, 2021, CMS issued a final rule to rescind it. With issuance of this rule, CMS stated that it will explore all options to incorporate value into payments for Medicare Part B pharmaceuticals and improve beneficiaries' access to evidence-based care.

In addition, in October 2020, HHS and the FDA published a final rule allowing states and other entities to develop a Section 804 Importation Program, or SIP, to import certain prescription drugs from Canada into the United States. The final rule is currently the subject of ongoing litigation, but at least six states (Vermont, Colorado, Florida, Maine, New Mexico, and New Hampshire) have passed laws allowing for the importation of drugs from Canada with the intent of developing SIPs for review and approval by the FDA. Further, on November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The implementation of the rule has been delayed by the Biden administration from January 1, 2022 to January 1, 2023 in response to ongoing litigation. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a new safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers, the implementation of which has been delayed until January 1, 2026 by the Infrastructure Investment and Jobs Act.

More recently, with passage of the Inflation Reduction Act in August 2022, Congress authorized Medicare beginning in 2026 to negotiate lower prices for certain costly single-source drug and biologic products that do not have competing generics or biosimilars. This provision is limited in terms of the number of pharmaceuticals whose prices can be negotiated in any given year and it only applies to drug products that have been approved for at least 9 years and biologics that have been licensed for 13 years. Drugs and biologics that have been approved for a single rare disease or condition are categorically excluded from price negotiation. Further, the new legislation provides that if pharmaceutical companies raise prices in Medicare faster than the rate of inflation, they must pay rebates back to the government for the difference. The new law also caps Medicare out-of-pocket drug costs at an estimated $4,000 a year in 2024 and, thereafter beginning in 2025, at $2,000 a year.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, health care organizations and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for Carisma's products, once approved, or put pressure on its product pricing. Carisma expects that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for its product candidates or additional pricing pressures.

In other countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a drug. To obtain reimbursement or pricing approval in some countries, Carisma, or its collaborators, may be required to conduct a clinical trial that compares the cost-effectiveness of its drug to other available therapies. If reimbursement of Carisma's drugs is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, its business could be materially harmed.

Carisma is subject to anti-corruption laws, as well as export control laws, customs laws, sanctions laws and other laws governing its operations. If Carisma fails to comply with these laws, it could be subject to civil or criminal penalties, other remedial measures and legal expenses, which could adversely affect its business, results of operations and financial condition.

Carisma's operations are subject to anti-corruption laws, including the FCPA, the Bribery Act, and other anticorruption laws that apply in countries where Carisma does business and may do business in the future. The FCPA, the Bribery Act, and these other laws generally prohibit Carisma, its officers and its employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage. Carisma may in the future operate in jurisdictions that pose a high risk of potential FCPA or Bribery Act violations, and it may participate in collaborations and relationships with third parties whose actions could potentially subject Carisma to liability under the FCPA, the Bribery Act, or local anti-corruption laws. In addition, Carisma cannot predict the nature, scope or effect of future regulatory requirements to which its international operations might be subject or the manner in which existing laws might be administered or interpreted.

Carisma is also subject to other laws and regulations governing its international operations, including regulations administered by the governments of the United States, United Kingdom, and authorities in the European Union, including applicable export control regulations, economic sanctions on countries and persons, customs requirements and currency exchange regulations, which is collectively referred to as Trade Control Laws.

There is no assurance that Carisma will be completely effective in ensuring its compliance with all applicable anti-corruption laws, including the FCPA, the Bribery Act, or other legal requirements, including Trade Control Laws. If Carisma is not in compliance with the FCPA, the Bribery Act, and other anti-corruption laws or Trade Control Laws, it may be subject to criminal and civil penalties, disgorgement and other sanctions and remedial measures, and legal expenses, which could have an adverse impact on its business, financial condition, results of operations and liquidity. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions. Likewise, any investigation of any potential violations of the FCPA, the Bribery Act, other anti-corruption laws or Trade Control Laws by the United States, the United Kingdom or other authorities could also have an adverse impact on Carisma's reputation, business, results of operations and financial condition.

Carisma is subject to stringent privacy laws, information security laws, regulations, policies and contractual obligations related to data privacy and security and changes in such laws, regulations, policies, contractual obligations and failure to comply with such requirements could subject Carisma to significant fines and penalties, which may have a material adverse effect on Carisma's business, financial condition or results of operations.

Carisma is subject to data privacy and protection laws and regulations that apply to the collection, transmission, storage and use of personally-identifying information, which among other things, impose certain requirements relating to the privacy, security and transmission of personal information, including comprehensive regulatory systems in the United States, the European Union and the United Kingdom. The legislative and regulatory landscape for privacy and data protection continues to evolve in jurisdictions worldwide, and there has been an increasing focus on privacy and data protection issues with the potential to affect Carisma's business. Failure to comply with any of these laws and regulations could result in an enforcement action against Carisma, including fines, imprisonment of company officials and public censure, claims for damages by affected individuals, damage to Carisma's reputation and loss of goodwill, any of which could have a material adverse effect on Carisma's business, financial condition, results of operations or prospects.

There are numerous U.S. federal and state laws and regulations related to the privacy and security of personal information. In particular, regulations promulgated pursuant to HIPAA establish privacy and security standards that limit the use and disclosure of individually identifiable health information, or protected health information, and require the implementation of administrative, physical and technological safeguards to protect the privacy of protected health information and ensure the confidentiality, integrity and availability of electronic protected health information. Determining whether protected health information has been handled in compliance with applicable privacy standards and Carisma's contractual obligations can be complex and may be subject to changing interpretation. These obligations may be applicable to some or all of Carisma's business activities now or in the future.

If Carisma is unable to properly protect the privacy and security of protected health information, it could be found to have breached its contracts. Further, if Carisma fails to comply with applicable privacy laws, including applicable HIPAA privacy and security standards, it could face civil and criminal penalties. HHS enforcement activity can result in financial liability and reputational

harm, and responses to such enforcement activity can consume significant internal resources. In addition, state attorneys general are authorized to bring civil actions seeking either injunctions or damages in response to violations that threaten the privacy of state residents. Carisma cannot be sure how these regulations will be interpreted, enforced or applied to its operations. In addition to the risks associated with enforcement activities and potential contractual liabilities, Carisma's ongoing efforts to comply with evolving laws and regulations at the federal and state level may be costly and require ongoing modifications to its policies, procedures and systems.

In 2018, California passed into law the California Consumer Privacy Act, or the CCPA, which took effect on January 1, 2020 and imposed many requirements on businesses that process the personal information of California residents. Many of the CCPA's requirements are similar to those found in the General Data Protection Regulation, or the GDPR, including requiring businesses to provide notice to data subjects regarding the information collected about them and how such information is used and shared, and providing data subjects the right to request access to such personal information and, in certain cases, request the erasure of such personal information. The CCPA also affords California residents the right to opt-out of "sales" of their personal information. The CCPA contains significant penalties for companies that violate its requirements. In November 2020, California voters passed a ballot initiative for the California Privacy Rights Act, or the CPRA, which will significantly expand the CCPA to incorporate additional GDPR-like provisions including requiring that the use, retention, and sharing of personal information of California residents be reasonably necessary and proportionate to the purposes of collection or processing, granting additional protections for sensitive personal information, and requiring greater disclosures related to notice to residents regarding retention of information. Most CPRA provisions will take effect on January 1, 2023, though the obligations will apply to any personal information collected after January 1, 2022. These provisions may apply to some of Carisma's business activities. In addition, other states, including Virginia and Colorado, already have passed state privacy laws. Other states will be considering these laws in the future. These laws may impact Carisma's business activities, including Carisma's identification of research subjects, relationships with business partners and ultimately the marketing and distribution of its products.

Similar to the laws in the United States, there are significant privacy and data security laws that apply in Europe and other countries. The collection, use, disclosure, transfer, or other processing of personal data, including personal health data, regarding individuals who are located in the European Economic Area, or EEA, and the processing of personal data that takes place in the EEA, is regulated by the GDPR, which went into effect in May 2018 and which imposes obligations on companies that operate in Carisma's industry with respect to the processing of personal data and the cross-border transfer of such data. The GDPR imposes onerous accountability obligations requiring data controllers and processors to maintain a record of their data processing and policies. If Carisma's or its partners' or service providers' privacy or data security measures fail to comply with the GDPR requirements, Carisma may be subject to litigation, regulatory investigations, enforcement notices requiring it to change the way it uses personal data and/or fines of up to 20.0 million Euros or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher, as well as compensation claims by affected individuals, negative publicity, reputational harm and a potential loss of business and goodwill.

The GDPR places restrictions on the cross-border transfer of personal data from the European Union to countries that have not been found by the European Commission to offer adequate data protection legislation, such as the United States. There are ongoing concerns about the ability of companies to transfer personal data from the European Union to other countries. In July 2020, the Court of Justice of the European Union, or the CJEU invalidated the European Union-United States Privacy Shield, one of the mechanisms used to legitimize the transfer of personal data from the EEA to the United States. The CJEU decision also drew into question the long-term viability of an alternative means of data transfer, the standard contractual clauses, for transfers of personal data from the EEA to the United States. While Carisma is not self-certified under the Privacy Shield, this CJEU decision may lead to increased scrutiny on data transfers from the EEA to the United States, generally, and increase Carisma's costs of compliance with data privacy legislation as well as its costs of negotiating appropriate privacy and security agreements with its vendors and business partners.

Following the withdrawal of the United Kingdom from the European Union, the UK Data Protection Act 2018 applies to the processing of personal data that takes place in the United Kingdom and includes parallel obligations to those set forth by GDPR. As with other issues related to Brexit, there are open questions about how personal data will be protected in the United Kingdom and whether personal information can transfer from the European Union to the United Kingdom. Following the withdrawal of the United Kingdom from the European Union, the UK Data Protection Act 2018 applies to the processing of personal data that takes place in the United Kingdom and includes parallel obligations to those set forth by GDPR. While the Data Protection Act of 2018 in the United Kingdom that "implements" and complements the GDPR, has achieved Royal Assent on May 23, 2018 and is now effective in the United Kingdom, it is still unclear whether transfer of data from the EEA to the United Kingdom will remain lawful under GDPR. The

U.K. government has already determined that it considers all European Union and EEA member states to be adequate for the purposes of data protection, ensuring that data flows from the United Kingdom to the European Union/EEA remain unaffected. In addition, a recent decision from the EC appears to deem the United Kingdom as being "essentially adequate" for purposes of data transfer from the European Union to the United Kingdom, although this decision may be re-evaluated in the future.

Beyond GDPR, there are privacy and data security laws in a growing number of countries around the world. While many loosely follow GDPR as a model, other laws contain different or conflicting provisions. These laws will impact Carisma's ability to conduct its business activities, including both its clinical trials and any eventual sale and distribution of commercial products, through increased compliance costs, costs associated with contracting and potential enforcement actions.

While Carisma continues to address the implications of the recent changes to data privacy regulations, data privacy remains an evolving landscape at both the domestic and international level, with new regulations coming into effect and continued legal challenges, and Carisma's efforts to comply with the evolving data protection rules may be unsuccessful. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with Carisma's practices. Carisma must devote significant resources to understanding and complying with this changing landscape. Failure to comply with laws regarding data protection would expose Carisma to risk of enforcement actions taken by data protection authorities in the EEA and elsewhere and carries with it the potential for significant penalties if Carisma is found to be non-compliant. Similarly, failure to comply with federal and state laws in the United States regarding privacy and security of personal information could expose Carisma to penalties under such laws. Any such failure to comply with data protection and privacy laws could result in government-imposed fines or orders requiring that Carisma change its practices, claims for damages or other liabilities, regulatory investigations and enforcement action, litigation and significant costs for remediation, any of which could adversely affect Carisma's business. Even if Carisma is not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm Carisma's business, financial condition, results of operations or prospects.

If Carisma employees, independent contractors, consultants, collaborators and vendors engage in misconduct or other improper activities, including non-compliance with regulatory standards and/or requirements and insider trading, Carisma could sustain significant liability and harm to its reputation.

Carisma is exposed to the risk of fraud or other misconduct by its employees, independent contractors, consultants, collaborators and vendors. Misconduct by these partners could include intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report financial information or data accurately or disclose unauthorized activities to Carisma. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Carisma's reputation. This could include violations of HIPAA, other U.S. federal and state laws, and requirements of foreign jurisdictions, including the GDPR. Carisma is also exposed to risks in connection with any insider trading violations by employees or others affiliated with Carisma. It is not always possible to identify and deter employee or third-party misconduct, and the precautions that Carisma takes to detect and prevent these activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting Carisma from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards, regulations, guidance or codes of conduct. If any such actions are instituted against Carisma, and Carisma is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business and results of operations, including the imposition of significant fines or other sanctions.

If Carisma or any third-party manufacturer it engages now or in the future fails to comply with environmental, health and safety laws and regulations, Carisma could become subject to fines or penalties or incur costs or liabilities that could significantly harm its business.

Carisma and third-party manufacturers it engages now are, and any third-party manufacturer it may engage in the future will be, subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, Carisma's operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Although Carisma contracts with third parties for the disposal of these materials and waste products, it cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of

contamination or injury resulting from the use or disposal of Carisma's hazardous materials, Carisma could be held liable for any resulting damages, and any liability could exceed its resources. Carisma also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Carisma maintains general liability insurance as well as workers' compensation insurance to cover costs and expenses it may incur due to injuries to its employees resulting from the use of hazardous materials, but this insurance may not provide adequate coverage against potential liabilities. Carisma does not maintain insurance for environmental liability or toxic tort claims that may be asserted against it. In addition, Carisma may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair Carisma's research, development or production efforts, which could adversely affect its business, financial condition, results of operations or prospects. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

Risks Related to Employee Matters and Managing Growth

Carisma's future success depends on its ability to retain key executives and experienced scientists and to attract, retain and motivate qualified personnel.

Carisma is highly dependent on the research and development, clinical, financial, operational and other business expertise of its executive officers, as well as the other principal members of its management, scientific and clinical teams. Although Carisma has entered into employment agreements with certain of its executive officers, each of them may terminate their employment with Carisma at any time. Carisma does not maintain "key person" insurance for any of its executives or other employees. Recruiting and retaining qualified scientific, clinical, manufacturing, accounting, legal and sales and marketing personnel will also be critical to Carisma's success.

The loss of the services of Carisma's executive officers or other key employees, including temporary loss due to illness, could impede the achievement of its discovery programs, development and commercialization objectives and seriously harm its ability to successfully implement its business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in Carisma's industry with the breadth of skills and experience required to successfully develop, gain marketing approval of and commercialize products. Competition to hire from this limited pool is intense, and Carisma may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous biopharmaceutical companies for similar personnel. Carisma also experiences competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, Carisma relies on consultants and advisors, including scientific and clinical advisors, to assist it in formulating its discovery, research and development and commercialization strategy. Carisma's consultants and advisors may be employed by employers other than Carisma and may have commitments under consulting or advisory contracts with other entities that may limit their availability to Carisma. Failure to succeed in clinical trials may make it even more challenging to recruit and retain qualified scientific personnel. Carisma's success as a public company also depends on implementing and maintaining internal controls and the accuracy and timeliness of its financial reporting. If Carisma is unable to continue to attract and retain high quality personnel, its ability to pursue its growth strategy will be limited.

Carisma expects to expand its development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, it may encounter difficulties in managing its growth, which could disrupt its operations.

Carisma expects to experience significant growth in the number of its employees and the scope of its operations, particularly as it functions as a public company and in the areas of product development, clinical, regulatory affairs, manufacturing and quality control and, if any of its product candidates receives marketing approval, sales, marketing and distribution. To manage Carisma's anticipated future growth, it must continue to implement and improve its managerial, operational and financial systems, expand its facilities and continue to recruit and train additional qualified personnel. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing its internal development efforts effectively, including the clinical and regulatory review process for CT-0508 and other product candidates Carisma is developing or may develop in the future, while complying with its contractual obligations to contractors and other third parties; and

- improving its operational, financial and management controls, reporting systems and procedures.

Carisma's future financial performance and its ability to advance development of and, if approved, commercialize CT-0508 and any other product candidate Carisma is developing or may develop in the future will depend, in part, on Carisma's ability to effectively manage any future growth. Due to Carisma's limited financial resources and the limited experience of its management team in managing a company with such anticipated growth, Carisma may not be able to effectively manage the expansion of its operations or recruit and train additional qualified personnel. If Carisma does not effectively manage the expansion of its operations, Carisma could experience weaknesses in its infrastructure, operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. The expansion of Carisma's operations also could lead to significant costs and may divert Carisma's management and business development resources. Any inability to manage growth could delay the execution of Carisma's business plans or disrupt its operations.

Many of the biopharmaceutical companies, and in particular cell therapy companies, that Carisma competes against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than Carisma does. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what Carisma has to offer. If Carisma is unable to continue to attract and retain high-quality personnel and consultants, the rate and success at which Carisma can develop product candidates and operate its business will be limited.

Carisma's internal computer systems, or those of its collaborators, vendors, suppliers, contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of Carisma's product development programs.

Carisma's internal computer systems and those of any collaborators, vendors, suppliers, contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such systems are also vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by Carisma's employees, third-party vendors and/or business partners, or from cyber-attacks by malicious third parties. Cyber-attacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyber-attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, unauthorized access to or deletion of files, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. Cyber-attacks also could include phishing attempts or email fraud to cause payments or information to be transmitted to an unintended recipient.

If Carisma experiences any material system failure, accident, cyber-attack or security that causes interruptions in its operations, it could result in a material disruption of Carisma's development programs and its business operations, whether due to a loss of its trade secrets or other proprietary information or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in Carisma's marketing approval efforts and significantly increase its costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, Carisma's data or applications, or inappropriate disclosure of confidential or proprietary information, Carisma could incur liability, its competitive position could be harmed and the further development and commercialization of its product candidates could be delayed.

Carisma's employees, independent contractors, including principal investigators, consultants and vendors and any third parties it may engage in connection with discovery programs, research, development, regulatory, manufacturing, quality assurance and other pharmaceutical functions and commercialization may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading, which could cause significant liability for Carisma and harm its reputation.

Carisma is exposed to the risk of fraud or other misconduct by its employees, independent contractors, including principal investigators, consultants and vendors and any other third parties it engages. Misconduct by these parties could include intentional, reckless or negligent conduct or unauthorized activities that include failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide complete and accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards, comply with federal and state data privacy, security, fraud and other healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report complete financial information or data accurately or disclose unauthorized activities to Carisma. Misconduct by employees and other third parties could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Carisma's reputation. This could include violations of HIPAA, other U.S.

federal and state law, and requirements of non-U.S. jurisdictions, including the European Union Data Protection Directive. Carisma is also exposed to risks in connection with any insider trading violations by employees or others affiliated with Carisma. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions Carisma takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting Carisma from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards, regulations, guidance or codes of conduct. Additionally, Carisma is subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against Carisma, and it is not successful in defending itself or asserting its rights, those actions could have a significant impact on Carisma's business and results of operations, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of Carisma's operations.

Risks Related to the Ownership of the Common Stock of the Combined Company

The market price of the combined company's common stock is expected to be volatile, and the market price of the combined company's common stock may drop following the merger.

The market price of the combined company's common stock following the merger could be subject to significant fluctuations. Some of the factors that may cause the market price of the combined company's common stock to fluctuate include:

- results of clinical trials and pre-clinical studies of the combined company's product candidates, or those of the combined company's competitors or the combined company's existing or future collaborators;
- failure to meet or exceed financial and development projections the combined company may provide to the public;
- failure to meet or exceed the financial and development projections of the investment community;
- if the combined company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts;
- announcements of significant acquisitions, strategic collaborations, joint ventures or capital commitments by the combined company or its competitors;
- actions taken by regulatory agencies with respect to the combined company's product candidates, clinical studies, manufacturing process or sales and marketing terms;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and the combined company's ability to obtain patent protection for its technologies;
- additions or departures of qualified scientific and management personnel;
- significant lawsuits, including patent or stockholder litigation;
- if securities or industry analysts do not publish research or reports about the combined company's business, or if they issue adverse or misleading opinions regarding its business and stock;
- changes in the market valuations of similar companies;
- general market or macroeconomic conditions or market conditions in the biopharmaceutical sector;
- sales of securities by the combined company or its stockholders in the future;

- if the combined company fails to raise an adequate amount of capital to fund its operations and continued development of its product candidates;
- trading volume of the combined company's common stock;
- announcements by competitors of new commercial products, clinical progress or lack thereof, significant contracts, commercial relationships or capital commitments;
- adverse publicity relating to product candidates, including with respect to other products in such markets;
- the introduction of technological innovations or new therapies that compete with the products and services of the combined company; and
- period-to-period fluctuations in the combined company's financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of the combined company's common stock. In addition, a recession, depression or other sustained adverse market event could materially and adversely affect the combined company's business and the value of its common stock. In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against such companies. Furthermore, market volatility may lead to increased shareholder activism if the combined company experiences a market valuation that activists believe is not reflective of its intrinsic value. Activist campaigns that contest or conflict with the combined company's strategic direction or seek changes in the composition of its board of directors could have an adverse effect on the combined company's operating results and financial condition.

The combined company will incur additional costs and increased demands upon management as a result of complying with the laws and regulations affecting public companies.

The combined company will incur significant legal, accounting and other expenses as a public company that Carisma did not incur as a private company, including costs associated with public company reporting obligations under the Exchange Act. The combined company's management team will consist of the executive officers of Carisma prior to the merger, some of whom have not previously managed and operated a public company. These executive officers and other personnel will need to devote substantial time to gaining expertise related to public company reporting requirements and compliance with applicable laws and regulations to ensure that the combined company complies with all of these requirements. Any changes the combined company makes to comply with these obligations may not be sufficient to allow it to satisfy its obligations as a public company on a timely basis, or at all. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for the combined company to attract and retain qualified persons to serve on the board of directors or on board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

Once the combined company is no longer a "smaller reporting company" or otherwise no longer qualifies for applicable exemptions, the combined company will be subject to additional laws and regulations affecting public companies that will increase the combined company's costs and the demands on management and could harm the combined company's operating results.

The combined company will be subject to the reporting requirements of the Exchange Act, which requires, among other things, that the combined company file with the SEC annual, quarterly and current reports with respect to the combined company's business and financial condition as well as other disclosure and corporate governance requirements. However, as a "smaller reporting company," as defined in Item 10(f)(1) of Regulation S-K, the combined company may take advantage of certain exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2022 and reduced disclosure obligations regarding executive compensation in the combined company's periodic reports and proxy statements. Once the combined company no longer qualifies as a smaller reporting company or otherwise no longer qualifies for these exemptions, the combined company will be required to comply with these additional legal and regulatory requirements applicable to public companies and will incur significant legal, accounting and other expenses to do so. If the combined

company is not able to comply with the requirements in a timely manner or at all, the combined company's financial condition or the market price of the combined company's common stock may be harmed. For example, if the combined company or its independent auditor identifies deficiencies in the combined company's internal control over financial reporting that are deemed to be material weaknesses, then the combined company could face additional costs to remedy those deficiencies, the market price of the combined company's stock could decline or the combined company could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

Provisions that will be in the combined company's certificate of incorporation and bylaws and provisions under Delaware law could make an acquisition of the combined company, which may be beneficial to its stockholders, more difficult and may prevent attempts by its stockholders to replace or remove its management.

If the merger is completed, the Sesen Bio Bylaws and the Sesen Bio Certificate of Incorporation, as amended by the amendment thereto attached to this proxy statement/prospectus as *Annex G*, assuming Proposal No. 2 is approved by Sesen Bio stockholders at the Sesen Bio special meeting, will become the combined company's certificate of incorporation and bylaws. Provisions that will be included in the combined company's certificate of incorporation and bylaws may discourage, delay or prevent a merger, acquisition or other change in control of the combined company that stockholders may consider favorable, including transactions in which its common stockholders might otherwise receive a premium price for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of the combined company's common stock, thereby depressing the market price of its common stock. In addition, because the combined company's board of directors will be responsible for appointing the members of the combined company's management team, these provisions may frustrate or prevent any attempts by the combined company's stockholders to replace or remove its current management by making it more difficult for stockholders to replace members of the combined company's board of directors. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of the combined company's directors to be changed only by resolution of its board of directors;
- limit the manner in which stockholders can remove directors from the combined company's board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and for nominations to the combined company's board of directors;
- limit who may call stockholder meetings;
- prohibit actions by the combined company's stockholders by written consent;
- require that stockholder actions be effected at a duly called stockholders meeting;
- authorize the combined company's board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by the combined company's board of directors; and
- require the approval of the holders of at least 75% of the votes that all combined company stockholders would be entitled to cast to amend or repeal certain provisions of the combined company's certificate of incorporation or bylaws.

Moreover, because the combined company is incorporated in Delaware, it is governed by the provisions of Section 203 of the DGCL which prohibits a person who owns 15% or more of the combined company's outstanding voting stock from merging or combining with the combined company for a period of three years after the date of the transaction in which the person acquired 15% or more of the combined company's outstanding voting stock, unless the merger or combination is approved in a manner prescribed by the statute. For more information about provisions that will be included in the combined company's certificate of incorporation and bylaws, see the section entitled "*Comparison of Rights of Holders of Sesen Bio Stock and Carisma Stock*" beginning on page 366 of this proxy statement/prospectus.

An active trading market for the combined company's common stock may not develop and its stockholders may not be able to resell their shares of common stock for a profit, if at all.

Prior to the merger, there had been no public market for shares of Carisma capital stock. An active trading market for the combined company's shares of common stock may never develop or be sustained. If an active market for the combined company's common stock does not develop or is not sustained, it may be difficult for its stockholders to sell their shares at an attractive price or at all.

After completion of the merger, the combined company's executive officers, directors and principal stockholders will have the ability to control or significantly influence all matters submitted to the combined company's stockholders for approval.

Upon the completion of the merger, and giving effect to the issuance of the shares of common stock of Carisma prior to the closing of the merger pursuant to the Carisma pre-closing financing and the conversion of Carisma's $35.0 million outstanding convertible note, it is anticipated that the combined company's executive officers, directors and principal stockholders will, in the aggregate, beneficially own approximately 40.63% of the combined company's outstanding shares of common stock, subject to certain assumptions, including, but not limited to, Sesen Bio's net cash as of closing being at least $125.0 million. As a result, if these stockholders were to choose to act together, they would be able to control or significantly influence all matters submitted to the combined company's stockholders for approval, as well as the combined company's management and affairs. For example, these persons, if they choose to act together, would control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of the combined company's assets. This concentration of voting power could delay or prevent an acquisition of the combined company on terms that other stockholders may desire.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about the combined company, its business or its market, its stock price and trading volume could decline.

The trading market for the combined company's common stock will be influenced by the research and reports that equity research analysts publish about it and its business. Equity research analysts may elect not to provide research coverage of the combined company's common stock after the completion of the merger, and such lack of research coverage may adversely affect the market price of its common stock. In the event it does have equity research analyst coverage, the combined company will not have any control over the analysts or the content and opinions included in their reports. The price of the combined company's common stock could decline if one or more equity research analysts downgrade its stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of the combined company or fails to publish reports on it regularly, demand for its common stock could decrease, which in turn could cause its stock price or trading volume to decline.

The combined company will have broad discretion in the use of the cash and cash equivalents of the combined company as well as the proceeds from the Carisma pre-closing financing and may invest or spend the proceeds in ways with which you do not agree and in ways that may not increase the value of your investment.

The combined company will have broad discretion over the use of the cash and cash equivalents of the combined company and the proceeds from the Carisma pre-closing financing. You may not agree with the combined company's decisions, and its use of the proceeds may not yield any return on your investment. The combined company's failure to apply these resources effectively could compromise its ability to pursue its growth strategy and the combined company might not be able to yield a significant return, if any, on its investment of these net proceeds. You will not have the opportunity to influence the combined company's decisions on how to use its cash resources.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus contains forward-looking statements (including within the meaning of Section 21E of the Exchange Act and Section 27A of the Securities Act) concerning, among other things, the following:

- the expected benefits of, and potential value created by, the merger for the Sesen Bio stockholders and Carisma stockholders;
- the likelihood of the satisfaction of certain conditions to the completion of the merger and whether and when the merger will be completed and the listing of the Sesen Bio common stock to be issued on the Nasdaq Capital Market;
- the expected amount of the Sesen Bio net cash on the anticipated closing date or the merger, or the closing date, and Sesen Bio's ability to control and correctly estimate its operating expenses and its expenses associated with the merger;
- the expected number of Sesen Bio securities included in the fully diluted number of outstanding shares of Sesen Bio common stock for purposes of calculating the exchange ratio;
- any statements regarding the CVRs to be granted to Sesen Bio stockholders, pursuant to the Merger Agreement and the CVR Agreement;
- any statements regarding the special cash dividend that Sesen Bio may pay to Sesen Bio stockholders in connection with the completion of the merger;
- any statements of the plans, strategies and objectives of management for future operations, including the execution of integration plans and the anticipated timing of filings;
- any statements of plans to develop and commercialize additional products candidates, including planned pre-clinical, clinical, regulatory and manufacturing activities;
- any statements concerning the attraction and retention of highly qualified personnel;
- any statements concerning the ability to protect and enhance the combined company's product candidates and intellectual property;
- any statements concerning developments and projections relating to the combined company's competitors or industry;
- any statements concerning the combined company's projected financial performance;
- any statements regarding expectations concerning Sesen Bio's or Carisma's relationships and actions with third parties; and
- future regulatory, judicial and legislative changes in Sesen Bio's or Carisma's industry.

These forward-looking statements should not be relied upon as predictions of future events as Sesen Bio and Carisma cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "pro forma," "estimates," or "anticipates" or the negative of these words and phrases or other variations of these words and phrases or comparable terminology. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. The events and circumstances reflected in forward-looking statements may not be achieved or occur and actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including, without limitation:

- Sesen Bio stockholders and Carisma stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger, including the Carisma pre-closing financing, and the conversion of the Carisma convertible note;

- the merger consideration may have greater or lesser value at the closing of the merger than at the time the Merger Agreement is signed;
- failure to complete the merger may result in either party paying a termination fee or expenses to the other party and could harm the future business and operations of the applicable company;
- if the conditions to the merger are not met, including failure to obtain stockholder approval for the merger, or failure to comply with the listing standards of Nasdaq, the merger may not occur;
- the timing of the consummation of the merger is uncertain as is the ability of each of Sesen Bio and Carisma to consummate the merger;
- the merger may be completed even though material adverse changes may occur;
- Sesen Bio may not be able to correctly estimate its operating expenses and its expenses associated with the merger and may have a significantly lower net cash on the anticipated closing date than currently estimated;
- Sesen Bio may not be able to maintain its Nasdaq listing until the closing of the merger;
- as a result of any adjustments in the exchange ratio, Sesen Bio stockholders or Carisma stockholders may own less of the combined company after the closing of the merger than is currently anticipated;
- executive officers and directors of each company have interests in the merger that are different from yours, which may cause them to support or approve the merger without regard to your interests;
- the market price of combined company's common stock may decline following the merger;
- conditions to payment under the CVRs may not be met and the CVRs may never deliver any value to the Sesen Bio stockholders;
- restrictions in the Merger Agreement may prevent Sesen Bio and Carisma from entering into a business combination with another party at a favorable price;
- certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement;
- the Carisma stockholders may receive consideration in the merger that is greater or less than the fair market value of the Carisma shares due to the lack of a public market for Carisma shares;
- if the merger does not qualify as a tax-free reorganization for U.S. federal income tax purposes, the receipt of Sesen Bio common stock pursuant to the merger could be fully taxable to all Carisma stockholders;
- the combined company may never earn a profit;
- the combined company will be subject to the uncertainties associated with the clinical development and regulatory approval of its product candidates including potential delays in the commencement, enrollment and completion of clinical trials and that the results of prior clinical trials may not be predictive of future results;
- the combined company will be required to raise additional funds to finance its operations and remain a going concern and may be required to do so sooner than it expects;
- the combined company may not be able to raise additional funds when necessary, and/or on acceptable terms;

- the combined company's small public float, low market capitalization, limited operating history, and lack of revenue may make it difficult and expensive for the combined company to raise additional funds;
- the pro forma combined financial statements may not be an indication of the combined company's financial condition or results of operations following the completion of the merger and the transactions contemplated thereby;
- Sesen Bio and Carisma may not be able to protect their respective intellectual property rights;
- there may be changes in expected or existing competition for the combined company's product candidates;
- the merger will result in changes to the combined company's board of directors that may affect the combined company's business strategy and operations;
- both companies expect that the price of the combined company's common stock may be volatile and may fluctuate substantially following the merger and the transactions contemplated thereby;
- if the combined company were to be delisted from Nasdaq, it could reduce the visibility, liquidity and price of its common stock;
- a significant portion of the combined company's total outstanding shares of common stock may be sold into the public market at any point, which could cause the market price of the combined company's common stock to drop significantly, even if the combined company is doing well;
- there may be adverse reactions or changes in business relationships resulting from announcement or completion of the merger;
- the combined company will have broad discretion in the use of its cash reserves and may not use them effectively;
- the combined company expects to continue to incur increased costs as a result of operating as a public company, and its management will be required to devote substantial time to compliance initiatives and corporate governance practices;
- the combined company does not anticipate paying any cash dividends on its capital stock in the foreseeable future, other than the special cash dividend that Sesen Bio may pay to Sesen Bio stockholders in connection with the consummation of the merger;
- provisions in the combined company's certificate of incorporation, its bylaws or Delaware law might discourage, delay or prevent a change in control of the company or changes in its management, which may depress the price of its common stock;
- the COVID-19 pandemic may have an adverse effect on the business of Sesen Bio, Carisma and the combined company, the medical community and the global economy; and
- securities analysts' published reports could cause a decline in the price of the combined company's stock.

The foregoing risks should not be construed as exhaustive and should be read in conjunction with statements that are included herein and elsewhere. Sesen Bio and Carisma can give no assurance that the conditions to the merger will be satisfied. For further discussion of the factors that may cause Sesen Bio, Carisma or the combined company's actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risks associated with the ability of Sesen Bio and Carisma to complete the merger and the effect of the merger on

the business of Sesen Bio, Carisma and the combined company, see the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus.

Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Sesen Bio. See the section entitled "*Where You Can Find More Information*" on page 382 of this proxy statement/prospectus.

If any of these risks or uncertainties materialize or any of these assumptions prove incorrect, the results of operations of Sesen Bio, Carisma or the combined company could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus are current only as of the date of this proxy statement/prospectus. Sesen Bio and Carisma do not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any statement is made, the occurrence of unanticipated events or any new information that becomes available in the future.

THE SPECIAL MEETING OF SESEN BIO STOCKHOLDERS

Date, Time and Place

The Sesen Bio special meeting will be held on , 2022, at commencing at , Eastern Time, which will be a virtual meeting held exclusively via live webcast. Sesen Bio is sending this proxy statement/prospectus to Sesen Bio stockholders in connection with the solicitation of proxies by the Sesen Bio board of directors for use at the Sesen Bio special meeting and any adjournments or postponements of the Sesen Bio special meeting. This proxy statement/prospectus is first being furnished to Sesen Bio stockholders on or about , 2022.

Purposes of the Sesen Bio Special Meeting

The purposes of the Sesen Bio special meeting are:

1. to consider and vote upon a proposal to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement, a copy of which is attached as Annex A to this proxy statement/ prospectus, and the change of control of Sesen Bio resulting from the merger;

2. to consider and vote upon a proposal to approve an amendment to the Sesen Bio Certificate of Incorporation, to (a) effect a reverse stock split of the issued and outstanding shares of Sesen Bio common stock at a ratio in the range of 1-for- to 1-for- , with such ratio and implementation and timing of the reverse stock split to be determined in the discretion of the Sesen Bio board of directors and as agreed to by Carisma at or prior to the closing of the merger, or in the sole discretion of the Sesen Bio board of directors if Proposal No. 1 is not approved, and (b) if and when the reverse stock split is effected, implement a non-proportionate reduction in the number of authorized shares of Sesen Bio common stock, in the form attached as Annex G to this proxy statement/prospectus;

3. to consider and vote upon a proposal to approve an amendment and restatement of the 2014 Incentive Plan to, among other things, (a) increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan and provide for annual replenishment of the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan beginning with the fiscal year ending December 31, 2023, and (b) extend the term of the 2014 Incentive Plan to the tenth (10th) anniversary of the closing of the merger;

4. to consider and vote upon a proposal to approve an amendment to the 2014 ESPP to increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 ESPP to shares of Sesen Bio common stock;

5. to consider and vote upon a proposal to approve an adjournment of the Sesen Bio special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2; and

6. to transact such other business as may properly come before the Sesen Bio special meeting or any adjournment or postponement thereof .

Recommendation of the Sesen Bio Board of Directors

- The Sesen Bio board of directors has determined and believes that it is fair to, advisable and in the best interests of Sesen Bio and Sesen Bio stockholders to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement and has approved such proposal. The Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote “FOR” Proposal No. 1 to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement.

- The Sesen Bio board of directors has determined and believes that it is fair to, advisable and in the best interests of Sesen Bio and Sesen Bio stockholders to approve the amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split and implement the non-proportionate reduction in authorized shares of Sesen Bio common stock, as described in this proxy statement/prospectus and has approved the amendment to the Sesen Bio Certificate of Incorporation to effect the

reverse stock split and has approved such proposal. The Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote "FOR" Proposal No. 2 to approve the amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split, as described in this proxy statement/prospectus.

- The Sesen Bio board of directors has determined and believes that it is fair to, advisable and in the best interests of Sesen Bio and Sesen Bio stockholders to approve the amendment and restatement of the 2014 Incentive Plan, as described in this proxy statement/prospectus. The Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote "FOR" Proposal No. 3 to approve the amendment and restatement of the 2014 Incentive Plan, as described in this proxy statement/prospectus.

- The Sesen Bio board of directors has determined and believes that it is fair to, advisable and in the best interests of Sesen Bio and Sesen Bio stockholders to approve the amendment to the 2014 ESPP, as described in this proxy statement/prospectus. The Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote "FOR" Proposal No. 4 to approve the amendment to the 2014 ESPP, as described in this proxy statement/prospectus.

- The Sesen Bio board of directors has determined and believes that it is fair to, advisable, and in the best interests of Sesen Bio and Sesen Bio stockholders to approve the adjournment of the Sesen Bio special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2 and has approved such proposal. The Sesen Bio board of directors unanimously recommends that Sesen Bio stockholders vote "FOR" Proposal No. 5 to adjourn the Sesen Bio special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Record Date and Voting Power

Only holders of record of Sesen Bio common stock at the close of business on the record date, , 2022, are entitled to notice of, and to vote at, the Sesen Bio special meeting. There were holders of record of Sesen Bio common stock at the close of business on the record date. At the close of business on the record date, shares of Sesen Bio common stock were issued and outstanding. Each share of Sesen Bio common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus is solicited on behalf of the Sesen Bio board of directors for use at the Sesen Bio special meeting.

If you are the "record holder" of your shares, meaning that you own your shares in your own name and not through a broker, bank or other nominee, you may vote in one of three ways prior to the Sesen Bio special meeting:

- *You may vote over the internet.* You may vote your shares by following the instructions in the enclosed proxy card.

- *You may vote by telephone.* You may vote your shares by following the instructions in the enclosed proxy card.

- *You may vote by mail.* You may vote by completing, dating and signing the enclosed proxy card and promptly mailing it in the postage-paid envelope provided.

You may also vote during the Sesen Bio special meeting. To be admitted to the Sesen Bio special meeting and vote your shares, you must register in advance at www. and provide the control number as set forth on the proxy card. After completing your registration, you will receive further instructions via email, including a unique link to access the Sesen Bio special meeting.

All proxies that are executed or are otherwise submitted over the internet or by telephone will be voted on the matters set forth in this proxy statement in accordance with the stockholders' instructions. However, if no choice is specified on a proxy as to one or more of the proposals, the proxy will be voted in accordance with the Sesen Bio board of directors' recommendations on such proposals as set forth in this proxy statement/prospectus.

After you have submitted a proxy, you may still change your vote and revoke your proxy by doing any one of the following things:

- submitting a new proxy via the internet or telephone by following the instructions on the enclosed proxy card;
- signing another proxy card and arranging for delivery of that proxy card by mail by 11:59 p.m., Eastern Time, the day before the Sesen Bio special meeting;
- giving Sesen Bio's Corporate Secretary a written notice before the Sesen Bio special meeting that you want to revoke your proxy; or
- voting during the Sesen Bio special meeting. Your attendance at the Sesen Bio special meeting alone will not revoke a previously submitted proxy.

Sesen Bio will count your vote in accordance with the last instruction Sesen Bio receives from you prior to the closing of the polls, whether your instruction is received by internet, telephone, mail, or at the Sesen Bio special meeting.

Shares Held in "Street Name"

If the shares of Sesen Bio common stock you own are held in "street name" by a broker, bank or other nominee, then that broker, bank or other nominee, as the record holder of your shares of Sesen Bio common stock, is required to vote your shares of Sesen Bio common stock according to your instructions. In order to vote your shares of Sesen Bio common stock, change your vote or revoke your instructions, you will need to follow the directions your broker, bank or other nominee provides you. Many brokers, banks or other nominees also offer the option of providing for voting over the internet or by telephone, instructions for which, if available, would be provided by such broker, bank or other nominee on the voting instruction form that it delivers to you.

If you do not give instructions to your broker, bank or other nominee, such nominee can vote your shares of Sesen Bio common stock with respect to "discretionary" items but not with respect to "non-discretionary" items. Discretionary items are proposals considered routine under certain rules applicable to brokers and on which your broker may vote shares of Sesen Bio common stock held in "street name" in the absence of your voting instructions. On non-discretionary items for which you do not give your broker instructions, your shares of Sesen Bio common stock will be treated as broker non-votes. It is anticipated that Proposal Nos. 1, 3 and 4 will be non-discretionary. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by the institution that holds your shares.

If your shares are held in "street name," you are also invited to attend and vote your shares of Sesen Bio common stock at the Sesen Bio special meeting live via webcast. After completing your registration in advance at www. ,you will receive further instructions via email, including a unique link to access the Sesen Bio special meeting. As part of the registration process, you must enter the control number located on your voting instruction form. You will also need to provide the registered name on your account and the name of your broker, bank or other nominee as part of the registration process. You may be instructed to obtain a legal proxy from your broker, bank or nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

If your shares of Sesen Bio common stock are held in "street name," you must follow the instructions provided by your broker, bank or other nominee to revoke your voting instructions, or, if you have obtained a legal proxy to vote your shares of Sesen Bio common stock at the Sesen Bio special meeting, by attending the Sesen Bio special meeting and voting.

Required Vote

The presence, in person or represented by proxy, of Sesen Bio stockholders holding at least a majority in voting power of the shares of Sesen Bio common stock issued and outstanding and entitled to vote at the Sesen Bio special meeting is necessary to constitute a quorum at the Sesen Bio special meeting. Abstentions and broker non-votes will be treated as shares present for the purpose of determining the presence of a quorum for the transaction of business at the Sesen Bio special meeting. Approval of Proposal Nos. 1, 3, 4 and 5 requires the affirmative vote of a majority in voting power of the votes cast by the holders of all shares of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter.

Approval of Proposal No. 2 requires the affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock entitled to vote on the record date for the Sesen Bio special meeting.

Votes will be counted by the inspector of election appointed for the Sesen Bio special meeting, who will separately count "FOR" and "AGAINST" votes, abstentions and broker non-votes. Abstentions will have the same effect as a vote "AGAINST" Proposal No. 2, but will have no effect on the outcome of Proposals Nos. 1, 3, 4 and 5. Proposal Nos. 2 and 5 are matters on which Sesen Bio expects brokers, banks or other nominees to have discretionary authority to vote uninstructed shares and, therefore, broker non votes are not expected with respect to these proposals.

Proposal No. 1 is conditioned upon the approval of Proposal No. 2, and the merger cannot be consummated without the approval of Proposal Nos. 1 and 2. Proposal Nos. 3 and 4 are conditioned upon Proposal Nos. 1 and 2. Proposal No. 2 is not conditioned on the approval of any other proposal.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Sesen Bio may solicit proxies from Sesen Bio stockholders by personal interview, telephone or otherwise. Sesen Bio and Carisma will share equally the cost of printing and filing this proxy statement/prospectus and the proxy card. Sesen Bio also may be required to reimburse brokers, banks and other custodians, nominees and fiduciaries or their respective agents for reasonable expenses incurred in forwarding proxy materials to beneficial owners of Sesen Bio common stock. Sesen Bio has engaged MacKenzie Partners to assist in the solicitation of proxies and provide related advice and informational support. Sesen Bio will pay the fees of MacKenzie Partners, which Sesen Bio expects to be approximately $, plus reimbursement of out-of-pocket expenses.

Other Matters

As of the date of this proxy statement/prospectus, the Sesen Bio board of directors does not know of any business to be presented at the Sesen Bio special meeting other than as set forth in the notice accompanying this proxy statement/prospectus. If any other matters should properly come before the Sesen Bio special meeting, it is intended that the shares of Sesen Bio common stock represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

THE MERGER

This section and the section entitled "The Merger Agreement" in this proxy statement/prospectus describe the material aspects of the merger, including the Merger Agreement. While Sesen Bio and Carisma believe that this description covers the material terms of the merger and the Merger Agreement, it may not contain all of the information that is important to you. You should read carefully this entire proxy statement/prospectus for a more complete understanding of the merger and the Merger Agreement, including the Merger Agreement attached as Annex A, the opinion of SVB Securities attached as Annex B, and the other documents to which you are referred herein. See the section entitled "Where You Can Find More Information" on page 382 of this proxy statement/prospectus.

Background of the Merger

In an effort to enhance stockholder value, the Sesen Bio board of directors, in consultation with members of the Sesen Bio management team, regularly reviews and discusses Sesen Bio's near and long-term operating and strategic priorities. Among other things, these reviews and discussions focus on the opportunities and risks associated with Sesen Bio's development programs, financial condition and its strategic relationships and potential long-term strategic options.

On April 22, 2022, the Sesen Bio board of directors held a meeting at which members of Sesen Bio management, Michael O'Donnell, M.D., regulatory consultant to Sesen Bio, Neal D. Shore, M.D., FACS, clinical consultant to Sesen Bio, and a representative of Hogan Lovells US LLP, or Hogan Lovells, Sesen Bio's outside legal counsel, were present. During the meeting, Dr. O'Donnell and Dr. Shore reviewed, among other things, the potential trial size scenarios for an additional Phase 3 clinical trial for Vicineum, which the FDA previously confirmed would be required for a potential resubmission of a BLA. A discussion ensued regarding Sesen Bio's cash runway and potential financing needs and the commercial viability of Vicineum if Sesen Bio conducted a successful clinical trial. Sesen Bio management discussed strategic alternatives for Sesen Bio, including conducting an additional Phase 3 clinical trial for Vicineum, exploring a potential strategic transaction, and acquiring a new product. Monica Forbes, Sesen Bio's Chief Financial Officer, discussed the estimated financial impacts of an additional Phase 3 clinical trial for Vicineum, including the estimated time to achieve profitability and the need for additional financing to achieve profitability, with the estimated growth in Sesen Bio value barely outpacing the estimated dilution to existing stockholders. A discussion ensued regarding the process and timeline for conducting an additional Phase 3 clinical trial for Vicineum, the financial impacts of the additional Phase 3 clinical trial and whether other companies would be interested in a strategic acquisition of Vicineum. Following discussion, the Sesen Bio board of directors authorized and directed Sesen Bio management to continue planning for an additional Phase 3 clinical trial for Vicineum and indicated that it would evaluate whether to conduct an additional Phase 3 clinical trial in the third quarter of 2022 following an anticipated June 2022 meeting with the FDA. Erin Clark, Sesen Bio's Vice President of Corporate Strategy and Investor Relations, reviewed next steps for exploring a potential strategic alternative transaction, including the engagement of a financial advisor, and a possible timeline for a strategic alternative review process. Ms. Clark also discussed that Sesen Bio management would assess the feasibility of acquiring a new product and prepare a recommendation for the Sesen Bio board of directors to consider. Following further discussion, the Sesen Bio board of directors authorized Sesen Bio management to evaluate potential strategic alternatives, including (i) conducting an additional Phase 3 clinical trial for Vicineum, (ii) exploring a potential strategic transaction, and (iii) acquiring a new product, in order to maximize value for Sesen Bio's stockholders.

Following the April 22, 2022 board meeting, Sesen Bio management thoroughly evaluated four highly-qualified financial advisors, including SVB Securities. Sesen Bio management provided a summary of its evaluation and made a recommendation to the Sesen Bio board of directors. On May 2, 2022, the Sesen Bio board of directors authorized by unanimous written consent the engagement of SVB Securities to serve as Sesen Bio's financial advisor in connection with a process to review potential strategic alternative transactions based on, among other factors, the qualifications, professional reputation and industry expertise of SVB Securities. This engagement was memorialized in an engagement letter, dated May 6, 2022, between Sesen Bio and SVB Securities.

On May 3, 2022, following the approval of the Sesen Bio board of directors to engage SVB Securities to serve as Sesen Bio's financial advisor in connection with a process to review potential strategic alternative transactions, Sesen Bio announced that it initiated a process to evaluate potential strategic alternatives with the goal of maximizing stockholder value.

On May 9, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of SVB Securities and Hogan Lovells were present. During the meeting, Dr. Rachelle Dillon, Ph.D., Sesen Bio's Executive Director of Clinical Operations, provided a summary of Sesen Bio's activities in planning for an additional Phase 3 clinical trial for Vicineum. In addition, at the meeting, representatives of SVB Securities reviewed potential strategic

alternative transactions for Sesen Bio. Representatives of SVB Securities and Ms. Clark reviewed the status of the identification of potential counterparties for a strategic transaction, the proposed timeline for a potential strategic transaction and estimated wind-down costs in the event of a strategic transaction. A discussion ensued regarding potential strategic alternatives for Sesen Bio. Sesen Bio management discussed with the Sesen Bio board of directors potential ways to monetize potential milestone payments remaining under a 2016 license agreement with Roche, pursuant to which Sesen Bio had granted Roche an exclusive, worldwide license to develop and commercialize all patent rights and know-how related to the legacy IL-6 program, or the Roche licensed intellectual property, and had received $42.5 million in milestone payments to date. The Sesen Bio board of directors authorized Sesen Bio management to pursue a potential transaction with Roche related to the Roche licensed intellectual property.

On May 11, 2022, Sesen Bio management updated the Sesen Bio board of directors on discussions with senior management at Roche, who requested a formal proposal for a potential transaction related to the Roche licensed intellectual property. Sesen Bio management provided proposed terms for a potential transaction with Roche for the Sesen Bio board of directors' review and consideration. Subsequently, Sesen Bio management engaged in negotiations with Roche for a potential transaction related to the Roche licensed intellectual property.

On May 25, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells were present. Members of Sesen Bio management provided an update on Sesen Bio's activities in planning for an additional Phase 3 clinical trial. Members of Sesen Bio management also provided an overview of the strategic alternative review process, including the proposed selection methodology and key evaluation criteria for identifying potential counterparties for a strategic transaction. A discussion ensued regarding strategic considerations for pursuing the additional Phase 3 clinical trial or a strategic alternative transaction. Sesen Bio's non-employee directors also met in executive session with a representative of Hogan Lovells to discuss a potential conflict of interest of a Sesen Bio director affiliated with a potential counterparty for a strategic transaction. All non-employee directors, including the director with a potential conflict of interest, agreed that the director would be recused from discussions of the strategic alternative review process until the potential conflict of interest no longer exists.

During May 2022, at the direction of Sesen Bio following approvals from the Sesen Bio board of directors at the meeting held on April 22, 2022 and by unanimous written consent of the Sesen Bio board of directors on May 2, 2022, SVB Securities contacted 130 companies to determine the level of interest in a potential strategic transaction with Sesen Bio. Of those companies, 62 expressed interest in the strategic alternative review process and, at the direction of Sesen Bio, SVB Securities requested that such companies submit non-binding indications of interest.

From May 18, 2022 to June 7, 2022, 42 companies submitted non-binding indications of interest with respect to a potential strategic transaction with Sesen Bio based on publicly available information, including indications from Carisma and the companies referred to as Party A, Party B, Party C and Party D, as described below:

- The indication of interest from Carisma proposed a reverse merger transaction with an ascribed value of Sesen Bio of $110.0 million (assuming closing net cash of $100.0 million) and an ascribed value of Carisma of $196.0 million, with an implied ownership interest in the combined company of approximately 30.0% for existing Sesen Bio stockholders. Carisma's proposal also contemplated a concurrent financing of $30.0 million committed by existing Carisma investors.

- The indication of interest from Party A, a privately held company, proposed a reverse merger transaction with an ascribed value of Sesen Bio of $150.0 million (assuming closing net cash of $100.0 million) and an ascribed value of Party A of $249.0 million, with an implied ownership interest in the combined company of approximately 40.0% for existing Sesen Bio stockholders.

- The indication of interest from Party B, a privately held company, proposed a reverse merger transaction with an ascribed value of Sesen Bio of $100.0 million (assuming closing net cash of $100.0 million) and an ascribed value of Party B of $200.0 million, with an implied ownership interest in the combined company of approximately 33.0% for existing Sesen Bio stockholders.

- The indication of interest from Party C, a privately held company, proposed a reverse merger transaction with an ascribed value of Sesen Bio of $130.0 million (assuming closing net cash of $100.0 million) and an ascribed value of Party C of

$310.0 million, with an implied ownership interest in the combined company of approximately 30.0% for existing Sesen Bio stockholders.

- The indication of interest from Party D, a privately held company, proposed a reverse merger transaction with an ascribed value of Sesen Bio of $106.0 million (assuming closing net cash of $100.0 million) and an ascribed value of Party D of $159.0 million, with an implied ownership interest in the combined company of approximately 40.0% for existing Sesen Bio stockholders.

Also during this period, Sesen Bio entered into confidentiality agreements with 19 of the companies that submitted indications of interest.

From May 20, 2022 to June 7, 2022, members of Sesen Bio management and representatives of SVB Securities analyzed the 42 indications of interest using the following key evaluation criteria discussed by the Sesen Bio board of directors at a meeting on May 25, 2022:

- business assessment, including each company's proof of concept data generated to date, clinical development stage, pipeline depth, magnitude of potential clinical impact, existing standard of care, potential competitors, commercial potential, intellectual property, platform technology or drug discovery capabilities, scientific personnel and manufacturing capabilities;
- management and board quality, including prior public company executive experience, and investor quality, including duration of investment;
- public company readiness, including analysis of existing potential public company infrastructure and existing audited financials and/or retention of an independent registered public accounting firm;
- ability/need to raise contingent financing with consideration given for any existing investor commitments;
- material inflection points, including meaningful clinical data readouts or regulatory submissions for programs in the relative near term;
- ability to reach inflection points with pro forma cash; and
- current Sesen Bio stockholder ownership post-transaction.

Based on this analysis, members of Sesen Bio management identified 15 potential counterparties, including Carisma, Party A, Party B, Party C and Party D, to present to Sesen Bio management and/or the Sesen Bio board of directors. Since the company affiliated with the Sesen Bio director who had a potential conflict of interest was not one of the 15 potential counterparties identified, such director was able to resume full participation in discussions of the strategic alternative review process because the potential for a conflict of interest no longer existed.

On June 15 and 16, 2022, the Sesen Bio board of directors held a meeting in person and by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells and SVB Securities were present. Sesen Bio's directors met in executive session with Ms. Clark and a representative of Hogan Lovells present. Dr. Thomas Cannell, Sesen Bio's President and Chief Executive Officer, provided an update on recent changes in the NMIBC landscape and the strategic alternative review process. A discussion ensued regarding strategic considerations for an additional Phase 3 clinical trial and a strategic alternative transaction. Sesen Bio's directors then met in executive session with a representative of Hogan Lovells present to further discuss, among other things, the potential alternatives for Sesen Bio, which included conducting an additional Phase 3 clinical trial for Vicineum, exploring a potential strategic transaction, acquiring a new product, and liquidation. During this executive session, the Sesen Bio board of directors considered the cost, infrastructure needs, and time that would be involved in acquiring a new product and developing it for commercialization and determined not to pursue that strategic alternative at this time. Members of Sesen Bio management team and representatives of SVB Securities rejoined the meeting at which time Ms. Clark provided an update on the strategic alternative review process. Ms. Clark discussed the potential benefits of a reverse merger transaction for Sesen Bio stockholders, reviewed the proposed timeline and estimated wind-down costs in the event of a strategic transaction. Ms. Clark also discussed that Sesen Bio was exploring

the potential sale of the Vicineum asset in the event the Sesen Bio board of directors determined to cease further development of Vicineum. A discussion ensued among the members of the Sesen Bio board of directors. Representatives of SVB Securities (i) reviewed the selection methodology and key evaluation criteria that members of Sesen Bio management, with the assistance of SVB Securities, used to analyze the 42 indications of interest received by Sesen Bio to identify 15 potential counterparties to present to the Sesen Bio board of directors and/or Sesen Bio management, (ii) provided perspectives on each of the 15 potential counterparties, (iii) discussed next steps in the strategic alternative review process, and (iv) reviewed the timeline for a potential strategic transaction. Members of Sesen Bio management and representatives of SVB Securities responded to questions regarding the key evaluation criteria. Following discussion, the Sesen Bio board of directors authorized SVB Securities to move forward with presentations, with the five potential counterparties meeting the most key evaluation criteria, including Party A, Party B and Party C, to present to the full Sesen Bio board of directors and the remaining ten potential counterparties identified based on the key evaluation criteria, including Carisma and Party D, to present first to Sesen Bio management and then, if warranting further consideration, to the full Sesen Bio board of directors. Dr. Dillon joined the meeting and provided an update on Sesen Bio's activities in planning for an additional Phase 3 clinical trial, including the projected timeline and next steps for evaluating whether to pursue an additional Phase 3 clinical trial.

Over the course of June and July 2022, ten potential counterparties presented to Sesen Bio management and five potential counterparties, including two (Carisma and Party D) that first presented to Sesen Bio management, presented to the full Sesen Bio board of directors about their respective businesses. Prior to the commencement of the presentations, two of the initial five potential counterparties that were identified to present to the Sesen Bio board of directors voluntarily withdrew from the process. At the direction of the Sesen Bio board of directors, SVB Securities informed the other potential counterparties that had submitted indications of interest that they were not advancing to the next stage of discussions based on determinations by the Sesen Bio board of directors, informed by the perspectives of Sesen Bio management and SVB Securities, that each such counterparty was not reasonably likely to provide the best opportunity to maximize value for Sesen Bio's current stockholders based on most of the key evaluation criteria. Following these presentations, the Sesen Bio board of directors further evaluated its initial business assessment of the five potential counterparties that presented to the Sesen Bio board of directors and provided feedback to Sesen Bio management in advance of the July 25, 2022 board meeting to facilitate robust discussions before selecting the lead counterparties. During this period, Sesen Bio management also engaged in discussions with Roche about the possibility of Roche purchasing the Roche licensed intellectual property.

On July 13, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and a representative of Hogan Lovells were present. Dr. Cannell provided an update on the negotiations of an asset purchase agreement between Sesen Bio and Roche, pursuant to which Roche would purchase the Roche licensed intellectual property for up to $70.0 million, including a $40.0 million payment to Sesen Bio upon execution of the agreement and an additional $30.0 million payment to Sesen Bio upon the achievement by Roche of a specified milestone. A discussion ensued regarding, among other things, the associated proceeds having the potential to increase the range and attractiveness of strategic alternatives for Sesen Bio to consider and create the opportunity for a CVR that could provide enhanced value to Sesen Bio's stockholders. Following discussion, the Sesen Bio board of directors unanimously approved and authorized Sesen Bio management to execute the Roche Asset Purchase Agreement.

On July 15, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and a representative of Hogan Lovells were present. Dr. Cannell provided an update on Sesen Bio's July 11, 2022 meeting with the FDA to discuss an additional Phase 3 clinical trial for Vicineum, including the required design elements of an additional Phase 3 clinical trial confirmed by the FDA. Dr. Cannell discussed that based on the agreed upon design elements and resulting trial size, estimated timing for enrollment and timing of sufficient data for BLA resubmission, a U.S. launch was projected between mid-2030 to mid-2033 with total trial cost estimated between $200.0 million and $243.0 million (assuming an approximately 1,000-patient trial). Ms. Forbes reviewed the estimated financial impact of an additional Phase 3 clinical trial for Vicineum, including the estimated time to achieve profitability, the need for significant additional financing to achieve profitability, the anticipated negative return with dilution to existing stockholders outpacing the estimated growth in Sesen Bio's value, and that the current cash runway was projected to run out before the first major inflection point of data disclosure was projected to occur. Ms. Forbes also reviewed the total estimated, risk-adjusted valuation of Sesen Bio, timing of first inflection point and cash runway in the case of an additional Phase 3 clinical trial and in the case of a strategic alternative transaction. Members of management discussed the estimated impact of a potential liquidation, including that a meaningful amount of Sesen Bio's current cash balance would need to be held back to cover current liabilities and future potential liabilities triggered by a liquidation strategy. Based on the FDA feedback on the requirements for an additional Phase 3 clinical trial, the evolving competitive landscape and the resulting financial analysis for an additional Phase 3 clinical trial, as well as the view that liquidation was not reasonably likely to create greater value for Sesen Bio

stockholders than a strategic alternative transaction, Sesen Bio management recommended pausing further development of Vicineum in the U.S. and pursuing a strategic alternative transaction. Ms. Forbes also reviewed estimated wind-down costs in the event of a strategic transaction and possible next steps if the Sesen Bio board of directors were to approve pausing further development of Vicineum and pursue a strategic alternative transaction. Following discussion, the Sesen Bio board of directors unanimously approved pausing further development of Vicineum in the U.S., pursuing a strategic alternative transaction and implementing a restructuring plan to reduce operating expenses and to better align its workforce with the needs of its business following the decision to pause further development of Vicineum in the U.S.

On July 18, 2022, Sesen Bio announced that it made the strategic decision to voluntarily pause further development of Vicineum in the U.S. based on discussions with the FDA and a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for Vicineum for the treatment of NMIBC. Sesen Bio also announced that it would turn its primary focus to the assessment of strategic alternatives and that it intended to seek a partner with larger infrastructure for the further development of Vicineum.

Also on July 18, 2022, Sesen Bio announced that it had entered into the Roche Asset Purchase Agreement following execution of such agreement.

On July 25, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells were present. Ms. Clark reviewed management's proposed corporate strategy for 2022, including pursuing a potential strategic alternative transaction or, in the event a strategic alternative transaction is not completed, a liquidation and dissolution. Ms. Clark then reviewed the five remaining potential counterparties, Carisma, Party A, Party B, Party C and Party D, the presentations made by each potential counterparty and the due diligence conducted to date on each of the potential counterparties, including their respective business, management, board and investor quality, public company readiness, ability/need to raise contingent financing, material near-term inflection points, and ability to reach inflection points with pro forma cash. Following discussion, the Sesen Bio board of directors determined to prioritize discussions with Carisma, Party A and Party B based on the business assessment of each such counterparty after the presentations to the Sesen Bio board of directors, the terms of each such counterparty's proposed indication of interest, and the results of due diligence conducted to date, and authorized and directed Sesen Bio management and SVB Securities to move forward with Carisma, Party A and Party B into a technical due diligence process, including a comprehensive business, regulatory, intellectual property, legal and financial analysis of all three potential counterparties.

During the period from July 25, 2022 through August 19, 2022, members of Sesen Bio management and representatives of SVB Securities engaged in deep technical due diligence activities with each of Carisma, Party A and Party B, and, at the direction of the Sesen Bio board of directors, SVB Securities informed the other remaining counterparties that Sesen Bio was prioritizing discussions with other parties. On August 4, 2022, at the direction of the Sesen Bio board of directors, Sesen Bio management terminated diligence activities and discussions with Party B based on the due diligence and business discussions conducted to date, particularly the potential regulatory risks related to Party B's lead program that were discussed by the Sesen Bio board of directors in the July 25, 2022 meeting.

On August 11, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells were present. Ms. Clark provided an update on the strategic alternative review process, including an overview of the due diligence process and possible timeline for the two remaining potential counterparties.

During the period from August 11, 2022 through August 18, 2022, members of Sesen Bio management and representatives of SVB Securities engaged in additional due diligence activities with each of Carisma and Party A.

Based on the key evaluation criteria and the technical and other due diligence activities undertaken to date by Sesen Bio management on each of Carisma and Party A, the Sesen Bio board of directors and Sesen Bio management conducted an additional due diligence call with key opinion leaders about Carisma's proprietary cell therapy platform on August 19, 2022.

Later on August 19, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells were present. During the meeting, a representative of Hogan Lovells reviewed the fiduciary duties of the Sesen Bio board of directors in the context of considering a potential reverse merger transaction. Ms. Clark reviewed the key evaluation criteria that Sesen Bio management, with the assistance of SVB Securities, used to analyze the potential

counterparties and the technical and other due diligence activities undertaken to date by Sesen Bio management and Sesen Bio's consultants and advisors on each of Carisma and Party A. Based on the thorough assessment performed by Sesen Bio management and Sesen Bio's consultants and advisors, including technical due diligence, and the belief that a transaction with Carisma would provide value to Sesen Bio stockholders with significant upside potential, Sesen Bio management proposed that Sesen Bio pursue a reverse merger transaction with Carisma. Following discussion, the Sesen Bio board of directors approved and authorized Sesen Bio management to enter into negotiations with Carisma. In determining to pursue a reverse merger transaction with Carisma, the Sesen Bio board of directors considered that, in its judgment, Carisma provided the best opportunity to maximize value for Sesen Bio's current stockholders, including after considering the potential advantages of Carisma over Party A with respect to the potential breadth and application of Carisma's scientific platform, the potential value inflection milestones during the anticipated cash runways for the two parties, and a comparison of the potential risks regarding regulatory approval of each.

On August 19, 2022, Sesen Bio delivered a counterproposal to Carisma representing a $20 million premium to Sesen Bio's estimated cash balance at closing. Also on August 19, 2022, representatives of Hogan Lovells delivered a first draft of the proposed merger agreement for the transaction to representatives of Wilmer Cutler Pickering Hale and Dorr LLP, or WilmerHale, Carisma's outside legal counsel.

During the period from August 19, 2022 through September 20, 2022, representatives of Sesen Bio, including Hogan Lovells, and representatives of Carisma, including WilmerHale, completed confirmatory due diligence on each other and negotiated the terms of the merger agreement, including the definition of net cash, the calculation of the exchange ratio, the representations and warranties and operating covenants of each party, the amount of the termination fees and the expense reimbursement cap, and the terms of the forms of CVR Agreement, support agreement, and lock-up agreement. In evaluating and negotiating the exchange ratio, Sesen Bio considered Carisma's valuation based on its last financing round along with other factors that favored increasing the Sesen Bio valuation, including a decline in general market conditions and limited opportunities available for privately-held biotechnology companies to access the capital markets for financing through an initial public offering. Also during this period, Carisma engaged in discussions with potential investors for an equity financing in Carisma that would close immediately prior to the closing of Sesen Bio's transaction with Carisma.

On August 23, 2022, Carisma delivered a revised proposal with a stated value for Sesen Bio of $140.0 million, which represented a $15.0 million premium to Sesen Bio's estimated cash balance at closing, and agreeing to a $100.0 million cash minimum. On August 24, 2022, Sesen Bio requested more information on Carisma's revised proposal.

On September 14, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells were present. Dr. Cannell and Ms. Clark provided an update on the negotiations with Carisma, the anticipated timing of Carisma's pre-closing financing and the anticipated timeline for a potential transaction with Carisma.

On September 20, 2022, the Sesen Bio board of directors held a meeting by videoconference at which members of Sesen Bio management and representatives of Hogan Lovells and SVB Securities were present. Sesen Bio's directors met in executive session with representatives of Hogan Lovells present to discuss, among other things, the potential benefits and risks of the proposed transaction with Carisma. Following the executive session, Ms. Clark reviewed the anticipated timeline and next steps for the proposed transaction with Carisma and the estimated wind-down costs if the proposed transaction with Carisma were completed. Representatives of SVB Securities reviewed SVB Securities' financial analysis of the proposed transaction with Carisma. Following discussion with the directors, SVB Securities then rendered to the Sesen Bio board of directors its oral opinion, which was subsequently confirmed by delivery of a written opinion dated September 20, 2022, that, as of such date and based upon and subject to the assumptions made, and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, the exchange ratio to be paid by Sesen Bio pursuant to the terms of the Merger Agreement was fair, from a financial point of view, to Sesen Bio. During the meeting, a representative from Hogan Lovells again reviewed the fiduciary duties of the Sesen Bio board of directors in connection with the proposed transaction with Carisma and reviewed the material terms of the merger agreement. The Sesen Bio board of directors discussed various considerations with respect to the proposed transaction with Carisma, as summarized in the section entitled *"Sesen Bio Reasons for the Merger."* Following discussion, the Sesen Bio board of directors unanimously (i) determined that the merger and other transactions contemplated by the Merger Agreement are advisable and in the best interests of Sesen Bio and its stockholders, (ii) approved and declared advisable the Merger Agreement, the merger and the other transactions contemplated by the Merger Agreement, and (iii) resolved to recommend that the Sesen Bio stockholders approve the issuance of

shares of Sesen Bio common stock to Carisma stockholders in the merger and the other proposals contemplated by the Merger Agreement. Later on September 20, 2022, Sesen Bio and Carisma executed the merger agreement.

On September 21, 2022, Sesen Bio and Carisma issued a joint press release announcing the execution of the merger agreement.

Sesen Bio Reasons for the Merger

During the course of its evaluation of the Merger Agreement and the transactions contemplated by the Merger Agreement, the Sesen Bio board of directors held numerous meetings, consulted with Sesen Bio's senior management, Sesen Bio's consultants and advisors, outside legal counsel and financial advisor, and reviewed and assessed a significant amount of information. In reaching its decision to approve the Merger Agreement and the transactions contemplated by the Merger Agreement, the Sesen Bio board of directors considered a number of factors that it viewed as supporting its decision to approve the Merger Agreement, including:

- the financial condition and prospects of Sesen Bio and the risks associated with continuing to operate Sesen Bio on a stand-alone basis, particularly in light of Sesen Bio's July 2022 decision to voluntarily pause further development of Vicineum for the treatment of NMIBC and reduce its workforce, which was based on a thorough reassessment of Vicineum following FDA feedback on the requirements for an additional Phase 3 clinical trial, the evolving competitive landscape and the resulting financial analysis;

- that the Sesen Bio board of directors and its financial advisor undertook a comprehensive and thorough process of reviewing and analyzing potential strategic alternatives and merger partner candidates and Sesen Bio board of directors' view that no alternatives to the merger, including a liquidation and dissolution of Sesen Bio and the distribution of any available cash, were reasonably likely to create greater value to Sesen Bio stockholders;

- the Sesen Bio board of directors' conclusion that the merger would provide existing Sesen Bio stockholders a significant opportunity to participate in the potential growth of the combined company following the merger, while also potentially receiving certain cash payments following the closing of the merger on account of the CVR Agreement and the special cash dividend;

- the Sesen Bio board of directors' belief, after a thorough review of strategic alternatives and discussions with Sesen Bio's senior management, outside legal counsel and financial advisor, that the merger is more favorable to Sesen Bio stockholders than the potential value that might have resulted from other strategic alternatives available to Sesen Bio, including a liquidation and dissolution of Sesen Bio and the distribution of any available cash;

- the Sesen Bio board of directors' belief, after thorough discussion with Sesen Bio management and Sesen Bio's consultants and advisors, that a potential liquidation and dissolution was not reasonably likely to create greater value for Sesen Bio stockholders than a strategic alternative transaction based on, among other things, the need to hold back a meaningful amount of the Company's current cash balance to cover current and potential future liabilities, including those triggered by a liquidation strategy;

- the Sesen Bio board of directors' belief that, as a result of arm's length negotiations with Carisma, Sesen Bio and its representatives negotiated the highest exchange ratio to which Carisma was willing to agree, and that the other terms of the Merger Agreement include the most favorable terms to Sesen Bio in the aggregate to which Carisma was willing to agree;

- the Sesen Bio board of directors' positive view, based on the scientific, regulatory and technical due diligence conducted by Sesen Bio management and advisors, of the regulatory pathway for, and potential significant market opportunity of, Carisma's product candidates;

- the Sesen Bio board of directors' consideration of the expected cash balances of the combined company as of the closing of the merger resulting from the approximately $125.0 million of net cash expected to be held by Sesen Bio upon completion of the merger together with the cash Carisma currently holds and the $30.6 million of expected gross proceeds from the Carisma pre-closing financing;

- the Sesen Bio board of directors' view, following a review with Sesen Bio's management and advisors of Carisma's current development and clinical trial plans, of the likelihood that the combined company would possess sufficient cash resources at the closing of the merger, or have access to sufficient resources, to fund continued development of Carisma's product pipeline through upcoming value inflection points;

- the prospects of and risks associated with the other strategic candidates that had made proposals for a strategic transaction with Sesen Bio based on the scientific, technical and other due diligence conducted by Sesen Bio's management and advisors;

- the Sesen Bio board of directors' view that the combined company will be led by an experienced senior management team from Carisma and a board of directors with representation from each of the current boards of directors of Carisma and Sesen Bio;

- the current financial market conditions and historical market prices, volatility and trading information with respect to Sesen Bio common stock; and

- the opinion of SVB Securities, rendered orally to the Sesen Bio board of directors on September 20, 2022 (and subsequently confirmed in writing as of September 20, 2022) that, as of such date and based upon and subject to the various assumptions made, and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, the exchange ratio was fair, from a financial point of view, to Sesen Bio, as more fully described below in the section entitled "*The Merger — Opinion of Sesen Bio's Financial Advisor*," beginning on page 133 in this proxy statement/prospectus.

The Sesen Bio board of directors also reviewed the terms of the Merger Agreement and related transaction documents, including those described below, and concluded that the terms of the Merger Agreement and related transaction documents, in the aggregate, were reasonable under the circumstances:

- the calculation of the exchange ratio, closing net cash and the estimated number of shares of Sesen Bio common stock to be issued in the merger, including that the valuation of Sesen Bio under the Merger Agreement would be reduced to the extent that Sesen Bio's closing net cash is less than $125.0 million and increased to the extent Sesen Bio's closing net cash exceeds $125.0 million, which would result in a decrease or increase, as applicable, in the ownership of the pre-merger Sesen Bio stockholders in the combined company;

- the number and nature of the conditions to Sesen Bio's and Carisma's respective obligations to complete the merger and the likelihood that the merger will be completed on a timely basis, as more fully described below under the caption "*The Merger Agreement — Conditions to the Completion of the Merger*," beginning on page 165 in this proxy statement/prospectus;

- the respective rights of, and limitations on, Sesen Bio and Carisma under the Merger Agreement to consider and engage in discussions regarding unsolicited acquisition proposals under certain circumstances, and the limitations on the board of directors of each party to change its recommendation in favor of the merger, as more fully described below under the caption "*The Merger Agreement — No Solicitation*," beginning on page 168 in this proxy statement/prospectus;

- the potential termination fee of $7.6 million, in the case of the fee payable by Sesen Bio, or $5.49 million, in the case of the fee payable by Carisma, and related reimbursement of certain transaction expenses of up to $1.75 million, which could become payable by either Sesen Bio or Carisma to the other party if the Merger Agreement is terminated in certain circumstances, as more fully described below under the caption "*The Merger Agreement — Termination Fee*," beginning on page 179 in this proxy statement/prospectus;

- the lock-up agreements, pursuant to which certain stockholders of Carisma and Sesen Bio, respectively, have, subject to certain exceptions, agreed not to transfer their shares of the combined company common stock during the period of 180 days following the completion of the merger, as more fully described below under the caption "*Agreements Related to the Merger — Lock-Up Agreements*," beginning on page 188 in this proxy statement/prospectus;

- the support agreements, pursuant to which certain stockholders of Carisma and Sesen Bio, respectively, have agreed, solely in their capacities as stockholders, to vote their shares of Carisma common stock or Sesen Bio common stock, respectively, in favor of the proposals submitted to them in connection with the merger and against any alternative acquisition proposals, as more fully described below under the caption "*Agreements Related to the Merger — Support Agreements and Written Consents*," beginning on page 186 in this proxy statement/prospectus; and

- the CVR Agreement, pursuant to which Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time will receive a CVR for each outstanding share of Sesen Bio common stock held by such Sesen Bio stockholders representing the contractual right to receive contingent cash payments upon the receipt of Sesen Bio of certain proceeds payable by Roche during a certain period following closing, as more fully described below under the caption "*Agreements Related to the Merger — CVR Agreement*," beginning on page 181 in this proxy statement/prospectus.

In the course of its deliberations, the Sesen Bio board of directors also considered a variety of risks and other countervailing factors related to entering into the merger, including:

- the $7.6 million termination fee payable by Sesen Bio and Sesen Bio's expense reimbursement obligations upon the occurrence of certain events and the potential effect of such termination fee in deterring other potential acquirors from proposing an alternative acquisition that may be more advantageous to Sesen Bio stockholders;

- the substantial expenses to be incurred by Sesen Bio in connection with the merger;

- the prohibition on Sesen Bio to solicit alternative acquisition proposals during the pendency of the merger;

- the possible volatility of the trading price of Sesen Bio common stock resulting from the announcement, pendency or completion of the merger;

- the risk that the merger might not be consummated in a timely manner or at all and the potential effect of the public announcement of the merger or the failure to complete the merger on the reputation of Sesen Bio;

- the scientific, technical, regulatory and other risks and uncertainties associated with development and commercialization of Carisma's product pipeline; and

- the various other risks associated with the combined company and the proposed transaction, including those described in the sections entitled "*Risk Factors*" and "*Cautionary Statement Concerning Forward-Looking Statements*" beginning on pages 26 and 114, respectively, in this proxy statement/prospectus.

The foregoing information and factors considered by the Sesen Bio board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by the Sesen Bio board of directors. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the Sesen Bio board of directors did not find it useful to attempt, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of the Sesen Bio board of directors may have given different weight to different factors. The Sesen Bio board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Sesen Bio's senior management team, outside legal counsel and financial advisor, and considered the factors overall to be favorable to, and to support, its determination.

Carisma Reasons for the Merger

In the course of reaching its decision to approve the merger, the Carisma board of directors held numerous meetings, consulted with Carisma's senior management, its financial advisors and legal counsel, and considered a wide variety of factors. Ultimately, the Carisma board of directors concluded that a merger with Sesen Bio, together with the additional financing committed from the Carisma pre-closing financing, was the best option to generate capital resources to support the advancement of Carisma's pipeline and fund a combined organization.

Additional factors that the Carisma board of directors considered included the following:

- the merger will provide current Carisma stockholders with greater liquidity by owning publicly-traded stock, and expanding both the access to capital for Carisma and the range of investors potentially available as a public company, compared to the investors Carisma could otherwise gain access to if it continued to operate as a privately-held company;
- the potential benefits from increased public market awareness of Carisma and its pipeline;
- the historical and current information concerning Carisma's business, including its financial performance and condition, operations, management and pre-clinical and clinical data;
- the competitive nature of the industry in which Carisma operates;
- the Carisma board of directors' fiduciary duties to Carisma stockholders;
- the Carisma board of directors' belief that no alternatives to the merger were reasonably likely to create greater value for Carisma stockholders, after reviewing the various financing and other strategic alternatives that were considered by the Carisma board of directors;
- the projected financial position, operations, management structure, operating plans, and anticipated cash burn rate of the combined company, including the ability to support the combined company's current and planned clinical trials and operations);
- the business, history, operations, financial resources, assets, technology and credibility of Sesen Bio;
- the availability of appraisal rights under the DGCL to holders of Carisma's capital stock who comply with the required procedures under the DGCL, which allow such holders to seek appraisal of the fair value of their shares of Carisma capital stock as determined by the Delaware Court of Chancery;
- the terms and conditions of the Merger Agreement, including the following:
    - the determination that the expected relative percentage ownership of Sesen Bio stockholders and Carisma stockholders in the combined company was appropriate, based on the Carisma board of directors' judgment and assessment of the approximate valuations of Sesen Bio (including the value of the net cash Sesen Bio is expected to provide to the combined company) and Carisma;
    - the expectation that the merger will be treated as a reorganization for U.S. federal income tax purposes, with the result that in the merger Carisma stockholders will generally not recognize taxable gain or loss for U.S. federal income tax purposes;
    - the limited number and nature of the conditions of the obligation of Sesen Bio to complete the merger;
    - the condition to Carisma's obligation to complete the merger based on a minimum amount of net cash of Sesen Bio as of the closing of the merger;
    - the right of Carisma under the Merger Agreement to consider certain unsolicited acquisition proposals under certain circumstances should Carisma receive a superior proposal;
    - the conclusion of the Carisma board of directors that the potential termination fees payable by Sesen Bio or Carisma to the other party, and the circumstances when such fee may be payable, were reasonable; and
    - the belief that the other terms of the Merger Agreement, including the parties' representations, warranties and covenants, and the conditions to their respective obligations, were reasonable in light of the entire transaction;

- the shares of Sesen Bio common stock issued to Carisma stockholders will be registered on a Form S-4 registration statement and will become freely tradable for Carisma stockholders who are not affiliates of Carisma and who are not parties to lock-up agreements;

- the ability to obtain a Nasdaq listing and the change of the combined company's name to "CARISMA Therapeutics Inc." upon the closing of the merger; and

- the likelihood that the merger will be completed on a timely basis.

The Carisma board of directors also considered a number of uncertainties and risks in its deliberations concerning the merger and the other transactions contemplated by the Merger Agreement, including the following:

- the possibility that the merger might not be completed and the potential adverse effect of the public announcement of the merger on the reputation of Carisma and the ability of Carisma to obtain financing in the future in the event the merger is not completed;

- the risk that future sales of common stock by existing Sesen Bio stockholders may cause the price of Sesen Bio common stock to fall, thus reducing the potential value of Sesen Bio common stock received by Carisma stockholders following the merger;

- the exchange ratio used to establish the number of shares of Sesen Bio common stock to be issued to Carisma stockholders in the merger is fixed, except for adjustments including due to Sesen Bio's net cash and the respective companies' outstanding capital stock at closing, and thus the relative percentage ownership of Sesen Bio stockholders and Carisma stockholders in the combined organization immediately following the completion of the merger is similarly fixed;

- the termination fee payable by Carisma to Sesen Bio upon the occurrence of certain events, and the potential effect of such termination fee in deterring other potential acquirers from proposing an alternative transaction that may be more advantageous to Carisma stockholders;

- the potential reduction of Sesen Bio's net cash prior to the closing of the merger;

- the possibility that Sesen Bio could, under certain circumstances, consider unsolicited acquisition proposals if superior to the merger or change its recommendation to approve the merger upon certain events;

- the risk that the merger might not be completed in a timely manner or at all, for a variety of reasons, such as the failure of Sesen Bio to obtain the required stockholder vote, and the potential adverse effect on the reputation of Sesen Bio and the ability of Sesen Bio to obtain financing in the future in the event the merger is not completed;

- the costs involved in connection with completing the merger, the time and effort of Carisma senior management required to complete the merger, the related disruptions or potential disruptions to Carisma's business operations and future prospects, including its relationships with its employees, suppliers and partners and others that do business or may do business in the future with Carisma, and related administrative challenges associated with combining the companies;

- the additional expenses and obligations to which Carisma's business will be subject following the merger that Carisma has not previously been subject to, and the operational changes to Carisma's business, in each case that may result from being a public company;

- the fact that the representations and warranties in the Merger Agreement do not survive the closing of the merger and the potential risk of liabilities that may arise post-closing; and

- various other risks associated with the combined organization and the merger, including the risks described in the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus.

The foregoing information is not intended to be exhaustive, but summarizes the material factors considered by the Carisma board of directors in its consideration of the Merger Agreement and the transactions contemplated. The Carisma board of directors concluded that the benefits, advantages and opportunities of a potential transaction outweighed the uncertainties and risks described above. After considering these and other factors, the Carisma board of directors unanimously approved the Merger Agreement, the merger and the other transactions contemplated by the Merger Agreement.

Opinion of Sesen Bio's Financial Advisor

Introduction

Sesen Bio retained SVB Securities as its financial advisor in connection with the merger and the other transactions contemplated by the Merger Agreement. In connection with this engagement, the Sesen Bio board of directors requested that SVB Securities evaluate the fairness, from a financial point of view, to Sesen Bio of the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement. On September 20, 2022, SVB Securities rendered to the Sesen Bio board of directors its oral opinion, which was subsequently confirmed by delivery of a written opinion dated September 20, 2022, that, as of such date and based upon and subject to the various assumptions made, and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement was fair, from a financial point of view, to Sesen Bio. In providing its opinion, SVB Securities noted that the exchange ratio is subject to certain adjustments set forth in the Merger Agreement, and SVB Securities expressed no opinion as to any such adjustments.

The full text of the written opinion of SVB Securities, dated September 20, 2022, which describes the assumptions made and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion, is attached as *Annex B* to this proxy statement/prospectus and is incorporated herein by reference. The summary of the written opinion of SVB Securities set forth below is qualified in its entirety by the full text of the written opinion attached hereto as *Annex B*. **SVB Securities' financial advisory services and opinion were provided for the information and assistance of the Sesen Bio board of directors (in their capacity as directors and not in any other capacity) in connection with and for purposes of the Sesen Bio board of directors' consideration of the merger and the opinion of SVB Securities addressed only the fairness, from a financial point of view, as of the date thereof, to Sesen Bio of the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement. The opinion of SVB Securities did not address any other term or aspect of the Merger Agreement or the merger and does not constitute a recommendation to any stockholder of Sesen Bio as to whether or how such holder should vote with respect to the merger or otherwise act with respect to the merger or any other matter.**

The full text of the written opinion of SVB Securities should be read carefully in its entirety for a description of the assumptions made and the qualifications and limitations upon the review undertaken by SVB Securities in preparing its opinion.

In connection with rendering the opinion described above and performing its related financial analyses, SVB Securities reviewed, among other things:

- a draft of the Merger Agreement, dated September 20, 2022;
- a draft of the form of CVR Agreement to be entered into prior to the closing of the merger by Sesen Bio and a rights agent, dated September 20, 2022;
- Sesen Bio's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as filed by Sesen Bio with the SEC;
- Sesen Bio's Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2022 and June 30, 2022 (including any amendments thereto), as filed by Sesen Bio with the SEC;
- certain Current Reports on Form 8-K (including any amendments thereto), as filed by Sesen Bio with, or furnished by Sesen Bio to, the SEC;

- certain internal information, primarily related to expense forecasts, relating to the business, operations, earnings, cash flow, assets, liabilities and prospects of Sesen Bio, as furnished to SVB Securities by the management of Sesen Bio; and

- certain internal information relating to the business, operations, earnings, cash flow, assets, liabilities and prospects of Carisma, including the Financial Projections (as defined below), and furnished to, and approved for use by, SVB Securities by Sesen Bio for purposes of SVB Securities' analysis, as described in the section entitled "*The Merger — Certain Unaudited Financial Projections*," which are referred to in this summary of the opinion of SVB Securities as the "Financial Projections," and which are collectively referred to in this summary of the opinion of SVB Securities as the "Internal Data".

SVB Securities also conducted discussions with members of the senior management of Sesen Bio and Carisma and their respective advisors and representatives regarding the Internal Data as well as the past and current business, operations, financial condition and prospects of each of Sesen Bio and Carisma. In addition, SVB Securities reviewed certain financial data for Carisma and compared that data to similar publicly available market, financial and other data for certain other companies, the securities of which are publicly traded, that SVB Securities believed to be comparable in certain respects to Carisma. SVB Securities also conducted such other financial studies and analyses and took into account such other information as SVB Securities deemed appropriate.

SVB Securities assumed, without independent verification or any responsibility therefor, the accuracy and completeness of the financial, legal, regulatory, tax, accounting and other information supplied to, discussed with, or reviewed by SVB Securities for purposes of its opinion and, with Sesen Bio's consent, SVB Securities relied upon such information as being complete and accurate. In that regard, SVB Securities was advised by Sesen Bio, and assumed, at Sesen Bio's direction, that the Internal Data (including, without limitation, the Financial Projections) were reasonably prepared on bases reflecting the best currently available estimates and judgments of the management of Sesen Bio and Carisma as to the matters covered thereby and SVB Securities relied, at Sesen Bio's direction, on the Internal Data for purposes of SVB Securities' analysis and its opinion. SVB Securities expressed no view or opinion as to the Internal Data (including, without limitation, the Financial Projections) or the assumptions on which they were based. The Sesen Bio board of directors was aware that the management of Sesen Bio did not provide SVB Securities with, and SVB Securities did not otherwise have access to, financial forecasts regarding Sesen Bio's business, other than the expense forecasts described above. Accordingly, SVB Securities did not perform a discounted cash flow analysis or any multiples-based analysis with respect to Sesen Bio. In addition, at Sesen Bio's direction, SVB Securities did not make any independent evaluation or appraisal of any of the assets or liabilities (contingent, derivative, off-balance-sheet or otherwise) of Sesen Bio or Carisma, nor was SVB Securities furnished with any such evaluation or appraisal, and SVB Securities was not asked to conduct, and did not conduct, a physical inspection of the properties or assets of Sesen Bio or Carisma. Furthermore, at Sesen Bio's direction, SVB Securities ascribed no value to the contingent value rights issuable pursuant to the CVR Agreement.

SVB Securities assumed, at Sesen Bio's direction, that the final executed Merger Agreement would not differ in any respect material to SVB Securities' analysis or its opinion from the last draft of the Merger Agreement reviewed by SVB Securities. SVB Securities also assumed, at Sesen Bio's direction, that the representations and warranties made by Carisma and Sesen Bio and Merger Sub in the Merger Agreement and the related agreements were and would continue to be true and correct in all respects material to SVB Securities' analysis. Furthermore, SVB Securities assumed, at Sesen Bio's direction, that the merger would be consummated on the terms set forth in the Merger Agreement and in accordance with all applicable laws and other relevant documents or requirements, without delay or the waiver, modification or amendment of any term, condition or agreement, the effect of which would be material to SVB Securities' analysis or SVB Securities' opinion and that, in the course of obtaining the necessary governmental, regulatory and other approvals, consents, releases and waivers for the merger, no delay, limitation, restriction, condition or other change would be imposed, the effect of which would be material to SVB Securities' analysis or SVB Securities' opinion. SVB Securities did not evaluate and did not express any opinion as to the solvency or fair value of Sesen Bio or Carisma, or their respective abilities to pay their obligations when they come due, or as to the impact of the merger on such matters, under any state, federal or other laws relating to bankruptcy, insolvency, or similar matters. SVB Securities is not a legal, regulatory, tax or accounting advisor, and SVB Securities expressed no opinion as to any legal, regulatory, tax or accounting matters. SVB Securities expressed no view or opinion as to the price or range of prices at which the shares of stock or other securities or instruments of Sesen Bio or any third party may trade at any time, including subsequent to the announcement or consummation of the merger.

The opinion of SVB Securities expressed no view as to, and did not address, Sesen Bio's underlying business decision to proceed with or effect the merger, or the relative merits of the merger as compared to any alternative business strategies or transactions that might be available to Sesen Bio or in which Sesen Bio might engage. The opinion of SVB Securities was limited to and addressed

only the fairness, from a financial point of view, as of the date of its opinion, to Sesen Bio of the exchange ratio proposed to be paid by Sesen Bio pursuant to the terms of the Merger Agreement. SVB Securities was not asked to, nor did it express any view on, and its opinion did not address, any other term or aspect of the Merger Agreement or the other transactions contemplated by the Merger Agreement, including, without limitation, the structure or form of the merger or the other transactions contemplated by the Merger Agreement, or any other agreements or arrangements contemplated by the Merger Agreement or entered into in connection with or otherwise contemplated by the merger or the other transactions contemplated by the Merger Agreement, including, without limitation, the fairness of the merger or any other term or aspect of the merger to, or any consideration to be received in connection therewith by, or the impact of the merger on, the holders of any class of securities, creditors or other constituencies of Sesen Bio or any other party. In addition, SVB Securities expressed no view or opinion as to the fairness (financial or otherwise) of the amount, nature or any other aspect of any compensation to be paid or payable to any of the officers, directors or employees of Sesen Bio or any other party, or class of such persons in connection with the merger or the other transactions contemplated by the Merger Agreement, whether relative to the exchange ratio to be paid by Sesen Bio pursuant to the terms of the Merger Agreement or otherwise. The opinion of SVB Securities was necessarily based on financial, economic, monetary, currency, market and other conditions and circumstances as in effect on, and the information made available to SVB Securities as of, the date of its written opinion, and SVB Securities does not have any obligation or responsibility to update, revise or reaffirm its opinion based on circumstances, developments or events occurring after the date of its opinion. SVB Securities' opinion does not constitute a recommendation to any stockholder of Sesen Bio as to whether or how such stockholder should vote with respect to the merger or otherwise act with respect to the merger or the other transactions contemplated by the Merger Agreement or any other matter.

SVB Securities' financial advisory services and its opinion were provided for the information and assistance of the Sesen Bio board of directors (in their capacity as directors and not in any other capacity) in connection with and for purposes of its consideration of the merger and the other transactions contemplated by the Merger Agreement. SVB Securities' opinion was authorized by the SVB Securities LLC Fairness Opinion Review Committee.

Summary of Financial Analyses

The following is a summary of the material financial analyses prepared by SVB Securities and reviewed with the Sesen Bio board of directors in connection its opinion, which was delivered orally to the Sesen Bio board of directors on September 20, 2022 and subsequently confirmed in its written opinion, dated September 20, 2022. For purposes of the analyses described below, SVB Securities was directed to rely upon the Internal Data, including the Financial Projections. The summary set forth below does not purport to be a complete description of the financial analyses performed or factors considered by, and underlying the opinion of, SVB Securities, nor does the order of the analyses described below represent the relative importance or weight given to those analyses by SVB Securities. The preparation of a fairness opinion is a complex analytical process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances and, therefore, a fairness opinion is not readily susceptible to summary description. In arriving at its opinion, SVB Securities did not draw, in isolation, conclusions from or with regard to any factor or analysis that it considered. Accordingly, SVB Securities believes that its analyses must be considered as a whole and that selecting portions of such analyses and factors without considering all analyses and factors, could create a misleading or incomplete view of the processes underlying SVB Securities' financial analyses and its opinion.

SVB Securities may have deemed various assumptions more or less probable than other assumptions, so the reference ranges resulting from any particular portion of the analyses summarized below should not be taken to be the view of SVB Securities as to the actual value of Carisma. Some of the summaries of the financial analyses set forth below include information presented in tabular format. In order to fully understand the financial analyses, the tables must be read together with the text of each summary, as the tables alone do not constitute a complete description of the financial analyses performed by SVB Securities. In its analyses, SVB Securities made numerous assumptions with respect to industry performance, general business and economic conditions and other matters, many of which are beyond the control of Sesen Bio or any other parties to the merger and the other transactions contemplated by the Merger Agreement. None of Sesen Bio, Carisma, Merger Sub, SVB Securities or any other person assumes responsibility if future results are materially different from those discussed. Any estimates contained in these analyses are not necessarily indicative of actual values or predictive of future results or values, which may be significantly more or less favorable than as set forth below. In addition, analyses relating to the value of Sesen Bio or Carisma do not purport to be appraisals or reflect the prices at which these companies may actually be sold. Accordingly, the assumptions and estimates used in, and the results derived from, the financial analyses are inherently subject to substantial uncertainty. Except as otherwise noted, the following quantitative information, to the extent that it is based on market data, is based on market data as it existed on or before September 20, 2022 and is not necessarily indicative of current market conditions.

SVB Securities' financial analyses and opinion were only one of many factors taken into consideration by the Sesen Bio board of directors in its evaluation of the merger, as described in the section entitled "*The Merger — Sesen Bio Reasons for the Merger*." Consequently, the analyses described below should not be viewed as determinative of the views of the Sesen Bio board of directors or management of Sesen Bio with respect to the exchange ratio or as to whether the Sesen Bio board of directors would have been willing to determine that a different exchange ratio was fair. The exchange ratio, as well as the type of consideration payable in the merger, was determined through arm's-length negotiations between Sesen Bio and Carisma and was approved by the Sesen Bio board of directors. SVB Securities provided advice to Sesen Bio during these negotiations. However, SVB Securities did not recommend any specific exchange ratio or other financial terms to Sesen Bio or the Sesen Bio board of directors or that any specific exchange ratio or other financial terms constituted the only appropriate consideration for the merger.

In preparing its analysis, SVB Securities took into account that the exchange ratio contained in the Merger Agreement is calculated by attributing equity values of $140.0 million and $196.0 million to Sesen Bio and Carisma, respectively, subject to certain adjustments set forth in the Merger Agreement and before giving effect to the Carisma pre-closing financing. SVB Securities expressed no opinion as to any such adjustments.

Valuation Analysis — Discounted Cash Flow

A discounted cash flow analysis is a traditional valuation methodology used to derive a valuation of an asset or set of assets by calculating the "present value" of estimated future cash flows of the asset or set of assets. "Present value" refers to the current value of future cash flows or amounts and is obtained by discounting those future cash flows or amounts by a discount rate that takes into account assumptions and estimates of risk, the opportunity cost of capital, expected returns and other appropriate factors, and then adding the present value equivalent of the terminal value of the business at the end of the applicable projection period. SVB Securities performed a discounted cash flow analysis to calculate the estimated present value of the stand-alone, unlevered, after-tax free cash flows that Carisma was forecasted to generate from January 1, 2023 through December 31, 2041, which unlevered, after-tax free cash flows were derived from the Financial Projections on which SVB Securities relied. SVB Securities estimated the net present value of unlevered, after-tax free flows after fiscal year 2041 by assuming an annual decline ranging from 10% to 30% of such cash flows in perpetuity, at the direction of Sesen Bio management. These cash flows were discounted to present value as of January 1, 2023, using a discount rate ranging from 11% to 13%, determined based on SVB Securities' professional judgment and experience, and adjusted for an estimated net cash balance of ($6.0) million as of December 31, 2022, as provided by management of Carisma.

This analysis resulted in an implied equity value for Carisma of approximately $210.0 million to $320.0 million and a corresponding implied exchange ratio of approximately 26.4261x to 40.0919x.

Additional Factors Observed by SVB Securities — Carisma Valuation Analysis — Selected Public Companies

As additional factors not part of its financial analysis but noted for reference purposes, SVB Securities reviewed publicly available information relating to the market capitalization of certain U.S.-listed publicly traded biopharmaceutical companies focused on cellular-based therapeutics whose lead products at the time of this analysis were (1) being developed for the treatment of oncology targets and (2) in early clinical development, selected based on SVB Securities' professional judgment and experience. These companies, which are referred to as the Selected Companies, were:

Company	Lead Relevant Program	Indication	Equity Value (in millions)	Enterprise Value (in millions)	Adjusted Equity Value (in millions)
Lyell Immunopharma, Inc.	LYL797	NSCLC, TNBC, Other Solid tumors	$ 1,925	$ 1,091	$ 904
Arcellx, Inc.	CART-ddBCMA	Multiple Myeloma	$ 949	$ 642	$ 530
Adicet Bio, Inc.	ADI-001	NHL	$ 572	$ 311	$ 254
Celularity Inc.	CYNK-001	AML	$ 385	$ 307	$ 251
Nkarta, Inc.	NKX101	AML and MDS	$ 615	$ 202	$ 163

SVB Securities noted that although such companies had certain financial and operating characteristics that could be considered similar to those of Carisma, none of the companies had the same management, make-up, technology, size or mix of businesses as Carisma and, accordingly, there were inherent limitations on the applicability of such companies to the valuation analysis of Carisma.

SVB Securities calculated the aggregate enterprise value of each of the Selected Companies based upon the closing price of the common stock of each Selected Company on September 19, 2022 and the fully-diluted number of shares outstanding, using the treasury stock method. Using the 25th and 75th percentile of the Selected Companies, SVB Securities derived an enterprise value range for Carisma and then added Carisma's estimated net cash for year ending December 31, 2022 of ($6.0) million to derive adjusted equity values for Carisma. SVB Securities then applied a 20% illiquidity discount to the derived adjusted equity values for Carisma. The results of this analysis are summarized as follows:

	Adjusted Equity Value (in millions)
25th Percentile	$ 207
75th Percentile	$ 717

SVB Securities compared these adjusted equity valuations to the proposed Carisma valuation of $196.0 million based on the proposed valuation and ownership ratio in the Merger Agreement and also compared the resulting implied exchange ratio range of approximately 25.8592x to 89.5943x to the exchange ratio.

General

SVB Securities is a full-service securities firm engaged in securities trading and brokerage activities as well as investment banking and financial advisory services. In the ordinary course of business, SVB Securities and its affiliates currently are providing and may in the future provide investment banking and commercial banking services to Sesen Bio, Carisma or their respective affiliates and would expect to receive customary fees for the rendering of such services. In the ordinary course of our business, SVB Securities and its affiliates have in the past and may in the future hold positions, for our own account or the accounts of our customers, in equity, debt or other securities of Sesen Bio, Carisma or their respective affiliates.

Consistent with applicable legal and regulatory requirements, SVB Securities has adopted policies and procedures to establish and maintain the independence of its research department and personnel. As a result, SVB Securities' research analysts may hold views, make statements or investment recommendations and/or publish research reports with respect to Sesen Bio and the merger and other participants in the merger that differ from the views of SVB Securities' investment banking personnel.

The Sesen Bio board of directors selected SVB Securities to act as Sesen Bio's financial advisor in connection with the merger based on SVB Securities' qualifications, reputation, experience and expertise in the biopharmaceutical industry, its knowledge of and involvement in recent transactions in the biopharmaceutical industry and its relationship and familiarity with Sesen Bio and its business. SVB Securities is an internationally recognized investment banking firm that has substantial experience in transactions similar to the merger and the other transactions contemplated by the Merger Agreement.

In connection with SVB Securities' services as financial advisor to Sesen Bio, Sesen Bio has agreed to pay SVB Securities an aggregate fee of $2.5 million, $750,000 of which became payable upon the rendering by SVB Securities of the opinion on September 20, 2022 and the remainder of which is payable contingent upon consummation of the merger. In addition, Sesen Bio has agreed to reimburse certain of SVB Securities' expenses arising, and to indemnify SVB Securities against certain liabilities that may arise, out of SVB Securities' engagement. The terms of the fee arrangement between SVB Securities and Sesen Bio, which are customary in transactions of this nature, were negotiated at arm's length between SVB Securities and Sesen Bio, and the Sesen Bio board of directors was aware of the arrangement, including the fact that a significant portion of the fee payable to SVB Securities is contingent upon the completion of the merger.

Certain Unaudited Financial Projections

As a matter of course, Sesen Bio does not publicly disclose long-term projections of future financial results due to the inherent unpredictability and subjectivity of underlying assumptions and estimates. However, in connection with the Sesen Bio board of directors' evaluation of the merger, Carisma management provided to Sesen Bio management certain financial information relating to Carisma, and Sesen Bio management then, on the basis of various assumptions made by Sesen Bio management, prepared certain financial projections with respect to Carisma, such projections referred to herein as the Financial Projections. The Financial Projections were furnished to, and approved for use by, SVB Securities by Sesen Bio for purposes of SVB Securities' analyses, as

described in the section entitled *"The Merger—Opinion of Sesen Bio's Financial Advisor"* beginning on page 133 of this proxy statement/prospectus, and made available to the Sesen Bio board of directors. A summary of the Financial Projections is set forth below.

The inclusion of the Financial Projections should not be deemed an admission or representation by Sesen Bio, SVB Securities, Carisma or any of their respective officers, directors, affiliates, advisors, or other representatives with respect to such Financial Projections. The Financial Projections are not included to influence your views on the merger and are summarized in this proxy statement/prospectus solely to provide stockholders access to certain non-public information provided to and considered by the Sesen Bio board of directors in connection with its evaluation of the merger and provided to Sesen Bio's financial advisor, SVB Securities, to assist with its financial analyses, as described in the section entitled "*The Merger — Opinion of Sesen Bio's Financial Advisor*". The information from the Financial Projections should be evaluated, if at all, in conjunction with the historical financial statements and other information regarding Carisma in this proxy statement/prospectus.

The Financial Projections were not prepared with a view toward public disclosure, nor were they prepared with a view toward compliance with published guidelines of the SEC, the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information, or GAAP. Neither the independent registered public accounting firm of Sesen Bio nor Carisma nor any other independent accountant has audited, reviewed, compiled, examined or performed any procedures with respect to the accompanying unaudited prospective financial information for the purpose of its inclusion herein, and accordingly, neither the independent registered public accounting firm of Sesen Bio nor Carisma nor any other independent accountant expresses an opinion or provides any form of assurance with respect thereto for the purpose of this proxy statement/prospectus. The reports of Ernst & Young LLP and KPMG LLP included in this proxy statement/prospectus relate to the consolidated financial statements of Sesen Bio and Carisma, respectively. The reports do not extend to the Financial Projections and should not be read to do so.

The Financial Projections include unlevered free cash flow, total adjusted revenue and earnings before interest and taxes, which are "non-GAAP financial measures" and which are financial performance measures that are not calculated in accordance with GAAP. Non-GAAP financial measures should not be viewed as a substitute for GAAP financial measures and may be different from non-GAAP financial measures used by other companies. Furthermore, there are limitations inherent in non-GAAP financial measures because they exclude charges and credits that are required to be included in a GAAP presentation. Accordingly, non-GAAP financial measures should be considered together with, and not as an alternative to, financial measures prepared in accordance with GAAP. The SEC rules that would otherwise require a reconciliation of a non-GAAP financial measure to a GAAP financial measure do not apply to non-GAAP financial measures provided to a board of directors or a financial advisor in connection with a proposed business combination transaction such as the merger if the disclosure is included in a document such as this proxy statement/prospectus. In addition, reconciliations of non-GAAP financial measures to a GAAP financial measure were not provided to or relied upon by SVB Securities in connection with rendering its fairness opinion with respect to the merger, as further described in the section entitled "*The Merger — Opinion of Sesen Bio's Financial Advisor*". Accordingly, Sesen Bio has not provided a reconciliation of the financial measures included in the Financial Projections to the relevant GAAP financial measures.

The financial projections prepared by Carisma and supplied to Sesen Bio were prepared solely for internal use as part of Carisma's ongoing strategic planning processes and are subjective in many respects. As a result, the Financial Projections, are susceptible to multiple interpretations and periodic revisions based on actual experience and business developments. Although Carisma and Sesen Bio believe their respective assumptions to be reasonable, all financial projections are inherently uncertain, and Carisma and Sesen Bio expect that differences will exist between actual and projected results. Although presented with numerical specificity, the Financial Projections reflect numerous variables, estimates, and assumptions made by Carisma's and Sesen Bio's respective management at the time the initial financial projections were prepared by Carisma and prepared by Sesen Bio, and also reflect general business, economic, market, and financial conditions and other matters, all of which are difficult to predict and many of which are beyond Carisma's and Sesen Bio's control. In addition, the Financial Projections cover multiple years, and this information by its nature becomes subject to greater uncertainty with each successive year. Accordingly, there can be no assurance that the estimates and assumptions made in preparing the Financial Projections will prove accurate or that any of the Financial Projections will be realized.

The Financial Projections included certain assumptions relating to, among others things, Carisma's and Sesen Bio's respective expectations, which may not prove to be accurate, relating to the business, earnings, cash flow, assets, liabilities and prospects of

Carisma, industry metrics and the regulatory and commercial probability of success and revenue and expenses adjusted on the basis thereof.

The Financial Projections assume, among other things, that the total revenue will only include (i) sales of CT-0508, which is a CAR-M cell therapy currently being evaluated by Carisma in a Phase 1 multi-center clinical trial with a lead target indication of advanced HER2+ solid tumors in the U.S., E.U. Five (France, Germany, Italy, Spain and the United Kingdom) and Japan, and its associated expenses, and (ii) risk-adjusted estimated development, regulatory, and commercial milestone income and royalties on net sales of products that are commercialized and associated with Carisma's strategic partnership with Moderna.

The Financial Projections are subject to many risks and uncertainties and you are urged to review the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus for a description of risk factors relating to the merger and Carisma's business. You should also read the section entitled "*Cautionary Statement Concerning Forward-Looking Statements*" beginning on page 114 of this proxy statement/prospectus for additional information regarding the risks inherent in forward-looking information such as the Financial Projections.

The inclusion of the Financial Projections herein should not be regarded as an indication that Sesen Bio, SVB Securities, Carisma or any of their respective affiliates or representatives considered or consider the Financial Projections to be necessarily indicative of actual future events, and the Financial Projections should not be relied upon as such. The Financial Projections do not take into account any circumstances or events occurring after the date they were prepared. Sesen Bio and the combined company do not intend to, and disclaim any obligation to, update, correct, or otherwise revise the Financial Projections to reflect circumstances existing or arising after the date the Financial Projections were generated or to reflect the occurrence of future events, even in the event that any or all of the assumptions or other information underlying the Financial Projections are shown to be in error. Furthermore, the Financial Projections do not take into account the effect of any failure of the merger to be consummated and should not be viewed as accurate or continuing in that context.

In light of the foregoing factors and the uncertainties inherent in financial projections, stockholders are cautioned not to place undue reliance, if any, on the Financial Projections.

The following table, which is subject to the financial projection statements above, presents (in millions) a summary of the Financial Projections prepared by the management of Sesen Bio solely for use by SVB Securities in connection with the rendering of its fairness opinion and performing related financial analysis and made available to the Sesen Bio board of directors.

	Projected Financial Information for Carisma on a Risk-Adjusted Basis									
($in millions)	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**	**2030E**	**2031E**	**2032E**
Total Adjusted Revenue[1]	—	$ 6	$ 12	$ 15	$ 38	$ 73	$ 104	$ 130	$ 151	$ 159
Earnings Before Interest and Taxes[2]	$ (82)	$ (8)	$ (3)	$ (7)	$ 10	$ 38	$ 62	$ 85	$ 100	$ 110
Unlevered Free Cash Flow[3]	$ (86)	$ (14)	$ (9)	$ (12)	$ 7	$ 28	$ 48	$ 66	$ 79	$ 88

	Projected Financial Information for Carisma on a Risk-Adjusted Basis								
($in millions)	**2033E**	**2034E**	**2035E**	**2036E**	**2037E**	**2038E**	**2039E**	**2040E**	**2041E**
Total Adjusted Revenue[1]	$ 165	$ 169	$ 188	$ 201	$ 213	$ 221	$ 202	$ 167	$ 128
Earnings Before Interest and Taxes[2]	$ 115	$ 119	$ 137	$ 149	$ 161	$ 169	$ 167	$ 143	$ 112
Unlevered Free Cash Flow[3]	$ 92	$ 95	$ 108	$ 118	$ 126	$ 132	$ 134	$ 116	$ 93

(1) Equal to total risk-adjusted revenue.

(2) Earnings before interest and taxes is defined as total adjusted revenue less cost of goods sold, outbound milestones and royalties, research and development expense, sales and marketing expense, general and administrative expense and depreciation expense.

(3) Unlevered free cash flow is defined as earnings before interest and taxes, less tax expense (if profitable), plus depreciation and amortization, less capital expenditures, and less change in net working capital.

Interests of Sesen Bio Directors and Executive Officers in the Merger

In considering the recommendation of the Sesen Bio board of directors with respect to issuing shares of Sesen Bio common stock as contemplated by the Merger Agreement and the other matters to be acted upon by Sesen Bio stockholders at the Sesen Bio special meeting, Sesen Bio stockholders should be aware that certain members of the Sesen Bio board of directors and certain Sesen Bio executive officers have interests in the merger that may be different from, or in addition to, the interests of Sesen Bio stockholders. These interests may present them with actual or potential conflicts of interest, and these interests, to the extent material, are described below.

Each of the Sesen Bio board of directors and the Carisma board of directors were aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Merger Agreement and the merger, and to recommend, as applicable, that Sesen Bio stockholders approve the proposals to be presented to Sesen Bio stockholders for consideration at the Sesen Bio special meeting as contemplated by this proxy statement/prospectus, and that Carisma stockholders sign and return the written consent as contemplated by this proxy statement/prospectus.

Ownership Interests

As of September 20, 2022, Sesen Bio's directors and current executive officers owned, in the aggregate, less than one percent of the shares of Sesen Bio common stock, which for purposes of this subsection excludes any Sesen Bio common stock issuable upon (i) exercise of Sesen Bio options held by such individual or (ii) vesting of Sesen Bio RSUs held by such individual. The affirmative vote of a majority in voting power of the votes cast by the holders of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal Nos. 1, 3, 4 and 5. The affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock on the record date for the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal No. 2. See the section entitled "*Principal Stockholders of Sesen Bio*" on page 375 of this proxy statement/prospectus for a description of the beneficial ownership of Sesen Bio's directors and officers.

Effect of the Merger on Sesen Bio Options

As of September 20, 2022, Sesen Bio's directors and current executive officers owned, in the aggregate, unvested Sesen Bio options covering 4,432,406 shares of Sesen Bio common stock and vested Sesen Bio options covering 7,282,057 shares of Sesen Bio common stock.

All outstanding and unexercised Sesen Bio options granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan or as an inducement grant under Nasdaq Listing Rule 5635(c)(4) will remain in effect pursuant to their terms and will be unaffected by the merger.

The following table presents certain information concerning the outstanding Sesen Bio options held by Sesen Bio's directors and current executive officers as of September 20, 2022. All of the Sesen Bio options in the table below were out-of-the-money as of September 20, 2022, on which date the closing price per share of Sesen Bio common stock was $0.6692, with the exception of 59,000 vested Sesen Bio options with an exercise price of $0.63 per share held by each of Carrie Bourdow and Jason Keyes. The number of

shares of Sesen Bio common stock underlying such Sesen Bio options will be adjusted appropriately to reflect the proposed reverse stock split.

	Number of Shares Underlying Vested Options	Weighted Average Exercise Price of Vested Options	Number of Shares Underlying Unvested Options	Weighted Average Exercise Price of Unvested Options
Executive Officers				
Thomas R. Cannell, D.V.M.	3,881,250	$ 1.56	1,918,750	$ 2.37
Monica Forbes	895,000	$ 1.56	665,000	$ 2.18
Glen MacDonald, Ph.D.	866,801	$ 1.66	321,875	$ 2.21
Minori Rosales, M.D., Ph.D.	—	$ —	623,000	$ 0.73
Mark R. Sullivan	652,500	$ 1.38	367,500	$ 2.10
Non-Employee Directors				
Jay S. Duker, M.D.	299,620	$ 2.39	54,167	$ 0.79
Carrie L. Bourdow	260,666	$ 1.48	73,834	$ 0.80
Peter K Honig, M.D., M.P.H.	82,777	$ 3.46	167,223	$ 2.87
Michael A.S. Jewett, M.D., F.R.C.S.C., F.A.C.S.	82,777	$ 3.46	167,223	$ 2.87
Jason A. Keyes	260,666	$ 1.48	73,834	$ 0.80

Effect of the Merger on Sesen Bio RSUs

As of September 20, 2022, Sesen Bio's directors and current executive officers owned, in the aggregate, unvested Sesen Bio RSUs covering 3,559,892 shares of Sesen Bio common stock.

All outstanding Sesen Bio RSUs granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan will remain in effect pursuant to their terms and will be unaffected by the merger.

The following table presents certain information concerning the outstanding Sesen Bio RSUs held by Sesen Bio's directors and current executive officers as of September 20, 2022. All of the Sesen Bio RSUs in the table below were unvested as of September 20, 2022 and the value of such RSUs was calculated based on the closing price per share of Sesen Bio common stock on September 20, 2022, which was $0.6692. The number of shares of Sesen Bio common stock underlying such Sesen Bio RSUs will be adjusted appropriately to reflect the proposed reverse stock split.

	Number of Shares Underlying Unvested RSUs	Value of RSUs
Executive Officers		
Thomas R. Cannell, D.V.M.	1,213,600	$ 811,898
Monica Forbes	913,375	$ 611,048
Glen MacDonald, Ph.D.	595,217	$ 398,200
Minori Rosales, M.D., Ph.D.	—	$ —
Mark R. Sullivan	637,700	$ 426,621
Non-Employee Directors		
Jay S. Duker, M.D.	40,000	$ 26,760
Carrie L. Bourdow	40,000	$ 26,760
Peter K Honig, M.D., M.P.H.	40,000	$ 26,760
Michael A.S. Jewett, M.D., F.R.C.S.C., F.A.C.S.	40,000	$ 26,760
Jason A. Keyes	40,000	$ 26,760

Director Positions Following the Merger

Thomas R. Cannell, D.V.M., Sesen Bio's President and Chief Executive Officer and a member of the Sesen Bio board of directors, is expected to remain a member of the board of directors of the combined company and will receive compensation to be paid to directors of the combined company. For a description of Sesen Bio's non-employee director compensation policy and the amounts paid to Sesen Bio's non-employee directors in 2021, see the section entitled "*Sesen Bio Executive Compensation — Director Compensation*" beginning on page 338 of this proxy statement/prospectus. Pursuant to the terms of the Merger Agreement, effective upon the effective time, all other then-current Sesen Bio directors will resign. Upon the resignation of such directors, all unvested Sesen Bio options and Sesen Bio RSUs held by such directors will be vested in full. All out-of-the money Sesen Bio options will be canceled for no consideration.

Termination of Existing Sesen Bio Executive Officers Following the Merger and Related Severance Payments

Sesen Bio has entered into employment agreements with each of its executive officers providing that (i) upon the termination of each such executive officer's employment without "cause" or (ii) if such executive officer terminates his or her employment with Sesen Bio for "good reason," in each case within 12 months (or 18 months for Dr. Cannell) following a "change in control transaction," as each such term is defined in the respective employment agreements, Sesen Bio is obligated to, among other things, (w) pay the executive officer an amount equal to his or her base salary for 12 months (24 months for Dr. Cannell), payable in accordance with Sesen Bio's then-current payroll practices, (x) pay Dr. Cannell an amount equal to two times his target bonus payment for the year in which the termination of employment occurs, (y) continue, to the extent allowed by applicable law and the applicable plan documents, to provide the executive officer and certain of his or her dependents with group health and dental insurance for a period of up to 12 months (24 months for Dr. Cannell), and (z) accelerate in full the vesting of all outstanding equity awards held by such executive officer. For a description of the employment agreements of Sesen Bio's named executive officers, see the section entitled "*Sesen Bio Executive Compensation — Summary Compensation Table — Narrative to Summary Compensation Table*" beginning on page 330 of this proxy statement/prospectus.

Pursuant to the terms of the Merger Agreement, effective immediately after the effective time, Sesen Bio will terminate the employment of all then-current Sesen Bio executive officers and each such termination will be deemed to be an involuntary termination without "cause" after a "change in control transaction." Accordingly, all such executive officers will be entitled to the benefits afforded to each such executive officer in the event of his or her termination without "cause" within the period provided for under such executive officer's employment agreement following a "change in control transaction." Pursuant to the terms of the Merger Agreement, any severance payments or benefits payable to such executive officers pursuant to their respective employment agreements will, to the maximum extent permitted by Section 409A of the Code, be paid in a lump sum as soon as practicable following the effective time, provided that the executive officer consents to his or her severance being paid in a lump sum (to the extent such consent is required).

Sesen Bio's obligation to pay the severance payments to Dr. Cannell, Ms. Forbes, Dr. MacDonald, Dr. Rosales and Mr. Sullivan pursuant to their respective employment agreements is contingent upon the executive's execution and non-revocation of a release of claims in favor of Sesen Bio. In addition, Sesen Bio's obligation to pay such severance payments is subject to the executive's compliance with certain restrictive covenants, including non-competition and non-solicitation (of employees and customers) covenants, which run for one year following the executive's termination of employment.

Taxation

To the extent that any severance or other compensation payment to Dr. Cannell, Ms. Forbes, Dr. Rosales and Mr. Sullivan pursuant to his or her employment agreement or any other agreement constitutes an "excess parachute payment" within the meaning of Sections 280G and 4999 of the Code, then he or she will receive the full amount of such severance and other payments, or a reduced amount intended to avoid the application of Sections 280G and 4999 of the Code, whichever provides the executive with the highest amount on an after-tax basis.

2022 Retention Program

Pursuant to a retention program that was approved by the Sesen Bio board of directors and the Sesen Bio compensation committee on August 28, 2022, certain employees of Sesen Bio, including Ms. Forbes, Dr. MacDonald and Mr. Sullivan, received a

cash bonus award, which vests in full upon the earlier of the completion of a potential strategic transaction and the employee's termination of employment without cause, subject to the employee's continued employment through that time. Pursuant to the retention program, Ms. Forbes was awarded a cash bonus of $199,894, Dr. MacDonald was awarded a cash bonus of CAD $121,153 and Mr. Sullivan was awarded a cash bonus of $191,013. The foregoing cash bonuses will vest and be paid in connection with the closing of the merger.

Golden Parachute Compensation

This section sets forth the information required by Item 402(t) of Regulation S-K regarding the compensation that is based on or otherwise relates to the merger and that is payable or may become payable to Sesen Bio's named executive officers. This compensation is referred to as "golden parachute" compensation by the applicable SEC disclosure rules. For purposes of calculating these amounts, Sesen Bio has assumed:

- the effective time occurred on September 20, 2022;
- a price per share of Sesen Bio common stock of $0.40, which represents the average closing market price of Sesen Bio common stock over the first five business days following the public announcement on September 21, 2022 of the entry into the Merger Agreement;
- the employment of the named executive officer will be terminated on such date in a manner that entitles the named executive officer to receive the severance payments and benefits under the terms of the employment agreement with the named executive officer (as described above). The employment of the named executive officer is expected to be terminated effective immediately after the closing of the merger; and
- the named executive officer does not enter into a new agreement or otherwise becomes legally entitled to, prior to the effective time, additional compensation or benefits.

The amounts set forth in the table are estimates based on multiple assumptions that may or may not actually occur, including assumptions described below and elsewhere in this proxy statement/prospectus and in the footnotes to the table. Furthermore, the amounts set forth in the table do not reflect any reductions in payments or benefits that could result from the operation of Section 280G of the Code modified cutback provision that is in the employment agreements of Dr. Cannell and Ms. Forbes, as described above. As a result, the actual amounts, if any, that Sesen Bio's named executive officers will receive, may materially differ from the amounts set forth in the table.

For a narrative description of the terms and conditions applicable to the payments quantified in the table below, see the section entitled "*The Merger — Interests of Sesen Bio Directors and Executive Officers in the Merger — Termination of Existing Sesen Bio Executive Officers Following the Merger and Related Severance Payments*" beginning on page 142 of this proxy statement/prospectus.

Name	Cash ($)[1]	Equity ($)[2]	Health Benefits Continuation ($)[3]	Total ($)
Thomas R. Cannell, D.V.M.	$ 1,729,688	$ 1,252,940	$ 0	$ 2,982,628
Monica Forbes	$ 599,681	$ 631,350	$ 31,327	$ 1,262,359
Glen MacDonald, Ph.D.	$ 375,239	$ 366,837	$ 3,426	$ 745,502

(1) The amounts listed in this column represent (i) cash severance amounts payable to the named executive officer pursuant to his or her employment agreement equal to 12 months (24 months for Dr. Cannell) of base salary continuation ($1,153,125 for Dr. Cannell; $399,788 for Ms. Forbes; and $379,166 for Dr. MacDonald), which amounts are payable to the executive in installments over 12 months (24 months for Dr. Cannell) following the executive's termination of employment; (ii) a cash severance amount payable to Dr. Cannell equal to two times his annual target bonus payment for calendar year 2022 ($576,563), payable in a lump sum following Dr. Cannell's termination of employment, and (iii) a cash retention bonus payable to each of Ms. Forbes ($199,894) and Dr. MacDonald ($121,153) in a lump sum in connection with the closing of the merger. The cash

severance payments payable to Dr. Cannell, Ms. Forbes and Dr. MacDonald pursuant to their respective employment agreements are a double-trigger benefit in that they will be paid only if the executive experiences a qualifying termination of employment within 12 months (18 months for Dr. Cannell) following the closing of the merger. The cash retention bonuses payable to Ms. Forbes and Dr. MacDonald are a single-trigger benefit in that they will be paid upon the consummation of the merger. The cash severance amounts and the cash retention amounts will be paid to Dr. MacDonald in Canadian dollars. For purposes of this table, such amounts in this column have been converted to U.S. dollars using the exchange rate between CAD and USD in effect on September 20, 2022 of 0.75.

(2) The amounts listed in this column represent (i) the value of the full acceleration of vesting of the unvested stock options held by the named executive officer ($767,500 for Dr. Cannell; $266,000 for Ms. Forbes; and $128,750 for Dr. MacDonald), and (ii) the value of the full acceleration of vesting of the unvested restricted stock units held by the named executive officer ($485,440 for Dr. Cannell; $365,350 for Ms. Forbes; and $238,087 for Dr. MacDonald). The acceleration of vesting of the named executive officers' unvested equity awards is a double-trigger benefit in that it will occur only if the executive experiences a qualifying termination of employment within 12 months (18 months for Dr. Cannell) following the closing of the merger.

(3) The amounts listed in this column represent the value of continued group health and dental insurance benefits to be provided to the named executive officer (and his or her eligible dependents) pursuant to their respective employment agreements for a period of up to 24 months for Dr. Cannell and up to 12 months for each of Ms. Forbes and Dr. MacDonald. This is a double-trigger benefit in that it will be provided only if the executive experiences a qualifying termination of employment within 12 months (18 months for Dr. Cannell) following the closing of the merger. As of the date of this proxy statement/prospectus, Dr. Cannell is not enrolled in Sesen Bio's group health and dental insurance benefits and, therefore, would not receive any health benefit continuation payments in connection with his qualifying termination of employment.

Indemnification and Insurance

Pursuant to the Merger Agreement, from the effective time through the sixth anniversary of the date on which the effective time occurs, each of Sesen Bio and the surviving corporation is required to indemnify and hold harmless each person who is or has served as a director or officer of Sesen Bio or Carisma against all claims, all claims, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements and investigation costs incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, or any other actual, threatened or completed proceeding arising out of or pertaining to the fact that such person is or was a director or officer of Sesen Bio, to the fullest extent permitted under the DGCL for directors or officers of Delaware corporations. In addition, each such director and officer, or former director and officer, is entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation.

Pursuant to the Merger Agreement, the provisions of the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Sesen Bio will not be amended, modified or repealed for a period of six years from the effective time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the effective time, were officers or directors of Sesen Bio, unless such modification is required by applicable law. The Carisma Certificate of Incorporation and Carisma Bylaws, as the surviving corporation in the merger, shall contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers than those that are presently set forth in the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws.

The Merger Agreement also provides that Sesen Bio shall maintain directors' and officers' liability insurance policies commencing at the closing of the merger, on commercially available terms and conditions with coverage limits customary for U.S. public companies similarly situated to Sesen Bio.

Interests of Carisma Directors and Executive Officers in the Merger

In considering the recommendation of the Carisma board of directors with respect to approving the merger, stockholders should be aware that certain members of the Carisma board of directors and certain Carisma executive officers have interests in the merger that may be different from, or in addition to, the interests of Carisma stockholders. These interests may present them with actual or potential conflicts of interest, and these interests, to the extent material, are described below.

Each of the Sesen Bio board of directors and the Carisma board of directors were aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Merger Agreement and the merger, and to recommend, as applicable, that Sesen Bio stockholders approve the proposals to be presented to Sesen Bio stockholders for consideration at the Sesen Bio special meeting as contemplated by this proxy statement/prospectus, and that Carisma stockholders sign and return the written consent as contemplated by this proxy statement/prospectus.

Ownership Interests

As of September 20, 2022, Carisma's directors and current executive officers owned, in the aggregate approximately 2.37% of the outstanding shares of Carisma capital stock, which for purposes of this subsection excludes any shares of Carisma common stock issuable upon exercise or settlement of Carisma options held by each such individual. See the section entitled "*Principal Stockholders of Carisma*" beginning on page 375 of this proxy statement/prospectus for a description of the beneficial ownership of Carisma's directors and officers.

Effect of the Merger on Carisma Options

As of September 20, 2022, Carisma's directors and current executive officers owned, in the aggregate, unvested Carisma options covering 393,996 shares of Carisma common stock and vested Carisma options covering 606,333 shares of Carisma common stock.

Under the terms of the Merger Agreement, each option to purchase shares of Carisma common stock that is outstanding and unexercised immediately prior to the effective time under the Carisma Plan and that, following assumption by Sesen Bio at the effective time, will be eligible to be registered on Form S-8, whether or not vested, will be converted into and become an option to purchase shares of Sesen Bio common stock. Sesen Bio will assume the Carisma Plan and each such outstanding Carisma option in accordance with the terms (as in effect as of the date of the Merger Agreement) of the Carisma Plan and the terms of the stock option agreement by which such Carisma option is evidenced.

The following table presents certain information concerning the outstanding Carisma options held by Carisma directors and current executive officers as of September 20, 2022. The number of shares of Carisma common stock underlying such Carisma options and the exercise price of such Carisma options will be adjusted appropriately to reflect the exchange ratio. See the section entitled "*The Merger Agreement — Treatment of Carisma Options*" beginning on page 163 of this proxy statement/prospectus for a more detailed description of the treatment of Carisma options in the merger.

	Number of Shares Underlying Vested Options	Weighted Average Exercise Price of Vested Options	Number of Shares Underlying Unvested Options	Weighted Average Exercise Price of Unvested Options
Executive Officers				
Steven Kelly	430,606	$ 1.55	117,865	$ 2.77
Richard Morris	54,476	$ 2.77	119,850	$ 2.77
Michael Klichinsky, Pharm.D., Ph.D.	95,579	$ 1.32	33,421	$ 2.69
Directors				
Margarita Chavez	—	—	—	—
Regina Hodits, Ph.D.	—	—	—	—
Briggs Morrison,M.D.	25,672	$ 1.76	25,660	$ 1.84
Björn Odlander, M.D., Ph.D.	—	—	—	—
Chidozie Ugwumba	—	—	—	—
Sanford Zweifach	—	—	97,200	$ 2.77

Support Agreements

Each of Carisma's executive officers and the majority of Carisma's directors have also entered into a support agreement in connection with the merger, whereby such executive officers and directors have agreed to vote their shares in favor of adoption of the Merger Agreement and approval of the merger. For a more detailed discussion of the support agreements, see the section entitled

"*Agreements Related to the Merger — Support Agreements and Written Consents*" beginning on page 186 of this proxy statement/prospectus.

Management Following the Merger

As described in the section entitled "*Management Following the Merger*" beginning on page 324 of this proxy statement/prospectus, certain members of the Carisma board of directors and Carisma executive officers are expected to become the directors and executive officers of the combined company upon the closing of the merger.

Indemnification and Insurance

Pursuant to the Merger Agreement, from the effective time through the sixth anniversary of the date on which the effective time occurs, each of Sesen Bio and the surviving corporation in the merger is required to indemnify and hold harmless each person who is or has served as a director or officer of Sesen Bio or Carisma against all claims, all claims, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements and investigation costs incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, or any other actual, threatened or completed proceeding arising out of or pertaining to the fact that such person is or was a director or officer of Sesen Bio, to the fullest extent permitted under the DGCL for directors or officers of Delaware corporations. In addition, each such director and officer, or former director and officer, is entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation.

Pursuant to the Merger Agreement, the provisions of the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Sesen Bio will not be amended, modified or repealed for a period of six years from the effective time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the effective time, were officers or directors of Sesen Bio, unless such modification is required by applicable law. The Carisma Certificate of Incorporation and the Carisma Bylaws, as the surviving corporation in the merger, shall contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers than those that are presently set forth in the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws.

The Merger Agreement also provides that Sesen Bio shall maintain directors' and officers' liability insurance policies commencing at the closing of the merger, on commercially available terms and conditions with coverage limits customary for U.S. public companies similarly situated to Sesen Bio.

Form of the Merger

The Merger Agreement provides that at the effective time, Merger Sub will be merged with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio.

After completion of the merger, Sesen Bio will change its corporate name from "Sesen Bio, Inc." to "CARISMA Therapeutics Inc." as contemplated by the Merger Agreement.

Effective Time of the Merger

The Merger Agreement requires the parties to consummate the merger as promptly as practicable (and in any event within two business days) after all of the conditions to the consummation of the merger contained in the Merger Agreement are satisfied or waived. The merger will become effective upon the filing of a certificate of merger with the Secretary of State of the State of Delaware or at such later time as is agreed by Sesen Bio and Carisma and specified in the certificate of merger. Neither Sesen Bio nor Carisma can predict the exact timing of the consummation of the merger.

Merger Consideration and Exchange Ratio

Merger Consideration

At the effective time, upon the terms and subject to the conditions set forth in the Merger Agreement, each outstanding share of Carisma's capital stock (including shares of Carisma capital stock sold in the Carisma pre-closing financing but excluding (i) shares of Carisma capital stock to be canceled pursuant to the Merger Agreement and (ii) Carisma common stock held by holders of Carisma common stock who have exercised and perfected appraisal rights or dissenters' rights) will be automatically converted solely into the right to receive a number of shares of Sesen Bio common stock and each outstanding Carisma option will become exercisable for shares of Sesen Bio common stock, in each case, equal to the exchange ratio described in more detail below.

No fractional shares of Sesen Bio common stock will be issued in connection with the merger, and no certificates or scrip for any such fractional shares will be issued. Any fractional shares of Sesen Bio common stock resulting from the conversion of Carisma capital stock will receive cash (without interest and subject to applicable tax withholding) in an amount equal to such fractional part of a share of Sesen Bio common stock multiplied by the last reported sale price of Sesen Bio common stock at 4:00 p.m., Eastern Time, end of regular trading hours on Nasdaq on the last day prior to the effective time.

Exchange Ratio

The exchange ratio is calculated using a formula intended to allocate existing Sesen Bio and Carisma stockholders a percentage of the combined company. Based on Sesen Bio's capitalization and Carisma's capitalization as of September 20, 2022, the exchange ratio is estimated to be approximately 24.5844 shares of Sesen Bio common stock. This estimate is subject to adjustment prior to the closing of the merger for net cash at the cash determination time and aggregate proceeds from the sale of Carisma common stock in the Carisma pre-closing financing (and, as a result, Sesen Bio stockholders could own more, and Carisma stockholders (including, for this purpose, investors in the Carisma pre-closing financing) could own less, or vice versa, of the combined company).

Based on the estimates set forth above, and certain other assumptions, Sesen Bio stockholders would own approximately 41.7% of the common stock of the combined company post-merger, Carisma stockholders would own approximately 58.3% of the common stock of the combined company post-merger. Shares issued in the Carisma pre-closing financing are expected to represent approximately 7.4% of the common stock of the combined company post-merger. Shares issued upon the conversion of the Carisma convertible note are expected to represent approximately 5.5% of the common stock of the combined company post-merger. For more information on the Carisma pre-closing financing, see the section entitled "*Agreements Related to the Merger — Subscription Agreement*" beginning on page 186 of this proxy statement/prospectus.

The exchange ratio formula is the quotient obtained (rounded to four decimal places) by dividing the number of Carisma merger shares (defined below) by the Carisma outstanding shares (defined below), in which:

- "Aggregate valuation" means the sum of the (i) Carisma valuation plus (ii) the Sesen Bio valuation.
- "Carisma allocation percentage" means the quotient (expressed as a percentage with the percentage rounded to four decimal places) determined by dividing (i) the Carisma valuation by (ii) the aggregate valuation.
- "Carisma merger shares" means the product determined by multiplying (i) the post-closing Sesen Bio shares by (ii) the Carisma allocation percentage.
- "Carisma outstanding shares" means the total number of shares of Carisma capital stock outstanding immediately prior to the effective time expressed on a fully-diluted and as-converted to Carisma common stock basis and assuming, without limitation or duplication, (i) the exercise of all Carisma options outstanding as of immediately prior to the effective time, (ii) the closing of the Carisma pre-closing financing, and (iii) the issuance of shares of Carisma common stock issuable in respect of all other outstanding options, restricted stock awards, warrants or rights to receive such shares, whether conditional or unconditional and including any outstanding options, warrants or rights triggered by or associated with the consummation of the Merger. Carisma outstanding shares shall also include all shares of the Carisma issued in the Carisma pre-closing financing prior to the effective time and excludes any shares issued upon the conversion of the Carisma convertible note.

- "Carisma valuation" means (i) $196.0 million, plus (ii) the amount of gross proceeds from the Carisma pre-closing financing prior to the effective time.

- "Sesen Bio allocation percentage" means the quotient (expressed as a percentage with the percentage rounded to four decimal places) determined by dividing (i) the Sesen Bio valuation by (ii) the aggregate valuation.

- "Sesen Bio outstanding shares" means the total number of shares of Sesen Bio common stock outstanding immediately prior to the effective time expressed on a fully-diluted and as converted to Sesen Bio common stock basis, assuming, without limitation or duplication, the issuance of shares of Sesen Bio common stock in respect of all Sesen Bio options, Sesen Bio RSUs, Sesen Bio warrants and other outstanding options, warrants or rights to receive such shares, in each case, outstanding as of immediately prior to the effective time.

- "Sesen Bio valuation" means $140.0 million, minus the amount by which net cash at the cash determination time is less than $125.0 million, plus the amount by which net cash at the cash determination time is greater than $125.0 million.

- "Post-closing Sesen Bio shares" mean the quotient determined by dividing (i) the Sesen Bio outstanding shares by (ii) the Sesen Bio allocation percentage.

Sesen Bio's Final Net Cash

Pursuant to the terms of the Merger Agreement, Sesen Bio's "final net cash" means, as of the cash determination time (which is as of 8:00 p.m. Eastern Time on the last business day prior to the anticipated closing date) the sum (without duplication) of the following:

- cash and cash equivalents, marketable securities and other short-term investments of Sesen Bio and its subsidiaries;

- Sesen Bio's accounts receivable (including any tax refund claims pending as of the date of the Merger Agreement), deposits and interest; and

- Seen Bio's deposits, prepaid expenses and other prepaid assets which are reflected on the most recent balance sheet and do not constitute restricted cash of Sesen Bio and its subsidiaries; and

- 50% of the cost of settling any transaction litigation to the extent actually paid in cash by Sesen Bio prior to the closing date;

minus, the sum (without duplication) of the following:

- any unpaid transaction expenses of Sesen Bio or its subsidiaries;

- any unpaid indebtedness of Sesen Bio and/or its subsidiaries outstanding as of the closing date;

- any accounts payable, accrued expenses or short or long term liabilities that are or will become payable in cash, including any such accounts payable, accrued expenses or short or long term liabilities under any Sesen Bio contracts that were in effect prior to the effective time or associated with the termination of any Sesen Bio contracts which were in effect prior to the effective time, or the termination before, at or after the effective time, of all current or former employees of Sesen Bio and its subsidiaries (even if the applicable expenses or amounts are due and payable after the effective time);

- any unpaid employer portion of payroll or employment taxes incurred in connection with the grant, exercise, conversion, settlement or cancellation of Sesen Bio RSUs, Sesen Bio options, equity compensation and other change in control or severance payments (including bonuses payable) due under the Merger Agreement or CVRs issued to holders of Sesen Bio RSUs or Sesen Bio options or otherwise as compensation (either incurred prior to or at the time of the Merger, and for the avoidance of doubt, not calculated as of the close of business on the business day prior to the closing date) in each case, incurred in connection with the merger by Sesen Bio at or prior to the effective time (even if payable after the effective time);

- any pre-payment, termination, “end of term” or similar fee or charge payable to any lender in connection with the repayment of indebtedness by Sesen Bio at or prior to the effective time;
- the amount of any cash dividend declared (or to be declared) but not yet paid as part of the pre-closing dividend;
- to the extent unpaid at closing, the cost and/or premium of the directors’ and officer’s “tail policy”; and
- to the extent unpaid at closing, the cost of settling any legal proceeding or other dispute existing as of the date of the Merger Agreement, as well as the unpaid deductible amount under Sesen Bio’s insurance reasonably expected to be payable in connection with legal proceedings existing as of the date of the Merger Agreement.

Each component of net cash, to the extent applicable, shall be determined in accordance with U.S. GAAP, applied on a basis consistent with the application of U.S. GAAP in the preparation of Sesen Bio’s most recent audited or reviewed financial statements.

Not more than ten nor less than five calendar days prior to the anticipated closing date, Sesen Bio will deliver to Carisma a schedule, or the net cash schedule, setting forth, in reasonable detail, Sesen Bio’s good faith estimated calculation of its net cash at the cash determination time, prepared and certified by Sesen Bio’s Chief Executive Officer and Chief Financial Officer (or if there is no chief financial officer at such time, the principal financial and accounting officer of Sesen Bio) together with the work papers and back-up materials used or useful in preparing the net cash schedule, as reasonably requested by Carisma. Within three business days after delivery of the net cash schedule (the last day of such period referred to as the response date), Carisma will have the right to dispute all or any part of the net cash schedule by delivering a written notice to that effect to Sesen Bio (referred to herein as a dispute notice). Any dispute notice will identify in reasonable detail to the extent then known, the nature and amounts of any proposed revisions to Sesen Bio’s net cash calculation.

If Carisma disputes the net cash schedule prior to 8:00 pm Eastern Time on the response date, the parties will promptly, and in no event later than one calendar day after the response date, meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of net cash. If the parties are unable to negotiate an agreed-upon determination of net cash thereof within two calendar days after the delivery of a dispute notice (or such other period as Sesen Bio and Carisma may mutually agree upon in writing), then any remaining disagreements as to the calculation of net cash will be referred to Deloitte & Touche LLP or another independent auditor of recognized national standing mutually agreed upon by Sesen Bio and Carisma. The determination of the amount of net cash made by such auditor shall be final and binding on Sesen Bio and Carisma.

Sesen Bio’s net cash balance is subject to numerous factors, some of which are outside of Sesen Bio’s control. The actual amount of net cash will depend significantly on the timing of the closing of the merger. In addition, the closing of the merger could be delayed if Sesen Bio and Carisma are not able to agree upon the amount of Sesen Bio’s net cash as of the cash determination time.

Procedures for Exchanging Carisma Stock Certificates

The Merger Agreement provides that, at the effective time, Sesen Bio will deposit with an exchange agent acceptable to Sesen Bio and Carisma evidence of book-entry shares representing the shares of Sesen Bio common stock issuable to Carisma stockholders and a sufficient amount of cash to make payments in lieu of fractional shares.

The Merger Agreement provides that, promptly after the effective time, the exchange agent will mail to each record holder of Carisma capital stock immediately prior to the effective time a letter of transmittal and instructions for surrendering and exchanging Carisma stock certificates or transfer of book-entry shares held by such record holder in exchange for book-entry shares of Sesen Bio common stock. Upon surrender of a Carisma stock certificate or transfer of book-entry shares for exchange to the exchange agent, together with a duly signed letter of transmittal and such other documents as the exchange agent or Sesen Bio may reasonably require, the Carisma stock certificate or book-entry share surrendered will be cancelled and the holder of such Carisma stock certificate or book-entry share will be entitled to receive the following:

- book-entry shares representing the number of whole shares of Sesen Bio common stock that such holder has the right to receive pursuant to the provisions of the Merger Agreement, and

- cash in lieu of any fractional share of Sesen Bio common stock.

From and after the effective time, until it is surrendered, each certificate or book-entry share that previously evidenced shares of Carisma capital stock will be deemed to represent only the right to receive shares of Sesen Bio common stock, and cash in lieu of any fractional share of Sesen Bio common stock.

If any Carisma stock certificate has been lost, stolen or destroyed, Sesen Bio may, in its discretion, and as a condition precedent to the delivery of any book-entry shares of Sesen Bio common stock, require the owner of such lost, stolen or destroyed certificate to provide an affidavit claiming such certificate has been lost, stolen or destroyed and, at Sesen Bio's discretion, may also require such owner to indemnify Sesen Bio against any claim suffered by Sesen Bio related to the lost, stolen or destroyed certificate or any Sesen Bio common stock issued in exchange thereof as Sesen Bio may reasonably request.

Sesen Bio will not pay dividends or other distributions on any shares of Sesen Bio common stock to be issued in exchange for shares of Carisma capital stock represented by any unsurrendered Carisma stock certificate or book-entry share until such Carisma stock certificate is surrendered, or book-entry share transferred, as provided in the Merger Agreement.

Regulatory Approvals

In the U.S., Sesen Bio must comply with applicable federal and state securities laws and the rules and regulations of Nasdaq in connection with the issuance of shares of Sesen Bio common stock and the filing of this proxy statement/prospectus with the SEC. Sesen Bio does not intend to seek any regulatory approval from antitrust authorities to consummate the transactions.

Material U.S. Federal Income Tax Consequences of the Merger

The following discussion is a summary of the material U.S. federal income tax consequences of the merger to Carisma U.S. holders (as defined below), but does not purport to be a complete analysis of all potential tax consequences that may be relevant to Carisma U.S. holders. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Carisma U.S. holder. Carisma has not sought and does not intend to seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a position contrary to that discussed below regarding the tax consequences of the merger.

This discussion is limited to Carisma U.S. holders that hold Carisma capital stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences that may be relevant to a Carisma U.S. holder's particular circumstances, including the impact of the alternative minimum tax, the Medicare contribution tax on net investment income or the rules related to "qualified small business stock" within the meaning of Section 1202 of the Code. In addition, it does not address consequences relevant to Carisma U.S. holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the U.S.;
- U.S. holders whose functional currency is not the U.S. dollar;
- persons holding Carisma capital stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;

- "controlled foreign corporations," "passive foreign investment companies" and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell Carisma capital stock under the constructive sale provisions of the Code;
- persons who hold or received Carisma capital stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds Carisma capital stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Carisma capital stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

In addition, the following discussion does not address: (a) the tax consequences of transactions effectuated before, after or at the same time as the merger, whether or not they are in connection with the merger, including, without limitation, transactions in which shares of Carisma capital stock are acquired or disposed of other than in exchange for shares of Sesen Bio common stock in the merger, (b) the tax consequences to holders of convertible notes or options or warrants of Carisma, or (c) the tax consequences of the ownership of shares of Sesen Bio common stock following the merger.

IT IS RECOMMENDED THAT HOLDERS CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE MERGER ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

For purposes of this discussion, a "Carisma U.S. holder" is a beneficial owner of Carisma capital stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the U.S.;
- a corporation created or organized under the laws of the U.S., any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (i) is subject to the primary supervision of a U.S. court and the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) over all of its substantial decisions or (ii) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Tax Characterization of the Merger

The merger is intended to qualify as a "reorganization" within the meaning of Section 368(a) of the Code. However, no opinion of counsel has been obtained or will be obtained regarding the treatment of the merger as a tax-free reorganization. Carisma stockholders are encouraged to consult their own tax advisors concerning the characterization of the merger as a tax-free "reorganization" under Section 368(a) of the Code.

If the merger does not qualify as a tax-free "reorganization" within the meaning of Section 368(a) of the Code (including if the IRS successfully challenges the qualification of the merger as such), then each Carisma U.S. holder generally would recognize gain or loss on the exchange of Carisma capital stock for Sesen Bio common stock in the merger equal to the difference between (x) the fair market value of the shares of Sesen Bio common stock received in exchange for the Carisma capital stock plus any cash received in lieu of a fractional share and (y) such Carisma U.S. holder's adjusted tax basis in the shares of Carisma capital stock surrendered. The remainder of this discussion assumes that the merger will be treated as a tax-free "reorganization" within the meaning of Section 368(a) of the Code.

Tax Treatment of Carisma U.S. Holders in the Merger

If the merger qualifies as a "reorganization" within the meaning of Section 368(a) of the Code, except as described below with respect to the receipt of cash in lieu of a fractional share of Sesen Bio common stock, a Carisma U.S. holder generally will not recognize gain or loss upon the exchange of the holder's Carisma capital stock for Sesen Bio common stock. A Carisma U.S. holder generally will obtain an aggregate adjusted tax basis in the Sesen Bio common stock the holder receives in the merger equal to the holder's adjusted tax basis in the Carisma capital stock exchanged therefor, reduced by the basis allocable to any fractional share of Sesen Bio common stock for which cash is received. The holding period of the shares of Sesen Bio common stock received by a Carisma U.S. holder in the merger will include the holding period of the shares of Carisma capital stock surrendered in exchange therefor. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Carisma capital stock surrendered to the shares of Sesen Bio common stock received. Carisma U.S. holders of shares of Carisma capital stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

Cash in Lieu of Fractional Share

A Carisma U.S. holder that receives cash in lieu of a fractional share of Sesen Bio common stock generally will be treated as having received such fractional share and then as having received such cash in redemption of the fractional share. A Carisma U.S. holder generally will recognize gain or loss equal to the difference between the amount of cash received in lieu of the fractional share of Sesen Bio common stock and the portion of the U.S. holder's aggregate adjusted tax basis in the shares of Carisma capital stock allocable to the fractional share. Such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if the Carisma U.S. holder's holding period for the Carisma capital stock surrendered in the merger exceeds one year at the effective time. Long-term capital gains of certain non-corporate holders of Carisma capital stock, including individuals, are generally taxed at preferential rates. The deductibility of capital losses is subject to limitations.

Reporting Requirements

If the merger is a reorganization within the meaning of Section 368(a) of the Code, each Carisma U.S. holder who receives shares of Sesen Bio common stock in the merger is required to retain permanent records pertaining to the merger and make such records available to any authorized IRS officers and employees. Such records should specifically include information regarding the amount, basis, and the fair market value of the Carisma capital stock exchanged and the amount of Sesen Bio common stock and cash received in exchange therefor. Carisma U.S. holders who owned immediately before the merger at least one percent (by vote or value) of the total outstanding stock of Carisma are required to attach a statement to their tax returns for the year in which the merger is consummated that contains the information listed in Treasury Regulation Section 1.368-3(b). Such statement must include the Carisma U.S. holder's tax basis in such holder's Carisma capital stock surrendered in the merger, the fair market value of such stock, the date of the merger and the name and employer identification number of each of Carisma and Sesen Bio. Carisma U.S. holders are urged to consult with their tax advisors to comply with these rules.

Backup Withholding and Information Reporting

A Carisma U.S. holder may, under certain circumstances, be subject to information reporting and backup withholding on any payments of cash in lieu of fractional shares, unless such holder properly establishes an exemption or provides its correct tax identification number and otherwise complies with the applicable requirements of the backup withholding rules. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or credited against a payee's U.S. federal income tax liability, if any, so long as such payee furnishes the required information to the IRS in a timely manner.

The foregoing summary is of a general nature only and is not intended to be, and should not be construed to be, legal, business or tax advice to any particular Carisma stockholder. This summary does not take into account your particular circumstances and does not address consequences that may be particular to you. Therefore, you should consult your tax advisor regarding the particular consequences of the merger to you.

Material U.S. Federal Income Tax Consequences of the Special Cash Dividend

The following discussion is a summary of the material U.S. federal income tax consequences of receipt of the special cash dividend to Sesen Bio stockholders, but does not purport to be a complete analysis of all potential tax consequences that may be relevant to a Sesen Bio stockholder. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Sesen Bio stockholder. Sesen Bio has not sought and does not intend to seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a position contrary to that discussed below regarding the tax consequences of receipt of the special cash dividend.

This discussion is limited to Sesen Bio stockholders that hold Sesen Bio common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences that may be relevant to a Sesen Bio stockholder's particular circumstances, including the impact of the alternative minimum tax, the Medicare contribution tax on net investment income or the rules related to "qualified small business stock" within the meaning of Section 1202 of the Code . In addition, it does not address consequences relevant to Sesen Bio stockholders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the U.S.;
- Sesen Bio U.S. holders whose functional currency is not the U.S. dollar;
- persons holding Sesen Bio common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies" and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to Sesen Bio common stock being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell Sesen Bio common stock under the constructive sale provisions of the Code;
- persons who hold or received Sesen Bio common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and

- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds Sesen Bio common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Sesen Bio common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

For purposes of this discussion, a "Sesen Bio non-U.S. holder" means a beneficial owner of Sesen Bio common stock that is neither a Sesen Bio U.S. holder (which, for purposes of this discussion, has the same meaning as in "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*") nor a partnership (or other entity treated as a partnership) for U.S. federal income tax purposes.

IT IS RECOMMENDED THAT SESEN BIO STOCKHOLDERS CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE SPECIAL CASH DIVIDEND ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

The discussion below assumes that the distribution of CVRs and the special cash dividend will be treated for U.S. federal income tax purposes as transactions that are separate and distinct from the proposed reverse stock split. However, it is possible that the IRS or a court could determine that the proposed reverse stock split and the receipt of CVRs or the special cash dividend constitute a single "recapitalization" for U.S. federal income tax purposes. If the proposed reverse stock split and the special cash dividend and the receipt of the CVRs are treated as a single "recapitalization" for U.S. federal income tax purposes, then a Sesen Bio stockholder generally should recognize gain (but not loss) equal to the lesser of (i) the amount of the special cash dividend received plus the fair market value of the CVRs received (assuming the receipt of CVRs is treated as a distribution of property as described in "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*"), and (ii) the excess (if any) of (A) the sum of (1) the amount of the special cash dividend received plus the fair market value of the CVRs and (2) the fair market value of the Sesen Bio shares received in the proposed reverse stock split over (B) the Sesen Bio stockholder's adjusted tax basis in the Sesen Bio common stock surrendered in the proposed reverse stock split.

Consequences to Sesen Bio U.S. Holders

The U.S. federal income tax consequences of a Sesen Bio U.S. holder's receipt of a special cash dividend generally should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining amount. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of the special cash dividend to be treated as other than a dividend for U.S. federal income tax purposes.

Consequences to Sesen Bio Non-U.S. Holders

The U.S. federal income tax consequences of a Sesen Bio non-U.S. holder's receipt of a special cash dividend generally should be treated first as a taxable dividend to the extent of the Sesen Bio non-U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the Sesen Bio non-U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining amount. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of any special cash dividend to be treated as other than a dividend for U.S. federal income tax purposes. However, if Sesen Bio cannot determine at the time of the special cash dividend whether or not such special cash dividend will exceed current and accumulated earnings and profits, Sesen Bio or the applicable withholding agent is expected to withhold on the special cash dividend at the rate applicable to dividends, as described below.

Taxable Dividends. Dividend payments to a Sesen Bio non-U.S. holder will generally be subject to withholding at a 30% rate. If a Sesen Bio non-U.S. holder is eligible for a lower treaty rate, then withholding will be at the lower treaty rate only if such Sesen Bio non-U.S. holder provides a valid IRS Form W-8BEN or W-8BEN-E (or applicable successor form) certifying such Sesen Bio non-U.S. holder's qualification for the reduced rate. If a Sesen Bio non-U.S. holder holds the stock through a financial institution or other intermediary, the Sesen Bio non-U.S. holder will be required to provide appropriate documentation to the intermediary, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. Sesen Bio non-U.S. holders who do not timely provide the applicable withholding agent with the required certification, but who qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Subject to the discussion below regarding backup withholding, if the special cash dividend is effectively connected with a Sesen Bio non-U.S. holder's conduct of a trade or business within the U.S. (and, if required by an applicable income tax treaty, the Sesen Bio non-U.S. holder maintains a permanent establishment in the U.S. to which the special cash dividend is attributable), the Sesen Bio non-U.S. holder will be exempt from U.S. federal withholding tax and the special cash dividend generally will be subject to U.S. federal income tax on a net income basis in the same manner as if such Sesen Bio non-U.S. holder were a U.S. holder. To claim the exemption, the Sesen Bio non-U.S. holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI (or applicable successor form), certifying that the special cash dividend is effectively connected with the Sesen Bio non-U.S. holder's conduct of a trade or business within the United States. A Sesen Bio non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) of all or a portion of its effectively connected earnings and profits for the taxable year.

Non-Dividend Distributions. To the extent that the distribution is treated as capital gain from the sale or exchange of Sesen Bio common stock, such gain generally will not be subject to U.S. federal income tax unless (i) such gain is effectively connected with the conduct by a Sesen Bio non-U.S. holder of a trade or business in the United States (and, if an income tax treaty applies, the gain is generally attributable to a U.S. permanent establishment maintained by such Sesen Bio non-U.S. holder), (ii) in the case of gain realized by a Sesen Bio non-U.S. holder that is an individual, such Sesen Bio non-U.S. holder is present in the United States for 183 days or more in the taxable year of the sale and certain other conditions are met or (iii) Sesen Bio is or has been a United States real property holding corporation, or a USRPHC, for U.S. federal income tax purposes and, if the shares are "regularly traded on an established securities market," such Sesen Bio non-U.S. holder owned, directly or indirectly, at any time during the five-year period ending on the date of the distribution, more than 5% of the shares of Sesen Bio common stock and such Sesen Bio non-U.S. holder is not eligible for any treaty exemption. The shares will be considered "regularly traded" if they are traded on an established securities market located in the United States and are regularly quoted by brokers or dealers making a market in the shares. Sesen Bio believes it is not, and has not been, a USRPHC for U.S. federal income tax purposes. In addition, although not free from doubt, Sesen Bio believes that Sesen Bio common shares currently should be considered to be regularly traded.

A Sesen Bio non-U.S. holder should consult its tax advisor regarding its entitlement to benefits and the various rules under applicable tax treaties.

Information Reporting and Backup Withholding

In general, the special cash dividend received by Sesen Bio U.S. holders will be reported to the IRS unless the holder is an exempt recipient. Backup withholding, currently at a rate of 24%, may apply unless the Sesen Bio U.S. holder (1) is an exempt recipient or (2) provides a certificate (generally on an IRS Form W-9) containing the Sesen Bio U.S. holder's name, address, correct federal taxpayer identification number and statement that the Sesen Bio U.S. holder is a U.S. person and is not subject to backup withholding.

A Sesen Bio non-U.S. holder will not be subject to backup withholding with respect to the special cash dividend, provided the Sesen Bio Non-U.S. holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN or W-8ECI or W-8BEN-E, or otherwise establishes an exemption. However, information returns will be filed with the IRS in connection with the special cash dividend, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the Sesen Bio non-U.S. holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or credit against a Sesen Bio U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Nasdaq Listing

Sesen Bio common stock currently is listed on Nasdaq under the symbol "SESN." Sesen Bio has agreed to use commercially reasonable efforts to (i) maintain its existing listing on Nasdaq through the closing of the merger, (ii) prepare and submit a Nasdaq notification form for the listing of the shares of Sesen Bio common stock to be issued in connection with the merger, and to cause such shares to be approved for listing (subject to official notice of issuance), (iii) effect the proposed reverse stock split and (iv) file an initial listing application for the Sesen Bio common stock on Nasdaq and to cause such application to be approved prior to the effective time. In addition, under the Merger Agreement, each party's obligation to complete the merger is subject to the satisfaction or waiver by each of the parties prior to the closing of the merger of various conditions, including that the existing shares of Sesen Bio common stock must have been continually listed on Nasdaq, and Sesen Bio must have caused the shares of Sesen Bio common stock to be issued in the merger to be approved for listing on Nasdaq as of the closing of the merger.

Sesen Bio intends to file an initial listing application with Nasdaq pursuant to Nasdaq "business combination" rules. If such application is accepted, Sesen Bio anticipates that the shares of Sesen Bio common stock will be listed on Nasdaq following the closing of the merger under the trading symbol "CARM." In order to meet the requirements for listing on Nasdaq, the post-merger combined company will be required to satisfy Nasdaq's initial listing requirements, including the financial and liquidity requirements for the applicable Nasdaq market tier upon which the post-merger combined company's shares will trade following the merger.

Anticipated Accounting Treatment

The merger is expected to be accounted for as a reverse recapitalization under U.S. GAAP because the primary assets of Sesen Bio are cash, cash equivalents and marketable securities. For financial reporting purposes, Carisma has been determined to be the accounting acquirer based upon the terms of the merger including: (i) Carisma stockholders and holders of securities convertible into Carisma common stock are expected to own approximately 65.6% of the combined company (based on estimates made at the time of the signing of the Merger Agreement), (ii) Carisma will hold the majority (six of seven) of board seats of the combined company and (iii) Carisma management will hold all key positions in the management of the combined company. Accordingly, the merger is expected to be treated as the equivalent of Carisma issuing stock to acquire the net assets of Sesen Bio. As a result of the merger, the net assets of Sesen Bio will be recorded at their acquisition-date fair value in the consolidated financial statements of Carisma and the reported operating results prior to the merger will be those of Carisma. See the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information*" beginning on page 353 of this proxy statement/prospectus for additional information.

Appraisal Rights and Dissenters' Rights

If the merger is completed, Carisma stockholders who do not deliver a written consent approving the merger are entitled to appraisal rights under Section 262 of the DGCL, or Section 262, provided that they comply with the conditions established by Section 262. Holders of Sesen Bio common stock are not entitled to appraisal rights under Delaware law in connection with the merger.

The discussion below is not a complete summary regarding a Carisma stockholder's appraisal rights under Delaware law and is qualified in its entirety by reference to the text of the relevant provisions of Delaware law, which is attached as *Annex H* to this proxy statement/prospectus. Carisma stockholders intending to exercise appraisal rights should carefully review *Annex H*. Failure to follow precisely any of the statutory procedures set forth in *Annex H* may result in a termination or waiver of these rights. This summary does not constitute legal or other advice, nor does it constitute a recommendation that Carisma stockholders exercise their appraisal rights under Delaware law.

Under Section 262, where a merger is adopted by stockholders by written consent in lieu of a meeting of stockholders pursuant to Section 228 of the DGCL, either the constituent corporation before the effective date of the merger, or the surviving corporation within 10 days after the effective date of the merger, must notify each stockholder of the constituent corporation entitled to appraisal rights of the approval of the merger, the effective date of the merger and that appraisal rights are available.

If the merger is completed, within 10 days after the effective date Carisma will notify Carisma stockholders that the merger has been approved, the effective date and that appraisal rights are available to any Carisma stockholder who has not approved the merger. Carisma stockholders who desire to exercise their appraisal rights must deliver a written demand for appraisal to Carisma within 20 days after the date of mailing of that notice, and that Carisma stockholder must not have delivered a written consent approving the

merger. A demand for appraisal must reasonably inform Carisma of the identity of the Carisma stockholder and that such Carisma stockholder intends thereby to demand appraisal of the shares of Carisma common stock held by such Carisma stockholder. Failure to deliver a written consent approving the merger will not in and of itself constitute a written demand for appraisal satisfying the requirements of Section 262. All demands for appraisal should be addressed to CARISMA Therapeutics Inc., 3675 Market Street, Suite 200, Philadelphia, PA 19104, Attention: Corporate Secretary, Email: legal@carismatx.com, and should be executed by, or on behalf of, the record holder of shares of Carisma capital stock.

ALL DEMANDS MUST BE RECEIVED BY CARISMA WITHIN 20 DAYS AFTER THE DATE CARISMA MAILS A NOTICE TO CARISMA STOCKHOLDERS NOTIFYING THEM THAT THE MERGER HAS BEEN APPROVED, THE EFFECTIVE DATE OF THE MERGER AND THAT APPRAISAL RIGHTS ARE AVAILABLE TO ANY CARISMA STOCKHOLDER WHO HAS NOT APPROVED THE MERGER.

If you are a Carisma stockholder, and fail to deliver a written demand for appraisal within the time period specified above, you will be entitled to receive the merger consideration for your shares of Carisma capital stock as provided for in the Merger Agreement, but you will have no appraisal rights with respect to your shares of Carisma capital stock.

To be effective, a demand for appraisal by a Carisma stockholder must be made by, or in the name of, the registered stockholder, fully and correctly, as the Carisma stockholder's name appears on the Carisma stockholder's stock certificate(s). Beneficial owners who do not also hold the shares of record may exercise appraisal rights directly, rather than relying on the record owner of their shares of Carisma capital stock to demand appraisal on their behalf. In order for a beneficial owner to assert appraisal rights with respect to any shares, such owner must maintain continuous beneficial ownership of such shares through the effective date of the merger and provide documentary evidence of such ownership, as more fully described in Section 262(d)(3) of the DGCL. If shares of Carisma capital stock are owned of record or beneficially in a fiduciary capacity, such as by a trustee, guardian or custodian, execution of a demand for appraisal should be made by or for the fiduciary; and if the shares of Carisma capital stock are owned of record or beneficially by more than one person, as in a joint tenancy or tenancy in common, the demand should be executed by or for all joint owners. An authorized agent, including an authorized agent for two or more joint owners, may execute the demand for appraisal for a Carisma stockholder; however, the agent must identify the record/beneficial owner or owners and expressly disclose the fact that, in executing the demand, he or she is acting as agent for the record/beneficial owner. A record owner, such as a broker, who holds shares of Carisma capital stock as a custodian for others, may exercise the record owner's right of appraisal with respect to the shares of Carisma capital stock held for one or more beneficial owners, while not exercising this right for other beneficial owners. In that case, the written demand should state the number of shares of Carisma capital stock as to which appraisal is sought. Where no number of shares of Carisma capital stock is expressly mentioned, the demand will be presumed to cover all shares of Carisma capital stock held in the name of the record owner. In addition, the Carisma stockholder must hold the shares of Carisma capital stock continuously through the effective time and on the date of making a demand.

If you hold your shares of Carisma capital stock in a brokerage account or in other custodian form and you do not wish to exercise appraisal rights directly as a beneficial owner, you should consult with your broker, bank or other custodian to determine the appropriate procedures for the making of a demand for appraisal by the custodian.

At any time within 60 days after the effective time, any Carisma stockholder who has demanded an appraisal, but has neither commenced an appraisal proceeding or joined an appraisal proceeding as a named party, has the right to withdraw such Carisma stockholder's demand and accept the terms of the merger by delivering a written withdrawal to Carisma. If, following a demand for appraisal, you have withdrawn your demand for appraisal in accordance with Section 262, you will have the right to receive the merger consideration for your shares of Carisma capital stock.

Within 120 days after the effective time, any Carisma stockholder who has delivered a demand for appraisal in accordance with Section 262 will, upon written request to the surviving corporation, be entitled to receive a written statement setting forth the aggregate number of shares of Carisma capital stock not voted in favor of the Merger Agreement and with respect to which demands for appraisal rights have been received and the aggregate number of holders of these shares of Carisma capital stock. This written statement will be mailed to the requesting Carisma stockholder within 10 days after the Carisma stockholder's written request is received by the surviving corporation or within 10 days after expiration of the period for delivery of demands for appraisal, whichever is later. Within 120 days after the effective time, either the surviving corporation or any Carisma stockholder who has delivered a demand for appraisal in accordance with Section 262 may file a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares of Carisma capital stock held by all such Carisma stockholders. Upon the filing of the

petition by a Carisma stockholder, service of a copy of the petition must be made upon the surviving corporation. The surviving corporation has no obligation to file a petition in the Delaware Court of Chancery in the event there are dissenting Carisma stockholders, and Sesen Bio, which is expected to be the surviving corporation, has no present intent to file a petition in the Delaware Court of Chancery. Accordingly, the failure of a Carisma stockholder to file a petition within the period specified could nullify the Carisma stockholder's previously written demand for appraisal.

If a petition for appraisal is duly filed by a Carisma stockholder and a copy of the petition is delivered to the surviving corporation, the surviving corporation will then be obligated, within 20 days after receiving service of a copy of the petition, to provide the Delaware Court of Chancery with a duly verified list containing the names and addresses of all Carisma stockholders who have demanded an appraisal of their shares of Carisma capital stock and with whom agreements as to the value of their shares of Carisma capital stock have not been reached by the surviving corporation. After notice to dissenting Carisma stockholders who demanded appraisal of their shares of Carisma capital stock, the Delaware Court of Chancery is empowered to conduct a hearing upon the petition, and to determine those Carisma stockholders who have complied with Section 262 and who have become entitled to the appraisal rights provided thereby. The Delaware Court of Chancery may require the Carisma stockholders who have demanded appraisal for their shares of Carisma capital stock to submit their stock certificates to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any Carisma stockholder fails to comply with that direction, the Delaware Court of Chancery may dismiss the proceedings as to that Carisma stockholder.

After determination of the Carisma stockholders entitled to appraisal of their shares of Carisma capital stock, the Delaware Court of Chancery will appraise the "fair value" of the shares of Carisma capital stock owned by those Carisma stockholders. This value will be exclusive of any element of value arising from the accomplishment or expectation of the merger, but may include a fair rate of interest, if any, upon the amount determined to be the fair value. When the value is determined, the Delaware Court of Chancery will direct the payment of the value, with interest thereon accrued during the pendency of the proceeding, if the Delaware Court of Chancery so determines, to the Carisma stockholders entitled to receive the same, upon surrender by the holders of the certificates representing those shares of Carisma capital stock. At any time before the entry of judgment in the proceedings, the surviving corporation may pay to each Carisma stockholder entitled to appraisal an amount in cash, in which case interest shall accrue thereafter only upon the sum of (i) the difference, if any, between the amount so paid and the fair value of the shares of Carisma capital stock subject to appraisal as determined by the Delaware Court of Chancery and (ii) interest theretofore accrued, unless paid at that time.

In determining fair value, and, if applicable, a fair rate of interest, the Delaware Court of Chancery is required to take into account all relevant factors. In *Weinberger v. UOP, Inc.*, the Delaware Supreme Court discussed the factors that could be considered in determining fair value in an appraisal proceeding, stating that "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court" should be considered, and that "fair price obviously requires consideration of all relevant factors involving the value of a company."

Section 262 provides that fair value is to be "exclusive of any element of value arising from the accomplishment or expectation of the merger." In *Cede & Co. v. Technicolor, Inc.*, the Delaware Supreme Court stated that this exclusion is a "narrow exclusion [that] does not encompass known elements of value," but which rather applies only to the speculative elements of value arising from such accomplishment or expectation. In Weinberger, the Delaware Supreme Court construed Section 262 to mean that "elements of future value, including the nature of the enterprise, which are known or susceptible of proof as of the date of the merger and not the product of speculation, may be considered."

You should be aware that the fair value of your shares of Carisma capital stock as determined under Section 262 could be more than, the same as, or less than the value that you are entitled to receive under the terms of the Merger Agreement.

Costs of the appraisal proceeding may be imposed upon the surviving corporation and the Carisma stockholders participating in the appraisal proceeding by the Delaware Court of Chancery as the Court deems equitable in the circumstances. Upon the application of a Carisma stockholder, the Delaware Court of Chancery may order all or a portion of the expenses incurred by any Carisma stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorneys' fees and the fees and expenses of experts, to be charged pro rata against the value of all shares of Carisma capital stock entitled to appraisal. In the absence of such a determination of assessment, each party bears its own expenses. Any Carisma stockholder who had demanded appraisal rights will not, after the effective time, be entitled to vote shares of Carisma capital stock subject to that demand for any purpose or to receive payments of dividends or any other distribution with respect to those shares of Carisma capital stock, other than with respect to payment as of a record date prior to the effective time; however, if no petition for appraisal is filed within 120 days after the effective

time, or if the Carisma stockholder delivers a written withdrawal of his or her demand for appraisal and an acceptance of the terms of the merger within 60 days after the effective time, then the right of that Carisma stockholder to appraisal will cease and that Carisma stockholder will be entitled to receive the merger consideration for shares of his or her Carisma capital stock pursuant to the Merger Agreement. Any withdrawal of a demand for appraisal made more than 60 days after the effective time may only be made with the written approval of the surviving corporation. No appraisal proceeding in the Delaware Court of Chancery will be dismissed as to any stockholder without the approval of the court.

Failure to follow the steps required by Section 262 for perfecting appraisal rights may result in the loss of appraisal rights. In view of the complexity of Section 262, Carisma stockholders who may wish to dissent from the merger and pursue appraisal rights should consult their legal advisors.

THE MERGER AGREEMENT

The following is a summary of the material terms of the Merger Agreement. A copy of the Merger Agreement is attached as Annex A to this proxy statement/prospectus and is incorporated by reference into this proxy statement/prospectus. The Merger Agreement has been attached to this proxy statement/prospectus to provide you with information regarding its terms. It is not intended to provide any other factual information about Sesen Bio, Carisma or Merger Sub. The following description does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement. You should refer to the full text of the Merger Agreement for details of the merger and the terms and conditions of the Merger Agreement.

The Merger Agreement contains representations and warranties that Sesen Bio and Merger Sub, on the one hand, and Carisma, on the other hand, have made to one another as of specific dates. These representations and warranties have been made for the benefit of the other parties to the Merger Agreement and may be intended not as statements of fact but rather as a way of allocating the risk to one of the parties if those statements prove to be incorrect. In addition, the assertions embodied in the representations and warranties are qualified by information in confidential disclosure schedules exchanged by the parties in connection with signing the Merger Agreement. While Sesen Bio and Carisma do not believe that these disclosure schedules contain information required to be publicly disclosed under the applicable securities laws, other than information that has already been so disclosed, the disclosure schedules do contain information that modifies, qualifies and creates exceptions to the representations and warranties set forth in the attached Merger Agreement. Accordingly, you should not rely on the representations and warranties as current characterizations of factual information about Sesen Bio and Carisma because they were made as of specific dates, may be intended merely as a risk allocation mechanism between Sesen Bio, Merger Sub and Carisma and are modified by the disclosure schedules.

Structure

Merger Sub was formed as a wholly-owned subsidiary of Sesen Bio for the sole purpose of completing the merger transaction. Under the Merger Agreement at the effective time, Merger Sub will merge with and into Carisma, with Carisma surviving as the wholly-owned subsidiary of Sesen Bio.

Completion and Effectiveness of the Merger

The consummation of the merger will take place as promptly as practicable, but in no event later than the second business day after all of the conditions to completion of the merger are satisfied or waived, including certain approvals by the stockholders of Sesen Bio and Carisma. Sesen Bio and Carisma are working to complete the merger and expect that the merger will be completed approximately three to four months following the date of the Merger Agreement, after the Sesen Bio special meeting of stockholders. However, Sesen Bio and Carisma cannot predict the completion of the merger or the exact timing of the completion of the merger because it is subject to various conditions.

Merger Consideration

At the effective time, upon the terms and subject to the conditions set forth in the Merger Agreement, each outstanding share of Carisma's capital stock (including shares of Carisma capital stock sold in the Carisma pre-closing financing but excluding (i) shares of Carisma capital stock to be canceled pursuant to the Merger Agreement and (ii) Carisma common stock held by holders of Carisma common stock who have exercised and perfected appraisal rights or dissenters' rights) will be automatically converted solely into the right to receive a number of shares of Sesen Bio common stock and each outstanding Carisma option will become exercisable for shares of Sesen Bio common stock, in each case, equal to the exchange ratio described in more detail below.

No fractional shares of Sesen Bio common stock will be issued in connection with the merger, and no certificates or scrip for any such fractional shares will be issued. Any fractional shares of Sesen Bio common stock resulting from the conversion of Carisma capital stock will receive cash (without interest and subject to applicable tax withholding) in an amount equal to such fractional part of a share of Sesen Bio common stock multiplied by the last reported sale price of Sesen Bio common stock at 4:00 p.m., Eastern Time, end of regular trading hours on Nasdaq on the last day prior to the effective time.

Exchange Ratio

The exchange ratio is calculated using a formula intended to allocate existing Sesen Bio and Carisma stockholders a percentage of the combined company. Based on Sesen Bio's capitalization and Carisma's capitalization as of September 20, 2022, the exchange ratio is estimated to be approximately 24.5844 shares of Sesen Bio common stock. This estimate is subject to adjustment prior to the closing of the merger for net cash at the cash determination time and aggregate proceeds from the sale of Carisma common stock in the Carisma pre-closing financing (and, as a result, Sesen Bio stockholders could own more, and Carisma stockholders (including, for this purpose, investors in the Carisma pre-closing financing) could own less, or vice versa, of the combined company).

Based on the estimates set forth above, and certain other assumptions, Sesen Bio stockholders would own approximately 41.7% of the common stock of the combined company post-merger, Carisma stockholders would own approximately 58.3% of the common stock of the combined company post-merger. Shares issued in the Carisma pre-closing financing are expected to represent approximately 7.4% of the common stock of the combined company post-merger. Shares issued upon the conversion of the Carisma convertible note are expected to represent approximately 5.5% of the common stock of the combined company post-merger. For more information on the Carisma pre-closing financing, see the section entitled "*Agreements Related to the Merger — Subscription Agreement*" beginning on page 186 of this proxy statement/prospectus.

The exchange ratio formula is the quotient obtained (rounded to four decimal places) by dividing the number of Carisma merger shares (defined below) by the Carisma outstanding shares (defined below), in which:

- "Aggregate valuation" means the sum of the (i) Carisma valuation plus (ii) the Sesen Bio valuation.
- "Carisma allocation percentage" means the quotient (expressed as a percentage with the percentage rounded to four decimal places) determined by dividing (i) the Carisma valuation by (ii) the aggregate valuation.
- "Carisma merger shares" means the product determined by multiplying (i) the post-closing Sesen Bio shares by (ii) the Carisma allocation percentage.
- "Carisma outstanding shares" means the total number of shares of Carisma capital stock outstanding immediately prior to the effective time expressed on a fully-diluted and as-converted to Carisma common stock basis and assuming, without limitation or duplication, (i) the exercise of all Carisma options outstanding as of immediately prior to the effective time, (ii) the closing of the Carisma pre-closing financing, and (iii) the issuance of shares of Carisma common stock issuable in respect of all other outstanding options, restricted stock awards, warrants or rights to receive such shares, whether conditional or unconditional and including any outstanding options, warrants or rights triggered by or associated with the consummation of the Merger. Carisma outstanding shares shall also include all shares of the Carisma issued in the Carisma pre-closing financing prior to the effective time and excludes any shares issued upon the conversion of the Carisma convertible note.
- "Carisma valuation" means (i) $196.0 million, plus (ii) the amount of gross proceeds from the Carisma pre-closing financing prior to the effective time.
- "Sesen Bio allocation percentage" means the quotient (expressed as a percentage with the percentage rounded to four decimal places) determined by dividing (i) the Sesen Bio valuation by (ii) the aggregate valuation.
- "Sesen Bio outstanding shares" means the total number of shares of Sesen Bio common stock outstanding immediately prior to the effective time expressed on a fully-diluted and as converted to Sesen Bio common stock basis, assuming, without limitation or duplication, the issuance of shares of Sesen Bio common stock in respect of all Sesen Bio options, Sesen Bio RSUs, Sesen Bio warrants and other outstanding options, warrants or rights to receive such shares, in each case, outstanding as of immediately prior to the effective time.
- "Sesen Bio valuation" means $140.0 million, minus the amount by which net cash at the cash determination time is less than $125.0 million, plus the amount by which net cash at the cash determination time is greater than $125.0 million.

- "Post-closing Sesen Bio shares" mean the quotient determined by dividing (i) the Sesen Bio outstanding shares by (ii) the Sesen Bio allocation percentage.

Calculation of Sesen Bio's Final Net Cash

Pursuant to the terms of the Merger Agreement, Sesen Bio's "final net cash" means, as of the cash determination time (which is as of 8:00 p.m. Eastern Time on the last business day prior to the anticipated closing date) the sum (without duplication) of the following:

- cash and cash equivalents, marketable securities and other short-term investments of Sesen Bio and its subsidiaries;
- Sesen Bio's accounts receivable (including any tax refund claims pending as of the date of the Merger Agreement), deposits and interest; and
- Seen Bio's deposits, prepaid expenses and other prepaid assets which are reflected on the most recent balance sheet and do not constitute restricted cash of Sesen Bio and its subsidiaries; and
- 50% of the cost of settling any transaction litigation to the extent actually paid in cash by Sesen Bio prior to the closing date;

minus, the sum (without duplication) of the following:

- any unpaid transaction expenses of Sesen Bio or its subsidiaries;
- any unpaid indebtedness of Sesen Bio and/or its subsidiaries outstanding as of the closing date;
- any accounts payable, accrued expenses or short or long term liabilities that are or will become payable in cash, including any such accounts payable, accrued expenses or short or long term liabilities under any Sesen Bio contracts that were in effect prior to the effective time or associated with the termination of any Sesen Bio contracts which were in effect prior to the effective time or the termination before, at or after the effective time, of all current or former employees of Sesen Bio and its subsidiaries (even if the applicable expenses or amounts are due and payable after the effective time);
- any unpaid employer portion of payroll or employment taxes incurred in connection with the grant, exercise, conversion, settlement or cancellation of Sesen Bio RSUs, Sesen Bio options, equity compensation and other change in control or severance payments (including bonuses payable) due under the Merger Agreement or CVRs issued to holders of Sesen Bio RSUs or Sesen Bio options or otherwise as compensation (either incurred prior to or at the time of the Merger, and for the avoidance of doubt, not calculated as of the close of business on the business day prior to the closing date) in each case, incurred in connection with the merger by Sesen Bio at or prior to the effective time (even if payable after the effective time);
- any pre-payment, termination, "end of term" or similar fee or charge payable to any lender in connection with the repayment of indebtedness by Sesen Bio at or prior to the effective time;
- the amount of any cash dividend declared (or to be declared) but not yet paid as part of the pre-closing dividend;
- to the extent unpaid at closing, the cost and/or premium of the directors' and officer's "tail policy"; and
- to the extent unpaid at closing, the cost of settling any legal proceeding or other dispute existing as of the date of the Merger Agreement, as well as the unpaid deductible amount under Sesen Bio's insurance reasonably expected to be payable in connection with legal proceedings existing as of the date of the Merger Agreement.

Each component of net cash, to the extent applicable, shall be determined in accordance with U.S. GAAP, applied on a basis consistent with the application of U.S. GAAP in the preparation of Sesen Bio's most recent audited or reviewed financial statements.

Not more than ten nor less than five calendar days prior to the anticipated closing date, Sesen Bio will deliver to Carisma the net cash schedule setting forth, in reasonable detail, Sesen Bio's good faith estimated calculation of its net cash at the cash determination time, prepared and certified by Sesen Bio's Chief Executive Officer and Chief Financial Officer (or if there is no chief financial officer at such time, the principal financial and accounting officer) together with the work papers and back-up materials used or useful in preparing the net cash schedule, as reasonably requested by Carisma. Within three business days after delivery of the net cash schedule (the last day of such period referred to as the response date), Carisma will have the right to dispute all or any part or parts of the net cash schedule by delivering a written notice to that effect to Sesen Bio (referred to herein as a dispute notice). Any dispute notice will identify in reasonable detail to the extent then known, the nature and amounts of any proposed revisions to Sesen Bio's net cash calculation.

If Carisma disputes the net cash schedule prior to 8:00 pm Eastern Time on the response date, the parties shall promptly, and in no event later than one calendar day after the response date, meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of net cash. If the parties are unable to negotiate an agreed-upon determination of net cash within two calendar days after the delivery of the dispute notice (or such other period as Sesen Bio and Carisma may mutually agree upon in writing), then any remaining disagreements as to the calculation of net cash will be referred to Deloitte & Touche LLP or another independent auditor of recognized national standing mutually agreed upon by Sesen Bio and Carisma. The determination of the amount of net cash made by such auditor shall be final and binding on Sesen Bio and Carisma.

Sesen Bio's net cash balance is subject to numerous factors, some of which are outside of Sesen Bio's control. The actual amount of net cash will depend significantly on the timing of the closing of the merger. In addition, the closing of the merger could be delayed if Sesen Bio and Carisma are not able to agree upon the amount of Sesen Bio's net cash as of the cash determination time.

Treatment of Sesen Bio Equity Awards and Warrants

Sesen Bio Equity Awards

At the effective time, all outstanding and unexercised Sesen Bio options granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan or as an inducement grant under Nasdaq Listing Rule 5635(c)(4) will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying the Sesen Bio options and the exercise prices for such Sesen Bio options will be appropriately adjusted to reflect the proposed reverse stock split, if approved and implemented.

At the effective time, all outstanding Sesen Bio RSUs granted pursuant to the 2014 Incentive Plan or the 2009 Incentive Plan will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying the Sesen Bio RSUs will be appropriately adjusted to reflect the proposed reverse stock split, if approved and implemented.

Sesen Bio Warrants

At the effective time, all Sesen Bio warrants (other than certain Sesen Bio warrants that Sesen Bio may be required to repurchase at such warrant holder's option as of a result of the merger) will remain in effect pursuant to their terms and will be unaffected by the merger. The number of shares of Sesen Bio common stock underlying such Sesen Bio warrants and the exercise prices for such Sesen Bio warrants will be appropriately adjusted to reflect the proposed reverse stock split, if approved.

Treatment of Carisma Options

Under the terms of the Merger Agreement, each Carisma option that is outstanding and unexercised immediately prior to the effective time under the Carisma Plan and that, following assumption by Sesen Bio at the effective time, will be eligible to be registered on Form S-8, whether or not vested, will be converted into and become an option to purchase Sesen Bio common stock. Sesen Bio will assume the Carisma Plan and each such Carisma option in accordance with the terms (as in effect as of the date of the Merger Agreement) of the Carisma Plan and the terms of the stock option agreement by which such Carisma option is evidenced (but

with changes to such documents as Sesen Bio and Carisma mutually agree are appropriate to reflect the substitution of the Carisma options for an option to purchase shares of Sesen Bio common stock). All other Carisma options that are outstanding and unexercised as of immediately prior to the effective time shall be canceled immediately prior to the effective time. All rights with respect to Carisma common stock subject to Carisma options assumed by Sesen Bio shall thereupon be converted into rights with respect to Sesen Bio common stock.

Accordingly, from and after the effective time: (i) each Carisma option assumed by Sesen Bio may be exercised solely for shares of Sesen Bio common stock; (ii) the number of shares of Sesen Bio common stock subject to each Carisma option assumed by Sesen Bio shall be determined by multiplying (A) the number of shares of Carisma common stock that were subject to such Carisma option, as in effect immediately prior to the effective time, by (B) the exchange ratio, and rounding the resulting number down to the nearest whole number of shares of Sesen Bio common stock; (iii) the per share exercise price for the Sesen Bio common stock issuable upon the exercise of each Carisma option assumed by Sesen Bio shall be determined by dividing (A) the per share exercise price of Carisma common stock subject to such Carisma option, as in effect immediately prior to the effective time, by (B) the exchange ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Carisma option assumed by Sesen Bio shall continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such Carisma option shall otherwise remain unchanged.

However, to the extent provided under the terms of a Carisma option and the Carisma Plan, such Carisma option may be further adjusted as necessary to reflect Sesen Bio's substitution of the Carisma options with options to purchase Sesen Bio common stock (such as by making any change in control or similar definition related to Sesen Bio and having any provision that provides for the adjustment of Carisma options upon the occurrence of certain corporate events related to corporate events that relate to Sesen Bio and/or Sesen Bio common stock); and (y) the Sesen Bio board of directors or a committee thereof shall succeed to the authority and responsibility of the Carisma board of directors or any committee thereof with respect to each Carisma option assumed by Sesen Bio.

Treatment of Carisma Convertible Note

Under the terms of the Merger Agreement, as of immediately after the effective time, the Carisma convertible note shall convert into shares of Sesen Bio common stock in accordance with the convertible note conversion agreement, as amended or supplemented.

Directors and Officers of Sesen Bio Following the Merger

Pursuant to the Merger Agreement, each of the current directors who will not continue as directors of Sesen Bio or the combined company following the consummation of the merger will resign effective as of the closing of the merger. Additionally, pursuant to the Merger Agreement, the employment and service of each officer of Sesen Bio will terminate. Effective as of the effective time, the Sesen Bio board of directors is expected to be comprised of seven directors, to serve in the class assigned to director. Pursuant to the terms of the Merger Agreement, one such director will be designated by Sesen Bio, and six such directors will be designated by Carisma. It is anticipated that Thomas R. Cannell will be the Sesen Bio designated director following the closing of the merger, and that all other current Sesen Bio directors will resign as of the closing of the merger. Carisma will appoint the remaining directors to the Sesen Bio board of directors to fill the resulting vacancies. It is anticipated that Sanford Zweifach, Regina Hodits, Briggs Morrison, Björn Odlander, Chidozie Ugwumba, and Steven Kelly will be appointed to the board of directors of the combined company by Carisma. Sanford Zweifach is expected to be appointed as chair of the board of directors of the combined company. It is anticipated that Sesen Bio's executive officers upon the closing of the merger will be Steven Kelly, Richard Morris and Michael Klichinsky.

Amendments to the Sesen Bio Certificate of Incorporation

Stockholders of record of Sesen Bio common stock on the record date will also be asked to approve Proposal No. 2, which include a series of alternative amendments to the Sesen Bio Certificate of Incorporation to effect the proposed reverse stock split in connection with consummation of the merger, which requires the affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock entitled to vote on the record date.

Sesen Bio has agreed to amend the Sesen Bio Certificate of Incorporation to change its name to "CARISMA Therapeutics Inc."

Potentially Transferable Assets

Sesen Bio is entitled, but under no obligation, to sell, transfer, license, assign or otherwise divest any of its non-cash assets existing as of the date of the Merger Agreement, in a transaction or series of transactions; *provided*, that any such sale, transfer, license or other disposition, each, an asset disposition, must be expressly approved by the Sesen Bio board of directors. Pursuant to the Merger Agreement, Sesen Bio shall keep Carisma reasonably apprised of any developments related to an asset disposition. Without limiting the foregoing, Sesen Bio shall provide Carisma with notice of Sesen Bio's intention to enter into any definitive written agreement providing for the consummation of an asset disposition or otherwise to consummate an asset disposition, at least ten business days prior to the execution or such definitive written agreement or to otherwise consummate an asset disposition. Sesen Bio shall not enter into a definitive written agreement or otherwise consummate an asset disposition that would result in a material continuing obligation without first obtaining the prior written consent of Carisma, such consent not to be unreasonably withheld, delayed or conditioned.

Conditions to the Completion of the Merger

The following contains a description of all material conditions to the completion of the merger. Each party's obligation to effect the merger and otherwise consummate the other transactions contemplated by the Merger Agreement at the closing of the merger, is subject to the satisfaction or, the extent permitted by applicable law, the written waiver by each of the parties, at or prior to the closing of the merger, of various conditions, which include the following:

- no temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the transactions contemplated by the Merger Agreement shall have been issued by any court of competent jurisdiction or other governmental body of competent jurisdiction and remain in effect and there shall not be any law which has the effect of making the transactions contemplated by the Merger Agreement illegal;

- Carisma shall have obtained the "required Carisma stockholder vote," whereby the affirmative vote (or written consent) of (i) the holders of a majority of the Carisma capital stock, voting together as a single class, (ii) the holders of at least two-thirds of the Carisma Series A Preferred Stock, Carisma Special Voting Preferred Stock, Carisma Series B Preferred Stock and Carisma Series B Special Voting Preferred Stock, voting together as a single class, (iii) the holders of a majority of the Carisma Series A Preferred Stock and Carisma Special Voting Preferred Stock, voting together as a single class, and (iv) the holders of at least two-thirds of the Carisma Series B Preferred Stock and Carisma Series B Special Voting Preferred Stock, voting together as a single class, must have (x) adopted and approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (y) acknowledged that the approval given thereby is irrevocable and that the Carisma stockholders are aware of their rights to demand appraisal for their respective shares and (z) acknowledged that by their approval of the merger they are not entitled to appraisal rights with respect to their shares in connection with the merger and thereby waive any rights to receive payment of the fair value of their capital stock under the DGCL;

- Sesen Bio shall have obtained the "required Sesen Bio stockholder vote," whereby the affirmative vote of (i) the holders of a majority of the outstanding shares of Sesen Bio common stock entitled to vote on the record date for the Sesen Bio special meeting must have approved Proposal No. 2 and (ii) the holders of a majority in voting power of the votes cast by the holders of all Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to thereon must have approved Proposal No. 1;

- the existing shares of Sesen Bio common stock must have been continually listed on Nasdaq as of and from the date of the Merger Agreement through the closing date, the approval of the listing of additional shares of Sesen Bio common stock on Nasdaq must have been obtained, and the shares of Sesen Bio common stock to be issued in the merger and the conversion pursuant to the Merger Agreement must have been approved for listing on Nasdaq; and

- the registration statement on Form S-4, of which this proxy statement/prospectus is a part, must have become effective in accordance with the Securities Act and must not be subject to any stop order or proceeding (or any proceeding threatened by the SEC) seeking a stop order with respect to such registration statement that has not been withdrawn.

In addition, the obligation of Sesen Bio and Merger Sub to effect the merger and otherwise consummate the other transactions contemplated by the Merger Agreement at the closing of the merger is further subject to the satisfaction or written waiver by Sesen Bio of the following conditions:

- the representations and warranties of Carisma regarding certain matters related to due organization, authority, vote required, non-contravention, and financial advisors in the Merger Agreement must be true and correct in all material respects on and as of the closing date with the same force and effect as if made on and as of such date, representations and warranties regarding the capitalization of Carisma and absence of a Carisma material adverse effect in the Merger Agreement must be true and correct in all respects, except for de minimis inaccuracies in the case of capitalization, on and as of the closing date with the same force and effect as if made on and as of such date, and the remaining representations and warranties of Carisma in the Merger Agreement shall be true and correct on and as of the closing date with the same force and effect as if made on and the closing date, except where the failure to be true and correct would not have a Carisma material adverse effect (in all cases, except to the extent such representations and warranties are specifically made as of a particular date, in which case as of such date);

- Carisma shall have performed or complied in all material respects with the agreements and covenants required to be performed or complied with by it under the Merger Agreement at or prior to the effective time;

- Sesen Bio shall have received a certificate executed by the Chief Executive Officer or Chief Executive Officer of Carisma certifying that certain closing conditions have been duly satisfied and that the information set forth in an allocation certificate delivered by Carisma is true and accurate in all respects as of the closing date;

- Sesen Bio shall have received (i) an original signed statement from Carisma that the Carisma common stock is not a "United States real property interest," as defined in Section 897(c) of the Code, conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and 1.897-2(h), and (ii) an original signed notice to be delivered to the IRS by Sesen Bio in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2), together with written authorization for Sesen Bio to deliver such notice to the IRS on behalf of Carisma following the closing of the merger, each dated as of the closing date, duly executed by an authorized officer of Carisma, and in form and substance reasonably acceptable to Sesen Bio;

- certain investor agreements between Carisma and its stockholders must have been terminated; and

- the Carisma lock-up agreements will continue to be in full force and effect as of immediately following the effective time.

In addition, the obligation of Carisma to effect the merger and otherwise consummate the transactions to be consummated at the closing of the merger is further subject to the satisfaction or written waiver by Carisma of the following conditions:

- the representations and warranties of Parent and Merger Sub regarding certain matters related to due organization, authority, vote required, non-contravention, and financial advisors in the Merger Agreement must be true and correct in all material respects on and as of the closing date with the same force and effect as if made on and as of such date, representations and warranties regarding the capitalization of Sesen Bio and Merger Sub and absence of a Sesen Bio material adverse effect in the Merger Agreement must be true and correct in all respects, except for de minimis inaccuracies in the case of capitalization, on and as of the closing date with the same force and effect as if made on and as of such date, and the remaining representations and warranties of Sesen Bio and Merger Sub in the Merger Agreement shall be true and correct on and as of the closing date with the same force and effect as if made on and as of the closing date, except where the failure to be true and correct would not have a Sesen Bio material adverse effect (in all cases, except to the extent such representations and warranties are specifically made as of a particular date, in which case as of such date);

- Sesen Bio and Merger Sub shall have performed or complied in all material respects with the agreements and covenants required to be performed or complied with by each of them under the Merger Agreement at or prior to the effective time;

- Carisma shall have received (i) a certificate by the Chief Executive Officer or Chief Financial Officer of Sesen Bio certifying that certain closing conditions have been duly satisfied, (ii) a copy of the CVR Agreement duly executed by Sesen Bio and the rights agent (as defined therein) and (iii) a written resignation, in form reasonably satisfactory to Carisma, dated as of the closing date and effective as of the closing, executed by each of the officers and directors, from their positions as such, of Sesen Bio who are not to continue as directors or officers (as applicable) of Sesen Bio after the closing of the merger, which such resignations not affecting such officer's or director's status as an employee (if applicable) including any characterization of their cessation from employment;

- The Sesen Bio lock-up agreements will continue to be in full force and effect as of immediately following the effective time; and

- Sesen Bio's final net cash shall have been determined to be greater than or equal to $100.0 million.

Representations and Warranties

The Merger Agreement contains customary representations and warranties of Sesen Bio and Carisma for a transaction of this type relating to, among other things:

- corporate organization and power, and similar corporate matters;

- organizational documents;

- subsidiaries;

- authority to enter into the Merger Agreement and the related agreements;

- votes required for completion of the merger and approval of the proposals that will come before the Sesen Bio special meeting and that will be the subject of the Carisma stockholder written consent;

- except as otherwise specifically disclosed in the Merger Agreement, the fact that the consummation of the merger would not contravene the organizational documents, certain laws, governmental authorization or certain contracts of the parties;

- result in any encumbrance on the parties' assets or require the consent of any third party;

- capitalization;

- financial statements and with respect to Sesen Bio, documents filed with the SEC and the accuracy of information contained in those documents;

- material changes or events;

- liabilities;

- title to assets;

- ownership of real property and leasehold interests;

- intellectual property;

- privacy and data security;

- the validity of material contracts to which the parties or their subsidiaries are a party and any violation, default or breach to such material contracts;
- regulatory compliance, permits and restrictions;
- legal proceedings and orders;
- tax matters;
- employee and labor matters and benefit plans;
- environmental matters;
- insurance;
- any brokerage or finder's fee or other fee or commission in connection with the merger;
- certain transactions or relationships with affiliates;
- compliance with anti-bribery laws; and
- with respect to Sesen Bio, the valid issuance in the merger of Sesen Bio common stock and the opinion of SVB Securities.

The representations and warranties are, in many respects, qualified by materiality and knowledge and will not survive the merger, but their accuracy forms the basis of one of the conditions to the obligations of Sesen Bio and Carisma to complete the merger.

Pre-Closing Dividend

Prior to the effective time, Sesen Bio may declare a dividend to its common stockholders of record consisting of (a) one CVR for each outstanding share of Sesen Bio common stock held by such stockholder as of such date, representing the right to receive contingent payments upon the occurrence of certain events set forth in, and subject to and in accordance with the terms and conditions of, the CVR Agreement in the form attached hereto as *Annex F*, and (b) cash in an amount not to exceed $25.0 million in the aggregate subject to the satisfaction of certain obligations of Sesen Bio under the Merger Agreement. The record date for the pre-closing dividend shall be a date agreed upon by Carisma and Sesen Bio prior to the day on which the effective time occurs and the payment date for which shall be three business days after the effective time; *provided*, that the payment of such dividend may be conditioned upon the occurrence of the effective time. In connection with the pre-closing dividend, Sesen Bio shall cause the CVR Agreement to be duly authorized, executed and delivered by Sesen Bio and a rights agent selected by Sesen Bio with Carisma's prior approval (such approval not to be unreasonably withheld, delayed or conditioned). For more information related to the CVRs, see the section entitled "*Agreements Related to the Merger — CVR Agreement*" beginning on page 181 of this proxy statement/prospectus.

No Solicitation

Except as expressly permitted by the Merger Agreement, each of Sesen Bio and Carisma agreed that during the pre-closing period, except as described below, Sesen Bio and Carisma will not, nor will either party authorize any of the directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors or representatives retained by it or any of its subsidiaries to, directly or indirectly:

- solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of, any acquisition proposal or acquisition inquiry (each as defined below) or take any action that could reasonably be expected to lead to an acquisition proposal or acquisition inquiry;
- furnish any non-public information regarding the party and its subsidiaries to any person in connection with or in response to an acquisition proposal or acquisition inquiry;

- engage in discussions or negotiations with any person with respect to any acquisition proposal or acquisition inquiry;
- approve, endorse or recommend an acquisition proposal;
- execute or enter into any letter of intent or any contract contemplating or otherwise relating to any acquisition transaction, as defined below (other than a confidentiality agreement permitted under the Merger Agreement); or
- publicly propose to do any of the above.

The Merger Agreement also provides that each of Carisma and Sesen Bio will immediately cease and cause to be terminated any existing discussions, negotiations and communications with any person that relate to any acquisition proposal or acquisition inquiry as of the date of the Merger Agreement and request the destruction or return of any non-public information of Sesen Bio or Carisma and their respective subsidiaries, as applicable, provided to such person.

An "acquisition inquiry" means, with respect to a party, an inquiry, indication of interest or request for information (other than an inquiry, indication of interest or request for information made or submitted by Carisma or any of its affiliates, on the one hand, or Sesen Bio or any of its affiliates, on the other hand, to the other party) that could reasonably be expected to lead to an acquisition proposal, other than (i) with respect to Sesen Bio, solely with respect to an asset disposition and (ii) with respect to Carisma, solely with respect to the Carisma pre-closing financing.

An "acquisition proposal" means, with respect to a party, any offer or proposal, whether written or oral (other than an offer or proposal made or submitted by or on behalf of Carisma or any of its affiliates, on the one hand, or by or on behalf of Sesen Bio or any of its affiliates, on the other hand, to the other party) contemplating or otherwise relating to any acquisition transaction with such party, other than (i) with respect to Sesen Bio, solely with respect to an asset disposition and (ii) with respect to Carisma, solely with respect to the Carisma pre-closing financing.

An "acquisition transaction" means any transaction or series of related transactions (other than the asset disposition) involving:

- any merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction: (A) in which a party is a constituent entity; (B) in which a person or "group" (as defined in the Exchange Act and the rules promulgated thereunder) of persons directly or indirectly acquires beneficial or record ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of a party or any of its subsidiaries; or (C) in which a party or any of its subsidiaries issues securities representing more than 15% of the outstanding securities of any class of voting securities of such party or any of its subsidiaries; *provided*, *however*, that in the case of Carisma, to the extent the Carisma pre-closing financing is effected in accordance with the terms and conditions of the Merger Agreement, the Carisma pre-closing financing shall not constitute an acquisition transaction; or
- any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets that constitute or account for 15% or more of the consolidated book value or the fair market value of the assets of Sesen Bio or Carisma and their respective subsidiaries, as applicable, taken as a whole.

Notwithstanding the foregoing, before obtaining the applicable approvals of the stockholders of Sesen Bio or Carisma required to consummate the merger, as applicable, each party may furnish non-public information regarding such party and its subsidiaries to, and enter into discussions or negotiations with, any person in response to a bona fide written unsolicited acquisition proposal by such person, which such party's board of directors determines in good faith, after consultation with such party's outside legal counsel and financial advisors, constitutes or is reasonably likely to result in a "superior offer," (as defined below) (and is not withdrawn) if:

- neither such party nor any of its representative has breached the no solicitation provisions of the Merger Agreement in any material respects;

- such party's board of directors concludes in good faith, after consultation with such party's outside legal counsel, that the failure to take such action is reasonably likely to be inconsistent with the fiduciary duties of such party's board of directors under applicable law;

- at least two business days' prior to initially furnishing any such nonpublic information to, or entering into discussions with, such person, such party gives the other party written notice of the identity of such person and of that party's intention to furnish non-public information to, or enter into discussions with, such person ;

- such party receives from the person an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions and no hire provisions) at least as favorable to such party as those contained in the confidentiality agreement between Sesen Bio and Carisma; and

- at least two business days prior to furnishing any non-public information to such person, such party furnishes the same non-public information to the other party (to the extent such information has not been previously furnished).

A "superior offer" means an unsolicited bona fide written acquisition proposal (with all references to 15% in the definition of acquisition transaction being treated as references to 70% for these purposes) that: (a) was not obtained or made as a direct or indirect result of a breach of (or in violation of) the Merger Agreement; (b) is on terms and conditions that the Sesen Bio board of directors or the Carisma board of directors, as applicable, determines in good faith, based on such matters that it deems relevant (including the likelihood of consummation thereof, the financing terms thereof, any termination or break-up fees and conditions to consummation), as well as any written offer by the other party to the Merger Agreement to amend the terms of the Merger Agreement, and following consultation with its outside legal counsel and financial advisors, if any, are more favorable to Sesen Bio stockholders or Carisma stockholders, as applicable, than the terms of the transaction contemplated by the Merger Agreement; (c) is not subject to any financing conditions (and if financing is required, such financing is then fully committed to the person); and (d) is reasonably capable of being completed on the terms proposed without unreasonable delay.

The Merger Agreement also provides that each party will promptly advise the other in writing of such acquisition proposal or acquisition inquiry (including the identity of the person making or submitting such acquisition proposal or acquisition inquiry (subject to any confidentiality restrictions that may be in place between the applicable party and such person as of the date of the Merger Agreement), and a copy of the acquisition proposal or acquisition inquiry, or if the acquisition proposal or acquisition inquiry is not written, the terms thereof, and the material terms thereof). Each party shall keep the other party reasonably informed with respect to the status and terms of any such acquisition proposal or acquisition inquiry and any material modification or proposed material modification thereto. In addition to the foregoing, each party shall provide the other party with reasonable advance written notice of a meeting of the Sesen Bio board of directors or Carisma board of directors, as applicable, (or any committee thereof) at which such board of directors (or any committee thereof) is reasonably expected to consider an acquisition proposal or acquisition inquiry it has received.

Changes in Board Recommendation

As described above, and subject to the provisions described below, (i) the Sesen Bio board of directors recommends that Sesen Bio stockholders vote "FOR" all of the proposals described in this proxy statement/prospectus and (ii) the Carisma board of directors recommends that Carisma stockholders execute the written consent to approve the merger, the Merger Agreement, and the transactions contemplated therein, substantially in accordance with the terms of the Merger Agreement and the other agreements contemplated by the Merger Agreement.

Under the Merger Agreement, subject to certain exceptions described below, Sesen Bio agreed that the Sesen Bio board of directors may not take any of the following actions, each of which are referred to in this proxy statement/prospectus as a Sesen Bio board of directors adverse recommendation change:

- withhold, amend, withdraw or modify (or publicly propose to withhold, amend, withdraw or modify) Sesen Bio board of directors' recommendation in favor of the proposals described in this proxy statement/prospectus in a manner adverse to Carisma;

- resolve, or have any committee of the Sesen Bio board of directors resolve, to withhold, amend, withdraw or modify the Sesen Bio board of directors' recommendation in favor of the proposals described in this proxy statement/prospectus in a manner adverse to Carisma; or

- adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any acquisition proposal shall be adopted or proposed.

However, notwithstanding the foregoing, at any time prior to the approval of the proposals to be considered at the Sesen Bio special meeting by the required Sesen Bio stockholder vote, if Sesen Bio has received a bona fide written superior offer, the Sesen Bio board of directors may make a Sesen Bio board of directors adverse recommendation change if, but only if, following the receipt of and on account of such superior offer:

- the Sesen Bio board of directors determines in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Sesen Bio board of directors recommendation would constitute a violation of the Sesen Bio board of directors' fiduciary duties under applicable law;

- Sesen Bio has, and has caused its financial advisors and outside legal counsel to, during the required four business day notice period, or the required notice period, negotiate with Carisma in good faith to make such adjustments to the terms and conditions of the Merger Agreement so that such acquisition proposal ceases to constitute a superior offer; and

- if after Carisma shall have delivered to Sesen Bio a written offer to alter the terms or conditions of the Merger Agreement during the required notice period, the Sesen Bio board of directors shall have determined in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Sesen Bio board of directors recommendation would constitute a violation of the Sesen Bio board of directors' fiduciary duties under applicable law (after taking into account such alterations of the terms and conditions of the Merger Agreement); *provided*, that (x) Carisma receives written notice from Sesen Bio confirming that the Sesen Bio board of directors has determined to change its recommendation during the required notice period, which notice shall include a description in reasonable detail of the reasons for such Sesen Bio board of directors adverse recommendation change, and written copies of any relevant transaction with any party making a potential superior offer, (y) during any required notice period, Carisma shall be entitled to deliver to Sesen Bio one or more counterproposals to such acquisition proposal and Sesen Bio will, and will cause its representatives to, negotiate with Carisma in good faith (to the extent Carisma desires to negotiate) to make such adjustments in the terms and conditions of the Merger Agreement so that the applicable acquisition proposal ceases to constitute a superior offer, and (z) in the event of any material amendment to any superior offer (including any revision in the amount, form or mix of consideration the Sesen Bio stockholders would receive as a result of such potential superior offer), Sesen Bio shall be required to provide Carisma with notice of such material amendment and the required notice period shall be extended, if applicable, to ensure that at least two business days remain in the required notice period following such notification during which the parties shall comply again with the requirements in this provision and the Sesen Bio board of directors shall not make a Sesen Bio board of directors adverse recommendation change prior to the end of such notice period so extended (it being understood that there may be multiple extensions).

Under the Merger Agreement, subject to certain exceptions described below, Carisma agreed that the Carisma board of directors may not take any of the following actions, each of which are referred to in this proxy statement/prospectus as a Carisma board of directors adverse recommendation change:

- withdraw or modify (or publicly propose to withdraw or modify) the Carisma board of directors recommendation in a manner adverse to Sesen Bio;

- resolve or have any committee of the Carisma board of directors withdraw or modify the Carisma board of directors recommendation in a manner adverse to Sesen; or

- adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any acquisition proposal shall be adopted or proposed.

However, notwithstanding the foregoing, at any time prior to the approval and adoption of the Merger Agreement by the required Carisma stockholder vote, if Carisma has received a bona fide written superior offer, the Carisma board of directors may make a Carisma board of directors adverse recommendation change if, but only if, following the receipt of and on account of such superior offer:

- the Carisma board of directors determines in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Carisma board of directors recommendation would constitute a violation of the Carisma board of directors' fiduciary duties under applicable law;

- Carisma has, and has caused its financial advisors and outside legal counsel to, during the required notice period, negotiate with Sesen Bio in good faith to make such adjustments to the terms and conditions of the Merger Agreement so that such acquisition proposal ceases to constitute a superior offer; and

- if after Sesen Bio shall have delivered to Carisma a written offer to alter the terms or conditions of the Merger Agreement during the required notice period, the Carisma board of directors shall have determined in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Carisma board of directors recommendation would constitute a violation of the Carisma board of directors' fiduciary duties under applicable law (after taking into account such alterations of the terms and conditions of the Merger Agreement); *provided* that (x) Sesen Bio receives written notice from Carisma confirming that the Carisma board of directors has determined to change its recommendation at least four business days in advance of the Carisma board of directors adverse recommendation change, which notice shall include a description in reasonable detail of the reasons for such Carisma board of directors adverse recommendation change, and written copies of any relevant transaction agreements with any party making a potential superior offer, (y) during any required notice period, Sesen Bio shall be entitled to deliver to Carisma one or more counterproposals to such acquisition proposal and Carisma will, and cause its representatives to, negotiate with Sesen Bio in good faith (to the extent Sesen Bio desires to negotiate) to make such adjustments in the terms and conditions of the Merger Agreement so that the applicable acquisition proposal ceases to constitute a superior offer, and (z) in the event of any material amendment to any superior offer (including any revision in the amount, form or mix of consideration Carisma stockholders would receive as a result of such potential superior offer), Carisma shall be required to provide Sesen Bio with notice of such material amendment and the required notice period shall be extended, if applicable, to ensure that at least two business days remain in the notice period following such notification during which the parties shall comply again with the requirements in this provision and the Carisma board of directors shall not make a Carisma board of directors adverse recommendation change prior to the end of such notice period as so extended (it being understood that there may be multiple extensions).

Meetings of Sesen Bio stockholders; Consent of Carisma stockholders

Sesen Bio is obligated under the Merger Agreement to call, give notice of and hold the Sesen Bio special meeting for the purposes of considering the approval of, among the other items noted herein, the amendment of the Sesen Bio Certificate of Incorporation to effect the proposed reverse stock split, the issuance of shares of Sesen Bio common stock to Carisma stockholders in connection with the transactions contemplated under the Merger Agreement and change of control of Sesen Bio resulting therefrom, and the equity plan amendment proposals. Carisma is obligated under the Merger Agreement to obtain the written consent of its stockholders sufficient to adopt the Merger Agreement and approve the merger and related transactions and deliver to Sesen Bio such written consent within five business days following the registration statement on Form S-4, of which this proxy statement/prospectus is a part, being declared effective by the SEC.

Covenants; Conduct of Business Pending the Merger

Except as expressly permitted by the Merger Agreement, as required by applicable law, in connection with any COVID-19 measures of COVID-19 response, or unless Carisma shall have otherwise consented in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the pre-closing period, Sesen Bio will and will cause its subsidiaries to, (i) use commercially reasonable efforts to conduct its business and operations in the ordinary course of business and (ii) conduct its business

and operations in compliance in all material respects with all applicable laws, including timely making all filings required by the SEC, and the requirements of certain material contracts.

Sesen Bio has also agreed that, except as expressly permitted by the Merger Agreement, as required by applicable law, in connection with the asset disposition and the pre-closing dividend, in connection with any COVID-19 measures or COVID-19 response, or for certain limited exceptions with the prior written consent of Carisma (which consent shall not be unreasonably withheld, delayed or conditioned), at all times during the pre-closing period, it will not, nor shall it cause or permit its subsidiaries to, do any of the following:

- declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding taxes incurred upon the exercise of any Sesen Bio option or vesting of Sesen Bio RSUs in accordance with the terms of such award in effect on the date of the Merger Agreement);

- sell, issue, grant, pledge, or otherwise dispose of or encumber or authorize the issuance of: any capital stock or other security of Sesen Bio (except for Sesen Bio common stock issued upon the valid exercise or settlement of outstanding Sesen Bio options, Sesen Bio warrants or the vesting of Sesen Bio RSUs, as applicable, in accordance with their terms as in effect as of the date of the Merger Agreement); any option, warrant or right to acquire any capital stock or any other security; or any other instrument convertible into or exchangeable for any capital stock or other security of Sesen Bio or any of its subsidiaries;

- amend the organizational documents of Sesen Bio or any of its subsidiaries, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split, or similar transaction except, for the avoidance of doubt, the transactions contemplated under the Merger Agreement;

- form any subsidiary or acquire any equity interest, or other interest in any other entity, or enter into any joint venture with any other entity;

- (A) lend money to any person, (B) incur or guarantee any indebtedness for borrowed money, issue or sell any debt securities or options, warrants, call or other rights to acquire any debt securities, (C) guarantee any debt securities of others, or (D) make any capital expenditure or commitment in excess of $250,000;

- other than as required by applicable law or by the terms of a Sesen Bio employee plan as in effect on the date of the Merger Agreement and disclosed in certain sections of the confidential disclosure schedules, adopt, terminate, establish or enter into any Sesen Bio employee plan; cause or permit any Sesen Bio employee plan to be amended in any material respect; pay any bonus or make any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, benefits or other compensation or remuneration payable to, any current or former employee, independent contractor, officer or director of Sesen Bio or any of its subsidiaries; or increase or otherwise modify the severance, retention or change of control benefits offered to any current or former employee, independent contractor, officer or director of Sesen Bio or any of its subsidiaries;

- enter into any contract with a labor union, labor organization, or similar person except as otherwise required by applicable law;

- (A) hire or engage, or offer to hire, any director, officer, employee or consultant, or (B) enter into, amend or extend the term of any employment or consulting agreement with any current or former employee, independent contractor, officer or director of Sesen Bio or any of its subsidiaries;

- enter into any material transaction;

- acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its material assets or properties, or grant any encumbrance with respect to such assets or properties;

- make, change or revoke any material tax election, file any material amended tax return, settle or compromise any income or other material tax liability, enter into any tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the ordinary course of business the principal subject matter of which is not taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material taxes (other than pursuant to an extension of time to file any tax return granted in the ordinary course of business of not more than six months), or change any material accounting method in respect of taxes;

- (A) sell, assign, transfer, allow to lapse or expire, pledge, abandon, discontinue, fail to maintain or otherwise dispose of any right, title or interest of Sesen Bio or any of its subsidiaries in any material Sesen Bio intellectual property, or (B) license, sublicense or otherwise encumber (other than pursuant to a non-exclusive license granted to contract research organizations, including clinical trial sites and clinical trial services provides, or contract manufacturing organizations, in each case, (x) with whom Sesen Bio or any of its subsidiaries has previously entered into contracts prior to the effective time and (y) who are engaged to provide services directly related to clinical studies and manufacturing of any product candidate of Sesen Bio, *provided* that the scope of any such non-exclusive license grant is limited to only the extent necessary for such persons to perform their obligations under the respective contracts) any right, title or interest of Sesen Bio or any of its subsidiaries in any material Sesen Bio intellectual property;

- enter into, amend or terminate certain material contracts (or any contract that would have been a material contract if in effect on or prior to the date of the Merger Agreement);

- (A) materially change pricing or royalties or other payments set or charged by Sesen Bio or any of its subsidiaries to its customers or licensees or (B) agree to materially change pricing or royalties or other payments set or charged by persons who have licensed intellectual property rights to Sesen Bio or any of its subsidiaries;

- make any expenditures, incur any liabilities or discharge or satisfy any liabilities, in each case, other than those expenditures or liabilities that will not survive the closing of the merger, are discharged or satisfied prior to the closing of the merger, and/or are taken into account in the calculation of net cash;

- waive, settle or compromise any pending or threatened legal proceeding against Sesen Bio or any of its subsidiaries, other than waivers, settlements or agreements (A) for an amount not in excess of $75,000 individually or in the aggregate (excluding amounts to be paid under existing insurance policies or renewals thereof) and (B) that do not (1) impose any restriction on the operations or business of Sesen Bio or its subsidiaries (nor on Carisma or any of its subsidiaries, from and after the closing of the merger), (2) involve any equitable relief and (3) do not involve admission of any wrongdoing by Sesen Bio or any of its subsidiaries; or

- agree, resolve, or commit to do any of the foregoing.

Notwithstanding the generality of the foregoing, nothing set forth above shall restrict (i) Sesen Bio or any of its subsidiaries from taking or not taking any action, including the establishment of any policy, procedure or protocol, in response to COVID-19 or any COVID-19 measures or otherwise take any COVID-19 response and (ii) Sesen Bio's right to effectuate one or more asset dispositions or the pre-closing dividend, each on the on the terms and subject to the applicable limitations set forth in the Merger Agreement.

Carisma has agreed that, except as expressly permitted by the Merger Agreement, as required by applicable law, in connection with any COVID-19 measures or COVID-19 response, or unless Sesen Bio shall have otherwise consented in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the pre-closing period, each of Carisma and its subsidiaries will (i) use commercially reasonable efforts to conduct its respective business and operations in the ordinary course of business and (ii) conduct its business and operations in compliance in all material respects with all applicable laws and the requirements of certain material contracts.

Carisma has also agreed that, except (i) as expressly permitted in the Merger Agreement, as required by applicable law, in connection with any COVID-19 measures or COVID-19 response, or with the prior written consent of Sesen Bio (which consent shall

not be unreasonably withheld, delayed or conditioned), at all times during the pre-closing period, it will not, nor will it cause or permit any of its subsidiaries to, do any of the following:

- declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of capital stock or other securities (except in connection with the payment of the exercise price and/or withholding taxes incurred upon the exercise of any Carisma option in accordance with the terms of such award in effect on the date of the Merger Agreement);

- except as contemplated by the Carisma pre-closing financing or the conversion of the Carisma convertible note, sell, issue, grant, pledge, or otherwise dispose of or encumber or authorize the issuance of: any capital stock or other security of Carisma or any of its subsidiaries (except for shares of outstanding Carisma common stock issued upon the valid exercise or settlement of Carisma options in accordance with their terms as in effect as of the date of the Merger Agreement); any option, warrant or right to acquire any capital stock or any other security, other than options grants to employees and service providers in the ordinary course of business; or any other instrument convertible into or exchangeable for any capital stock or any other security of Carisma or its subsidiaries;

- amend the organizational documents of Carisma or its subsidiaries, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split, or similar transaction except, for the avoidance of doubt, the transactions contemplated under the Merger Agreement;

- form any subsidiary or acquire any equity interest, or other interest in any other entity or enter into a joint venture with any other entity;

- (A) lend money to any person (except for the advancement of reasonable expenses to employees, directors and consultants in the ordinary course of business), (B) incur or guarantee any indebtedness for borrowed money, other than in the ordinary course of business, (C) guarantee any debt securities of others or (D) except as contemplated by Carisma's capital expenditure budget and operating budget made available to Sesen Bio, make any capital expenditure or commitment in excess of $350,000;

- acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its material assets or properties, or grant any encumbrance with respect to such assets or properties, except in the ordinary course of business;

- sell, assign, license, sublicense, transfer, allow to lapse or expire, pledge abandon, discontinue, fail to maintain or otherwise dispose of any right, title or interest of Carisma or any of its subsidiaries in any material Carisma intellectual property rights (other than pursuant to a non-exclusive license in the ordinary course of business);

- make, change or revoke any material tax election, file any material amended tax return, settle or compromise any income or other material tax liability, enter into any tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the ordinary course of business the principal subject matter of which is not taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material taxes (other than pursuant to an extension of time to file any tax return granted in the ordinary course of business of not more than six months), or change any material accounting method in respect of taxes;

- enter into, materially amend or terminate any Carisma material contract (or any contract that would have been a Carisma material contract if in effect on or prior to the date of the Merger Agreement) other than in the ordinary course of business;

- waive, settle or compromise any pending or threatened legal proceeding against Carisma or any of its subsidiaries, other than waivers, settlements or agreements (A) for an amount not in excess of $75,000 individually or in the aggregate (excluding amounts to be paid under existing insurance policies or renewals thereof) and (B) that do not (1) impose any material restriction on the operations or business of Carisma or its subsidiaries (nor, following the closing of the merger, on Sesen Bio or any of its subsidiaries), (2) involve any equitable relief and (3) involve admission of any wrongdoing by Carisma or any of its subsidiaries; or

- agree, resolve or commit to do any of the foregoing.

Notwithstanding the generality of the foregoing, nothing set forth above shall restrict Carisma or any of its subsidiaries from taking or not taking any action, including the establishment of any policy, procedure or protocol, in response to COVID-19 or any COVID-19 measures or otherwise take any COVID-19 response.

Other Agreements

Each of Sesen Bio and Carisma has agreed to use its commercially reasonable efforts to cause to be taken all actions necessary to consummate the merger and the other transactions contemplated by the Merger Agreement. In connection therewith, each party has agreed to:

- file or otherwise submit all applications and notices required to be filed in connection with the merger and the other transactions contemplated by the Merger Agreement;
- use reasonable best efforts to lift any injunction prohibiting, or any other legal bar to, the merger or the other transactions contemplated by the Merger Agreement;
- use commercially reasonable efforts to resolve the matters set forth on a schedule without any material continuing obligation; and
- use commercially reasonable efforts to satisfy the conditions precedent to the consummation of the Merger Agreement.

Pursuant to the Merger Agreement, Sesen Bio and Carisma have further agreed that Sesen Bio will use its commercially reasonable efforts to:

- maintain its existing listing of its common stock on Nasdaq and to obtain approval for listing of the combined company on Nasdaq;
- if required by the rules and regulations of Nasdaq, to prepare and submit to Nasdaq a notification form for the listing of the shares of Sesen Bio common stock to be issued in connection with the transactions contemplated by the Merger Agreement;
- prepare and timely submit to Nasdaq a notification form of the proposed reverse stock split and to submit a copy of the amendment to Sesen Bio's certificate of incorporation to effect the proposed reverse stock split, certified by the Secretary of State of the State of Delaware to Nasdaq on the date of closing;
- if required by Nasdaq Listing Rule 5110, to file an initial listing application for Sesen Bio common stock on Nasdaq and to cause such listing application to be approved; and
- in the event of receipt of a Nasdaq delisting determination, Sesen Bio will request a hearing to appeal the delisting determination and will pay the appropriate fee to Nasdaq to appeal the delisting determination.

Indemnification and Insurance for Directors and Officers

Under the Merger Agreement, from the effective time through the sixth anniversary of the date on which the effective time occurs, each of Sesen Bio and the surviving corporation will, jointly and severally, indemnify and hold harmless each person who is now, or has been at any time prior to the date of the Merger Agreement, or who becomes prior to the effective time, a director, officer, fiduciary or agent of Sesen Bio or Carisma and their respective subsidiaries, respectively, the indemnified parties, against all claims, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements and investigation costs, incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, or any other actual, threatened or completed proceeding arising out of or pertaining to the fact that the indemnified party is or was an

indemnified party, whether asserted or claimed prior to, at or after the effective time, in each case, to the fullest extent permitted under applicable law.

Each indemnified party will also be entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation from each of Sesen Bio and the surviving corporation, jointly and severally, upon receipt by Sesen Bio or the surviving corporation from the indemnified party of a request therefor; *provided*, that any such person to whom expenses are advanced provides an undertaking to Sesen Bio, to the extent then required by the DGCL, to repay such advances if it is ultimately determined that such person is not entitled to indemnification

The Merger Agreement also provides that the provisions of Sesen Bio's organizational documents with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Sesen Bio that are presently set forth in the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws shall not be amended, modified or repealed for a period of six years from the effective time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the effective time, were officers or directors of Sesen Bio, unless such modification is required by applicable law. The certificate of incorporation and bylaws of the surviving corporation shall contain, and Sesen Bio shall cause the certificate of incorporation and bylaws of the surviving corporation to so contain, provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers as those presently set forth in the Carisma Certificate of Incorporation and the Carisma Bylaws.

From and after the effective time, (i) the surviving corporation shall fulfill and honor, and Sesen Bio shall cause the surviving corporation to fulfill and honor, in all respects the obligations of Carisma to its indemnified parties as of immediately prior to the closing of the merger pursuant to any indemnification provisions under Carisma's organizational documents and pursuant to any indemnification agreements between Carisma and such indemnified parties, with respect to claims arising out of matters occurring at or prior to the effective time and (ii) Sesen Bio shall fulfill and honor in all respects the obligations of Sesen Bio to its indemnified parties as of immediately prior to the closing of the merger pursuant to any indemnification provisions under Sesen Bio's organizational documents and pursuant to any indemnification agreements between Sesen Bio and such indemnified parties, with respect to claims arising out of matters occurring at or prior to the effective time.

From and after the effective time, Sesen Bio will maintain director and officers' liability insurance policies, with an effective date as of the date of closing, on commercially available terms and conditions and with coverage limits customary for U.S. public companies similarly situated to Sesen Bio. In addition, prior to the effective time, Sesen Bio will secure and purchase a six-year prepaid "tail policy" through Sesen Bio's recognized broker of record for the non-cancellable extension on Sesen Bio's existing directors' and officers' liability insurance policy with limits of liability no less than $20.0 million, in each case.

Termination

The Merger Agreement may be terminated at any time prior to the effective time (whether before or after the required Carisma stockholder vote and the required Sesen Bio stockholder vote) have been obtained, unless otherwise specified below:

(a) by mutual written consent of Sesen Bio and Carisma;

(b) by either Sesen Bio or Carisma if the transactions contemplated by the Merger Agreement shall not have been consummated by January 31, 2023 (subject to possible extension as provided in the Merger Agreement), or the end date*; provided*, however, that this right to terminate the Merger Agreement will not be available to any party whose action or failure to act has been a principal cause of the failure of the transactions contemplated by the Merger Agreement to occur on or before the end date and such action or failure to act constitutes a breach of the Merger Agreement; *provided*, further, however, that, in the event that a request for additional information has been made by any governmental body, or in the event that the SEC has not declared effective under the Securities Act the registration statement by the date which is 60 days prior to the end date, then either Carisma or Sesen Bio shall be entitled to extend the end date to the date that is 60 days after the date that the SEC has declared effective the registration statement under the Securities Act, but in any event no more than 60 days after the original end date, by written notice to the other party;

(c) by either Sesen Bio or Carisma if a court of competent jurisdiction or other governmental body has issued a final and non-appealable order, decree or ruling or has taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the merger or any of the other transactions contemplated by the Merger Agreement;

(d) by Sesen Bio if Carisma stockholder written consent evidencing the required Carisma stockholder vote has not been obtained within ten business days of the registration statement, of which this proxy statement/prospectus is a part, becoming effective; *provided, however,* that once such vote has been obtained, Sesen Bio may not terminate the Merger Agreement pursuant to this provision;

(e) by either Sesen Bio or Carisma if the Sesen Bio special meeting shall have been held and completed and the Sesen Bio stockholders shall have taken a final vote and shall not have approved Proposal Nos. 1 and 2 at the Sesen Bio special meeting; *provided*, however, that the right to terminate the Merger Agreement pursuant to this provision will not be available to Sesen Bio if Sesen Bio's actions or failure to act has been a principal cause of the failure to obtain the required Sesen Bio stockholder vote and such action or failure to act constitutes a breach by Sesen Bio of the Merger Agreement;

(f) by Carisma, at any time prior to the required Sesen Bio stockholder vote being obtained, if any of the following circumstances shall occur, each of the following, a Sesen Bio triggering event:

- Sesen Bio has failed to include in the proxy statement/prospectus the Sesen Bio board of directors recommendation or has made a Sesen Bio adverse recommendation change;
- the Sesen Bio board of directors, or any committee thereof, had publicly approved, endorsed or recommended any acquisition proposal; or
- Sesen Bio has entered into any letter of intent or similar document relating to any acquisition proposal (other than a confidentiality agreement permitted under the Merger Agreement);

(g) by Sesen Bio, at any time prior to the required Carisma stockholder vote being obtained, if any of the following circumstances shall occur, each a Carisma triggering event:

- the Carisma board of directors has made a Carisma board of directors adverse recommendation change;
- the Carisma board of directors, or any committee thereof, has publicly approved, endorsed or recommended any acquisition proposal; or
- Carisma has entered into any letter of intent or similar document relating to any acquisition proposal;

(h) by Carisma, upon a breach of any representation, warranty, covenant or agreement set forth in the Merger Agreement by Parent or Merger Sub or if any representation or warranty of Sesen Bio or Merger Sub has become inaccurate, in either case such that certain closing conditions would not be satisfied as of time of such breach or inaccuracy; *provided* that Carisma is not then in material breach of any representation, warranty covenant or agreement under the Merger Agreement; *provided*, *further*, that if such breach or inaccuracy is curable by the end date by Parent or Merger Sub, then the Merger Agreement will not terminate pursuant to this provision as a result of such particular breach or inaccuracy until the expiration of a 30-day period commencing upon delivery of written notice from Carisma to Sesen Bio or Merger Sub of such breach or inaccuracy and Carisma's intention to terminate pursuant to this provision (it being understood that the Merger Agreement will not terminate pursuant to this provision as a result of such particular breach or inaccuracy if such breach by Sesen Bio or Merger Sub is cured prior to such termination becoming effective); or

(i) by Sesen Bio, upon a breach of any representation, warranty, covenant or agreement set forth in the Merger Agreement by Carisma or if any representation or warranty of Carisma has become inaccurate, in either case such that certain closing conditions would not be satisfied as of time of such breach or inaccuracy; *provided* that Sesen Bio is not then in material breach of any representation, warranty covenant or agreement under the Merger Agreement; *provided, further*, that if such

breach or inaccuracy is curable by the end date by Carisma, then the Merger Agreement will not terminate pursuant to this provision as a result of a particular breach or inaccuracy until the expiration of a 30-day period commencing upon delivery of written notice from Sesen Bio to Carisma of such breach or inaccuracy and Sesen Bio's intention to terminate pursuant to this provision (it being understood that the Merger Agreement will not terminate pursuant to this provision as a result of such particular breach or inaccuracy if such breach by Carisma is cured prior to such termination becoming effective).

Termination Fee

Fee payable by Sesen Bio

Sesen Bio must pay Carisma a termination fee of $7.6 million if:

(i) the Merger agreement is terminated by Sesen Bio or Carisma pursuant to clause (b) above (and the required Sesen Bio stockholder vote has not been obtained by Sesen Bio) or clause (e) above;

(ii) at any time after the date of the Merger Agreement and prior to the Sesen Bio special meeting, an acquisition proposal with respect to Sesen Bio shall have been publicly announced or disclosed or otherwise communicated to Sesen Bio or the Sesen Bio board of directors (and shall not have been withdrawn); and

(iii) within 12 months after the date of such termination, Sesen Bio consummates any subsequent transaction that is an acquisition transaction; or

(iv) the Merger Agreement is terminated by Carisma pursuant to clause (f) above.

If the Merger Agreement is terminated pursuant to clause (iv) above by Carisma, then Sesen Bio will pay the termination fee to Carisma within two business days of such termination. If the Merger Agreement is terminated by either Carisma or Sesen Bio pursuant to clause (e) above or by Carisma pursuant to clauses (f) or (h) above, then Sesen Bio shall reimburse Carisma for all reasonable out of pocket fees and expenses incurred by Carisma in connection with the Merger Agreement and the transactions contemplated thereby, up to a maximum of $1.75 million.

Fee payable by Carisma

Carisma must pay Sesen Bio a termination fee of $5.49 million if:

(i) the Merger agreement is terminated by Sesen Bio pursuant to clause (b) above (and the required Carisma stockholder vote has not been obtained by Carisma) or clause (d) above;

(ii) at any time after the date of the Merger Agreement and before obtaining the required Carisma stockholder vote, an acquisition proposal with respect to Carisma shall have been publicly announced or disclosed or otherwise communicated to Carisma or the Carisma board of directors (and shall not have been withdrawn); and

(iii) within 12 months after the date of such Merger Agreement termination, Carisma consummates any subsequent transaction that is an acquisition transaction; or

(iv) the Merger Agreement is terminated by Sesen Bio pursuant to clause (g) above.

If the Merger Agreement is terminated pursuant to clause (iv) above by Sesen Bio, then Carisma will pay the termination fee to Sesen Bio within two business days of such termination. If the Merger Agreement is terminated by Sesen Bio pursuant to clauses (d), (g), or (i) above, then Carisma shall reimburse Sesen Bio for all reasonable out of pocket fees and expenses incurred by Sesen Bio in connection with the Merger Agreement and the transactions contemplated thereby, up to a maximum of $1.75 million.

Amendment

The Merger Agreement may be amended by the parties at any time if such amendment is in writing, is approved by the boards of directors of each party to the Merger Agreement and is signed by each party to the Merger Agreement; provided, however, that after

any approval of the Merger Agreement by a party's stockholders, no amendment will be made which by law requires further approval by such stockholders without the further approval of such stockholders.

Fees and Expenses

The Merger Agreement provides all fees and expenses incurred in connection with the Merger Agreement and the transactions contemplated thereby shall be paid by the party incurring such expenses, except as described above in the section entitled " — *Termination Fee*" beginning on page 179 of this proxy statement/prospectus, and except that Sesen Bio and Carisma will share equally in any fees and expenses, other than attorneys' and accountants' fees and expenses, incurred in relation to the filings by the parties to the Merger Agreement under any filing requirement under antitrust or merger control laws applicable to the Merger Agreement and the transactions contemplated therein. Sesen Bio and Carisma shall also share equally all fees and expenses incurred in relation to (i) the printing and filing with the SEC of the registration statement on Form S-4, of which this proxy statement/prospectus is a part, and any amendments or supplements thereto and paid to a financial printer or the SEC and (ii) those filings with Nasdaq contemplated by the Merger Agreement.

AGREEMENTS RELATED TO THE MERGER

CVR Agreement

Prior to the effective time, Sesen Bio will enter into the CVR Agreement with a rights agent.

Pursuant to the Merger Agreement and the CVR Agreement, for each share of Sesen Bio common stock held after giving effect to the proposed reverse stock split if approved and implemented, Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time will receive one CVR. Each CVR will entitle such Sesen Bio stockholder to receive a pro rata portion of the $30.0 million milestone payment to be made by Roche to Sesen Bio upon Roche's initiation of a Phase 3 clinical trial with legacy IL-6 antagonist antibody technology previously owned by Sesen Bio for a certain indication if initiated prior to December 31, 2026, pursuant to the Roche Asset Purchase Agreement, less certain permitted deductions.

The CVR Agreement also provides that neither Sesen Bio, nor its affiliates, may, without the prior written consent of holders of at least 33% of the then-outstanding CVRs: (i) amend, restate, supplement, terminate or otherwise modify the Roche Asset Purchase Agreement in a manner materially adversely affecting the holders' rights under the CVR Agreement; (ii) in the event that Roche fails to make the milestone payment at the time rightfully due and payable, take action with respect to, or unreasonably waive or fail to enforce, the right to receive the applicable payments which are rightfully due and payable under the Roche Asset Purchase Agreement, in a manner materially adversely affecting the holders' rights under the CVR Agreement; or (iii) agree to any of the foregoing.

The sole right of the holders of the CVRs is to receive cash from Sesen Bio, if any, through the rights agent in accordance with the CVR Agreement. The CVRs are not transferable, except in certain limited circumstances, will not be certificated or evidenced by any instrument and will not be registered with the SEC or listed for trading on any exchange. The CVRs will not have any voting or dividend rights, will not represent any equity or ownership interest in Sesen Bio or its subsidiaries, and interest will not accrue on any amounts payable on the CVRs. The CVR Agreement will be effective prior to the closing of the merger and will continue in effect until the earlier of March 31, 2027 and the payment of all amounts payable thereunder, unless and until earlier terminated upon termination of the Merger Agreement.

The foregoing description of the CVR Agreement does not purport to be complete and is qualified in its entirety by the full text of the form of CVR Agreement, which is included in *Annex F* to this proxy statement/prospectus.

Material U.S. Federal Income Tax Consequences of the Receipt of CVRs

The following discussion is a summary of the material U.S. federal income tax consequences of the receipt of CVRs to Sesen Bio stockholders who receive CVRs with respect to Sesen Bio common stock, but this discussion does not purport to be a complete analysis of all potential tax consequences that may be relevant to a Sesen Bio stockholder. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Sesen Bio U.S. holder. Sesen Bio has not sought and does not intend to seek any opinions of counsel or rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a position contrary to that discussed below regarding the tax consequences of the receipt of CVRs.

This discussion is limited to Sesen Bio U.S. holders that hold Sesen Bio common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Sesen Bio U.S. holder's particular circumstances, including the impact of the alternative minimum tax or the Medicare contribution tax on net investment income or the rules related to "qualified small business stock" within the meaning of Section 1202 of the Code. In addition, it does not address consequences relevant to Sesen Bio U.S. holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the U.S.;
- Sesen Bio U.S. holders whose functional currency is not the U.S. dollar;

- persons holding Sesen Bio common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to Sesen Bio common stock being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell Sesen Bio common stock under the constructive sale provisions of the Code;
- persons who hold or received Sesen Bio common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds Sesen Bio common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Sesen Bio common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

IT IS RECOMMENDED THAT HOLDERS CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE RECEIPT OF CVRs ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

For purposes of this discussion, a "Sesen Bio U.S. holder" is a beneficial owner of Sesen Bio common stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the U.S.;
- a corporation created or organized under the laws of the U.S., any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (i) is subject to the primary supervision of a U.S. court and the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) over all of its substantial decisions or (ii) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

For purposes of this discussion, a "Sesen Bio non-U.S. holder" means a beneficial owner of Sesen Bio common stock that is neither a Sesen Bio U.S. holder nor a partnership (or other entity treated as a partnership) for U.S. federal income tax purposes.

Alternative Treatment of the Receipt of CVRs and the Proposed Reverse Stock Split as a Single Recapitalization

Sesen Bio intends to report the proposed reverse stock split as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code that is separate from Sesen Bio's distribution of the CVRs and the special cash dividend. Notwithstanding that Sesen Bio will report the receipt of CVRs, the receipt of the special cash dividend, and the proposed reverse stock split as separate transactions, it is possible that the IRS or a court could determine that the receipt of the CVRs or the special cash dividend, and the proposed reverse stock split constitute a single "recapitalization" for U.S. federal income tax purposes. In such case, the tax consequences of the receipt of CVRs and the proposed reverse stock split would differ from those described below and would depend in part on many of the same considerations described below, including whether the CVRs should be treated as property, equity or debt instruments or should be subject to the "open transaction" doctrine. In general, if the CVRs are treated as property and are not subject to the "open transaction" doctrine, and the receipt of the CVRs, the special cash dividend, and the proposed reverse stock split constitute a single "recapitalization" for U.S. federal income tax purposes, then a Sesen Bio stockholder should recognize gain (but not loss) equal to the lesser of (i) the fair market value of the CVRs received plus the amount of the special cash dividend, and (ii) the excess (if any) of (A) the sum of (1) the fair market value of the CVRs received plus the amount of the special cash dividend and (2) the fair market value of the Sesen Bio shares received in the proposed reverse stock split over (B) the Sesen Bio stockholder's adjusted tax basis in the Sesen Bio common stock surrendered in the proposed reverse stock split.

Receipt of CVRs by Sesen Bio U.S. holders

This discussion assumes that the distribution of CVRs and the special cash dividend to Sesen Bio U.S. holders will be treated for U.S. federal income tax purposes as transactions that are separate and distinct from the proposed reverse stock split. If, contrary to that assumption, the distribution of CVRs to Sesen Bio U.S. holders were integrated for tax purposes with the proposed reverse stock split, this could affect the calculation of the extent to which the distribution constitutes a taxable dividend or capital gain.

There is substantial uncertainty as to the tax treatment of the CVRs. Specifically, there is no authority directly addressing whether contingent value rights with characteristics similar to the CVRs should be treated as a distribution of property with respect to Sesen Bio common stock, a distribution of equity, a "debt instrument" or an "open transaction" for U.S. federal income tax purposes. As a result, it is not possible to express a definitive conclusion as to the U.S. federal income tax treatment of receipt of the CVRs or receipt of any payment pursuant to the CVRs. Based on the specific characteristics of the CVRs, Sesen Bio intends to treat the issuance of the CVRs as a distribution of property with respect to its stock. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any description of the intended tax consequences summarized below. No opinion of counsel or ruling has been or will be sought from the IRS regarding the tax treatment of the CVRs.

Provided that the issuance of the CVRs is treated as a distribution of property with respect to Sesen Bio common stock, each Sesen Bio U.S. holder should be treated as receiving a distribution in an amount equal to the fair market value of the CVRs issued to such Sesen Bio U.S. holder on the date of the issuance. This distribution should be treated first as a taxable dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes and after taking into account the special cash dividend as described in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Special Cash Dividend*" beginning on page 153 of this proxy statement/prospectus), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining value. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of this distribution to be treated as other than a dividend for U.S. federal income tax purposes. Sesen Bio U.S. holders will receive a Form 1099-DIV notifying them of the portion of the CVR value that is treated as a non-dividend distribution (or a dividend to the extent of Sesen Bio's earnings and profits) for U.S. federal income tax purposes. Although Sesen Bio will estimate the value of the CVRs for purposes of reporting on Form 1099 to Sesen Bio U.S. holders, the value of the CVRs is uncertain and the IRS or a court could determine that the value of the CVRs at the time of issuance was higher. In such case the Sesen Bio U.S. holders could be treated as having additional income or gain upon receipt of the CVRs as described above. A Sesen Bio U.S. holder's initial tax basis in such holder's CVRs should equal the fair market value of such CVRs on the date of their issuance. The holding period of such CVRs should begin on the day after the date of issuance. Future payments received by a Sesen Bio U.S. holder with respect to a CVR would likely be treated as a non-taxable return of such Sesen Bio U.S. holder's adjusted tax basis in the CVR to the extent thereof, and payment in excess of such amount would likely be treated as ordinary income.

However, the treatment of the future payment, if any, pursuant to the CVRs is uncertain and alternative treatments are possible, although not expected. One such possible treatment is that the CVRs could be treated as one or more "debt instruments." If that were to be the case, then the payment, if any, received with respect to the CVRs would likely be treated as a payment in retirement of a "debt instrument," except to the extent interest is imputed under complex rules under the Code. In such a case, a Sesen Bio U.S. holder would be required to include any such interest in income on an annual basis, whether or not currently paid. As discussed above, Sesen Bio does not intend to report the issuance of the CVRs as a distribution of a "debt instrument" for U.S. federal income tax purposes.

It is also possible that the issuance of the CVRs could be treated as a distribution of equity for U.S. federal income tax purposes, in which case Sesen Bio U.S. holders should not recognize gain or loss as a result of the issuance of the CVRs. Each Sesen Bio U.S. holder's tax basis in such holder's Sesen Bio common stock would be allocated between such holder's Sesen Bio common stock and such holder's CVRs. The holding period of such CVRs should include the Sesen Bio U.S. holder's holding period of such holder's Sesen Bio common stock. The future payment, if any, on a CVR received by a Sesen Bio U.S. holder could be treated as a dividend to the extent of the Sesen Bio U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits at the time of such payment (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the Sesen Bio U.S. holder's basis in the CVR, and finally as capital gain from the sale or exchange of the CVR with respect to any remaining amount. As discussed above, Sesen Bio does not intend to report the issuance of the CVRs as a distribution of equity for U.S. federal income tax purposes.

It is also possible that the issuance of the CVRs could be treated as subject to the "open transaction" doctrine if the value of the CVRs at closing cannot be "reasonably ascertained." If the receipt of CVRs were treated as an "open transaction" for U.S. federal income tax purposes, each Sesen Bio U.S. holder should not immediately take the CVRs into account in determining whether such holder must recognize income or gain, if any, on the receipt of the CVRs and such holder would not take any tax basis in the CVRs. Rather, the Sesen Bio U.S. holder's U.S. federal income tax consequences would be determined in line with the discussion above based on whether the CVRs are treated as a distribution of property or of equity at the time the payment, if any, with respect to the CVRs is received or deemed received in accordance with the Sesen Bio U.S. holder's regular method of accounting. As discussed above, Sesen Bio does not intend to report the issuance of the CVRs as an open transaction for U.S. federal income tax purposes.

The CVRs should generally be treated as capital assets for U.S. federal income tax purposes once issued.

Receipt of CVRs by Sesen Bio Non-U.S. Holders

Provided that the issuance of the CVRs is treated as a distribution of property with respect to Sesen Bio common stock, each Sesen Bio non-U.S. holder should be treated as receiving a distribution in an amount equal to the fair market value of the CVRs issued to such Sesen Bio non-U.S. holder on the date of the issuance. This distribution should be treated first as a taxable dividend to the extent of the Sesen Bio non-U.S. holder's pro rata share of Sesen Bio's current or accumulated earnings and profits (as determined for U.S. federal income tax purposes and after taking into account the special cash dividend as described in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences of the Special Cash Dividend*" beginning on page 153 of this proxy statement/prospectus), then as a non-taxable return of capital to the extent of the Sesen Bio non-U.S. holder's basis in its Sesen Bio common stock, and finally as capital gain from the sale or exchange of Sesen Bio common stock with respect to any remaining amount. Sesen Bio currently has negative accumulated earnings and profits and expects no or a small amount of current earnings and profits for the relevant taxable year. Thus, Sesen Bio expects most or all of the distribution of the CVRs to be treated as other than a dividend for U.S. federal income tax purposes. However, if Sesen Bio cannot determine at the time of the distribution of the CVRs whether or not the amount of such distribution will exceed current and accumulated earnings and profits, Sesen Bio or the applicable withholding agent may withhold (potentially by utilizing cash that otherwise would be distributed to such holder with respect to the special cash dividend or other property of such Sesen Bio non-U.S. holder held in an account with the applicable withholding agent) at the rate applicable to dividends, as described below.

Taxable Dividends. Dividend payments will generally be subject to withholding at a 30% rate. If a Sesen Bio non-U.S. holder is eligible for a lower treaty rate, withholding will be at such lower treaty rate only if such Sesen Bio non-U.S. holder provides a valid IRS Form W-8BEN or W-8BEN-E (or applicable successor form) certifying such Sesen Bio non-U.S. holder's qualification for the reduced rate. If a Sesen Bio non-U.S. holder holds the stock through a financial institution or other intermediary, the Sesen Bio non-U.S. holder will be required to provide appropriate documentation to the intermediary, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. Sesen Bio non-U.S. holders who do

not timely provide the applicable withholding agent with the required certification, but who qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Subject to the discussions below regarding backup withholding, if the issuance of the CVRs is effectively connected with a Sesen Bio non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Sesen Bio non-U.S. holder maintains a permanent establishment in the United States to which the special cash dividend is attributable), the Sesen Bio non-U.S. holder will be exempt from U.S. federal withholding tax and the distribution of the CVRs generally will be subject to U.S. federal income tax on a net income basis in the same manner as if such Sesen Bio non-U.S. holder were a U.S. holder. To claim the exemption, the Sesen Bio non-U.S. holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI (or applicable successor form), certifying that the distribution is effectively connected with the Sesen Bio non-U.S. holder's conduct of a trade or business within the United States. A Sesen Bio non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) of all or a portion of its effectively connected earnings and profits for the taxable year.

Any withholding required by Sesen Bio or other applicable withholding agents may be satisfied by Sesen Bio or such agent by withholding a portion of the issued CVRs, from the special cash dividend or from other property of the Sesen Bio non-U.S. holder held in an account with the applicable withholding agent.

Non-Dividend Distributions. To the extent that the issuance of the CVRs is treated as capital gain from the sale or exchange of Sesen Bio common stock, such gain generally will not be subject to U.S. federal income tax unless (i) such gain is effectively connected with the conduct by a Sesen Bio non-U.S. holder of a trade or business in the United States (and, if an income tax treaty applies, the gain is generally attributable to a U.S. permanent establishment maintained by such Sesen Bio non-U.S. holder), (ii) in the case of gain realized by a Sesen Bio non-U.S. holder that is an individual, such Sesen Bio non-U.S. holder is present in the United States for 183 days or more in the taxable year of the sale and certain other conditions are met or (iii) Sesen Bio is or has been a USRPHC for U.S. federal income tax purposes and, if the shares are "regularly traded on an established securities market," such Sesen Bio non-U.S. holder owned, directly or indirectly, at any time during the five-year period ending on the date of the distribution, more than 5% of the shares of Sesen Bio common stock and such Sesen Bio non-U.S. holder is not eligible for any treaty exemption. The shares will be considered "regularly traded" if they are traded on an established securities market located in the United States and are regularly quoted by brokers or dealers making a market in the shares. Sesen Bio believes it is not, and has not been, a USRPHC for U.S. federal income tax purposes. In addition, although not free from doubt, Sesen Bio believes that Sesen Bio common shares currently should be considered to be regularly traded.

A Sesen Bio non-U.S. holder should consult its tax advisor regarding its entitlement to benefits and the various rules under applicable tax treaties.

Information Reporting and Backup Withholding

In general, the issuance of the CVRs to Sesen Bio U.S. holders will be reported to the IRS unless the holder is an exempt recipient. Backup withholding, currently at a rate of 24%, may apply unless the Sesen Bio U.S. holder (1) is an exempt recipient or (2) provides a certificate (generally on an IRS Form W-9) containing the Sesen Bio U.S. holder's name, address, correct federal taxpayer identification number and statement that the Sesen Bio U.S. holder is a U.S. person and is not subject to backup withholding.

A Sesen Bio non-U.S. holder will not be subject to backup withholding with respect to the issuance of the CVRs, provided the Sesen Bio non-U.S. holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN or W-8ECI or W-8BEN-E, or otherwise establishes an exemption. However, information returns will be filed with the IRS in connection with the issuance of the CVRs, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the Sesen Bio non-U.S. holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or credit against a holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

PLEASE CONSULT YOUR TAX ADVISOR WITH RESPECT TO THE PROPER CHARACTERIZATION OF THE RECEIPT OF THE CVRs.

Support Agreements and Written Consents

In order to induce Sesen Bio to enter into the Merger Agreement, certain stockholders of Carisma are parties to a support agreement with Sesen Bio and Carisma pursuant to which, among other things, each such stockholder has agreed, solely in his, her or its capacity as a stockholder of Carisma, to vote all of his, her or its shares of Carisma capital stock (subject to customary cutbacks in the event of certain triggering events) in favor of (i) adoption and approval of the Merger Agreement and the transactions contemplated thereby; (ii) adoption and approval of an amendment to the Carisma Certificate of Incorporation to increase the authorized shares of Carisma common stock; (iii) acknowledgement that the approval given thereby is irrevocable and that the stockholder is aware of the stockholder's rights to demand appraisal for its shares pursuant to Section 262 of the DGCL; and (iv) acknowledgement that by the stockholder's approval of the merger, the stockholder is (a) waiving its appraisal rights under the DGCL with respect to its shares; and (b) waiving any notice that may have been or may be required relating to the merger or any other transactions contemplated thereby. Additionally, each such signatory has agreed, solely in his, her or its capacity as a Carisma stockholder, to vote against (subject to customary cutbacks in the event of certain triggering events) any such competing acquisition proposal and any action in furtherance of any competing acquisition proposal. These signatories have also granted an irrevocable proxy to Carisma and its designee to vote their respective shares of Carisma common stock in accordance with the support agreements.

In addition, in order to induce Carisma to enter into the Merger Agreement, certain stockholders of Sesen Bio are parties to a support agreement with Sesen Bio and Carisma pursuant to which, among other things, each such stockholder has agreed, solely in his or her capacity as a stockholder of Sesen Bio (if applicable), to vote all of his or her shares of Sesen Bio common stock in favor of (i) adoption and approval of the Merger Agreement and the transactions contemplated thereby; (ii) the issuance of shares of Sesen Bio common stock to Carisma stockholders in connection with the Merger Agreement and the transactions contemplated thereby; (iii) the change of control of Sesen Bio resulting from the Merger pursuant to Nasdaq rules; (iv) the approval of the equity plan amendment proposals; and (v) a waiver of any notice that may have been or may be required relating to the Merger or any other transactions contemplated thereby. Additionally, each such signatory has agreed, solely in his, her or its capacity as a Sesen Bio stockholder, to vote against any competing acquisition proposal and any action in furtherance of any such competing acquisition proposal. These signatories have also granted an irrevocable proxy to Sesen Bio and its designee to vote their respective shares of Sesen Bio common stock in accordance with the support agreements.

As of September 20, 2022, the Carisma stockholders who are party to a support agreement (including any affiliated entities) owned an aggregate of 97.83% of the outstanding shares of Carisma common stock. Following the effectiveness of the registration statement of which this proxy statement/prospectus is a part and pursuant to the Merger Agreement, these stockholders will execute a written consent providing for such adoption and approval.

Under these support agreements, subject to certain exceptions, such stockholders have also agreed not to sell or transfer the shares of Carisma capital stock subject to the support agreement held by them, or any voting rights with respect thereto, until the effective time. To the extent that any such sale or transfer is permitted pursuant to the exceptions included in the support agreement, each person to which any shares of Carisma capital stock subject to the support agreement are so sold or transferred shall be bound by the terms and provisions of the support agreement.

The foregoing descriptions of the support agreements do not purport to be complete and are qualified in their entirety by the full text of the forms of support agreements, which are attached in *Annex C* and *Annex D* to this proxy statement/prospectus.

Subscription Agreement

On September 20, 2022, immediately prior to the execution and delivery of the Merger Agreement, Carisma entered into a subscription agreement with certain investors named therein, pursuant to which the investors have agreed to purchase shares of Carisma common stock at an aggregate purchase price of approximately $30.6 million.

The shares of Carisma common stock issued in the Carisma pre-closing financing will be converted into shares of Sesen Bio common stock in the merger in accordance with the exchange ratio. The consummation of the transactions contemplated by the

subscription agreement is conditioned on the satisfaction or waiver of the conditions set forth in the Merger Agreement. Accordingly, by approving Proposal No. 1 relating to the merger, Sesen Bio stockholders will also be approving the issuance of shares of Sesen Bio common stock to be issued in exchange for all shares of Carisma common stock that are sold in the Carisma pre-closing financing.

The subscription agreement contains customary representations and warranties of Carisma and also contains customary representations and warranties of the purchasers party thereto.

Each purchaser's obligation to purchase shares of Carisma common stock from Carisma pursuant to the subscription agreement is subject to the satisfaction or waiver of certain conditions, including:

- Carisma's representations and warranties in the subscription agreement being true and correct in all material respects as of the closing date for the Carisma pre-closing financing, subject to certain exceptions;
- Carisma having performed and complied in all material respects with all covenants, agreements, obligations and conditions required to be performed or complied with by it on or prior to the closing date;
- Carisma having filed the charter amendment with the Secretary of State of the State of Delaware;
- the delivery of a compliance certificate by the Chief Executive Officer or the Chief Financial Officer of Carisma;
- the satisfaction or waiver of all conditions to the closing of the merger set forth in the Merger Agreement (other than the condition regarding the Carisma pre-closing financing and other than those conditions which, by their nature, are to be satisfied at the closing of the merger) and the closing of merger being set to occur substantially concurrently with the closing of the Carisma pre-closing financing; and
- all authorizations, approvals or permits, if any, required under applicable state securities laws having been obtained.

Carisma's obligation to sell shares of Carisma common stock to each purchaser pursuant to the subscription agreement is subject to the satisfaction or waiver of certain conditions, including:

- the representations and warranties made by such purchaser being true and correct in all material respects as of the closing date of the Carisma pre-closing financing, subject to certain exceptions;
- such purchaser having performed and complied with all covenants, agreements, obligations and conditions required to be performed or complied with by it on or prior to the closing date; and
- the satisfaction or waiver of all conditions to the closing of the merger set forth in the Merger Agreement (other than the condition regarding the Carisma pre-closing financing and other than those conditions which, by their nature, are to be satisfied at the closing of the merger) and the closing of merger being set to occur substantially concurrently with the closing of the Carisma pre-closing financing.

The subscription agreement may not be changed, waived, amended or modified, except by an instrument in writing executed by Carisma and the purchasers then committed to purchase a majority of the shares to be sold in the Carisma pre-closing financing. The subscription agreement will terminate upon the earlier to occur of (i) such date and time that the Merger Agreement is terminated in accordance with its terms, (ii) upon the mutual written agreement of Carisma and the purchasers then committed to purchase a majority of the shares to be sold in the Carisma pre-closing financing (provided that Carisma and a purchaser may terminate the commitment of the applicable purchaser without the consent of any other party), and (iii) if the closing of the merger has not occurred on or before January 31, 2023 (as such date may be extended in the event that a request for additional information is made by any governmental body or in the event that the SEC has not declared the registration statement effective under the Securities Act by the date which is 60 days prior to the end date), other than as a result of a willful breach of a purchaser's obligations under the subscription agreement.

Lock-Up Agreements

As a condition to the closing of the merger, certain stockholders of each of Sesen Bio and Carisma and their affiliates, have entered into lock-up agreements, pursuant to which such parties have agreed not to, except in limited circumstances and among other restrictions, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of or lend, directly or indirectly, any shares of Sesen Bio common stock or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Sesen Bio common stock (including without limitation, Sesen Bio common stock or such other securities which may be deemed to be beneficially owned by the signatory in accordance with the rules and regulations of the SEC and securities of Sesen Bio which may be issued upon exercise of a Sesen Bio option, Sesen Bio RSU or Sesen Bio warrant), during the period commencing at the effective time and continuing until the date that is 180 days after the effective time.

The foregoing description of the lock-up agreements do not purport to be complete and are qualified in their entirety by the full text of the form of lock-up agreement, which is attached in *Annex E* to this proxy statement/prospectus.

Certain directors and executive officers of both Sesen Bio and Carisma are party to a lock-up agreement.

Certain Carisma stockholders party to Carisma support agreements are also party to lock-up agreements. Carisma stockholders who have executed lock-up agreements, as of September 20, 2022, beneficially owned in the aggregate approximately 97.83% of the outstanding shares of Carisma capital stock on an as converted to Carisma common stock basis.

Sesen Bio intends to file an initial listing application with Nasdaq pursuant to the Nasdaq Stock Market LLC "business combination" rules. If such application is accepted, Sesen Bio anticipates that Sesen Bio common stock will be listed on Nasdaq following the closing of the merger under the trading symbol "CARM." In order to meet the requirements for listing on Nasdaq, the post-merger combined company will be required to satisfy Nasdaq's initial listing requirements, including the financial and liquidity requirements for the applicable Nasdaq market tier upon which the post-merger combined company's shares will trade following the merger. Certain Nasdaq market tiers and standards require companies seeking to list to demonstrate a minimum "Market Value of Unrestricted Publicly Held Shares" as of the effective time of the closing of a business combination. Per current Nasdaq Listing Rules, the "Market Value of Unrestricted Publicly Held Shares" may not include the value of any securities subject to resale restrictions, including the types of restrictions set forth in the Sesen Bio and Carisma lock-up agreements.

MATTERS BEING SUBMITTED TO A VOTE OF SESEN BIO STOCKHOLDERS

Proposal No. 1: Approval, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock to Carisma stockholders pursuant to the terms of the Merger Agreement and the change of control of Sesen Bio resulting from the merger

At the Sesen Bio special meeting, Sesen Bio stockholders will be asked to consider and vote upon a proposal to approve, for purposes of Nasdaq Listing Rule 5635(a) and (b), the issuance of shares of Sesen Bio common stock pursuant to the terms of the Merger Agreement and the change of control of Sesen Bio resulting from the merger.

Immediately after the merger, pre-merger Sesen Bio stockholders are expected to own approximately 41.7% of the outstanding shares of capital stock of the combined company and pre-merger Carisma stockholders, excluding shares of Carisma common stock purchased in connection with the Carisma pre-closing financing and the conversion of the Carisma convertible note, are expected to own approximately 58.3% of the outstanding shares of capital stock of the combined company, subject to certain assumptions, including, Sesen Bio's net cash as of closing being at least $125.0 million.

The terms of, reasons for and other aspects of the Merger Agreement, the merger and the issuance of Sesen Bio common stock in the merger are described in detail in the other sections in this proxy statement/prospectus. A copy of the Merger Agreement is attached as *Annex A* to this proxy statement/prospectus.

Nasdaq Listing Rule 5635(a) requires a company listed on Nasdaq to obtain stockholder approval prior to the issuance of common stock (or other securities convertible into or exercisable for common stock) in connection with the acquisition of the stock or assets of another company, if such securities are not issued in a public offering and (i) the common stock has, or will have upon issuance, voting power equal to or in excess of 20% of the voting power outstanding before the issuance of such securities, or (ii) the number of shares of common stock to be issued is or will be equal to or in excess of 20% of the number of shares of common stock outstanding before the issuance of such securities. The potential issuance of the shares of Sesen Bio common stock in the merger will exceed the 20% threshold under the Nasdaq Listing Rules. Accordingly, in order to ensure compliance with Nasdaq Listing Rule 5635(a), Sesen Bio must obtain the approval of Sesen Bio stockholders for the issuance of these shares of Sesen Bio common stock in the merger.

Nasdaq Listing Rule 5635(b) requires a company listed on Nasdaq to obtain stockholder approval prior to an issuance of securities that will result in a "change of control" of the company. Although Nasdaq has not adopted any rule as to what constitutes a "change of control" for purposes of Rule 5635(b), Nasdaq has previously indicated that the acquisition of, or right to acquire, by a single investor or affiliated investor group, as little as 20% of the common stock (or securities convertible into or exercisable for common stock) or voting power of an issuer could constitute a change of control. In addition, the staff of Nasdaq has advised Sesen Bio that Nasdaq deems the merger to be a "change of control." Accordingly, in order to ensure compliance with Nasdaq Listing Rule 5635(b), Sesen Bio must obtain the approval of Sesen Bio stockholders for the potential change in control of Sesen Bio resulting from the merger.

The terms of, reasons for and other aspects of the Merger Agreement, the merger, the issuance of shares of Sesen Bio common stock pursuant to the terms of the Merger Agreement and the resulting change of control are described in detail in the other sections in this proxy statement/prospectus. A copy of the Merger Agreement is attached as *Annex A to* this proxy statement/prospectus.

Vote Required

The affirmative vote of a majority in voting power of the votes cast by the holders of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal No. 1. Abstentions will have no effect on Proposal No. 1.

Recommendation of Sesen Bio Board of Directors

THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 1 TO APPROVE, FOR PURPOSES OF NASDAQ LISTING RULE 5635(a) and (b), THE ISSUANCE OF SHARES OF SESEN BIO COMMON STOCK PURSUANT TO THE TERMS OF THE MERGER AGREEMENT AND THE CHANGE OF CONTROL OF SESEN BIO RESULTING FROM THE MERGER. PROPOSAL NO. 1 IS CONDITIONED UPON THE APPROVAL OF PROPOSAL NO. 2, AND THE MERGER CANNOT BE CONSUMMATED WITHOUT THE APPROVAL OF PROPOSAL NOS. 1 AND 2.

Proposal No. 2: Approval of an amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split and reduce the number of authorized shares of Sesen Bio common stock

General

At the Sesen Bio special meeting, Sesen Bio stockholders will be asked to consider and vote upon a proposal to approve an amendment to the Sesen Bio Certificate of Incorporation to effect the proposed reverse stock split and reduce the authorized shares of Sesen Bio common stock. Upon the effectiveness of the amendment to the Sesen Bio Certificate of Incorporation effecting the reverse stock split, or the split effective time, the issued and outstanding shares of Sesen Bio common stock immediately prior to the split effective time will be reclassified into a smaller number of shares of Sesen Bio common stock, at a ratio within the range of 1-for- to 1-for- , with such exact ratio and the implementation and timing of the reverse stock split to be determined in the discretion of the Sesen Bio board of directors and as agreed to by Carisma at or prior to the closing or in the sole discretion of the Sesen Bio board of directors if Proposal No. 1 is not approved, and (b) reducing the authorized shares of Sesen Bio common stock. Approval of the proposal would permit the Sesen Bio board of directors to effect the reverse stock split by a ratio of not less than 1-for- and not more than 1-for- , with the exact ratio to be approved by the Sesen Bio board of directors. Under the terms of the Merger Agreement, the ratio approved by the Sesen Bio board of directors in connection with the merger must be mutually agreed upon by Sesen Bio and Carisma. If the merger is not consummated, then the exact ratio to be approved by the Sesen Bio board of directors would be in the Sesen Bio board of directors' sole discretion so long as such ratio is not less than 1-for- and not more than 1-for- . If and when the reverse stock split is effected, the amendment to the Sesen Bio Certificate of Incorporation will also implement a reduction in the number of authorized shares of Sesen Bio common stock.

The Sesen Bio board of directors may determine to effect the reverse stock split, if it is approved by the Sesen Bio stockholders, even if Proposal No. 1 is not approved and the merger is not consummated. If the Sesen Bio stockholders approve Proposal No. 2, and the Sesen Bio board of directors decides to implement it, the reverse stock split will become effective on the date of the filing of the amendment to the Sesen Bio Certificate of Incorporation with the Secretary of State of the State of Delaware. Each of the alternatives set forth in *Annex G* to this proxy statement/prospectus has been approved by the Sesen Bio board of directors. By approving the reverse stock split, Sesen Bio stockholders also will be approving each of the alternatives set forth in *Annex G* to this proxy statement/prospectus. However, only the version of the amendment to the Sesen Bio Certificate of Incorporation that sets forth the amendment providing for the exact ratio determined by the Sesen Bio board of directors will be filed with the Secretary of State of the State of Delaware and become effective, whereupon each of the other versions of the amendment to the Sesen Bio Certificate of Incorporation that were approved by Sesen Bio stockholders as part of Proposal No. 2 will automatically be deemed to have been abandoned by the Sesen Bio board of directors.

Purpose

The Sesen Bio board of directors approved Proposal No. 2 approving the amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split for the following reasons:

- The reverse stock split may be necessary to increase Sesen Bio's stock price to meet Nasdaq's $4.00 minimum bid price requirement upon the closing of the merger;
- the Sesen Bio board of directors believes effecting the reverse stock split may be an effective means of avoiding a delisting of Sesen Bio common stock from Nasdaq in the future;
- the reverse stock split may be required in order to make sufficient shares of Sesen Bio common stock available for issuance to Carisma stockholders pursuant to the Merger Agreement;
- the Sesen Bio board of directors believes a higher stock price may help generate investor interest in Sesen Bio and help Sesen Bio attract and retain employees; and
- If the reverse stock split successfully increases the per share price of Sesen Bio common stock, the Sesen Bio board of directors believes this increase may increase trading volume in Sesen Bio common stock and facilitate future financings by Sesen Bio.

Reasons for the Reverse Stock Split

Requirements for Listing on Nasdaq

Sesen Bio common stock is quoted on the Nasdaq Capital Market under the symbol "SESN," and Sesen Bio is therefore subject to its continued listing requirements, including requirements with respect to the market value of publicly-held shares, market value of listed shares, minimum bid price per share and minimum stockholder's equity, among others, and requirements relating to board and committee independence. If Sesen Bio fails to satisfy one or more of the requirements, Sesen Bio may be delisted from Nasdaq.

Sesen Bio intends to file an initial listing application with Nasdaq to seek listing of the combined company on the Nasdaq Capital Market upon the closing of the merger. According to Nasdaq Listing Rule 5110, an issuer must apply for initial listing in connection with a transaction whereby the issuer combines with a non-Nasdaq entity, resulting in a change of control of the issuer and potentially allowing the non-Nasdaq entity to obtain a Nasdaq listing. Accordingly, the listing standards of Nasdaq will require Sesen Bio to have, among other things, a $4.00 per share minimum bid price upon the closing of the merger. As of October 13, 2022, the closing price of Sesen Bio common stock was $0.5001 per share. If Sesen Bio stockholders do not approve Proposal No. 2, the merger will not be able to occur because continued listing on Nasdaq is a condition to the closing of the merger.

Requirements for Continued Listing on Nasdaq

To the extent the merger is not completed, the primary objective for the reverse stock split will be to raise the per share trading price of Sesen Bio's common stock to regain compliance with the Nasdaq Listing Rules to remain listed on the Nasdaq Capital Market. The reverse stock split will have the immediate effect of increasing the bid price of the Sesen Bio common stock, which should help ensure a share price high enough to regain compliance with the $1.00 per share minimum bid price requirement. However, there can be no assurance that the trading price of Sesen Bio common stock would be maintained at such level or that Sesen Bio will be able to maintain the listing of Sesen Bio common stock on the Nasdaq Capital Market.

As previously disclosed, on January 24, 2022, Sesen Bio received written notice from Nasdaq indicating that Sesen Bio was not in compliance with the $1.00 minimum bid price requirement for continued listing on the Nasdaq Global Market, as set forth in Nasdaq Listing Rule 5450(a)(1). Sesen Bio was given until July 25, 2022, to regain compliance with the minimum bid price requirement. In response, Sesen Bio submitted an application to transfer the listing of the Sesen Bio common stock from the Nasdaq Global Market to the Nasdaq Capital Market. On July 26, 2022, Sesen Bio received approval from Nasdaq to transfer the listing of Sesen Bio common stock from the Nasdaq Global Market to the Nasdaq Capital Market. As a result, Sesen Bio has been granted a second 180-day grace period, or until January 23, 2023, to regain compliance with the minimum bid price requirement.

The Sesen Bio common stock was transferred to the Nasdaq Capital Market effective at the opening of business on July 28, 2022. The Nasdaq Capital Market operates in substantially the same manner as the Nasdaq Global Market, and requires that listed companies meet certain financial and liquidity requirements and comply with Nasdaq's corporate governance requirements. To regain compliance with the minimum bid price requirement and qualify for continued listing on the Nasdaq Capital Market, the minimum bid price per share of the Sesen Bio common stock must be at least $1.00 for at least ten consecutive business days during the second 180-day grace period. If Sesen Bio does not regain compliance during this second grace period, its common stock would be subject to delisting by Nasdaq.

Potential Increased Investor Interest

To the extent the merger is not completed, another principal reason for the reverse stock split would be to generate investor interest in Sesen Bio common stock. On October 13, 2022, Sesen Bio common stock closed at $0.5001 per share. An investment in Sesen Bio common stock may not appeal to brokerage firms that are reluctant to recommend lower priced securities to their clients. Investors may also be dissuaded from purchasing lower priced stocks because the brokerage commissions, as a percentage of the total transaction, tend to be higher for such stocks. Moreover, the analysts at many brokerage firms do not monitor the trading activity or otherwise provide coverage of lower priced stocks. Also, Sesen Bio believes that most investment funds are reluctant to invest in lower priced stocks. Accordingly, the Sesen Bio board of directors believes that a higher stock price may generate investor interest in Sesen Bio common stock.

Criteria to be Used for Determining Whether to Implement the Reverse Stock Split

In determining whether to implement the reverse stock split and which exact ratio to implement, if any, following receipt of Sesen Bio stockholder approval of Proposal No. 2, Sesen Bio and/or Carisma (solely in connection with the merger) may consider, among other things, various factors, such as:

- the historical trading prices and trading volume of Sesen Bio common stock;
- Sesen Bio's capitalization (including the number of shares of Sesen Bio common stock issued and outstanding); and
- the then-prevailing trading price and trading volume of the Sesen Bio common stock and the anticipated or actual impact of the reverse stock split on the trading price and trading volume of Sesen Bio common stock;
- the ability of Sesen Bio to continue its listing on the Nasdaq Capital Market;
- potential devaluation of Sesen Bio common stock as a result of the reverse stock split;
- the anticipated impact of a particular ratio on Sesen Bio's ability to reduce administrative and transactional costs; and
- prevailing general market and economic conditions.

In the event the Sesen Bio board of directors determines to implement the reverse stock split in connection with the merger, the Sesen Bio board of directors will select a ratio that ensures that the total number of issued and outstanding shares of Sesen Bio common stock after the consummation of the transactions contemplated by the Merger Agreement, together with the total number of shares of Sesen Bio common stock then reserved for issuance or obligated to be issued by Sesen Bio pursuant to any agreement or arrangement or otherwise, including the Merger Agreement, will not exceed the total number of shares of Sesen Bio common stock then authorized under the Sesen Bio Certificate of Incorporation, as amended. This limitation may restrict the ratios available to be implemented by the Sesen Bio board of directors, in some cases requiring ratios closer to 1-for- than 1-for- , to reduce the number of outstanding shares of Sesen Bio common stock.

Principal Effects of the Reverse Stock Split

A reverse stock split refers to a reduction in the number of outstanding shares of a class of a corporation's capital stock, which may be accomplished, as in this case, by reclassifying and combining all of the outstanding shares of Sesen Bio common stock into a proportionately smaller number of shares of Sesen Bio common stock. For example, if the Sesen Bio board of directors decides to implement a 1-for- reverse stock split of Sesen Bio common stock, then a Sesen Bio stockholder holding 10,000 shares of Sesen Bio common stock before the reverse stock split would instead hold shares of Sesen Bio common stock immediately after the reverse stock split.

If approved and implemented, the principal effects of the reverse stock split would include the following, all of which have been considered by the Sesen Bio board of directors in approving the reverse stock split:

- The number of outstanding shares of Sesen Bio common stock will be reduced and each Sesen Bio stockholder will own fewer shares of Sesen Bio common stock than they currently own.
- The number of shares of Sesen Bio common stock reserved and available for issuance under Sesen Bio's equity-based compensation plans and the number of shares of Sesen Bio common stock issuable upon the exercise of outstanding Sesen Bio options and Sesen Bio warrants, or upon the conversion of outstanding Sesen Bio RSUs, will be reduced proportionately based on the ratio selected by the Sesen Bio board of directors, and the exercise price of all outstanding Sesen Bio options and Sesen Bio warrants will be increased proportionately.
- Except for adjustments that may result from the treatment of fractional shares resulting from the reverse stock split, which are explained below under the section entitled "— *Fractional Shares*," each Sesen Bio stockholder will hold the same percentage

of Sesen Bio common stock immediately following the reverse stock split as the stockholder held immediately prior to the reverse stock split.

- The voting rights, rights to dividends and distributions and other rights of Sesen Bio common stock will not be changed as a result of the reverse stock split.
- The reverse stock split will not affect the number of authorized shares of Sesen Bio preferred stock or the par value of Sesen Bio common stock or preferred stock.
- The number of authorized shares of Sesen Bio common stock will be reduced non-proportionately. Authorized shares represent the number of shares of Sesen Bio common stock that Sesen Bio is permitted to issue under the Sesen Bio Certificate of Incorporation. Therefore, Proposal No. 2 would have the effect of reducing the number of shares of Sesen Bio common stock available for future issuance.

The reverse stock split will not affect Sesen Bio continuing to be subject to the periodic reporting requirements of the Exchange Act. The reverse stock split is not intended as, and will not have the effect of, a "going private transaction" covered by Rule 13e-3 under the Exchange Act.

The reverse stock split will be effected simultaneously for all outstanding shares of Sesen Bio common stock. The reverse stock split will affect all Sesen Bio stockholders uniformly and will not affect any Sesen Bio stockholder's percentage interest in Sesen Bio, except for immaterial adjustments that may result from the treatment of fractional shares as described below. Shares of Sesen Bio common stock issued pursuant to the reverse stock split will remain fully paid and nonassessable. The reverse stock split does not affect the total proportionate ownership of Sesen Bio following the merger.

The following table, which is for illustrative purposes only, illustrates the effects of a 1-for- to 1-for- reverse stock split (without giving effect to the treatment of fractional shares):

	Shares Issued and Outstanding[1]	Shares Authorized and Reserved for Issuance[1][2]	Shares Authorized and Unreserved for Issuance[1]	Total Authorized
As of September 20, 2022				
1-for- Reverse Split				
1-for- Reverse Split				
1-for- Reverse Split				

(1) These estimates do not reflect the potential effects of the treatment of fractional shares that may result from the proposed reverse stock split.

(2) Includes outstanding Sesen Bio warrants, Sesen Bio options, Sesen Bio RSUs, shares of Sesen Bio common stock reserved for future issuance under the 2014 Incentive Plan and shares of Sesen Bio common stock reserved for future issuance under the 2014 ESPP as of , 2022. Does not include any shares of Sesen Bio common stock issuable upon the exercise or conversion of securities that may have been issued since , 2022 or any shares of Sesen Bio common stock reserved or to be reserved in connection with the Carisma pre-closing financing and the conversion of the Carisma convertible note.

Certain Risks Associated with the Reverse Stock Split

There are risks associated with the reverse stock split, which have been considered by the Sesen Bio board of directors in recommending to Sesen Bio stockholders the reverse stock split for approval.

One of the effects of the reverse stock split will be to effectively increase the number of authorized shares of Sesen Bio common stock which are unissued relative to shares of Sesen Bio common stock which are issued. This could result in the Sesen Bio board of directors being able to issue more shares of Sesen Bio common stock without further stockholder approval. Therefore, the Sesen Bio board of directors has determined, if the reverse stock split is effected, to implement a non-proportionate reduction in the number of

authorized shares of Sesen Bio common stock. For example, before the reverse stock split, Sesen Bio's authorized but unissued shares of Sesen Bio common stock immediately prior to the closing of the merger would be approximately million compared to issued and outstanding shares of Sesen Bio common stock of approximately million. If Sesen Bio effects the reverse stock split using a 1-for- ratio (the midpoint of the range of the reverse stock split), the authorized but unissued shares of Sesen Bio common stock immediately prior to the closing of the merger would be approximately million compared to issued and outstanding shares of Sesen Bio common stock of approximately million. With respect to authorized but unissued shares of Sesen Bio common stock, Sesen Bio could use such shares that are available for issuance in future equity financing transactions, which could result in additional dilution to Sesen Bio stockholders, or to oppose a hostile takeover attempt or delay or prevent future changes in control or changes in or removal of management, including transactions that are favored by a majority of Sesen Bio stockholders or in which Sesen Bio stockholders might otherwise receive a premium for their shares of Sesen Bio common stock over then-current market prices or benefit in some other manner. Sesen Bio currently has no plans to issue shares of Sesen Bio common stock, other than in connection with the merger and to satisfy obligations under the Sesen Bio warrants, Sesen Bio options and Sesen Bio RSUs from time to time as such Sesen Bio warrants, Sesen Bio options and Sesen Bio RSUs are exercised, or vested and settled, for shares of Sesen Bio common stock.

Sesen Bio cannot predict whether the reverse stock split will increase the market price for Sesen Bio common stock. The history of similar stock split combinations for companies in like circumstances is varied. There is no assurance that:

- the market price per share of Sesen Bio common stock after the reverse stock split will rise in proportion to the reduction in the number of shares of Sesen Bio common stock outstanding before the reverse stock split;
- the reverse stock split will result in a per share price that will attract brokers and investors who do not trade in lower priced stocks or promote greater liquidity for Sesen Bio stockholders;
- the bid price per share will exceed the $1.00 minimum bid price as required by Nasdaq for continued listing on the Nasdaq Capital Market; or
- that Sesen Bio will otherwise meet the requirements of Nasdaq for initial listing on the Nasdaq Capital Market, including the $4.00 minimum bid price upon the closing of the merger.

The market price of Sesen Bio common stock will also be based on the performance of Sesen Bio and other factors, some of which are unrelated to the number of outstanding shares of Sesen Bio common stock. If the reverse stock split is effected and the market price of Sesen Bio common stock declines, the percentage decline as an absolute number and as a percentage of the overall market capitalization of Sesen Bio may be greater than would occur in the absence of a reverse stock split. Furthermore, the liquidity of Sesen Bio common stock could be adversely affected by the reduced number of shares of Sesen Bio common stock that would be outstanding after the reverse stock split. In addition, there can be no assurance that Sesen Bio common stock will not be delisted due to a failure to meet other listing requirements even if the market price per share of Sesen Bio common stock after reverse stock split is in excess of the minimum bid price requirement.

Since the reverse stock split will decrease the number of shares of Sesen Bio common stock held by Sesen Bio stockholders, the reverse stock split may increase the number of Sesen Bio stockholders who hold less than a "round lot," or 100 shares of Sesen Bio common stock. Typically, the transaction costs to stockholders selling "odd lots" are higher on a per share basis. Consequently, the reverse stock split could increase the transaction costs to existing Sesen Bio stockholders in the event they wish to sell all or a portion of their shares of Sesen Bio common stock.

Procedure for Effecting the Reverse Stock Split and Exchange of Stock Certificates

If Sesen Bio stockholders approve the amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split, and if the Sesen Bio board of directors still believes that a reverse stock split is in the best interests of Sesen Bio and Sesen Bio stockholders, Sesen Bio will file the amendment to the Sesen Bio Certificate of Incorporation with the Secretary of State of the State of Delaware at such time as the Sesen Bio board of directors has determined to be the appropriate split effective time. Beginning at the split effective time, each certificate representing pre-split shares of Sesen Bio common stock will be deemed for all corporate purposes to evidence ownership of post-split shares of Sesen Bio common stock.

Each of the alternatives set forth in *Annex G* to this proxy statement/prospectus has been approved by the Sesen Bio board of directors. By approving the reverse stock split, Sesen Bio stockholders also will be approving each of the alternatives set forth in *Annex G* to this proxy statement/prospectus. However, only the version of the amendment to the Sesen Bio Certificate of Incorporation that sets forth the amendment providing for the exact ratio determined by the Sesen Bio board of directors will be filed with the Secretary of State of the State of Delaware and become effective, whereupon each of the other versions of the amendment to the Sesen Bio Certificate of Incorporation that were approved by Sesen Bio stockholders as part of Proposal No. 2 will automatically be deemed to have been abandoned by the Sesen Bio board of directors.

As soon as practicable after the split effective time, Sesen Bio stockholders will be notified that the reverse stock split has been effected. Sesen Bio expects that the Sesen Bio transfer agent will act as exchange agent for purposes of implementing the exchange of stock certificates, if any. Holders of pre-split shares of Sesen Bio common stock holding all of their shares electronically in book-entry form with Sesen Bio's transfer agent do not need to take any action to receive post-split shares. Holders of pre-split shares of Sesen Bio common stock held in certificated form will be asked to surrender to the exchange agent certificates representing pre-split shares of Sesen Bio common stock in exchange for certificates representing post-split shares of Sesen Bio common stock in accordance with the procedures to be set forth in a letter of transmittal to be sent by Sesen Bio. Upon receipt of the holder's pre-split certificate(s) and the properly completed and executed letter of transmittal, the holder will be issued the appropriate number of shares of Sesen Bio common stock electronically in book-entry form under the Direct Registration System. No new shares in book-entry form will be reflected until the holder surrenders the holder's outstanding pre-split certificate(s), together with the properly completed and executed letter of transmittal, to the exchange agent. Any pre-split shares of Sesen Bio common stock submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-split shares of Sesen Bio common stock. **Sesen Bio stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) unless and until requested to do so.**

Fractional Shares

No fractional shares of Sesen Bio common stock will be issued in connection with the reverse stock split. Sesen Bio stockholders of record who otherwise would be entitled to receive a fractional share of Sesen Bio common stock because they hold a number of pre-split shares of Sesen Bio common stock not evenly divisible by the number of pre-split shares to be reclassified into one post-split share, will be entitled to a cash payment in lieu thereof at a price equal to the fraction to which the Sesen Bio stockholder would otherwise be entitled multiplied by the closing price of Sesen Bio common stock on Nasdaq on the date of the split effective time; *provided, however*, holders of certificated shares must first surrender to the exchange agent the certificates representing such pre-split shares of Sesen Bio common stock. The ownership of a fractional interest will not give the holder thereof any voting, dividend, or other rights except to receive payment therefor as described herein.

By approving the amendment to the Sesen Bio Certificate of Incorporation to effect the reverse stock split, Sesen Bio stockholders will be approving the combination of to (or any number in between) outstanding shares of Sesen Bio common stock, as approved by the Sesen Bio board of directors, into one share of Sesen Bio common stock.

Sesen Bio stockholders should be aware that, under the escheat laws of the various jurisdictions where Sesen Bio stockholders reside, where Sesen Bio is domiciled, and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the split effective date of the reverse stock split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by Sesen Bio or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, Sesen Bio stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Accounting Consequences

The par value per share of Sesen Bio common stock will remain unchanged at $0.001 per share after the reverse stock split. As a result, at the split effective time of the reverse stock split, the stated capital on Sesen Bio's balance sheet attributable to Sesen Bio common stock will be reduced proportionately based on the ratio, from its present amount, and the additional paid-in capital account will be increased for the amount by which the stated capital is reduced. After the reverse stock split (and disregarding the impact of shares of Sesen Bio common stock issued in the merger), net income or loss per share, and other per share amounts will be increased because there will be fewer shares of Sesen Bio common stock outstanding. In future financial statements, net loss per share and other per share amounts for periods ending before the reverse stock split will be restated to give retroactive effect to the reverse stock split.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares of Sesen Bio common stock to issued shares of Sesen Bio common stock could, under certain circumstances, have an anti-takeover effect, for example, by permitting issuances that would dilute the stock ownership of a person seeking to effect a change in the composition of the Sesen Bio board of directors or contemplating a tender offer or other transaction for the combination of Sesen Bio with another company, the reverse stock split is not being proposed in response to any effort of which Sesen Bio is aware to accumulate shares of Sesen Bio common stock or obtain control of Sesen Bio, other than in connection with the merger, nor is it part of a plan by management to recommend a series of similar amendments to the Sesen Bio board of directors and Sesen Bio stockholders. Other than the proposals being submitted to Sesen Bio stockholders for their consideration at the Sesen Bio special meeting, the Sesen Bio board of directors does not currently contemplate recommending the adoption of any other actions that could be construed to affect the ability of third parties to take over or effect a change of control of Sesen Bio. For more information, see the section entitled "*Description of Sesen Bio Capital Stock — Anti-Takeover Effect of Sesen Bio's Certificate of Incorporation and Bylaw Provisions*" beginning on page 364 of this proxy statement/prospectus.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following discussion is a summary of the material U.S. federal income tax consequences of the reverse stock split to Sesen Bio U.S. holders (which, for purposes of this discussion, has the same meaning as in "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*"), but does not purport to be a complete analysis of all potential tax consequences that may be relevant to Sesen Bio U.S. holders. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Sesen Bio U.S. holder. Sesen Bio has not sought and does not intend to seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a position contrary to that discussed below regarding the tax consequences of the reverse stock split.

This discussion is limited to Sesen Bio U.S. holders that hold Sesen Bio common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences that may be relevant to a Sesen Bio U.S. holder's particular circumstances, including the impact of the alternative minimum tax or the Medicare contribution tax on net investment income or the rules related to "qualified small business stock" within the meaning of Section 1202 of the Code. In addition, it does not address consequences relevant to Sesen Bio U.S. holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the U.S.;
- Sesen Bio U.S. holders whose functional currency is not the U.S. dollar;
- persons holding Sesen Bio common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;

- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to Sesen Bio common stock being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell Sesen Bio common stock under the constructive sale provisions of the Code;
- persons who hold or received Sesen Bio common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds Sesen Bio common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Sesen Bio common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

IT IS RECOMMENDED THAT SESEN BIO STOCKHOLDERS CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Sesen Bio intends to report the reverse stock split as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code. In general, and subject to the qualifications set forth below, if the reverse stock split qualifies as a "recapitalization" within the meaning of Section 368(a)(1)(E) of the Code, a Sesen Bio U.S. holder should not recognize gain or loss upon the reverse stock split, except to the extent a Sesen Bio U.S. holder receives cash in lieu of a fractional share of Sesen Bio common stock. In addition, provided that the reverse stock split qualifies as a "recapitalization," a Sesen Bio U.S. holder's aggregate tax basis in the shares of Sesen Bio common stock received pursuant to the reverse stock split should equal the aggregate tax basis of the shares of Sesen Bio common stock surrendered excluding any portion of such basis that is allocated to any fractional share of Sesen Bio common stock, and such Sesen Bio U.S. holder's holding period in the shares of Sesen Bio common stock received should include the holding period in the shares of Sesen Bio common stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Sesen Bio common stock surrendered, for the shares of Sesen Bio common stock received pursuant to the reverse stock split. Holders of shares of Sesen Bio common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares of Sesen Bio common stock.

A Sesen Bio U.S. holder that receives cash in lieu of a fractional share of Sesen Bio common stock pursuant to the reverse stock split should recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the Sesen Bio U.S. holder's tax basis in the shares of Sesen Bio common stock surrendered that is allocated to such fractional share of Sesen Bio common stock. Such capital gain or loss should be long-term capital gain or loss if the Sesen Bio U.S. holder's holding period for Sesen Bio common stock surrendered exceeded one year at the effective time of the reverse stock split.

This discussion assumes that the distribution of CVRs and the special cash dividend to Sesen Bio U.S. holders will be treated for U.S. federal income tax purposes as transactions that are separate and distinct from the reverse stock split. However, it is possible that the IRS or a court could determine that the reverse stock split and the receipt of CVRs or the special cash dividend constitute a single "recapitalization" for U.S. federal income tax purposes. For a discussion of such treatment with respect to the CVRs or the special cash dividend, see the sections entitled "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs — Alternative Treatment of the Receipt of CVRs and the Proposed Reverse Stock Split as a Single Recapitalization*" beginning on page 183 of this proxy statement/prospectus and "*The Merger — Material U.S. Federal Income Tax Consequences of the Special Cash Dividend*" beginning on page 153 of this proxy statement/prospectus. If the reverse stock split, the special cash dividend, and receipt of CVRs are treated as a single "recapitalization" for U.S. federal income tax purposes, then a Sesen Bio U.S. holder generally should recognize gain (but not loss) equal to the lesser of (i) the amount of the special cash dividend received plus the fair market value of the CVRs received (assuming the receipt of CVRs is treated as a distribution of property as described in "*Agreements Related to the Merger — CVR Agreement — Material U.S. Federal Income Tax Consequences of the Receipt of CVRs*"), and (ii) the excess (if any) of (A) the sum of (1) the amount of the special cash dividend received plus the fair market value of the CVRs received and (2) the fair market value of the Sesen Bio shares received in the reverse stock split over (B) the Sesen Bio U.S. holder's adjusted tax basis in the Sesen Bio common stock surrendered in the reverse stock split.

Reservation of Right to Abandon Reverse Stock Split

Notwithstanding approval of this Proposal No. 2 by Sesen Bio stockholders, the Sesen Bio board of directors may, in its sole discretion, abandon the proposed amendments and determine prior to the effectiveness of any filing with the Secretary of State of the State of Delaware not to effect the reverse stock split, as permitted under Section 242(c) of the Delaware General Corporation Law.

Vote Required

The affirmative vote of the holders of a majority of the outstanding shares of Sesen Bio common stock on the record date for the Sesen Bio special meeting entitled to vote on the matter is required for approval of Proposal No. 2. Abstentions will have the same effect as votes "AGAINST" Proposal No. 2.

Recommendation of Sesen Bio Board of Directors

THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 2 TO APPROVE AN AMENDMENT TO THE SESEN BIO CERTIFICATE OF INCORPORATION TO EFFECT THE REVERSE STOCK SPLIT. THE APPROVAL OF PROPOSAL NO. 2 IS REQUIRED TO CONSUMMATE THE MERGER.

Proposal No. 3: Approval of an amendment and restatement of the 2014 Incentive Plan

Why Sesen Bio is Requesting Sesen Bio Stockholder Approval of the Amendment and Restatement of the 2014 Incentive Plan

Sesen Bio is asking the Sesen Bio stockholders to approve the amendment and restatement of the 2014 Incentive Plan, or the Amended and Restated Plan. The Sesen Bio board of directors believes that the combined company's growth and success will depend, in large part, on its ability to maintain a competitive position by attracting, retaining and motivating key employees with experience and ability to advance the combined company's clinical and business objectives, thereby creating value for all of the combined company's stakeholders. Central to these objectives will be a stock-based compensation program.

The 2014 Incentive Plan was originally adopted by the Sesen Bio board of directors in December 2013 and approved by the Sesen Bio stockholders in January 2014. The 2014 Incentive Plan was amended by the Sesen Bio board of directors on April 19, 2019 and approved by the Sesen Bio stockholders on June 19, 2019 and was further amended by the Sesen Bio board of directors on March 12, 2021 and approved by the Sesen Bio stockholders on May 3, 2021. At the Sesen Bio special meeting, Sesen Bio stockholders will be asked to consider and vote upon a proposal to approve an amendment and restatement of the 2014 Incentive Plan to (i) increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan to a number of shares of Sesen Bio common stock equal to % of the fully diluted capitalization of Sesen Bio, determined as of immediately following the closing of the merger, (ii) provide for an annual increase in the number of shares of Sesen Bio common stock reserved for issuance under the 2014 Incentive Plan, to be added on the first day of each fiscal year during the term of the Amended and Restated Plan, beginning with the fiscal year ending on December 31, 2023, of % of the number of shares of Sesen Bio's common stock outstanding on the first day of such fiscal year or a lesser number of shares determined by the Sesen Bio board of directors, (iii) extend the term of the 2014 Incentive Plan to the tenth (10th) anniversary of the closing of the merger, and (iv) revise certain provisions in the 2014 Incentive Plan to address certain changes in law and accounting relating to (1) the Sesen Bio board of directors' ability to delegate authority to make awards under the plan, (2) the satisfaction of withholding taxes with shares and (3) the effect on awards outstanding under the plan of an adoption of a clawback policy by Sesen Bio after the effective date of the Amended and Restated Plan.

The Amended and Restated Plan will be used, following the closing of the merger, to grant equity awards to the combined company's projected employees, officers, non-employee directors, consultants and advisors. The number of shares remaining available for issuance under the 2014 Incentive Plan is insufficient to meet these needs and would thus impede the combined company's ability to properly compensate, motivate, incentivize and retain key talent.

The Sesen Bio board of directors determined the requested number of shares for the Amended and Restated Plan, in consultation with Carisma, based on projected annual equity awards to eligible participants, projected employee recognition and promotion awards and anticipated new-hire awards. If Sesen Bio stockholders approve the Amended and Restated Plan then, subject to adjustment in the event of stock splits and other similar events, including the proposed reverse stock split, awards may be made under the Amended and Restated Plan for up to the sum of:

- a number of shares of Sesen Bio common stock equal to % of the fully diluted capitalization of Sesen Bio, determined as of immediately following the closing of the merger; plus
- the number of shares (up to shares) as is equal to the sum of (x) the number of shares of common stock reserved for issuance under the 2009 Incentive Plan, or the prior plan, that remained available for grant under the prior plan immediately prior to Sesen Bio's initial public offering and (y) the number of shares of Sesen Bio common stock subject to (I) outstanding Sesen Bio awards granted under the prior plan and (II) stock options assumed by Sesen Bio in the merger, or, the awards described in the foregoing clauses (I) and (II) together, the Outstanding Awards, in each case which Outstanding Awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by Sesen Bio at their original issuance price pursuant to a contractual repurchase right; plus
- an annual increase, to be added on the first day of each fiscal year during the term of the Amended and Restated Plan, beginning with the fiscal year ending on December 31, 2023, equal to the lesser of (i) % of the number of shares of Sesen Bio common stock outstanding on the first day of such fiscal year and (ii) the number of shares of Sesen Bio common stock determined by the Sesen Bio board of directors.

Up to of the shares of Sesen Bio common stock available for issuance under the Amended and Restated Plan may be issued as incentive stock options under the Amended and Restated Plan, subject to adjustment under the terms of the Amended and Restated Plan, including in the event the proposed reverse stock split occurs. The Amended and Restated Plan will have a term of ten years following the closing of the merger.

The proposed Amended and Restated Plan includes several features that are consistent with protecting the interests of Sesen Bio stockholders and sound corporate governance practices, as described below. If Sesen Bio stockholders do not approve the Amended and Restated Plan, the 2014 Incentive Plan will remain in effect pursuant to its terms.

The following table includes information regarding all of Sesen Bio's outstanding equity awards (under all of Sesen Bio's equity-based compensation plans or arrangements under which shares of Sesen Bio common stock may be issued, including inducement grants made by Sesen Bio but excluding the 2014 ESPP) as of September 20, 2022, including any outstanding stock options granted under Carisma equity incentive plan, which Sesen Bio will assume as part of the merger on an as-converted basis (assuming the merger was consummated as of September 20, 2022 at an assumed exchange ratio of 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock), shares available for future awards under the 2014 Incentive Plan as of September 20, 2022 and the number of shares of Sesen Bio common stock outstanding as of September 20, 2022 (including the number of shares of Sesen Bio common stock that will be issued in the merger (based on shares outstanding as of September 20, 2022 and taking into account the consummation of the Carisma pre-closing financing (including the conversion of the Carisma convertible note) and an assumed exchange ratio of 24.5844), prior to giving effect to the proposed reverse stock split):

Number of outstanding Sesen Bio options under Sesen Bio equity incentive plans	13,133,660
Weighted average exercise price of outstanding Sesen Bio options under Sesen Bio equity incentive plans	$1.88
Weighted average remaining contractual term of outstanding Sesen Bio options under Sesen Bio equity incentive plans	7.407
Number of outstanding Sesen Bio RSUs under Sesen Bio equity incentive plan	5,750,166
Sesen Bio remaining shares of Sesen Bio common stock available under the 2014 Incentive Plan	3,724,762
Estimated number of outstanding Carisma options under Carisma equity incentive plan	1,900,829
Weighted average exercise price of Carisma options under Carisma equity incentive plan	$1.80
Weighted average remaining contractual term of outstanding Carisma options under Carisma equity incentive plan	7.58
Estimated shares requested for approval under the Amended and Restated Plan	
Estimated total number of shares of Sesen Bio common stock available for issuance under all equity-incentive plans or arrangements	
Number of shares of Sesen Bio common stock outstanding following the closing of the merger	

As of September 20, 2022, there were no outstanding shares of restricted stock, no stock appreciation rights, or SARs, nor any other stock-based awards under the 2014 Incentive Plan.

Sesen Bio expects that the proposed share pool under the Amended and Restated Plan will allow the combined company to continue to grant market-competitive equity awards for approximately years, but the actual duration of the share pool may vary based on changes in participation and the combined company's stock price.

If the Amended and Restated Plan is not approved by Sesen Bio stockholders, the combined company will not be able to make long-term equity incentive awards that are sufficient to meet its needs. The inability to make competitive equity awards to retain talented employees in a highly competitive market could have an adverse impact on the combined company's business and future prospects. Further, if the Amended and Restated Plan is not approved, the combined company could be forced to increase cash compensation, which will reduce the resources the combined company intends to allocate to meeting its clinical and business needs and objectives. Therefore, the approval of the Amended and Restated Plan is vital to the combined company's future success.

Highlights of the Amended and Restated Plan

The Amended and Restated Plan includes several features that are consistent with protecting the interests of Sesen Bio stockholders and sound corporate governance practices.

Clawback Policy. In accepting an award granted under the Amended and Restated Plan, a participant agrees to be bound by any clawback policy that Sesen Bio has in effect or may adopt in the future.

No Automatic Vesting of Awards on a Change in Control Event. The Amended and Restated Plan does not provide for the automatic vesting of awards in connection with a change in control event.

Limits on Liberal Share Recycling. The Amended and Restated Plan prohibits the re-granting of (i) Sesen Bio shares withheld or delivered to satisfy the exercise price of an award or to satisfy tax withholding obligations and (ii) Sesen Bio shares that were subject to a SAR and were not issued upon the net settlement or net exercise of such award.

No Repricing of Awards. The Amended and Restated Plan prohibits the direct or indirect repricing of stock options or SARs without stockholder approval.

No Discounted Options or SARs. All options and SARs must have an exercise or measurement price that is at least equal to the fair market value of the underlying Sesen Bio common stock on the date of grant.

Material Amendments Require Stockholder Approval. Stockholder approval is required prior to an amendment of the Amended and Restated Plan that would (i) materially increase the number of Sesen Bio's shares authorized (other than as provided under the Amended and Restated Plan with respect to certain corporate events or substitute awards), (ii) expand the types of awards that may be granted, or (iii) materially expand the class of participants eligible to participate in the Amended and Restated Plan.

Reasons Sesen Bio's Stockholders Should Approve the Amended and Restated Plan

Incentivizes, Retains and Motivates Talent. It is critical to the combined company's success that it incentivizes, retains and motivates the best talent in what is a tremendously competitive labor market. The combined company's equity-based compensation program will be a key component in its ability to pay market-competitive compensation to its employees and other service providers.

Aligns with a Pay-for-Performance Compensation Philosophy. Sesen Bio believes that equity-based compensation is fundamentally performance-based. As the value of Sesen Bio common stock appreciates, its employees and other service providers receive greater compensation while Sesen Bio stockholders receive a greater return on their investment. Conversely, if the stock price does not appreciate following the grant of an equity award, then employees would not realize any compensation benefit in respect of stock options and would receive lower than intended compensation in respect of Sesen Bio RSUs.

Aligns Employee and Director Interests with Stockholder Interests. Providing employees and non-employee directors with compensation in the form of equity directly aligns the interests of those employees and directors with the interests of the combined company's stockholders. If the Amended and Restated Plan is approved by Sesen Bio stockholders, the combined company will be able to continue fostering this alignment between its employees and non-employee directors and stockholders by granting meaningful equity-based incentives.

Consistent with Stockholder Interests and Sound Corporate Governance. As described under the heading above entitled "*Highlights of the Amended and Restated Plan*" and more thoroughly below, the Amended and Restated Plan purposefully includes features that are consistent with the interests of the stockholders of the combined company and sound corporate governance.

Description of the Amended and Restated Plan

Types of Awards; Shares Available for Awards; Share Counting Rules

The Amended and Restated Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Code, nonstatutory stock options, SARs, restricted stock, RSUs, and other stock-based awards, or collectively, the awards.

Subject to adjustment in the event of stock splits, stock dividends and other similar events, including the proposed reverse stock split, awards may be made under the Amended and Restated Plan for up to the sum of:

- a number of shares of Sesen Bio common stock equal to % of the fully diluted capitalization of Sesen Bio, determined as of immediately following the closing of the merger; plus

- the number of shares of Sesen Bio common stock (up to shares) as is equal to the sum of (x) the number of shares of Sesen Bio common stock reserved for issuance under the prior plan that remained available for grant under the prior plan immediately prior to Sesen Bio's initial public offering and (y) the number of shares of Sesen Bio common stock subject to (I) outstanding Sesen Bio awards granted under the prior plan and (II) stock options assumed by Sesen Bio in the merger, in each case which Outstanding Awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by Sesen Bio at their original issuance price pursuant to a contractual repurchase right; plus

- an annual increase, to be added on the first day of each fiscal year during the term of the Amended and Restated Plan, beginning with the fiscal year ending December 31, 2023, equal to the lesser of (i) % of the number of shares of Sesen Bio's common stock outstanding on the first day of such fiscal year and (ii) the number of shares of common stock determined by the Sesen Bio board of directors.

Up to of the shares of common stock available for issuance under the Amended and Restated Plan may be issued as incentive stock options under the Amended and Restated Plan, subject to adjustment under the terms of the Amended and Restated Plan, including in the event the proposed reverse stock split occurs. Shares of common stock issued under the Amended and Restated Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

For purposes of counting the number of shares available for the grant of awards under the Amended and Restated Plan, all shares of common stock covered by SARs will be counted against the number of shares available for the grant of awards. However, SARs that may be settled only in cash will not be so counted. In addition, if Sesen Bio grants a SAR in tandem with an option for the same number of shares of Sesen Bio common stock and provides that only one such award may be exercised, or the tandem SAR, only the shares covered by the option, and not the shares covered by the tandem SAR, will be so counted, and the expiration of one in connection with the other's exercise will not restore shares to the Amended and Restated Plan.

Shares covered by awards under the Amended and Restated Plan that expire or are terminated, surrendered, or cancelled without having been fully exercised or are forfeited in whole or in part (including as the result of shares subject to such award being repurchased by Sesen Bio at the original issuance price pursuant to a contractual repurchase right) or that result in any shares not being issued (including as a result of a SAR that was settleable either in cash or in stock actually being settled in cash) will again be available for the grant of awards under the Amended and Restated Plan (subject, in the case of incentive stock options, to any limitations under the Code). In the case of the exercise of a SAR, the number of shares counted against the shares available for the grant of awards under the Amended and Restated Plan will be the full number of shares subject to the SAR multiplied by the percentage of the SAR actually exercised, regardless of the number of shares actually used to settle the SAR upon exercise, and the shares covered by a tandem SAR will not again become available for grant upon the expiration or termination of the tandem SAR.

Shares of Sesen Bio common stock that are delivered (by actual delivery, attestation, or net exercise) to Sesen Bio by a participant to purchase shares of Sesen Bio common stock upon exercise of an award or to satisfy tax withholding obligations (including shares retained from the award creating the tax obligation) will not be added back to the number of shares available for the future grant of awards under the Amended and Restated Plan.

In connection with a merger or consolidation of an entity with Sesen Bio or Sesen Bio's acquisition of property or stock of an entity, the Sesen Bio board of directors may grant awards under the Amended and Restated Plan in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof on such terms as the Sesen Bio board of directors determines appropriate in the circumstances, notwithstanding any limitation on awards contained in the Amended and Restated Plan. No such substitute awards shall count against the overall share limit, except as required by reason of Section 422 and related provisions of the Code.

Descriptions of Awards

Options. A participant who is awarded an option receives the right to purchase a specified number of shares of Sesen Bio common stock at a specified exercise price and subject to the other terms and conditions that are specified in connection with the award agreement. An option that is not intended to be an "incentive stock option" is a "nonstatutory stock option." Options may not be granted at an exercise price that is less than 100% of the fair market value of Sesen Bio common stock on the date of grant. If the Sesen Bio board of directors approves the grant of an option with an exercise price to be determined on a future date, the exercise price may not be less than 100% of the fair market value of Sesen Bio common stock on that future date. Under present law, incentive

stock options may not be granted at an exercise price less than 110% of the fair market value in the case of stock options granted to participants who hold more than 10% of the total combined voting power of all classes of Sesen Bio's stock or any of Sesen Bio's subsidiaries. Under the terms of the Amended and Restated Plan, options may not be granted for a term in excess of ten years (and, under present law, five years in the case of incentive stock options granted to participants who hold greater than 10% of the total combined voting power of all classes of Sesen Bio's stock or any of Sesen Bio's subsidiaries).

The Amended and Restated Plan permits participants to pay the exercise price of options using one or more of the following manners of payment: (i) payment by cash or by check, (ii) except as may otherwise be provided in the applicable award agreement or approved by the Sesen Bio board of directors, in connection with a "cashless exercise" through a broker, (iii) to the extent provided in the applicable award agreement or approved by the Sesen Bio board of directors, and subject to certain conditions, by delivery to Sesen Bio (either by actual delivery or attestation) of shares of common stock owned by the participant valued at their fair market value, (iv) to the extent provided in an applicable nonstatutory stock option award agreement or approved by the Sesen Bio board of directors, by delivery of a notice of "net exercise" as a result of which Sesen Bio will retain a number of shares of Sesen Bio common stock otherwise issuable pursuant to the stock option equal to the aggregate exercise price for the portion of the option being exercised divided by the fair market value of Sesen Bio common stock on the date of exercise, (v) to the extent permitted by applicable law and provided for in the applicable award agreement or approved by the Sesen Bio board of directors, by any other lawful means as the Sesen Bio board of directors may determine, or (vi) by any combination of these forms of payment.

On October 13, 2022, the closing sale price of Sesen Bio common stock on Nasdaq was $0.5001 per share.

Stock Appreciation Rights. A participant who is awarded a SAR receives, upon exercise, a number of shares of Sesen Bio common stock, or cash (or a combination of shares of Sesen Bio common stock and cash) determined by reference to appreciation, from and after the date of grant, in the fair market value of a share of Sesen Bio common stock over the measurement price. The Amended and Restated Plan provides that the measurement price of a SAR may not be less than 100% of the fair market value of Sesen Bio common stock on the date the SAR is granted (provided, however, that if the Sesen Bio board of directors approves the grant of a SAR effective as of a future date, the measurement price will not be less than 100% of the fair market value on such future date) and that SARs may not be granted with a term in excess of 10 years.

Limitation on Repricing of Options or SARs. With respect to options and SARs, unless such action is approved by Sesen Bio stockholders or otherwise permitted under the terms of the Amended and Restated Plan in connection with certain changes in capitalization and reorganization events, Sesen Bio may not (1) amend any outstanding option or SAR granted under the Amended and Restated Plan to provide an exercise price or measurement price per share that is lower than the then-current exercise price or measurement price per share of such outstanding option or SAR, (2) cancel any outstanding option or SAR (whether or not granted under the Amended and Restated Plan) and grant in substitution for such awards new awards under the Amended and Restated Plan (other than certain substitute awards issued in connection with a merger or consolidation of an entity with Sesen Bio or an acquisition by Sesen Bio, described above) covering the same or a different number of shares of Sesen Bio common stock and having an exercise price or measurement price per share lower than the then-current exercise price or measurement price per share of the canceled option or SAR, (3) cancel in exchange for a cash payment any outstanding option or SAR with an exercise price or measurement price per share above the then-current fair market value of Sesen Bio common stock, or (4) take any other action under the Amended and Restated Plan that constitutes a "repricing" within the meaning of the rules of the Nasdaq Stock Market.

Restricted Stock Awards. A participant who is granted an award of restricted stock is entitled to acquire shares of Sesen Bio common stock, subject to Sesen Bio's right to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) in the event that the conditions specified in the applicable award are not satisfied prior to the end of the applicable restriction period established for such award. Unless otherwise provided in the applicable award agreement, any dividends (whether paid in cash, stock or property) declared and paid by Sesen Bio with respect to shares of restricted stock will be paid to the participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares.

Restricted Stock Unit Awards. A participant who is granted an RSU award is entitled to receive shares of Sesen Bio common stock, or cash equal to the fair market value of such shares or a combination of cash and shares, to be delivered at the time such award vests or on a deferred basis pursuant to the terms and conditions established by the Sesen Bio board of directors. The Sesen Bio board of directors may provide that settlement of RSUs will be deferred, on a mandatory basis or at the election of the participant, in a manner that complies with Section 409A of the Code. A participant has no voting rights with respect to any RSU. An RSU award

agreement may provide the applicable participant with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Sesen Bio common stock. Any such dividend equivalents may be settled in cash and/or shares of Sesen Bio common stock and may be subject to the same restrictions on transfer and forfeitability as the RSUs with respect to which such dividend equivalents are awarded, in each case to the extent provided in the applicable award agreement.

Other Stock-Based Awards. Under the Amended and Restated Plan, the Sesen Bio board of directors may grant other awards of shares of Sesen Bio common stock, and other awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Sesen Bio common stock or other property, having such terms and conditions as the Sesen Bio board of directors may determine. Sesen Bio refers to these types of awards as other stock-based awards. Other stock-based awards may be available as a form of payment in settlement of other awards granted under the Amended and Restated Plan or as payment in lieu of compensation to which a participant is otherwise entitled. Other stock-based awards may be paid in shares of Sesen Bio common stock or in cash, as the Sesen Bio board of directors may determine.

Eligibility to Receive Awards

All employees, officers or directors of the combined company or an affiliate of the combined company, and consultants or advisors to the combined company are eligible to participate in the Amended and Restated Plan.

As of September 20, 2022, following the closing of the merger, approximately 91 employees, 6 non-employee directors and 1 non-employee consultant of the combined company will be eligible to participate in the Amended and Restated Plan.

Transferability of Awards

Awards may not be sold, assigned, transferred, pledged or otherwise encumbered by a participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an incentive stock option, pursuant to a qualified domestic relations order. During the life of the participant, awards are exercisable only by the participant. However, the Sesen Bio board of directors may permit or provide in an award for the gratuitous transfer of the award by the participant to or for the benefit of any immediate family member, family trust or other entity established for the benefit of the participant and/or an immediate family member thereof if Sesen Bio would be eligible to use a Form S-8 under the Securities Act for the registration of the sale of the common stock subject to such award to the proposed transferee. Further, Sesen Bio is not required to recognize any such permitted transfer until such time as the permitted transferee has, as a condition to the transfer, delivered to Sesen Bio a written instrument in form and substance satisfactory to Sesen Bio confirming that such transferee will be bound by all of the terms and conditions of the award. None of the restrictions described in this paragraph prohibit a transfer from the participant to Sesen Bio.

No Rights as a Stockholder; Clawback

Subject to the provisions of the applicable award, no participant or designated beneficiary will have any rights as a Sesen Bio stockholder with respect to any shares of Sesen Bio common stock to be distributed with respect to an award granted under the Amended and Restated Plan until becoming a record holder of such shares of Sesen Bio common stock. In accepting an award granted under the Amended and Restated Plan, a participant agrees to be bound by any clawback policy that Sesen Bio has in effect or may adopt in the future.

Effective Date. The effective date of the 2014 Incentive Plan was February 11, 2014, which was immediately prior to the closing of the initial public offering of Sesen Bio common stock on the Nasdaq Global Market. The Amended and Restated Plan will be effective as of the date of the closing of the merger.

Term. The Amended and Restated Plan will terminate automatically on the tenth (10^{th}) anniversary of the closing of the merger (but any awards previously granted under the Amended and Restated Plan may extend beyond such date) unless it is earlier terminated by the Sesen Bio board of directors.

New Plan Benefits

Because the grant of awards under the Amended and Restated Plan is within the discretion of the Sesen Bio board of directors and the Sesen Bio compensation committee, Sesen Bio cannot determine the dollar value or number of shares of Sesen Bio common stock that will in the future be received by or allocated to any participant in the Amended and Restated Plan.

Administration

The Amended and Restated Plan will be administered by the Sesen Bio board of directors. The Sesen Bio board of directors has the authority to grant awards and to adopt, amend and repeal the administrative rules, guidelines and practices relating to the Amended and Restated Plan and to construe and interpret the terms of the Amended and Restated Plan and any award agreements entered into under the Amended and Restated Plan. The Sesen Bio board of directors may correct any defect, supply any omission or reconcile any inconsistency in the Amended and Restated Plan or any award under the Amended and Restated Plan in the manner and to the extent it deems expedient, and it is the sole and final judge of such expediency. All decisions by the Sesen Bio board of directors are made in its sole discretion and are final and binding on all persons having or claiming any interest in the Amended and Restated Plan or in any award under the Amended and Restated Plan.

Pursuant to the terms of the Amended and Restated Plan, the Sesen Bio board of directors may delegate any or all of its powers under the Amended and Restated Plan to one or more committees or subcommittees of the Sesen Bio board of directors. The Sesen Bio board of directors has authorized the Sesen Bio compensation committee to administer certain aspects of the Amended and Restated Plan.

Subject to any requirements of applicable law, the Sesen Bio board of directors may, by resolution, delegate to one or more persons (including Sesen Bio's officers) or bodies, which Sesen Bio refers to as "delegated persons," the power to grant awards (subject to any limitations under the Amended and Restated Plan) to eligible service providers of Sesen Bio to exercise such other powers under the Amended and Restated Plan as the Sesen Bio board of directors may determine, provided that the Sesen Bio board of directors must fix (i) the maximum number of awards, and the maximum number of shares issuable upon exercise of those awards, that may be issued by the delegated persons, (ii) the time period during which those awards, and during which the shares issuable upon exercise of those awards, may be issued, and (iii) the minimum amount of consideration (if any) for which awards may be issued, and a minimum amount of consideration for the shares issuable upon exercise of those awards. Further, no delegated person will be authorized to grant awards to any "executive officer" (as defined by Rule 3b-7 under the Exchange Act) or to any "officer" of Sesen Bio (as defined by Rule 16a-1 under the Exchange Act).

Subject to applicable limitations contained in the Amended and Restated Plan, the Sesen Bio board of directors, the Sesen Bio compensation committee, or any other committee or subcommittee of the Sesen Bio board of directors or delegated person to whom the Sesen Bio board of directors has delegated authority pursuant to the Amended and Restated Plan, as the case may be, selects the recipients of awards and determines (i) the number of shares of Sesen Bio common stock, cash or other consideration covered by awards and the terms and conditions of such awards, including the dates upon which such awards become exercisable or otherwise vest, (ii) the exercise or measurement price of awards, if any, and (iii) the duration of awards.

Except as otherwise provided in the Amended and Restated Plan, each award under the Amended and Restated Plan may be made alone or in addition or in relation to any other award. The terms of each award need not be identical, and the Sesen Bio board of directors need not treat participants uniformly. The Sesen Bio board of directors will determine the effect on an award of the disability, death, termination or other cessation of employment or service, authorized leave of absence or other change in the employment or other service status of a participant, and the extent to which, and the period during which, the participant (or the participant's legal representative, conservator, guardian or designated beneficiary) may exercise rights or receive any benefits under an award.

The Sesen Bio board of directors may at any time provide that any award will become immediately exercisable in whole or in part, free from some or all restrictions or conditions or otherwise realizable in whole or in part, as the case may be.

In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Sesen Bio common

stock other than an ordinary cash dividend, Sesen Bio is required by the Amended and Restated Plan to make equitable adjustments (or make substitute awards, if applicable), in a manner determined by the board of directors, to:

- the number and class of securities available under the Amended and Restated Plan;
- the share counting rules under the Amended and Restated Plan;
- the number and class of securities and exercise price per share of each outstanding Sesen Bio option;
- the share and per-share provisions and measurement price of each outstanding SAR;
- the number of shares and the repurchase price per share subject to each outstanding restricted stock award or Sesen Bio RSU award; and
- the share and per-share related provisions and purchase price, if any, of any outstanding other stock-based award.

In the event Sesen Bio effects a split of Sesen Bio common stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then a participant who exercises an option between the record date and the distribution date for such stock dividend will be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Sesen Bio common stock acquired upon such option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

Sesen Bio will indemnify and hold harmless each director, officer, employee or agent to whom any duty or power relating to the administration or interpretation of the Amended and Restated Plan has been or will be delegated against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Sesen Bio board of director's approval) arising out of any act or omission to act concerning the Amended and Restated Plan unless arising out of such person's own fraud or bad faith.

Except as otherwise provided under the Amended and Restated Plan with respect to repricing outstanding stock options or SARs and with respect to actions requiring stockholder approval, the Sesen Bio board of directors may amend, modify or terminate any outstanding award, including but not limited to, substituting for the award another award of the same or a different type, changing the date of exercise or realization, and converting an incentive stock option to a nonstatutory stock option. The participant's consent to any such action will be required unless the Sesen Bio board of directors determines that the action, taking into account any related action, does not materially and adversely affect the participant's rights under the Amended and Restated Plan or the change is otherwise permitted under the terms of the Amended and Restated Plan in connection with certain corporate events.

Reorganization Events

The Amended and Restated Plan contains provisions addressing the consequences of any reorganization event. A reorganization event is defined under the Amended and Restated Plan as (a) any merger or consolidation of Sesen Bio with or into another entity as a result of which all of Sesen Bio common stock is converted into or exchanged for the right to receive cash, securities or other property, or is canceled, (b) any transfer or disposition of all of Sesen Bio common stock for cash, securities or other property pursuant to a share exchange or other transaction or (c) Sesen Bio's liquidation or dissolution.

Provisions Applicable to Awards Other than Restricted Stock. Under the Amended and Restated Plan, if a reorganization event occurs, the Sesen Bio board of directors may take any one or more of the following actions as to all or any (or any portion of) outstanding awards other than restricted stock on such terms as the Sesen Bio board of directors determines (except to the extent specifically provided otherwise in an applicable award agreement or another agreement between a participant and Sesen Bio): (1) provide that such awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (2) upon written notice to a participant, provide that all of the participant's unvested and/or exercised awards will terminate immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of such notice, (3) provide that outstanding awards will

become exercisable, realizable, or deliverable, or restrictions applicable to an award will lapse, in whole or in part prior to or upon such reorganization event, (4) in the event of a reorganization event under the terms of which holders of Sesen Bio common stock will receive upon consummation of the reorganization event a cash payment for each share surrendered in the reorganization event, which Sesen Bio refers to as the "Acquisition Price", make or provide for a cash payment to participants with respect to each award held by a participant equal to (A) the number of shares of Sesen Bio common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award, (5) provide that, in connection with Sesen Bio's liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (6) any combination of the foregoing.

The Sesen Bio board of directors is not obligated to treat all awards, all awards held by a participant, or all awards of the same type, identically. Certain RSU awards that are subject to Section 409A of the Code will be settled in accordance with the terms of the applicable award agreement or as otherwise specified in the Amended and Restated Plan.

Provisions Applicable to Restricted Stock. Upon the occurrence of a reorganization event other than Sesen Bio's liquidation or dissolution, Sesen Bio's repurchase and other rights with respect to outstanding restricted stock will inure to the benefit of Sesen Bio's successor and will, unless the Sesen Bio board of directors determines otherwise, apply to the cash, securities or other property which Sesen Bio common stock is converted into or exchanged for pursuant to such reorganization event in the same manner and to the same extent as they applied to such restricted stock. However, the Sesen Bio board of directors may either provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any restricted stock or any other agreement between a participant and Sesen Bio, either initially or by amendment. Upon the occurrence of a reorganization event involving Sesen Bio's liquidation or dissolution, except to the extent specifically provided to the contrary in the instrument evidencing any award of restricted stock or any other agreement between the participant and Sesen Bio, all restrictions and conditions on all restricted stock then outstanding will automatically be deemed terminated or satisfied.

Provisions for Foreign Participants

The Sesen Bio board of directors may establish one or more sub-plans under the Amended and Restated Plan to satisfy applicable securities, tax or other laws of various jurisdictions. The Sesen Bio board of directors will establish such sub-plans by adopting supplements to the Amended and Restated Plan containing any limitations on the board of director's discretion under the Amended and Restated Plan and any additional terms and conditions not otherwise inconsistent with the Amended and Restated Plan as the Sesen Bio board of directors deems necessary or desirable. All supplements adopted by the Sesen Bio board of directors will be deemed to be part of the Amended and Restated Plan, but each supplement will only apply to participants within the affected jurisdiction.

Withholding

The participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before Sesen Bio will deliver stock certificates or otherwise recognize ownership of Sesen Bio common stock under an award. Sesen Bio may elect to satisfy the withholding obligations through additional withholding on salary or wages. If Sesen Bio elects not to or cannot withhold from other compensation, the participant must pay Sesen Bio the full amount, if any, required for withholding or have a broker tender to Sesen Bio cash equal to the withholding obligations. Payment of withholding obligations is due before Sesen Bio will issue any shares on exercise, vesting or release from forfeiture of an award or at the same time as payment of the exercise or purchase price, unless Sesen Bio determines otherwise. If provided for in an award or approved by the Sesen Bio board of directors, a participant may satisfy the tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Sesen Bio common stock, including shares retained from the award creating the tax obligation, valued at their fair market value. However, except as otherwise provided by the Sesen Bio board of directors, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed Sesen Bio's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income), except that, to the extent that Sesen Bio is able to retain shares of Sesen Bio common stock having a fair market value that exceeds the statutory minimum applicable withholding tax without financial accounting implications or Sesen Bio is withholding in a jurisdiction that does not have a statutory minimum withholding tax, Sesen Bio may retain such number of shares (up to the number of shares having a fair market value equal to the maximum individual statutory rate of tax) as Sesen Bio will determine to be necessary to satisfy the tax

liability associated with any award. Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

Amendment or Termination

If Sesen Bio receives stockholder approval of the Amended and Restated Plan, no award may be granted under the Amended and Restated Plan after the tenth (10^{th}) anniversary of the closing of the merger, but awards previously granted may extend beyond that date. The Sesen Bio board of directors may amend, suspend or terminate the Amended and Restated Plan or any portion of the Amended and Restated Plan at any time, except that (i) no amendment may be made to the plan to permit an option or SAR to be repriced without stockholder approval and (ii) no amendment that would require stockholder approval under the rules of the Nasdaq Stock Market may be made effective unless and until such amendment has been approved by Sesen Bio stockholders. If at any time the approval of Sesen Bio stockholders is required as to any other modification or amendment under Section 422 of the Code or any successor provision with respect to incentive stock options, the Sesen Bio board of directors may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Amended and Restated Plan adopted in accordance with the procedures described above will apply to, and be binding on the holders of, all awards outstanding under the Amended and Restated Plan at the time the amendment is adopted, provided that the Sesen Bio board of directors determines that such amendment, taking into account any related action, does not materially and adversely affect the rights of participants under the Amended and Restated Plan. No award will be made that is conditioned on stockholder approval of any amendment to the Amended and Restated Plan unless the award provides that (i) it will terminate or be forfeited if stockholder approval of such amendment is not obtained within no more than 12 months from the date the award was granted and (ii) it may not be exercised or settled (or otherwise result in the issuance of shares of Sesen Bio common stock) prior to the receipt of such Sesen Bio stockholder approval.

Federal Income Tax Consequences

The following summarizes the federal income tax consequences of awards that may be granted under the Amended and Restated Plan. This summary is based on the federal tax laws in effect as of the date of this proxy statement/prospectus. In addition, this summary assumes that all awards are exempt from, or comply with, the rules under Section 409A of the Code regarding nonqualified deferred compensation. Changes to these laws could alter the tax consequences described below.

Incentive Stock Options. An optionee who is granted an incentive stock option does not recognize taxable income at the time the option is granted or upon its exercise, although the exercise may subject the optionee to the alternative minimum tax. Upon a disposition of the shares more than two years after grant of the option and one year after exercise of the option, any gain or loss is treated as long-term capital gain or loss. If these holding periods are not satisfied, the optionee recognizes ordinary income at the time of disposition equal to the difference between the exercise price and the lower of (i) the fair market value of the shares at the date of the option exercise or (ii) the sale price of the shares. Any gain or loss recognized on such a premature disposition of the shares to the extent not recognized as taxable income as provided above, will be long-term or short-term capital gain or loss, depending on the holding period.

Nonstatutory Stock Options. An optionee does not recognize taxable income at the time the option is granted. Upon exercise, the optionee recognizes taxable income generally measured by the excess of the then fair market value of the shares over the exercise price. Any taxable income recognized in connection with an option exercise by an employee of the combined company is subject to tax withholding by Sesen Bio. Upon a disposition of such shares by the optionee, any difference between the sale price and the optionee's exercise price, to the extent not recognized as taxable income as provided above, is treated as long-term or short-term capital gain or loss, depending on the holding period.

Stock Appreciation Rights. A holder of a SAR does not recognize taxable income at the time a SAR is granted. Upon exercise, the participant will recognize ordinary income in an amount equal to the amount of cash received and the fair market value of the shares received, and if granted to an employee, tax withholding is generally due. Any additional gain or loss recognized upon any later disposition of the shares would be capital gain or loss, depending on the holding period.

Restricted Stock. A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have ordinary income equal to the fair market value of the stock on the date of grant less the purchase price, if any. When the stock is sold, the participant

will have capital gain or loss equal to the difference between the sales proceeds and the fair market value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have ordinary income equal to the fair market value of the stock on the vesting date less the purchase price, if any. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year, and otherwise will be short-term. If the participant is an employee, any ordinary income generally is subject to withholding of income and employment taxes.

Restricted Stock Units. A participant generally will recognize no income upon the grant of a restricted stock unit. Upon the settlement and/or payment of Sesen Bio RSUs, participants normally will recognize ordinary income in the year of receipt in an amount equal to the cash received and the fair market value of any nonrestricted shares received. If the participant is an employee, such ordinary income generally is subject to withholding taxes. Upon the sale of any shares received, any gain or loss, based on the difference between the sale price and the fair market value on the settlement date, will be taxed as short term or long term capital gain or loss, depending on the holding period.

Other Stock-Based Awards. The tax consequences associated with any other stock-based award granted under the Amended and Restated Plan will vary depending on the specific terms of such award. Among the relevant factors are whether or not the award has a readily ascertainable fair market value, whether or not the award is subject to forfeiture provisions or restrictions on transfer, the nature of the property to be received by the participant under the award, and the participant's holding period and tax basis for the award or underlying common stock.

Tax Consequences to Sesen Bio. There will be no tax consequences to Sesen Bio except that Sesen Bio will be entitled to a deduction when a participant has ordinary income, subject to the limitations of Section 162(m) of the Code.

Vote Required

The affirmative vote of a majority in voting power of the votes cast by the holders of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal No. 3. Abstentions will have no effect on Proposal No. 3.

Recommendation of Sesen Bio Board of Directors

THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 3 TO APPROVE THE AMENDED AND RESTATED PLAN.

Proposal No. 4: Approval of an amendment to the 2014 ESPP

At the Sesen Bio special meeting, Sesen Bio stockholders will be asked to consider and vote upon a proposal to approve an amendment to the 2014 ESPP to increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 ESPP to shares of Sesen Bio common stock, referred to in Proposal No. 4 as the ESPP Increase.

Overview

The 2014 ESPP was adopted by the Sesen Bio board of directors on December 18, 2013 and approved by Sesen Bio stockholders on January 14, 2014. The 2014 ESPP was amended on May 3, 2021 to increase the number of shares of Sesen Bio common stock available for issuance under the 2014 ESPP. On , 2022, the Sesen Bio board of directors adopted, subject to stockholder approval and the closing of the merger, Amendment No. 2 to the 2014 ESPP to increase the number of shares of Sesen Bio common stock reserved for issuance under the 2014 ESPP. The 2014 ESPP, as amended by the ESPP Increase, will provide eligible employees with the opportunity to purchase up to an aggregate of shares of Sesen Bio common stock. As of September 20, 2022, 2.3 million shares of Sesen Bio common stock had been reserved for issuance under the 2014 ESPP.

Sesen Bio believes that the availability of an adequate reserve of shares of Sesen Bio common stock for issuance under the 2014 ESPP will benefit the combined company by providing employees with an opportunity to acquire shares of Sesen Bio common stock, and will enable the combined company to attract, retain and motivate key employees with experience and ability. Further, Sesen Bio believes it is in the best interest of the combined company to encourage stock ownership by its employees. Therefore, Sesen Bio considers approval of the ESPP Increase vital to the future success of the combined company.

Description of the 2014 ESPP

All of the combined company's employees, including directors who are employees, and all employees of any of the combined company's subsidiaries designated by the Sesen Bio board of directors from time to time, are eligible to participate in the 2014 ESPP provided that:

- such person is customarily employed by Sesen Bio or a designated subsidiary of Sesen Bio for more than 20 hours a week and for more than five months in a calendar year;
- such person has been employed by Sesen Bio or a designated subsidiary of Sesen Bio for at least six months prior to enrolling in the 2014 ESPP; and
- such person was an employee of Sesen Bio or a designated subsidiary of Sesen Bio on the first day of the applicable plan period.

No employee is eligible to receive an option to purchase Sesen Bio common stock that would result in the employee owning 5% or more of the total combined voting power or value of Sesen Bio's capital stock or the capital stock of any of Sesen Bio's subsidiaries immediately after the grant of such option. For purposes of determining stock ownership of an employee, certain attribution rules under the Code will apply, and all Sesen Bio capital stock which the employee has a contractual right to purchase will be treated as stock owned by the employee.

Sesen Bio has made, and it expects the combined company to continue to make one or more offerings to its eligible employees to purchase Sesen Bio common stock under the 2014 ESPP. Each offering consists of a six-month offering period during which payroll deductions are made and held for the purchase of Sesen Bio common stock at the end of the offering period. The Sesen Bio board of directors may, in its discretion, choose a different plan period of no more than 12 months for offerings.

With respect to any offering under the 2014 ESPP, an employee may authorize a payroll deduction in any dollar amount up to a maximum of 15% of the compensation such employee receives during the plan period (or during such shorter period during which payroll deductions are made). Compensation is defined under the 2014 ESPP to mean the amount of money reportable on the employee's federal income tax withholding statement, excluding overtime, shift premium, incentive or bonus awards, allowances and reimbursements for expenses such as relocation allowances for travel expenses, income or gains associated with the grant or vesting of

restricted stock, income or gains on the exercise of stock options or SARs, and similar items, but including, in the case of salespersons, sales commissions to the extent determined by the Sesen Bio board of directors. The Sesen Bio board of directors may, in its discretion, designate a lower maximum contribution rate, and a minimum payroll deduction may be established from time to time by the Sesen Bio board of directors.

On the first day of each plan period, Sesen Bio will grant to each eligible employee who is then a participant in the 2014 ESPP an option to purchase up to a number of shares of Sesen Bio common stock determined by dividing (a) the product of $2,083 and the number of full months in the plan period by (b) the closing price of a share of Sesen Bio common stock on the first day of the plan period (as determined under the 2014 ESPP). No employee may be granted an option under the 2014 ESPP that permits his or her rights to purchase Sesen Bio common stock under the 2014 ESPP and any other employee stock purchase plans of Sesen Bio or a subsidiary of Sesen Bio to accrue at a rate that exceeds $25,000 of the fair market value of Sesen Bio common stock (determined on the date the option is granted) for each calendar year in which the option is outstanding at any time. Further, the Sesen Bio board of directors may, in its discretion, set a fixed maximum number of shares of Sesen Bio common stock that each eligible employee may purchase per plan period, so long as that number is not greater than the number of shares of Sesen Bio common stock determined by using the formula described above and is subject to $25,000 limitation described above. Each employee who continues to be a participant in the 2014 ESPP on the last business day of the plan period (referred to as the exercise date) is deemed to have exercised the option at the option price on such date and will be deemed to have purchased from Sesen Bio the number of whole shares of Sesen Bio common stock reserved for purposes of the 2014 ESPP that such employee's accumulated payroll deductions on the exercise date will pay for, up to the maximum number determined as set forth above.

Under the terms of the 2014 ESPP, the option price will be determined by the Sesen Bio board of directors for each plan period and the option price will be at least 85% of the applicable closing price of Sesen Bio common stock (determined as provided under the 2014 ESPP). If the Sesen Bio board of directors does not make a determination of the option price, the option price will be 85% of the lesser of the closing price of Sesen Bio common stock (determined as provided under the 2014 ESPP) on either (a) the first business day of the plan period or (b) the exercise date.

Any balance remaining in an employee's payroll deduction account at the end of a plan period will be automatically refunded to the employee, except that any balance that is less than the purchase price of one share of Sesen Bio common stock will be carried forward for the following offering, unless the employee elects not to participate in the following offering, in which case the balance in the employee's account will be refunded. An employee may withdraw the balance accumulated in such employee's account and withdraw from participation in an offering at any time prior to the close of business on the fifteenth business day prior to the end of the plan period. Any employee who so withdraws may not begin participating again during the remainder of the plan period but may participate in any subsequent offering in accordance with the terms and conditions established by the Sesen Bio board of directors.

If any employee's employment ends before the last business day of a plan period, the employee's account balance will be refunded to the employee (without any reductions for payroll deductions). In the event of the employee's death before the last business day of a plan period, Sesen Bio will, upon notification of such death, pay the balance of the employee's account to the executor or administrator of the employee's estate, or if no executor or administrator has been appointed to Sesen Bio's knowledge, to any other person Sesen Bio designate in its discretion. If, before the last business day of a plan period, a designated subsidiary in which an employee is employed ceases to be a subsidiary of Sesen Bio, or if the employee is transferred to a subsidiary that is not a designated subsidiary, the employee will be deemed to have terminated employment for purposes of the 2014 ESPP.

Options under the 2014 ESPP are not transferable by a participating employee other than by will or the laws of descent and distribution, and are exercisable during the employee's lifetime only by the employee.

All funds received or held by Sesen Bio under the 2014 ESPP may be combined with other corporate funds and may be used for any corporate purposes. Shares of Sesen Bio common stock may be issued upon exercise of an option from authorized but unissued shares of Sesen Bio common stock, from shares held in Sesen Bio's treasury, or from any other proper source. In the event the total number of shares of Sesen Bio common stock specified in elections to be purchased under any offering plus the number of shares of Sesen Bio common stock purchased under previous offerings under the 2014 ESPP exceeds the maximum number of shares of Sesen Bio common stock issuable under the 2014 ESPP, the Sesen Bio board of directors will allot the shares of Sesen Bio common stock then available on a pro-rata basis.

The 2014 ESPP will be administered by the Sesen Bio board of directors or by a committee appointed by the Sesen Bio board of directors. The Sesen Bio board of directors or such committee has the authority to make rules and regulations for the administration of the 2014 ESPP and its interpretation and decisions with regard thereto will be final and conclusive.

If the ESPP Increase is approved, up to shares of Sesen Bio common stock will be available for issuance under the 2014 ESPP. Sesen Bio will be required to make equitable adjustments in the manner determined by the Sesen Bio board of directors to the number and class of securities available under the 2014 ESPP and the option price to reflect stock splits, reverse stock splits, stock dividends, recapitalizations, combinations of shares, reclassifications of shares, spin-offs and other similar changes in capitalization or any distribution to holders of Sesen Bio common stock other than an ordinary cash dividend.

Upon the occurrence of a reorganization event (as defined below), the Sesen Bio board of directors is authorized to take any one or more of the following actions as to outstanding options under the 2014 ESPP:

- provide that options will be assumed, or substantially equivalent options will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to employees, provide that all outstanding options will be terminated immediately prior to the consummation of the reorganization event and that all such outstanding options will become exercisable to the extent of accumulated payroll deductions as of a date specified by the Sesen Bio board of directors in such notice, which date will not be less than 10 days preceding the effective date of the reorganization event;
- upon written notice to employees, provide that all outstanding options will be cancelled as of a date prior to the effective date of the reorganization event and that all accumulated payroll deductions will be returned to participating employees on such date;
- upon the occurrence of a reorganization event in which holders of Sesen Bio common stock will receive a cash payment for each share surrendered in the reorganization event, or the acquisition price, change the last day of the plan period to be the date of the consummation of the reorganization event and make or provide for a cash payment to each employee equal to the acquisition price times the number of shares of Sesen Bio common stock that the employee's accumulated payroll deductions as of immediately prior to the reorganization event could purchase at the option price, where the acquisition price is treated as the fair market value of the common stock and where the number of shares of Sesen Bio common stock that could be purchased is subject to the limitations set forth in the 2014 ESPP, minus the result of multiplying such number of shares of Sesen Bio common stock by the option price;
- provide that, in connection with a liquidation or dissolution of Sesen Bio, options will convert into the right to receive liquidation proceeds (net of the option price); and
- any combination of the foregoing.

A "reorganization event" is defined under the 2014 ESPP as (i) any merger or consolidation of Sesen Bio with or into another entity as a result of which all of Sesen Bio common stock is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (ii) a transfer or disposition of all of Sesen Bio common stock for cash, securities or other property pursuant to a share exchange or other transaction, or (iii) Sesen Bio's liquidation or dissolution.

In order to comply with the laws of any foreign jurisdiction, Sesen Bio may grant options to employees or employees of designated subsidiaries who are citizens or residents of such foreign jurisdiction with terms that are less favorable (but not more favorable) than the terms of options granted under the 2014 ESPP to employees who are residents of the United States. Sesen Bio's employees or employees of Sesen Bio's designated subsidiaries who are citizens or residents of a foreign jurisdiction may be excluded from eligibility under the 2014 ESPP if the grant of an option under the 2014 ESPP to a citizen or resident of the foreign jurisdiction is prohibited under the laws of such jurisdiction or if compliance with the laws of the foreign jurisdiction would cause the 2014 ESPP to violate the terms of Section 423 of the Code. Sesen Bio may add one or more appendices to the 2014 ESPP describing the operation of the 2014 ESPP in those foreign jurisdictions in which employees are excluded from participation or granted less favorable options.

The Sesen Bio board of directors may from time to time establish one or more sub-plans under the 2014 ESPP with respect to one or more of Sesen Bio's designated subsidiaries, provided such sub-plan complies with Section 423 of the Code.

The Sesen Bio board of directors may at any time, and from time to time, amend or suspend the 2014 ESPP or any portion of the 2014 ESPP. Sesen Bio is required under the 2014 ESPP to obtain stockholder approval for any amendment if such approval is required by Section 423 of the Code. Further, the Sesen Bio board of directors may not make any amendment that would cause the 2014 ESPP to fail to comply with Section 423 of the Code. The Sesen Bio board of directors may terminate the 2014 ESPP at any time. Upon termination, Sesen Bio will refund all amounts in the accounts of participating employees.

Federal Income Tax Consequences

The following generally summarizes the United States federal income tax consequences that will arise with respect to participation in the 2014 ESPP and with respect to the sale of Sesen Bio common stock acquired under the 2014 ESPP. This summary is based on the tax laws in effect as of the date of this proxy statement/prospectus. Changes to these laws could alter the tax consequences described below.

Tax Consequences to Participants. A participant will not have income upon enrolling in the 2014 ESPP or upon purchasing stock at the end of a plan period.

A participant may have both ordinary income and a capital gain or loss upon the sale of Sesen Bio common stock that was acquired under the 2014 ESPP. The amount of each type of income and loss will depend on when the participant sells the stock.

If the participant sells the Sesen Bio common stock more than two years after the commencement of the 2014 ESPP period during which the Sesen Bio common stock was purchased and more than one year after the date that the participant purchased the stock, at a profit (the sales proceeds exceed the purchase price), then the participant will have ordinary income equal to the lesser of:

- 15% of the value of the Sesen Bio common stock on the day the plan period commenced; and
- the participant's profit.

Any excess profit will be long-term capital gain. If the participant sells the Sesen Bio common stock at a loss (if sales proceeds are less than the purchase price) after satisfying these waiting periods, then the loss will be a long-term capital loss.

If the participant sells the Sesen Bio common stock prior to satisfying these waiting periods, then he or she will have engaged in a disqualifying disposition. Upon a disqualifying disposition, the participant will have ordinary income equal to the value of the Sesen Bio common stock on the day he or she purchased the stock less the purchase price. The participant also will have a capital gain or loss equal to the difference between the sales proceeds and the value of the Sesen Bio common stock on the day he or she purchased the Sesen Bio common stock. This capital gain or loss will be long-term if the participant has held the Sesen Bio common stock for more than one year and otherwise will be short-term.

Tax Consequences to Sesen Bio. There will be no tax consequences to Sesen Bio except that Sesen Bio will be entitled to a deduction when a participant has ordinary income upon a disqualifying disposition. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

New Plan Benefits

Participation in the 2014 ESPP is discretionary. The benefits received by any individual under the 2014 ESPP are dependent upon the individual's decision to participate in the 2014 ESPP, the amount that the individual decides to contribute to the 2014 ESPP and the fair market value of Sesen Bio common stock on the exercise date. As a result, it is not possible to determine the benefits that will be received under the 2014 ESPP by Sesen Bio named executive officers, other executive officers and other employees if the ESPP Increase is approved by the Sesen Bio stockholders. Non-employee directors, consultants and advisors are not eligible to participate in the 2014 ESPP.

Vote Required

The affirmative vote of a majority in voting power of the votes cast by the holders of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal No. 4. Abstentions will have no effect on Proposal No. 4.

Recommendation of Sesen Bio Board of Directors

THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 4 TO APPROVE AN AMENDMENT TO THE 2014 ESPP.

Proposal No. 5: Approval of possible adjournment of the Sesen Bio special meeting

At the Sesen Bio special meeting, Sesen Bio stockholders will be asked to consider and vote upon a proposal to approve one or more adjournments of the Sesen Bio special meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 and 2.

If the number of shares of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting voting in favor of Proposal Nos. 1 or 2 is insufficient to approve such proposal at the time of the Sesen Bio special meeting, then Sesen Bio may move to adjourn the Sesen Bio special meeting in order to enable the Sesen Bio board of directors to solicit additional proxies in respect of such proposals. In that event, Sesen Bio stockholders will be asked to vote only upon the adjournment proposal, Proposal No. 5, and not on any other proposal.

Sesen Bio currently does not intend to propose adjournment at the Sesen Bio special meeting if there are sufficient votes to approve Proposal Nos. 1 and 2.

Vote Required

The affirmative vote of a majority in voting power of the votes cast by the holders of Sesen Bio common stock present or represented by proxy at the Sesen Bio special meeting and entitled to vote on the matter is required for approval of Proposal No. 5. Abstentions will have no effect on Proposal No. 5.

Recommendation of Sesen Bio Board of Directors

THE SESEN BIO BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT SESEN BIO STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 5 TO APPROVE THE ADJOURNMENT OF THE SESEN BIO SPECIAL MEETING, IF NECESSARY OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NOS. 1 OR 2.

SESEN BIO BUSINESS

Overview

Sesen Bio is a late-stage clinical company that was previously focused on advancing targeted fusion protein therapeutics, or TFPTs, for the treatment of patients with cancer. Sesen Bio's most advanced product candidate, Vicineum, also known as VB4-845, is a locally-administered targeted fusion protein composed of an anti-epithelial cell adhesion molecule, or EpCAM, antibody fragment tethered to a truncated form of Pseudomonas exotoxin A for the treatment of NMIBC.

On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following Sesen Bio's discussions with the FDA, which are further described below. Sesen Bio has turned its primary focus to consummating a strategic transaction with the goal of maximizing shareholder value. Additionally, Sesen Bio intends to seek a partner for the further development of Vicineum.

On July 15, 2022, Sesen Bio approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following the decision to pause further development of Vicineum in the U.S. The 2022 restructuring plan includes an incremental reduction in Sesen Bio's workforce as well as additional cost-saving initiatives intended to preserve capital while Sesen Bio prepares to consummate a strategic transaction with the goal of maximizing shareholder value. The 2022 restructuring plan is expected to be substantially complete by the end of the fourth quarter of 2022. Sesen Bio currently estimates that it will incur aggregate restructuring charges in the third and fourth quarters of 2022 ranging from approximately $13.0 million to $14.0 million, consisting primarily of severance and other employee-related cash costs of approximately $8.0 million, one-time cash costs associated with the termination of certain contracts of approximately $3.0 million and other cash costs associated with the 2022 restructuring plan of approximately $3.0 million. In addition to the cost savings expected from the 2022 restructuring plan, Sesen Bio is working closely with certain of its contract partners to negotiate refunds that may further offset the restructuring charges and otherwise mitigate costs.

Current Strategy

The Merger

In May 2022, Sesen Bio announced that it had commenced a process to explore and evaluate strategic alternatives to enhance stockholder value, and had engaged a financial advisor to assist Sesen Bio in this process. Sesen Bio then commenced an extensive process of evaluating strategic alternatives, including identifying and reviewing potential candidates for a strategic acquisition or other transaction as described in the section entitled "*The Merger — Background of the Merger*" beginning on page 122 of this proxy statement/prospectus. On September 21, 2022, Sesen Bio announced that it had entered into the Merger Agreement. Although Sesen Bio has entered into the Merger Agreement and intends to consummate the merger, there is no assurance that it will be able to successfully consummate the merger on a timely basis, or at all. If, for any reason, the merger does not close, the Sesen Bio board of directors may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Sesen Bio, resume its research and development activities and continue to operate the business of Sesen Bio or dissolve and liquidate its assets.

If the merger is not completed, the Sesen Bio board of directors may decide that it is in the best interests of the Sesen Bio stockholders to dissolve the company and liquidate its assets. In that event, the amount of cash available for distribution to the Sesen Bio stockholders would depend heavily on the timing of such decision and, ultimately, such liquidation, since the amount of cash available for distribution continues to decrease as Sesen Bio funds its operations and incurs fees and expenses related to the merger. In addition, if the Sesen Bio board of directors were to approve and recommend, and the Sesen Bio stockholders were to approve, a dissolution of Sesen Bio, it would be required under Delaware law to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to the Sesen Bio stockholders. As a result of this requirement, a portion of Sesen Bio's assets may need to be reserved pending the resolution of such obligations. In addition, Sesen Bio may be subject to litigation or other claims related to a liquidation and dissolution of the company. If a liquidation and dissolution were pursued, the Sesen Bio board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, the Sesen Bio stockholders could lose all or a significant portion of their investment in the event of a liquidation and dissolution of Sesen Bio.

Sesen Bio's Historical Pipeline Product Candidates

TFPT Platform

Sesen Bio's historical product candidates are based on its proprietary TFPT platform and are focused on addressing areas of unmet medical need in cancer. Sesen Bio's novel TFPTs have been designed to overcome the efficacy and safety challenges of existing antibody-drug conjugates, or ADCs, and were being developed for both local and systemic-administration. Sesen Bio's TFPTs are single protein therapeutics composed of targeting domains genetically fused via peptide linkers to cytotoxic protein payloads that are produced through its proprietary recombinant one-step, microbial manufacturing process. Sesen Bio's TFPT platform uses protein binding antibody fragments, which include Fabs, single chain variable domains, and non-covalent scFv dimers, derived from the domains of antibodies that confer antigen recognition. Sesen Bio selects antibody fragments for its product candidates depending upon the target therapeutic indication. Sesen Bio targets tumor cell surface antigens that allow for rapid internalization into the targeted cancer cell and that also have limited expression in normal cells. For local administrations, Sesen Bio utilizes an immunogenic cytotoxic protein payload designed to both target cancer cells and promote a heightened local immune response against the tumor. For systemic-administrations, Sesen Bio uses deBouganin, a plant-derived, protein payload of reduced immunogenic potential that Sesen Bio believes can be repeatedly administered via infusion without the generation of an efficacy-limiting immune response against the payload.

Locally-administered TFPTs

Sesen Bio utilizes its TFPTs with immunogenic cytotoxic protein payloads for tumors that can be targeted locally rather than systemically. Local administration allows for the TFPT to reach the tumor without being cleared by the immune system, which enables Sesen Bio to maximize the concentration of TFPTs directly to tumors. Sesen Bio's locally-administered TFPT Vicineum, which has been its lead product candidate in development for the treatment of NMIBC, contains a targeting antibody binding domain that is designed to bind to EpCAM, a protein over-expressed in many cancers. This binding domain is genetically fused to a truncated form of exotoxin A, or ETA, which is an immunogenic cytotoxic protein payload that is produced by the bacterial species Pseudomonas. This product candidate is designed to bind to EpCAM on the surface of cancer cells. The TFPT-EpCAM complex is subsequently internalized into the cell and, once inside the cell, the TFPT is cleaved by a cellular enzyme to release the cytotoxic protein payload, thus enabling cancer cell killing.

Sesen Bio also believes that its TFPTs designed for local administration may not only directly kill cancer cells through targeted delivery of a cytotoxic protein payload, but also potentiate an anti-cancer therapeutic immune response. This immune response is believed to be triggered by the immunogenic cell death of the cancer cells due to the payload's mechanism of action and the subsequent release of tumor antigens and the immunologically active setting created by the nature of the cytotoxic protein payloads. Sesen Bio believes that this immune response may also enhance the action of checkpoint inhibitors, that require a pre-existing immune response for maximum efficacy.

Sesen Bio's most advanced locally-administered TFPT product candidate is Vicineum, in development for the treatment of NMIBC and recurrent, locally advanced or metastatic EpCAM-expressing SCCHN. This TFPT is not, however, suitable for systemic-administration over multiple doses because the body's immune system would recognize and eliminate foreign proteins, such as ETA, prior to their reaching targeted cancer cells. Sesen Bio has deferred further development of Vicineum for the treatment of SCCHN in order to focus its efforts and resources on development and, if approved, the commercialization of Vicineum for the treatment of NMIBC. Sesen Bio had also been exploring collaborations for the development of Vicineum for the treatment of SCCHN.

Vicineum for the treatment of NMIBC

Sesen Bio completed the follow-up stage of its single-arm, multi-center, open-label Phase 3 clinical trial of Vicineum as a monotherapy in patients with BCG-unresponsive NMIBC, or the VISTA Trial in May 2022. The VISTA Trial completed enrollment in April 2018 with a total of 133 patients. In December 2020, Sesen Bio submitted its completed BLA for Vicineum for the treatment of BCG-unresponsive NMIBC to the FDA, which was accepted for filing by the FDA in February 2021. The FDA granted Priority Review for the BLA and set a target Prescription Drug User Fee Act, or PDUFA, date for a decision on the BLA of August 18, 2021. On August 13, 2021, Sesen Bio received a CRL from the FDA indicating that the FDA had determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality. On August 20, 2021, Sesen Bio withdrew

its MAA to the EMA for Vysyneum for the treatment of BCG-unresponsive NMIBC in order to pause its plans to pursue regulatory approval of Vysyneum in the E.U. until there was more clarity from the FDA on next steps for Vicineum in the U.S. Vysyneum is the proprietary brand name that was conditionally approved by the EMA for oportuzumab monatox in the E.U. In October 2021, the EMA issued its Withdrawal Assessment Report relating to its MAA for Vysyneum, as is consistent with the EMA's standard practice when an MAA is withdrawn. The EMA Withdrawal Assessment Report reflects the initial assessment and corresponding questions from the EMA and identifies major objections in the areas of quality, good clinical practice, efficacy and safety. As a result of Sesen Bio's decision on July 15, 2022 to pause further development of Vicineum in the U.S., Sesen Bio no longer plans to pursue regulatory approval of Vysyneum for NMIBC in the E.U.

In October 2021 and December 2021, Sesen Bio participated in a CMC Type A meeting and a Clinical Type A meeting, respectively, with the FDA to discuss issues raised in the CRL and design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed would be required for a potential resubmission of a BLA. In March 2022, Sesen Bio participated in a Type C meeting with the FDA. During the Type C meeting, the FDA agreed to a majority of Sesen Bio's proposed protocol and statistical analysis plan design elements for an additional Phase 3 clinical trial. On July 11, 2022, Sesen Bio participated in a Type B meeting with the FDA to discuss outstanding items related to Sesen Bio's proposed protocol and statistical analysis plan design elements for an additional Phase 3 clinical trial. As discussed above, on July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S.

Systemically-administered TFPTs

Sesen Bio also utilizes its TFPTs with a de-immunized payload where systemic-administration is required. Sesen Bio's systemically-administered TFPTs are built around deBouganin. Since the body's immune system naturally recognizes and attempts to eliminate foreign proteins, Sesen Bio designed its systemically-administered TFPTs with a deBouganin payload to avoid inducing an immunogenic response. DeBouganin is constructed by mutating the immunogenic T-cell epitopes from bouganin so that they are not recognized as foreign by the immune system. However, Sesen Bio also believes that deBouganin may enhance the action of checkpoint inhibitors as a result of the promotion of a local tumor immune response following the death of cancer cells. Sesen Bio's systemically-administered product candidate is VB6-845d for the treatment of multiple types of EpCAM-positive solid tumors.

Sale of EBI-031 Legacy Technology to Roche

In June 2016, Sesen Bio entered into a license agreement with Roche, or the Roche License Agreement, pursuant to which Sesen Bio granted Roche an exclusive, worldwide license, including the right to sublicense, to its patent rights and know-how related to its monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by Sesen Bio, or collectively, the Licensed Intellectual Property. Under the Roche License Agreement, Roche was required to continue developing, at its cost, EBI-031 and any other product made from the Licensed Intellectual Property that contains an IL-6 antagonist monoclonal antibody, or the Roche Licensed Product, and pursue ongoing patent prosecution, at its cost. At the time of the Roche License Agreement, EBI-031, which was derived using Sesen Bio's previous AMP-Rx platform, was in pre-clinical development as an intravitreal injection for diabetic macular edema and uveitis.

On July 15, 2022, Sesen Bio executed the Roche Asset Purchase Agreement pursuant to which Roche purchased all patent rights and know-how related to the monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by Sesen Bio for up to $70.0 million. As a result of the Roche Asset Purchase Agreement, the Roche License Agreement was terminated resulting in no further diligence, milestone or royalty payment obligations under the Roche License Agreement. Pursuant to the Roche Asset Purchase Agreement, Roche made a $40.0 million payment to Sesen Bio upon execution of the Roche Asset Purchase Agreement. The Roche Asset Purchase Agreement also provides that Roche will make an additional $30.0 million payable to Sesen Bio upon Roche's initiation of a Phase 3 clinical trial with EBI-031 for a certain indication if initiated prior to December 31, 2026.

Competition

The pharmaceutical industry is highly competitive, subject to rapid and significant technological change and has a strong emphasis on developing proprietary products. While Sesen Bio believes that its next generation TFPT platform, knowledge, experience and scientific resources provide Sesen Bio with competitive advantages, Sesen Bio faces competition from both large and small pharmaceutical and biotechnology companies, academic institutions and other research organizations; specifically with

companies, institutions and organizations that are actively researching and developing products that attach proprietary cell-killing payloads to antibodies for targeted delivery to cancer cells. Sesen Bio's competitors include, but are not limited to:

- NMIBC: Merck & Co., Inc. (Keytruda/pembrolizumab and BCG) (approved drugs), Endo Pharmaceuticals Inc. (Valstar/valrubicin) (approved drug), FerGene Inc. (Adstiladrin/nadofaragene firadenovec (rAd-IFN/Syn3)), Medical Enterprises Ltd. (Synergo RITE plus mitomycin C), Aadi, LLC (ABI-009), ImmunityBio (Anktiva/N-803 in combination with BCG), CG Oncology. (CG0070), Theralase Technologies Inc. (TLD-1433 photodynamic compound), Bristol-Myers Squibb (Opdivo/nivolumab with or without BCG or BMS-986205), F. Hoffmann-La Roche AG (Tecentriq/Atezolizumab), AstraZeneca (Imfinzi/durvalumab with or without BCG or External Beam Radiotherapy), Eli Lilly and Company (Gemcitabine) and Telormedix SA (Vesimune); Pfizer, Inc. (Sasanlimab) as well as the emerging use of generic intravesical chemotherapy agents, such as mytomycin-C, Gemcytabine and Gemcytobine + Docetaxel;

- SCCHN: Bristol-Myers Squibb Company (Opdivo/nivolumab) (approved drug), Eli Lilly and Company, and Merck (Erbitux, pembrolizumab) (approved drugs);

- Multiple types of solid tumors: Amgen Inc. (Panitumumab) (approved drug), Bayer AG and Onyx Pharmaceuticals (Sorafenib) (approved drug), Bristol-Myers Squibb Company, Eli Lilly and Company, and Merck (Erbitux) (approved drug), F. Hoffmann-La Roche AG (Bevacizumab) (approved drug), Genentech, Inc. (Bevacizumab, Erlotinib and Trastuzumab) (approved drugs), Pfizer, Inc. (Sunitinib) and Trion Research GmbH (Removab); and

- In addition to competition from alternative treatments, Sesen Bio may also face competition from products that are biosimilar to, and possibly interchangeable with, its product candidates. Biosimilar products are expected to become available over the coming years. Even if Sesen Bio's product candidates achieve marketing approval, they may be priced at a significant premium over competitive biosimilar products if any have been approved by then and insurers or other third-party payors may encourage or even require the use of lower priced biosimilar products. Even if Sesen Bio treatments receive market authorization, they may not be listed on the formularies of payors (public or private insurers) or reimbursed. This may impact the uptake of the drug as a treatment option for patients and/or the price at which the drug can be sold at. Further, if the drug is reimbursed it may be at a narrower indication than the full scope of market authorization.

Many of Sesen Bio's competitors have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical studies, conducting clinical trials, obtaining regulatory approval and marketing than Sesen Bio does. These competitors are also active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Moreover, specialized biologics, biopharmaceutical and biotechnology companies may prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Sesen Bio's commercial opportunity could be substantially limited in the event that its competitors develop and commercialize products that are more effective, safer, less toxic, more convenient or cheaper than its comparable products. In geographies that are critical to Sesen Bio's commercial success, competitors may also obtain regulatory approvals before Sesen Bio, resulting in its competitors building a strong market position in advance of its product's entry. Sesen Bio believes the factors determining the success of its programs will be the drug design, effectiveness against multi-drug resistance mechanisms, efficacy, safety, price and convenience of its product candidates.

Sales and Marketing

Sesen Bio does not currently have the sales and marketing infrastructure in place that would be necessary to sell and market products. Sesen Bio has no current plans to build the infrastructure that would be needed to successfully market and sell any successful drug candidate on its own, and would therefore need to seek strategic alliances and partnership with third parties.

Manufacturing

Sesen Bio previously leased a 31,100 square foot manufacturing, laboratory, warehouse and office facility in Winnipeg, Manitoba, with classified fermentation suite and post-production processing capabilities that were dedicated to producing its pre-

clinical study and clinical trial batches of Vicineum. In September 2017, Sesen Bio completed the manufacturing of all Vicineum necessary for its Phase 3 VISTA Trial and for its Cooperative Research and Development Agreement, or CRADA, with the NCI. In conjunction with this achievement, Sesen Bio ended its manufacturing activities at its facility in Winnipeg and completed the technology transfer process to outsource future Vicineum clinical and commercial manufacturing to third-party manufacturers.

In October 2018, Sesen Bio entered into a Master Bioprocessing Services Agreement with Fujifilm Diosynth Biotechnologies U.S.A., Inc., or the Fujifilm MSA, for the manufacturing process and technology transfer of Vicineum drug substance production.

In November 2019, Sesen Bio entered into a Commercial Manufacturing and Supply Agreement with Baxter, or the Baxter CMSA, for the manufacturing process and technology transfer of Vicineum drug product production.

In June 2021, Sesen Bio entered into a Global Supply Agreement with Qilu pursuant to which Qilu will be part of the manufacturing network for, if approved, global commercial supply of Vicineum drug substance and drug product.

In connection with Sesen Bio's decision to voluntarily pause further development of Vicineum, Sesen Bio commenced the process to wind down its manufacturing operations by terminating the Fujifilm MSA and Baxter CMSA on July 17, 2022 and July 20, 2022, respectively. Sesen Bio requested that Fujifilm and Baxter cease all work under the respective agreements and refrain from incurring any additional costs or expenses. As a result of the termination, and in accordance with the terms of the Fujifilm MSA, Sesen Bio has the responsibility to pay Fujifilm for certain non-manufacturing stage services and current Good Manufacturing Practice batches of drug substance of Vicineum.

Intellectual Property

Sesen Bio currently owns or exclusively licenses approximately 13 families of patents and applications, which generally relate to its TFPT-based product candidates and evolving its platform of targeting agents, cytotoxins (such as deBouganin) and linker technologies. As Sesen Bio's product candidates evolve through clinical development, the company continues to monitor advancements and bolster patent coverage where possible.

Sesen Bio exclusively license two families under the Zurich License Agreement, which, among other things, include composition of matter claims directed to EpCAM antibody chimeras, EpCAM antibody chimera-cytotoxin conjugates, and their potential use in treating bladder and head and neck cancer. These families claim all or portions of Vicineum, as well as methods of treating bladder and head and neck cancer consist of issued patents in the U.S., Europe, Canada, China, Israel and Japan and also include pending applications in the U.S. The expiry dates of the patents in this family are April 2024 and June 2025, subject to any applicable patent term adjustment or extension that may be available on a jurisdictional basis. See the section entitled "Our Vicineum License Agreements" in Sesen Bio's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 for additional information. In addition to the Zurich portfolio, Sesen Bio owns two issued U.S. patents related to Vicineum. The expiry date of these patents is February 2029, subject to any applicable patent term extension that may be available on a jurisdictional basis. In addition, Sesen Bio has patent families relating to treatment regimens using Vicineum that include issued patents in the U.S., Australia and Japan and patent applications in Canada and Europe. These patents will expire in 2036.

Additionally, Sesen Bio has a license agreement with Micromet AG, or Micromet, or the Micromet License Agreement, now part of Amgen, Inc., which grants Sesen Bio non-exclusive rights, with certain sublicense rights, for know-how and patents allowing exploitation of certain single chain antibody products. These patents cover some key aspects of Vicineum. See the section entitled "Our Vicineum License Agreements" in Sesen Bio's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 for additional information.

Sesen Bio also has a license agreement with XOMA Ireland Limited, or XOMA, or the XOMA License Agreement, which grants Sesen Bio non-exclusive rights, with certain sublicense rights, to certain XOMA patent rights and know-how related to certain expression technology, including plasmids, expression strains, plasmid maps and production systems. These patents and related know-how cover some key aspects of Vicineum. See the section entitled "Our Vicineum License Agreements" in Sesen Bio's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 for additional information.

Sesen Bio's OUS Business Development Partnering

In connection with Sesen Bio's decision to voluntarily pause further development of Vicineum, Sesen Bio has commenced the process to wind down its OUS business development partnerships in the Middle East and North Africa region, or MENA, and Turkey by providing notice of termination for its exclusive license agreements in these respective regions on July 20, 2022. In connection with the termination of the exclusive license agreement with Sesen Bio's partner in MENA, Sesen Bio was required to refund the $3.0 million upfront payment paid to the company.

Greater China

On July 30, 2020, Sesen Bio and its wholly-owned subsidiary, Viventia Bio, Inc., entered into the Qilu License Agreement pursuant to which Sesen Bio granted Qilu an exclusive, sublicensable, royalty-bearing license, under certain intellectual property owned or exclusively licensed by Sesen Bio, to develop, manufacture and commercialize Vicineum for the treatment of BCG-unresponsive NMIBC and other types of cancer in China, Hong Kong, Macau and Taiwan, or Greater China. Sesen Bio also granted Qilu a non-exclusive, sublicensable, royalty-bearing sublicense, under certain other intellectual property licensed by Sesen Bio to develop, manufacture and commercialize Vicineum in Greater China. Sesen Bio retains (i) development and commercialization rights in the rest of the world excluding Greater China and (ii) manufacturing rights with respect to Vicineum in the rest of the world excluding Greater China.

During 2020, Sesen Bio received a total of $10.0 million in net proceeds associated with the Qilu License Agreement. Sesen Bio is also entitled to receive up to an additional $23.0 million upon the achievement of certain technology transfer, development and regulatory milestones, as well as a 12% royalty based upon annual net sales of Vicineum in Greater China. The royalties are payable upon the first commercial sale of Vicineum in a region and continuing until the latest of (i) twelve years after the first commercial sale of Vicineum in such region, (ii) the expiration of the last valid patent claim covering or claiming the composition of matter, method of treatment, or method of manufacture of Vicineum in such region, and (iii) the expiration of regulatory or data exclusivity for Vicineum in such region. The royalty rate is subject to reduction under certain circumstances, including when there is no valid claim of a licensed patent that covers Vicineum in a particular region or no data or regulatory exclusivity of Vicineum in a particular region.

The IND for Vicineum submitted by Qilu to the Center for Drug Evaluation of the China National Medical Products Administration was accepted for review in January 2021 and approved in March 2021, resulting in a $3.0 million milestone payment from Qilu, the first milestone payment out of the $23.0 million in potential milestone payments. Sesen Bio recorded $2.8 million (net of value-added tax, or VAT) as license revenue during the three-month period ended March 31, 2021.

In June 2021, the Qilu License Agreement was recognized by Shandong Province, Bureau of Science and Technology as "Technology Transfer". An agreement that is designated as a Technology Transfer shall be entitled to a tax incentive of VAT recovery. As such, Sesen Bio recorded $0.9 million of revenue during the three months ended June 30, 2021, for additional purchase price resulting from Qilu's obligation to pay Sesen Bio an amount equal to its recovery of VAT. Sesen Bio will not be subject to VAT on future potential milestone payments to Qilu.

On July 20, 2021 Sesen Bio and Qilu announced the enrollment of the first patient in China in a Phase 3 clinical trial to assess the efficacy and safety of Vicineum in patients with BCG-unresponsive NMIBC. The open-label, single-arm, multi-center bridging trial will evaluate the efficacy and safety of Vicineum in approximately 53 patients with carcinoma in situ, or CIS, with or without papillary disease, high-grade Ta papillary disease or T1 papillary disease of any grade. Patients will be required to have failed previous treatment with BCG for inclusion in the trial. The primary endpoints are the complete response rate (for CIS patients) and the recurrence-free rate (for papillary patients) at six months, with the complete response rate and the recurrence-free rate at three months, safety and tolerability as the secondary endpoints. Based on the Qilu License Agreement, the trial is being run at the sole cost of Qilu.

Government Regulation

As a clinical-stage biologics company, Sesen Bio is subject to extensive regulation by the FDA, and other national, supranational, state, provincial and local regulatory agencies. Sesen Bio is also subject to extensive regulation by similar governmental authorities in other countries in which it operates. In the United States, the Federal Food, Drug, and Cosmetic Act, or FDCA, and the Public Health Service Act, or PHSA and their implementing regulations set forth, among other things, requirements for the research, testing, development, manufacture, quality control, safety, effectiveness, approval, post-approval monitoring and reporting, labeling, storage,

record keeping, distribution, import, export, advertising and promotion of Sesen Bio's product candidates. Although the discussion below focuses on regulation in the United States, Sesen Bio may seek marketing approval in other countries were it to resume development of Vicineum. Generally, Sesen Bio's activities in other countries will be subject to regulation that is similar in nature and scope to that imposed in the United States, although there can be important differences. Additionally, some significant aspects of regulation in the E.U. are addressed in a centralized way through the European Commission following the opinion of the EMA, but country-specific regulation in the individual European Union Member States, or E.U. Member States, remains essential in many respects. The process of obtaining regulatory marketing approvals and the subsequent compliance with appropriate supranational, federal, state, provincial, local and non-U.S. statutes and regulations require the expenditure of substantial time and financial resources, and Sesen Bio may not be successful in any given jurisdiction were it to resume development of Vicineum.

U.S. Government Regulation

In the United States, drug products are regulated by the FDA under the FDCA and other laws, including, in the case of biologics, the PHSA. Drug products are also subject to other federal, state and local statutes and regulations. A failure to comply with any applicable requirements during the product development, approval, or post-approval periods may lead to administrative or judicial sanctions, including, among other things, the imposition by the FDA or an institutional review board, or IRB, of a hold on clinical trials, refusal to approve pending marketing applications or supplements, withdrawal of approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, or administrative, civil and/or criminal investigation, penalties or prosecution.

Were Sesen Bio to resume development of Vicineum, the FDA would regulate Vicineum in the United States as a biologic. Biologics require the submission of a BLA and approval by the FDA prior to being marketed in the United States. Manufacturers of biologics may also be subject to state and local regulation.

The steps required before a biologic may be marketed in the United States generally include:

- completion of pre-clinical studies, animal studies and formulation studies, some in compliance with the FDA's current Good Laboratory Practices, or GLP, regulations, and the Animal Welfare Act administered and enforced by the United States Department of Agriculture;
- submission to the FDA of an IND to support human clinical testing, which must become effective before human clinical trials may commence;
- approval by an IRB before each trial may be initiated at each clinical site;
- performance of adequate and well-controlled clinical trials under protocols submitted to the FDA and reviewed and approved by each IRB, conducted in accordance with federal regulations and current Good Clinical Practices, or GCP, to establish the safety, purity and potency of the biologic for each targeted indication;
- submission of a BLA to the FDA;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facilities at which the biologic is produced to assess compliance with cGMP and to assure that the facilities, methods and controls are adequate; and
- FDA review and approval of a BLA.

Pre-clinical Studies

Pre-clinical studies include laboratory evaluation of product chemistry, formulation and toxicity, as well as animal studies to assess the characteristics and potential safety and efficacy of the product candidate. The conduct of the pre-clinical studies must comply with federal regulations and requirements, including, as applicable, GLP and the Animal Welfare Act. The results of the pre-

clinical studies, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. The FDA evaluates the IND to determine whether there is an adequate basis for starting the product candidate in initial clinical trials, and the IND must become effective before human clinical trials may be commenced. Additional pre-clinical studies may continue after the IND is submitted. A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If during this 30-day period the FDA does not raise any concerns or issues that must be addressed prior to the commencement of clinical trials or does not impose a clinical hold, the IND becomes effective 30 days following the FDA's receipt of the IND and the clinical trial proposed in the IND may begin.

Clinical Trials

Clinical trials involve the administration of the product candidate to healthy volunteers or patients under the supervision of qualified investigators. Clinical trials are subject to extensive regulation and must be conducted in compliance with (i) federal regulations, (ii) GCP standards, which set safeguards to protect the rights and health of patients and establish standards for conducting, recording data from, and reporting results of clinical trials, and (iii) protocols detailing the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if any. Non-U.S. studies conducted under an IND generally must meet the same requirements that apply to studies being conducted in the United States. The informed written consent of each study patient must be obtained before the patient may begin participation in the clinical trial. The study protocol, study plan, and informed consent forms for each clinical trial must be reviewed and approved by an IRB for each clinical site, and the study must be conducted under the auspices of an IRB for each trial site. Investigators and IRBs must also comply with FDA regulations and guidelines, including those regarding oversight of study patient informed consent, complying with the study protocol and investigational plan, adequately monitoring the clinical trial, and timely reporting of adverse events.

The clinical trial program for a product candidate is generally divided into three phases. Although the phases are usually conducted sequentially, they may overlap or be combined. The three phases are as follows:

- *Phase 1*. Phase 1 involves the initial introduction of a product candidate into humans. Phase 1 clinical trials are typically conducted in healthy human subjects, but in some situations are conducted in patients with the target disease or condition. These clinical trials are generally designed to evaluate the safety, metabolism, pharmacokinetic, or PK, properties and pharmacologic actions of the product candidate in humans, the side effects associated with increasing doses and, if possible, to gain early evidence of effectiveness. During Phase 1 clinical trials, sufficient information about the product candidate's PK properties and pharmacological effects may be obtained to inform and support the design of Phase 2 clinical trials. The total number of participants included in Phase 1 clinical trials varies, but is generally in the range of 20 to 80;

- *Phase 2*. Phase 2 includes the controlled clinical trials conducted to obtain initial evidence of effectiveness of the product candidate for a particular indication(s) in patients with the target disease or condition, to determine dosage tolerance and optimal dosage, and to gather additional information on possible adverse side effects and safety risks associated with the product candidate. Phase 2 clinical trials are typically well-controlled, closely monitored, and conducted in a limited patient population, usually involving no more than several hundred participants; and

- *Phase 3*. Phase 3 clinical trials are clinical trials conducted in an expanded patient population at geographically dispersed clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the product candidate has been obtained and are intended to further evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the product candidate and to provide an adequate basis for regulatory approval. Phase 3 clinical trials usually involve several hundred to several thousand participants. In most cases, the FDA requires two adequate and well controlled Phase 3 clinical trials to demonstrate the efficacy of the product candidate, although a single Phase 3 clinical trial with other confirmatory evidence may be sufficient in certain instances.

The decision to suspend or terminate development of a product candidate may be made by either a health authority body, such as the FDA, by an IRB, or by a company for various reasons and during any phase of clinical trials. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. In some cases, clinical trials are overseen by a data safety monitoring board, or DSMB, which is an independent group of qualified experts organized by the trial sponsor to evaluate at designated points in time whether or not a trial may move forward and/or should be modified. These

decisions are based on unblinded access to data from the ongoing trial and generally involve determinations regarding the benefit-risk ratio for study patients and the scientific integrity and validity of the clinical trial.

In addition, there are requirements for the registration of certain clinical trials of product candidates on public registries, such as www.clinicaltrials.gov, and the submission of certain information pertaining to these trials, including clinical trial results, after trial completion.

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, a sponsor submits extensive information about the product candidate to the FDA in the form of a BLA to request marketing approval for the product candidate in specified indications.

Biologics License Applications

In order to obtain approval to market a biologic in the United States, a marketing application must be submitted to the FDA that provides data establishing the safety and effectiveness of the product candidate for the proposed indication. The application includes all relevant data available from pertinent pre-clinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a product candidate, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the product candidate to the satisfaction of the FDA.

Under the Prescription Drug User Fee Act, the fees payable to the FDA for reviewing an original BLA, as well as annual program fees for approved products, can be substantial, subject to certain limited deferrals, waivers and reductions that may be available. The FDA has 60 days from receipt of a BLA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. The FDA may refuse to accept for filing any BLA that it deems incomplete or not properly reviewable at the time of submission, in which case the BLA will have to be updated and resubmitted. The FDA's PDUFA review goal is to review 90% of priority BLA applications within six months of filing and 90% of standard applications within 10 months of filing, but the FDA can and frequently does extend this review timeline to consider certain later-submitted information or information intended to clarify or supplement information provided in the initial submission.

The FDA may not complete its review or approve a BLA within these established goal review times. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe, pure, and potent for its intended use, and whether the product is being manufactured in compliance with cGMP. The FDA may also refer applications for novel product candidates which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving a BLA, the FDA will inspect the facilities at which the product candidate is manufactured or the facilities that are significantly involved in the product development and distribution process and will not approve the product candidate unless cGMP compliance is satisfactory. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. Under the Pediatric Research Equity Act, certain BLAs must include an assessment, generally based on clinical trial data, of the safety and effectiveness of the biological product in relevant pediatric populations. The FDA may waive or defer the requirement for a pediatric assessment, either at a company's request or by its own initiative, including waivers for certain products not likely to be used in a substantial number of pediatric patients. Products with orphan drug designation are exempt from these requirements for orphan-designated indications with no formal waiver process required.

After the FDA evaluates the BLA and the manufacturing facilities, it issues either an approval letter or a CRL. A CRL generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. On August 13, 2021, Sesen Bio received a CRL from the FDA indicating that the FDA had determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality. If Sesen Bio were to resume development of Vicineum, it would be required to address these deficiencies to the FDA's satisfaction in a resubmission of a

BLA. The FDA's PDUFA review goal is to review such resubmissions within two or six months of receipt, depending on the type of information included. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval and deny approval of a resubmitted BLA. FDA approval of any application may include many delays or never be granted. An approval letter authorizes commercial marketing of the product candidate with specific prescribing information for specific indications. As a condition of BLA approval, the FDA may require a risk evaluation and mitigation strategy, or REMS, to help ensure that the benefits of the product outweigh the potential risks. REMS can include Medication Guides, communication plans for healthcare professionals, and also may include elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the biologic. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the biologic's safety, purity, or potency, which can be costly.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new BLA or a supplemental BLA before the change can be implemented. A supplemental BLA for a new indication typically requires clinical data similar to that in the original application, and the FDA generally uses the same procedures and actions in reviewing a supplemental BLA as it does in reviewing a new BLA.

Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if safety or manufacturing problems occur following initial marketing. For example, quality control and manufacturing procedures must conform, on an ongoing basis, to cGMP requirements, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, manufacturers must continue to spend time, money and effort to maintain cGMP compliance. In addition, new or modified government requirements, including from new legislation, may be established that could delay or prevent regulatory approval of Sesen Bio's product candidates under development or affect its ability to maintain product approvals it has obtained.

Biosimilars and Market Exclusivity

Under the Biologics Price Competition and Innovation Act of 2009, or BPCIA, the FDA can approve products that are biosimilar to (but not generic copies of) innovative biologics on the basis of less extensive data than is required by a full BLA. To be biosimilar, a biological product must be highly similar to an already-licensed FDA biological product, or reference product and can have no clinically meaningful differences in safety, purity and potency from the reference product. An interchangeable biosimilar product must meet additional standards for interchangeability and, if approved, may be substituted for the reference product. At this juncture, it is unclear whether any biosimilar product deemed "interchangeable" by the FDA, in fact, will be readily substituted by pharmacies, which are governed by state pharmacy law.

After an innovator has marketed its product for four years, a manufacturer may file an application for approval of a "biosimilar" version of the innovator product. However, although an application for approval of a biosimilar may be filed four years after approval of the innovator product, qualified innovative biological products receive 12 years of regulatory exclusivity, meaning that the FDA may not approve a biosimilar version until 12 years after the innovative biological product was first approved by the FDA under the PHSA. The BPCIA also provides a mechanism for innovators to enforce the patents that protect innovative biological products and for biosimilar applicants to challenge the patents. Such patent litigation may begin as early as four years after the innovative biological product is first approved by the FDA. Although the patents for the reference biologic may be challenged by the biosimilar applicant during that time period pursuant to the BPCIA statutory patent challenge framework, no biosimilar or interchangeable product will be licensed by the FDA until the end of the exclusivity period. The first biologic product candidate submitted under the abbreviated approval pathway that is determined to be interchangeable with the reference product has exclusivity against any other determinations of interchangeability to the reference product for the lesser of (i) one year after first commercial marketing of the interchangeable biosimilar product, (ii) 18 months after approval of the interchangeable biosimilar product if there is no legal challenge, (iii) 18 months after the resolution in the interchangeable biosimilar product applicant's favor of a lawsuit challenging the reference product's patents, and (iv) 42 months after approval of the interchangeable biosimilar product if a lawsuit is ongoing within the 42-month period.

The objectives of the BPCIA are conceptually similar to those of the Hatch-Waxman Act, which established abbreviated pathways for the approval of generic drugs. The FDA has published several guidance documents providing direction on developing and obtaining approval of biosimilar product candidates. The guidance documents to date explain, among other things, that the FDA will approve a biosimilar product if there are no clinically meaningful differences between the biological product and the reference product in terms of safety, purity and potency. A determination of biosimilarity may be based upon: (1) analytical studies showing that the biological product is highly similar to, with no clinically meaningful differences from, the reference product, (2) animal studies, including toxicity assessments, and/or (3) a clinical trial or trials (including assessment of immunogenicity and PKs) that are sufficient to demonstrate safety, purity and potency in one or more appropriate conditions of use for which the reference product is licensed and for which licensure is sought for the biological product. The FDA recommends that sponsors use a stepwise approach to developing the data and information needed to support biosimilarity. At each step, the sponsor should evaluate the extent of residual uncertainty of biosimilarity that remains and incorporate the FDA's advice for additional studies to address remaining uncertainty. To meet the higher standard for interchangeability the sponsor must demonstrate, in addition to biosimilarity, that the proposed biological product can be expected to produce the same clinical result and, if administered more than once to any given patient, the safety risk and potential for diminished efficacy associated with switching between the proposed biological product and the reference product is not greater than continuing to use the reference product. A biological product that is determined to be interchangeable may be substituted for the reference product without the intervention of the prescribing healthcare provider. In March 2015, the FDA approved the first biosimilar product under the BPCIA, and it has approved other biosimilar products since then. If Sesen Bio were to resume development of Vicineum and obtain approval by the FDA, the approval of a biosimilar to Vicineum could have a material impact on Sesen Bio. In particular, a biosimilar could be significantly less costly to bring to market and priced significantly lower than Vicineum, if approved by the FDA.

The "Purple Book," first published by the FDA in September 2014, lists biological products, including any biosimilar and interchangeable biological products licensed by the FDA under the PHSA. The lists include the date a biological product was licensed under Section 351(a) of the PHSA and whether the FDA evaluated the biological product for reference product exclusivity under Section 351(k)(7) of the PHSA. The Purple Book will also enable a user to see whether a biological product licensed under Section 351(k) of the PHSA has been determined by the FDA to be biosimilar to or interchangeable with a reference biological product. Biosimilar and interchangeable biological products licensed under Section 351(k) of the PHSA will be listed under the reference product to which biosimilarity or interchangeability was demonstrated.

Advertising and Promotion

The FDA and other federal regulatory agencies closely regulate the marketing and promotion of biologics through standards and regulations for, among other things, direct-to-consumer advertising, communications regarding unapproved uses, industry-sponsored scientific and educational activities, and promotional activities involving the internet. A biologic cannot be promoted before it is approved. After approval, promotion of a biologic can include only those claims relating to safety and effectiveness that are consistent with the labeling approved by the FDA.

Healthcare providers are permitted, however, to prescribe products for unapproved uses (also known as "off-label" uses) – that is, uses not approved by the FDA and therefore not described in the product's labeling — because the FDA does not regulate the practice of medicine. However, the FDA restricts manufacturers' communications regarding unapproved uses. Broadly speaking, a manufacturer may not promote a product for an unapproved use, but may engage in non-promotional, balanced communication regarding unapproved uses under specified conditions. Failure to comply with applicable FDA requirements and restrictions in this area may subject a company to adverse publicity and enforcement action by the FDA, the United States Department of Justice, or DOJ, or the Office of Inspector General of the United States Department of Health and Human Services, or HHS, as well as state authorities. Such enforcement action could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes products.

Post-approval Regulation

After regulatory approval of a product is obtained, a company is required to comply with a number of post-approval requirements. For example, as a condition of BLA approval, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Regulatory approval of oncology products often requires that patients in clinical trials be followed for long periods to determine the overall survival benefit of

the product. In addition, as a holder of an approved BLA, a company would be required to report adverse reactions and production problems to the FDA, to provide updated safety and efficacy information, and to comply with requirements concerning advertising and promotional labeling for any of its products.

The manufacturing of Sesen Bio's product candidates is required to comply with applicable FDA manufacturing requirements contained in the FDA's cGMP regulations. Biologic manufacturers and other entities involved in the manufacture and distribution of approved biologics are also required to register their establishments and list any products they make with the FDA and to comply with related requirements in certain states. The FDA and certain state agencies periodically inspect manufacturing facilities to assess compliance with cGMP and other laws.

Discovery of problems with a product after approval may result in serious and extensive restrictions on a product or the manufacturer or holder of an approved BLA, as well as lead to potential market disruptions. These restrictions may include suspension of product manufacturing until the FDA is assured that quality standards can be met, continuing oversight of manufacturing by the FDA under a "consent decree," which frequently includes the imposition of costs and continuing inspections over a period of many years, as well as possible withdrawal of the product from the market. Other potential consequences include interruption of production, issuance of warning letters or other enforcement letters, refusal to approve pending BLAs or supplements to approved BLAs, product seizure or detention, and injunctions or imposition of civil and/or criminal penalties.

In addition, changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation, correction, and reporting of any deviations from cGMP and impose reporting and documentation requirements upon a company and any third-party manufacturers that a company may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures, such as additional post-market clinical trials to assess new safety risks or distribution-related or other restrictions under a REMS.

Patent Term Extension

Were Sesen Bio to resume development of Vicineum, depending upon the timing, duration and specifics of the FDA approval, some of its U.S. patents may be eligible for limited patent term extension. The provisions of the Hatch-Waxman Act permit a patent term extension of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, were Sesen Bio to resume development of Vicineum, Sesen Bio may apply for patent term extension for one of its currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

Many other countries also provide for patent term extensions or similar extensions of patent protection for biologic products. For example, in Japan, it may be possible to extend the patent term for up to five years and in Europe, it may be possible to obtain a supplementary patent certificate that would effectively extend patent protection for up to five years.

The Foreign Corrupt Practices Act

The FCPA prohibits any United States individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any non-U.S. official, political party or candidate for the purpose of influencing any act or decision of the non-U.S. entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring such companies to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

European Union and other International Government Regulation

In addition to regulations in the United States, Sesen Bio will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of its product candidates. Whether or not Sesen Bio obtains FDA approval for a product candidate, it must obtain the requisite approvals from regulatory authorities in countries outside of the United States prior to the commencement of clinical trials or marketing of a product in those countries should Sesen Bio resume development of Vicineum. Some countries outside of the United States have a similar process that requires the submission of a CTA much like the IND prior to the commencement of human clinical trials. In the E.U., for example, a CTA must be submitted to the competent authorities of the E.U. Member States where the clinical trial is conducted and to an independent ethics committee, much like the FDA and IRB, respectively. Once the CTA is approved in accordance with a country's requirements, clinical trial development may proceed.

Marketing Authorization Application for Biologic Medicinal Products

Should Sesen Bio resume development of Vicineum and seek regulatory approval under E.U. regulatory systems, it must submit a marketing authorization application.

In the E.U., a marketing authorization for a medicinal product can be obtained through a centralized, mutual recognition, decentralized procedure, or national procedure (single country). The centralized procedure is mandatory for certain medicinal products, including orphan medicinal products and certain biologic products and optional for certain other products, including medicinal products that are a significant therapeutic, scientific or technical innovation, or whose authorization would be in the interest of public or animal health.

In accordance with the centralized procedure, the applicant can submit a single application for marketing authorization to the EMA which will provide a positive opinion regarding the application if it meets certain quality, safety, and efficacy requirements. Based on the opinion of the EMA, the European Commission takes a final decision to grant a centralized marketing authorization which permits the marketing of a product in all 27 E.U. Member States and three of the four European Free Trade Association States — Iceland, Liechtenstein and Norway. Under the centralized procedure in the E.U., the maximum timeframe for the evaluation of a marketing authorization application is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the EMA CHMP.

For other countries outside of the E.U., such as the United Kingdom and countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. Internationally, clinical trials are generally required to be conducted in accordance with GCPs, applicable regulatory requirements of each jurisdiction and the medical ethics principles that have their origin in the Declaration of Helsinki. If Sesen Bio fails to comply with applicable non-U.S. regulatory requirements, it may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Advertising, Promotion and Compliance

In the E.U., the advertising and promotion of Sesen Bio's products will also be subject to E.U. laws and E.U. Member States' national laws governing promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. Other E.U. Member State national legislation may also apply to the advertising and promotion of medicinal products. These laws require that promotional materials and advertising in relation to medicinal products comply with the product's Summary of Product Characteristics, or SmPC, as approved by the competent authorities. The SmPC is the document that provides information to physicians concerning the safe and effective use of the medicinal product. The SmPC forms an intrinsic and integral part of the marketing authorization granted for the medicinal product. Promotion of a medicinal product that does not comply with the SmPC is considered to constitute off-label promotion and is prohibited in the E.U. The applicable laws at the E.U. level and in the individual E.U. Member States also prohibit the direct-to-consumer advertising of prescription-only medicinal products. Violations of the rules governing the promotion of medicinal products in the E.U. could be penalized by administrative measures, fines and imprisonment.

During all phases of development (pre- and post-marketing), failure to comply with applicable regulatory requirements may result in administrative or judicial sanctions. These penalties could include the imposition of a clinical hold on trials, refusal to approve pending applications, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, product detention or refusal to permit the import or export of products, injunctions, fines, civil penalties or criminal prosecution. Any agency or judicial enforcement action could have a material adverse effect on Sesen Bio.

Orphan Drug Designation

The FDA may grant Orphan Drug Designation to biologics intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States or a disease or condition that affects more than 200,000 individuals in the United States but there is no reasonable expectation that the cost of developing and making the biologic would be recovered from sales in the United States.

In the United States, Orphan Drug Designation entitles a party to financial incentives, such as opportunities for grant funding towards clinical trial costs, tax credits for certain research and user fee waivers under certain circumstances. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to seven years of market exclusivity, which means the FDA may not approve any other application for a biologic for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity. The FDA can revoke a product's orphan drug exclusivity under certain circumstances, including when the product sponsor is unable to assure the availability of sufficient quantities of the product to meet patient needs. Orphan drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same biologic for a different disease or condition.

In the E.U., medicinal products: (a) that are used to diagnose, treat or prevent life-threatening or chronically debilitating conditions that affect no more than five in 10,000 people in the E.U.; or (b) that are used to treat or prevent life-threatening, seriously debilitating or serious and chronic conditions and that, for economic reasons, would be unlikely to be developed without incentives; and (c) where no satisfactory method of diagnosis, prevention or treatment of the condition concerned exists, or, if such a method exists, the medicinal product would be of significant benefit to those affected by the condition, may be granted an orphan designation in the E.U. The application for orphan designation must be submitted to the EMA and approved by the European Commission before an application is made for marketing authorization for the product. Once designated, Orphan medicinal product designation also entitles a party to financial incentives such as reduction of fees or fee waivers. Moreover, ten years of market exclusivity is granted following marketing authorization, if the product continues to be designated as an orphan medicinal product upon grant of the marketing authorization. During this ten-year period, with a limited number of exceptions, neither the competent authorities of the E.U. Member States, the EMA, or the European Commission are permitted to accept applications or grant marketing authorization for other similar medicinal products with the same therapeutic indication. However, marketing authorization may be granted to a similar medicinal product with the same orphan indication during the ten-year period with the consent of the marketing authorization holder for the original orphan medicinal product or if the manufacturer of the original orphan medicinal product is unable to supply sufficient quantities. Marketing authorization may also be granted to a similar medicinal product with the same orphan indication if this latter product is demonstrated to be safer, more effective or otherwise clinically superior to the original orphan medicinal product. This period of market exclusivity may be reduced to six years, at the end of the fifth year, if the orphan designation criteria are no longer met, including where it can be demonstrated on the basis of available evidence that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Orphan drug designation must be requested before submission of an application for marketing approval or marketing authorization. Orphan drug designation does not convey any advantage in, nor shorten the duration of the regulatory review and approval process.

Expedited Programs in the United States and Other Jurisdictions

In the United States, a product may be granted Fast Track designation if it is intended for the treatment of a serious or life-threatening condition and demonstrates the potential to address unmet medical needs for such condition. With Fast Track designation, the sponsor may be eligible for more frequent opportunities to obtain the FDA's feedback, and the FDA may initiate review of sections of a BLA before the application is complete. This Rolling Review is available if the applicant provides, and the FDA approves, a schedule for the remaining information. Even if a product receives Fast Track designation, the designation can be

rescinded and provides no assurance that a product will be reviewed or approved more expeditiously than would otherwise have been the case, or that the product will be approved at all.

FDA may designate a product candidate as a breakthrough therapy if it finds that the product candidate is intended, alone or in combination with one or more other product candidates or approved products, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the product candidate may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. For product candidates designated as breakthrough therapies, more frequent interaction and communication between the FDA and the sponsor can help to identify the most efficient path for clinical development. Product candidates designated as breakthrough therapies by the FDA may also be eligible for Priority Review. The receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to product candidates considered for approval under conventional FDA procedures and, in any event, does not assure ultimate approval by the FDA. In addition, even if a product candidate qualifies as a breakthrough therapy, the FDA may later decide that the product candidate no longer meets the conditions for designation.

Accelerated approval under FDA regulations allows a product designed to treat a serious or life-threatening disease or condition that provides a meaningful therapeutic advantage over available therapies to be approved on the basis of either an intermediate clinical endpoint or a surrogate endpoint that is reasonably likely to predict clinical benefit. Approvals of this kind typically include requirements for confirmatory clinical trials to be conducted with due diligence to validate the surrogate endpoint or otherwise confirm clinical benefit and for all promotional materials to be submitted to the FDA for review prior to dissemination.

The FDA may grant Priority Review designation to a product candidate, which sets the target date for FDA action on the application at six months from FDA filing, or eight months from the sponsor's submission. Priority Review may be granted where a product is intended to treat a serious or life-threatening disease or condition and, if approved, has the potential to provide a safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in safety or efficacy compared to available therapy. If criteria are not met for Priority Review, the standard FDA review period is ten months from FDA filing or 12 months from sponsor submission. Priority Review designation does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval.

Under the Centralized Procedure in the E.U., the maximum timeframe for the evaluation of a marketing authorization application is 210 days (excluding "clock stops," when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. Accelerated evaluation might be granted by CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest, which should be justified and assessed on a case-by-case basis. In this circumstance, EMA ensures that the opinion of CHMP is given within 150 days.

Environmental and Safety Laws

Sesen Bio is subject to a variety of federal, provincial and local regulations relating to the use, handling, storage and disposal of hazardous materials, including chemicals and radioactive and biological materials. Sesen Bio's operations involve such hazardous materials and produce such hazardous waste products. Although Sesen Bio believes that its safety procedures for handling and disposing of these materials comply with the standards prescribed by federal, provincial and local regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. Radioactive materials in Canada come under federal jurisdiction. Canada's Nuclear Safety and Control Act 1997 c.9 contains a general prohibition against any activity, including possession of radioactive material, except in accordance with the terms and conditions set out in a federal license issued by the Canadian Nuclear Safety Commission. The Nuclear Substances and Radiation Devices Regulation does however, exempt licensing requirements for small quantities of radioactive substances that either meet concentrations set out in a schedule to the Regulation or, for radioactive substances not set out in the schedule, that meet certain regulatory criteria. Sesen Bio's operations do not currently require a federal license issued by the Canadian Nuclear Safety Commission. Sesen Bio's operations in Canada may be subject to license approvals, notification requirements and investigation and enforcement for air and water and waste matters.

Employees

As of September 20, 2022, Sesen Bio employed 17 individuals, all of whom are full-time employees. Sesen Bio has never had a work stoppage, and none of its employees are represented by a labor organization or covered by collective bargaining arrangements. Sesen Bio considers its relationship with its employees to be good.

Corporate Information

Sesen Bio is a Delaware corporation formed in February 2008. Sesen Bio's principal executive offices are located in Cambridge, Massachusetts. Sesen Bio's website address is www.sesenbio.com.

Acquisition of Viventia

In September 2016, Sesen Bio entered into a Share Purchase Agreement with Viventia Bio, Inc., a corporation incorporated under the laws of the Province of Ontario, Canada, the shareholders of Viventia named therein, collectively, the selling shareholders, and, solely in its capacity as seller representative, Clairmark Investments Ltd., a corporation incorporated under the laws of the Province of Ontario, Canada, or Clairmark, pursuant to which Sesen Bio agreed to and simultaneously completed the acquisition of all of the outstanding capital stock of Viventia from the Selling Shareholders, or the Viventia Acquisition. In connection with the closing of the Viventia Acquisition, Sesen Bio issued 4.0 million shares of Sesen Bio common stock to the selling shareholders according to their pro rata share of Viventia's then-outstanding shares of common stock, which represented approximately 19.9% of Sesen Bio voting power as of immediately prior to the issuance of such shares of common stock. Clairmark is an affiliate of Leslie L. Dan, who served on the Sesen Bio board of directors until his retirement in July 2019.

In connection with the Viventia Acquisition, Sesen Bio is obligated to pay to the selling shareholders certain post-closing contingent cash payments upon the achievement of specified milestones and based upon net sales, in each case subject to the terms and conditions set forth in the Share Purchase Agreement, including: (i) a one-time milestone payment of $12.5 million payable upon the first sale of Vicineum, in the United States; (ii) a one-time milestone payment of $7.0 million payable upon the first sale of Vicineum in any one of certain specified European countries; (iii) a one-time milestone payment of $3.0 million payable upon the first sale of Vicineum in Japan; and (iv) and quarterly earn-out payments equal to 2% of net sales of Vicineum during specified earn-out periods. Such earn-out payments are payable with respect to net sales in a country beginning on the date of the first sale in such country and ending on the earlier of (i) December 31, 2033, and (ii) fifteen years after the date of such sale, subject to early termination in certain circumstances if a biosimilar product is on the market in the applicable country.

Under the Share Purchase Agreement, Sesen Bio, its affiliates, licensees and subcontractors are required to use commercially reasonable efforts, for the first seven years following the closing of the Viventia Acquisition, to achieve marketing authorizations throughout the world and, during the applicable earn-out period, to commercialize Vicineum in the United States, France, Germany, Italy, Spain, United Kingdom, Japan, China and Canada.

Additional Information

Sesen Bio makes available free of charge annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after they are electronically filed or furnished to the SEC, on Sesen Bio's website at www.sesenbio.com or by contacting Sesen Bio at (617) 444-8850. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov. The inclusion of any website address in this proxy statement/prospectus is an inactive textual reference only, and information contained on or accessible through these websites is not a part of this proxy statement/prospectus.

Description of Property

Sesen Bio's corporate headquarters are currently located in Cambridge, Massachusetts and consists of approximately 150 square feet, where Sesen Bio occupies office space under a lease that was executed in October 2016. The initial term of the lease expired in July 2017, with the lease now continuing on a month-to-month basis unless terminated by either party with the requisite notice.

Sesen Bio also has office space in Philadelphia, Pennsylvania, where Sesen Bio occupies office space under a lease executed in December 2017. The initial term of the lease expired in May 2018, which now continues on a month-to-month basis unless terminated by either party with the requisite notice.

Legal Proceedings

On August 19, 2021, August 31, 2021, and October 7,2021, three substantially identical securities class action lawsuits captioned *Bibb v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-07025, *Cizek v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-07309 and *Markman v. Sesen Bio, Inc. et al.*, Case No. 1:21-cv-08308 were filed against Sesen Bio and certain of its officers in the U.S. District Court for the Southern District of New York. The three complaints alleged violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder based on statements made by Sesen Bio concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The three complaints sought compensatory damages and costs and expenses, including attorneys' fees. On October 29, 2021, the court consolidated the three cases under the caption *In re Sesen Bio, Inc. Securities Litigation*, Master File No. 1:21-cv-07025-AKH, and appointed Ryan Bibb, Rodney Samaan, Lionel Dreshaj and Benjamin Dreshaj as the Lead Plaintiffs under the Private Securities Litigation Reform Act. On November 1, 2021, two stockholders filed motions to reconsider asking the court to appoint a different lead plaintiff. On November 24, 2021, defendants filed a motion to transfer venue to the U.S. District Court for the District of Massachusetts. That motion was fully briefed as of December 13, 2021, but the court has not ruled on that motion. On December 6, 2021, the Lead Plaintiffs filed the Amended Complaint. The Amended Complaint alleges the same violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder on the same theory as the prior complaints. The defendants moved to dismiss the Amended Complaint on March 7, 2022, and that motion was fully briefed on May 6, 2022. On June 3, 2022, before the court ruled on the motion to dismiss, the parties requested that the court hold any decision on the motion to dismiss in abeyance to provide the parties with an opportunity to engage in mediation. On June 30, 2022 and July 6, 2022, Sesen Bio and the plaintiffs engaged in mediation sessions in an attempt to resolve the Securities Litigation and continued to discuss a potential settlement over the following weeks. On July 19, 2022, the parties reached an agreement in principle to settle the Securities Litigation. Pursuant to that agreement, Sesen Bio and the individual defendants will pay or cause to be paid to members of the class who submit timely and valid proofs of claims. In exchange, the Lead Plaintiffs will dismiss the action and all class members who do not timely and validly opt-out of the settlement will provide broad customary releases to Sesen Bio and the individual defendants. On August 3, 2022, the parties entered into a Stipulation and Agreement of Settlement to settle the Securities Litigation, which was filed with the court on August 17, 2022. The Stipulation and Agreement of Settlement related to the Securities Litigation provides for a settlement payment of $21.0 million to the class and the dismissal of all claims against Sesen Bio and the other defendants. The settlement payment is being funded by Sesen Bio and its insurance carriers. On September 1, 2022, the U.S. District Court for the Southern District of New York issued an order denying the motions to appoint a different lead plaintiff. On September 28, 2022, the court issued an order granting preliminary approval of the proposed settlement of the Securities Litigation. The court has set a final settlement approval hearing for January 23, 2023 at 10:00 a.m. Eastern Time.

On September 20, 2021 and September 24, 2021, two substantially similar derivative lawsuits captioned *Myers v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-11538 and *D'Arcy v. Sesen Bio, Inc., et. al.*, Case No. 1:21-cv-11577 were filed against the Sesen Bio board of directors and certain of its officers in the U.S. District Court for the District of Massachusetts, with Sesen Bio, Inc. named as nominal defendant. On January 12, 2022, a third derivative complaint captioned *Tang v. Sesen Bio, Inc., et al.*, was filed in Superior Court in Massachusetts against the Sesen Bio board of directors and certain of its officers. The three derivative complaints allege breach of fiduciary duties, waste of corporate assets, and violations of federal securities laws based on statements made by Sesen Bio concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The D'Arcy complaint further alleges unjust enrichment, abuse of control, gross mismanagement and aiding and abetting thereof. The three derivative complaints seek unspecified damages, restitution and disgorgement of profits, benefits and compensation obtained by the defendants and costs and expenses, including attorneys' fees. On October 18, 2021, the court consolidated the two federal court cases under the caption *In re Sesen Bio, Inc. Derivative Litigation*, Lead Case No. 1:21-cv-11538. On December 22, 2021, the court entered a joint stipulation among the parties to stay the Federal Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. On May 1, 2022, the plaintiffs filed a verified consolidated shareholder derivative complaint in the Federal Derivative Litigation. On May 18, 2022, the court entered a joint stipulation among the parties to stay the State Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. On July 6, 2022, Sesen Bio and the plaintiffs to the Federal Derivative Litigation and the State Derivative Litigation engaged in mediation in an attempt to resolve the litigation, with settlement discussions continuing over the following days. On July 19, 2002, the parties reached an agreement in principle to settle the Federal Derivative Litigation, the State Derivative Litigation and other potential related derivative claims. Pursuant to that agreement, the individual defendants will cause Sesen Bio to adopt certain enhancements to its corporate governance policies and procedures. In exchange, plaintiffs will dismiss the Derivative Litigation and, on behalf of Sesen Bio, provide broad customary releases to the individual defendants. On August 22, 2002, the parties entered into a Stipulation of Settlement to settle the Derivative Litigation, which was filed with the court on August 30, 2022. The Stipulation of Settlement related to the Derivative Litigation confirms that Sesen Bio previously adopted certain corporate governance enhancements in response to, among other things, the filing of the

Derivative Litigation, and that, subject to final court approval, Sesen Bio will adopt additional corporate governance enhancements. The Stipulation of Settlement also provides for a $630,000 payment for plaintiffs' attorneys fees due to the benefits the corporate governance enhancements are intended to provide to Sesen Bio. The payment of plaintiffs' attorneys fees is being funded by Sesen Bio and its insurance carriers. On September 2, 2022, the court issued an order granting preliminary approval of the Stipulation of Settlement related to the Derivative Litigation. The court has set a final settlement approval hearing for November 8, 2022 at 2:00 p.m. Eastern Time.

Sesen Bio, the Sesen Bio board of directors and the individual defendants continue to deny all allegations of any wrongdoing, but are seeking to settle the Securities Litigation, the State Derivative Litigation and the Federal Derivative Litigation to avoid the uncertainty, risk, expense and distraction of protracted litigation.

CARISMA BUSINESS

Overview

Carisma is a clinical stage cell therapy company focused on utilizing Carisma's proprietary macrophage and monocyte cell engineering platform to develop transformative immunotherapies to treat cancer and other serious diseases. Carisma has created a comprehensive cell therapy platform to enable the therapeutic use of engineered macrophages and monocytes, which belong to a subgroup of white blood cells called myeloid cells. Macrophages and monocytes are part of the innate immune system and can detect and degrade harmful substances through a process referred to as phagocytosis, in which the harmful substance is engulfed and destroyed and in turn lead to the activation of a broad immune response.

To harness the powerful immunologic functions of macrophages against cancer, Carisma has developed a proprietary Chimeric Antigen Receptor Macrophage, or CAR-M, platform technology. Chimeric antigen receptors, or CARs, are synthetically engineered receptors that are designed to bestow immune cells with the ability to target specific antigens on the surface of cancer cells. By introducing CARs into macrophage and monocyte cells, Carisma can redirect their potent innate immune functions against cancer. Carisma's CAR-M platform technology incorporates proprietary tumor targeting constructs, vectors to deliver CARs to macrophages and monocytes and novel manufacturing processes. Carisma's CAR-M therapeutics are designed to infiltrate the solid tumor microenvironment, kill cancer cells via targeted phagocytosis, and activate other immune cells, such as T-cells, to initiate a robust anti-tumor immune response.

Carisma's lead product candidate CT-0508, the first CAR-M to be evaluated in a human clinical trial, is an *ex vivo* autologous cell therapy product candidate, wherein immune cells from blood drawn from a patient are engineered outside of the body and reinfused into the same patient. CT-0508 is intended to treat solid tumors that overexpress HER2, a protein that is overexpressed on the surface of a variety of solid tumors, including breast cancer, gastric cancer, esophageal cancer, salivary gland cancer, and numerous others. Carisma has completed enrollment of the first group of patients in a Phase 1 clinical trial of CT-0508, with nine patients having been successfully dosed. Carisma believes its preliminary clinical results have demonstrated the initial manufacturing feasibility of its approach and provided clinical validation of the CAR-M mechanism of action. Importantly, CT-0508 has exhibited a favorable safety profile and has been generally well-tolerated without any dose limiting toxicities. Carisma anticipates providing multiple clinical data updates over the next 18 months. In the combination setting, Carisma has observed the synergistic potential of CT-0508 with the T-cell checkpoint inhibitor pembrolizumab in pre-clinical animal models. Carisma submitted a clinical protocol amendment to the FDA in September 2022 to allow Carisma to treat patients with the co-administration of CT-0508 and pembrolizumab. The FDA has granted CT-0508 "Fast Track" status.

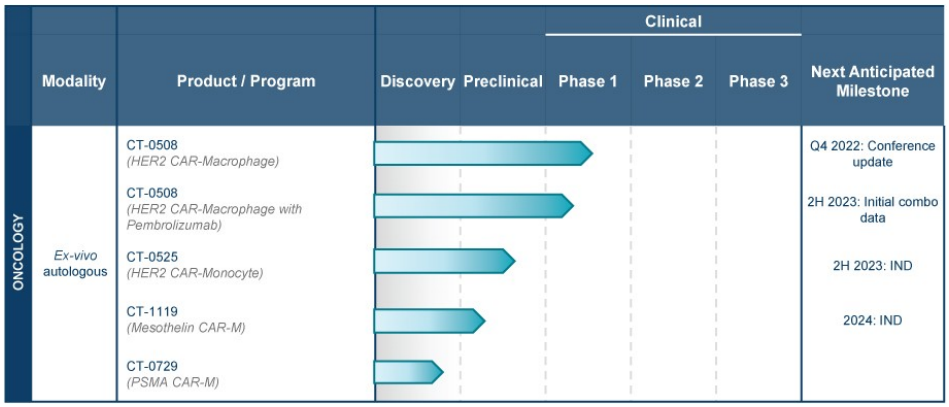
Beyond CT-0508, Carisma has a broad pipeline of cell therapy assets in various stages of pre-clinical development. In addition to the development of *ex vivo* CAR-M cell therapies, Carisma is also developing *in vivo* CAR-M gene therapies, wherein immune cells are directly engineered within the patient's body. To advance its *in vivo* CAR-M therapeutics, Carisma established a strategic collaboration with ModernaTX, Inc., or Moderna, focused on the development and potential commercialization of up to 12 product candidates, of which four have already been nominated. In collaboration with Moderna, Carisma has established an approach that uses Moderna's myeloid cell specific lipid nanoparticle/mRNA, or LNP/mRNA, technology, together with Carisma's CAR-M platform technology, to create novel *in vivo* oncology gene therapies. Carisma believes this approach has the potential to enable a series of off-the-shelf product candidates to target a patient's own myeloid cells against cancer cells directly within their body. As part of the agreement with Moderna, Carisma received a $45.0 million up-front cash payment and an investment by Moderna in the form of a $35.0 million convertible note, in addition to future research funding and the opportunity for milestone payments and royalties.

Through its robust internal discovery engine, Carisma is building upon its platform to enhance and expand the utility of macrophage cell and gene therapies, leading to the creation of multiple product candidates with the potential to treat cancer and other serious diseases. By replacing the targeting domain of the CAR, Carisma can reprogram the target antigen specificity of the CAR-M cell product and develop candidates against a range of cancer indications and therapeutic areas beyond oncology. As a result, Carisma believes the flexibility of its macrophage and monocyte cell engineering platform will allow Carisma to rapidly generate new product candidates suitable for clinical development in a cost-efficient manner to expand its pipeline. In addition to acting as a first line of defense in the innate immune system, macrophages are found in all tissues in the body where they serve key regulatory functions such as wound healing, termination of immune responses, and tissue regeneration. Using its macrophage and monocyte *ex vivo* and *in vivo* engineering platform, Carisma is pursuing early research and development of multiple assets for the potential treatment of diseases beyond oncology, including liver fibrosis, neurodegeneration, and other immunologic and inflammatory diseases.

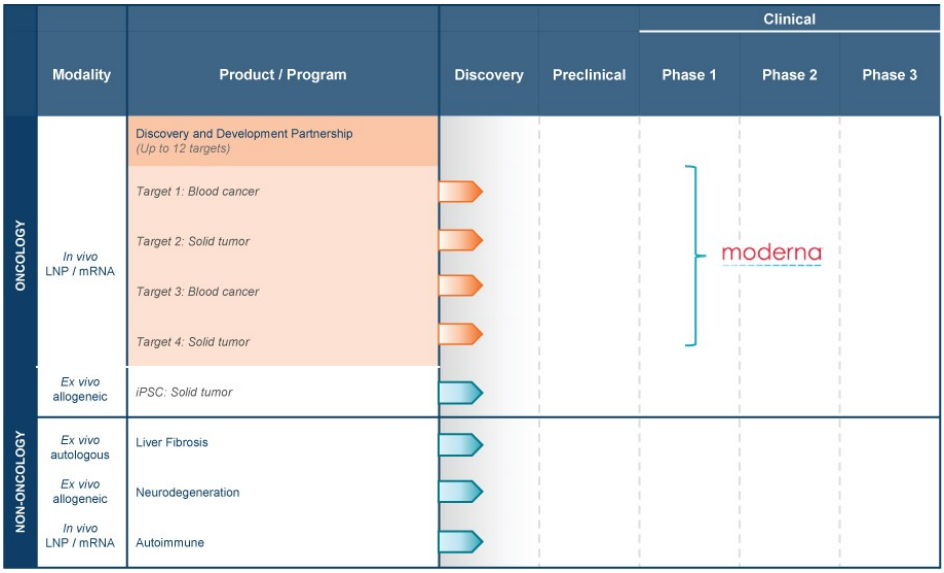
By investing in early platform research and accessing key enabling technologies, Carisma is enhancing and expanding its platform capabilities and reinforcing its leadership position in the engineered macrophage field. Carisma has developed proprietary CAR-M platform enhancements directed toward key product parameters that are important for efficacy, safety, and patient access to its CAR-M therapies. Carisma plans to apply these technology enhancements to future CAR-M product candidates.

Carisma's Pipeline Programs

Using its proprietary CAR-M platform technology, Carisma is developing a broad pipeline of product candidates, with a strong initial focus in oncology. Carisma's *ex vivo* autologous CAR-M product candidates are summarized in the table below.



Carisma is also advancing discovery-stage candidates across a range of therapeutic areas, as summarized in the following table.



Carisma's lead product candidate, CT-0508, is an *ex vivo* autologous cell therapy product candidate intended to treat solid tumors that overexpress HER2, a protein that is overexpressed on the surface of a variety of solid tumors including breast cancer, gastric cancer, esophageal cancer, salivary gland cancer and numerous others. CT-0508 is produced by engineering a patient's own monocyte-derived macrophages from blood drawn from the patient with a chimeric adenoviral vector, Ad5f35, containing an anti-HER2 CAR.

Carisma has completed enrollment of the first group of patients in a Phase 1 clinical trial, with nine patients successfully dosed. The second group is currently open for enrollment, with nine additional patients to be dosed. Carisma believes its preliminary clinical results have demonstrated the initial manufacturing feasibility of its approach and provided clinical validation of the CAR-M mechanism of action. Importantly, CT-0508 has exhibited a favorable safety profile and has been generally well-tolerated without any dose limiting toxicities. Carisma anticipates providing multiple clinical data updates over the next 18 months. In the combination setting, Carisma has observed the synergistic potential of CT-0508 with the T-cell checkpoint inhibitor pembrolizumab in pre-clinical animal models. Carisma submitted a clinical protocol amendment to the FDA in September 2022 to allow it to treat patients with the co-administration of CT-0508 and pembrolizumab. The FDA has granted CT-0508 "Fast Track" status.

Carisma is currently in the pre-clinical stage for another product candidate, CT-0525, which is also intended to treat solid tumors that overexpress HER2. By leveraging its discovery engine and preliminary clinical data from its Phase 1 clinical trial of CT-0508, Carisma is building upon its CAR-M platform to generate next-generation therapeutics that may increase potential efficacy and patient access. Notably, Carisma has developed a novel approach to CAR-M therapy to accelerate the manufacturing process, increase the cell yield, and improve upon the potential anti-tumor effect by engineering patients' monocytes directly, without *ex vivo* differentiation into macrophages, as Carisma currently does for CT-0508. Carisma refers to this CAR-Monocyte approach as CAR-Mono. By increasing the cell yield, the CAR-Mono approach enables a larger potential dose, which may improve tumor control. The CAR-Mono approach reduces manufacturing time and leverages an automated, closed-system manufacturing process. CT-0525 is Carisma's first CAR-Mono product candidate and is currently in the pre-clinical process development stage. Carisma expects to submit an IND to the FDA for CT-0525 in the second half of 2023 and initiate clinical development shortly thereafter.

Given the promising preliminary clinical results from Carisma's Phase 1 clinical trial of CT-0508, Carisma is also expanding its pipeline to include multiple tumor targets, encompassing diverse solid tumor indications with significant unmet medical needs, including the following product candidates:

- ***CT-1119:*** CT-1119 is a mesothelin targeted CAR-M that Carisma plans to evaluate in patients with advanced mesothelin-positive solid tumors, including lung cancer, mesothelioma, pancreatic cancer, ovarian cancer, and others. Carisma has identified a lead construct for CT-1119 and expects to submit an IND to the FDA in 2024.

- ***CT-0729:*** CT-0729 is a prostate-specific membrane antigen, or PSMA, targeted CAR-M that Carisma plans to evaluate in patients with advanced, PSMA positive metastatic castrate resistant prostate cancer. CT-0729 is in the discovery stage.

Carisma's current CAR-M cell therapy pipeline is informing the discovery and pre-clinical development of off-the-shelf engineered macrophage therapeutics. Carisma is developing *in vivo* reprogrammed LNP/mRNA CAR-M therapies for cancer through its collaboration with Moderna. In addition, Carisma is establishing an *ex vivo* allogeneic, induced pluripotent stem cell, or iPSC, derived macrophage and monocyte platform with the potential to develop iPSC-derived CAR-M and other macrophage therapies for indications in oncology and beyond, including indications such as liver fibrosis, neurodegeneration and auto-immunity.

Carisma's Team

Carisma was founded in 2016 by leading cell therapy experts from the University of Pennsylvania. Dr. Saar Gill is a co-inventor of the CAR-M technology and a co-founder of Carisma. He is an Associate Professor of Medicine in the Division of Hematology-Oncology at the University of Pennsylvania. Dr. Michael Klichinsky, Pharm.D., Ph.D., is a co-inventor of the CAR-M technology, a scientific co-founder of Carisma, and Carisma's current Chief Scientific Officer. Dr. Carl June, a co-inventor of the CAR-M technology, is the Richard W. Vague Professor in Immunotherapy in the Department of Pathology and Laboratory Medicine at the University of Pennsylvania. He also is currently Director of the Center for Cellular Immunotherapies at the Perelman School of Medicine and Director of the Parker Institute for Cancer Immunotherapy at the University of Pennsylvania, and Scientific Advisor to Carisma.

Carisma's executive team has decades of experience in business operations, discovery, development, and manufacturing of advanced therapeutics for the treatment of serious diseases. Steven Kelly, Carisma's Chief Executive Officer, brings over 35 years of experience in the biopharmaceutical industry at all phases of the business across multiple therapeutic categories. Carisma's Chief Technology and Development Officer, Dr. Daniel Cushing, Ph.D., brings over 30 years of experience in the biopharmaceutical industry and is responsible for product development at Carisma. Richard Morris, Carisma's Chief Financial Officer, has more than 25 years of experience in building and growing successful biotechnology organizations, with a focus on capital fundraising (including initial public offerings), financial strategy and operations execution, and business development efforts. Carisma's Chief Business Officer, Tom Wilton, has over 25 years of biopharmaceutical industry experience, including corporate strategy, business development, research and development operations, and marketing.

Carisma's Strategy

Carisma's vision is to become a leading cell therapy company, developing and ultimately commercializing macrophage-based cell therapies that positively transform the treatment of cancer and other serious diseases. To achieve its vision, Carisma has developed its macrophage engineering platform, a pipeline of assets spanning numerous indications with unmet medical needs, a robust discovery engine, broad CAR-M intellectual property, robust manufacturing capabilities, and a dedicated executive team with extensive experience in cell therapy and drug development, manufacturing and commercialization and leading scientific expertise in the field. The key components of Carisma's strategy are:

- **Rapidly advance Carisma's lead product candidate, CT-0508, through clinical development for the treatment of HER2 overexpressing solid tumors.** CT-0508 is an *ex vivo* gene-modified autologous CAR-M cell therapy product candidate intended to treat solid tumors that overexpress HER2. Carisma has initiated a Phase 1 clinical trial of CT-0508 and dosed nine patients. Based on preliminary data from this trial, CT-0508 has exhibited a favorable safety profile, with no dose limiting toxicities or AEs observed. Carisma believes its preliminary clinical results have demonstrated the initial feasibility of its approach and provided clinical validation of the CAR-M mechanism of action. Additionally, the FDA granted "Fast Track" status for CT-0508 for the treatment of patients with HER2 overexpressing solid tumors and Carisma plans to rapidly

pursue development for this indication. Carisma also plans to initiate multiple sub-studies to expand the utility of CT-0508, including combination therapy with the T-cell checkpoint inhibitor pembrolizumab.

- **Invest in Carisma's CAR-Mono platform technology to further extend its leadership position in macrophage and monocyte based cellular therapy.** As part of its ongoing platform enhancement effort, Carisma has developed its CAR-Mono approach, which significantly reduces manufacturing time and leverages an automated, closed-system manufacturing process. Carisma is currently in the pre-clinical process development stage for CT-0525, Carisma's first anti-HER2 CAR-Mono product candidate, and expects to submit an IND in the second half of 2023.

- **Advance Carisma's pre-clinical CAR-M oncology pipeline candidates to clinical development stage.** Beyond its initial HER2 target, Carisma is expanding its pipeline into multiple tumor targets and constructs. CT-1119 is a mesothelin targeted CAR-M that Carisma plans to evaluate in patients with advanced mesothelin-positive solid tumors, with an IND expected to be submitted in 2024. Additionally, CT-0729 is a PSMA targeted CAR-M intended for use against metastatic castrate resistant prostate cancer and is currently in the discovery stage. Carisma is also developing product candidates targeting other cancer antigens.

- **Build next-generation technologies to expand the scope and capabilities of Carisma's platform.** Beyond its CAR-M and CAR-Mono technologies, Carisma is pursuing multiple platform enhancements for its CAR constructs, editing technologies and therapeutic delivery vehicles. Further, Carisma is actively developing a gene edited iPSC-derived macrophage platform and leveraging delivery technologies for its mRNA-based *in vivo* CAR-M platform for oncology.

- **Harness the potential of Carisma's platform to develop novel product candidates to address therapeutic areas beyond oncology.** While Carisma has initially been an oncology focused company, the breadth of the myeloid engineering platform enables significant opportunities outside of oncology. Based on early data, Carisma believes its platform has significant potential across multiple therapeutic areas, including fibrosis, neurodegeneration, autoimmunity, and chronic inflammation, which are currently in the discovery stage.

- **Selectively enter into strategic partnerships and collaborations to maximize the potential of Carisma's platform.** Given the breadth of opportunities enabled by Carisma's platform, Carisma may opportunistically enter into strategic collaborations intended to advance and accelerate its development programs, expand into new therapeutic areas and enhance the capabilities of its platform. Carisma currently has a broad strategic collaboration with Moderna focused on the development of *in vivo* CAR-M therapeutics for up to 12 oncology targets, of which four have already been nominated.

Background

Cellular Immunotherapy

Cellular immunotherapy is a type of immuno-oncology approach whereby human immune cells are utilized to recognize and destroy cancer cells in a targeted manner. To date, cellular immunotherapy has focused on the transfer of T-cells or natural killer, or NK, cells. For example, T-cells with intrinsic tumor reactivity, such as tumor infiltrating lymphocytes, have been utilized, as well as T-cells genetically engineered with tumor targeting T-cell receptors, or TCRs, or CARs, have been tested in a variety of hematologic malignancies and solid tumors. The only FDA approved genetically modified cellular immunotherapies for cancer are CAR T-cell therapies for B cell hematologic malignancies expressing CD19 or multiple myeloma expressing B-cell maturation antigen, or BCMA.

Despite the incredible promise shown by cell therapies for hematologic malignancies, the success has not been replicated in the solid tumor setting. There are numerous challenges impacting T and NK cell immunotherapy in patients with solid tumors, such as the inability of cells to appropriately access the tumor microenvironment, overcome immunosuppression in the tumor microenvironment and overcome target antigen heterogeneity. Importantly, there have been challenges in targeting solid tumors with CAR T-cells without inducing toxicities against normal tissues or inducing severe systemic cytokine release syndrome, or CRS. To date, no CAR therapies for the treatment of solid tumors have received marketing approval.

Macrophages and Monocytes and the Tumor Microenvironment

Macrophages play a vital role in the innate immune system, the body's first line of defense against foreign pathogens. Macrophages are highly plastic innate cells that mediate a multitude of protective and homeostatic functions, including elimination of pathogens through phagocytosis, clearance of cellular debris, induction or regulation of inflammation, antigen presentation, and tissue remodeling. Macrophages can arise from circulating bone marrow-derived monocytes or embryonic precursors and are found in all tissues in the human body. Depending on the environmental cues, macrophages can actively adopt distinct activation states, or phenotypes, to either initiate or terminate immune responses. While macrophage activation states are complex, they can be categorized into two general subsets:

- ***Classically activated (M1):*** M1 macrophages are pro-inflammatory and are associated with anti-tumoral functions. They initiate or enhance immune responses by recruiting T-cells, upregulating antigen processing machinery and co-stimulatory ligands, and secreting pro-inflammatory factors cytokines and chemokines, and ultimately promote T-cell responses.

- ***Alternatively activated (M2):*** M2 macrophages are immunosuppressive and are associated with pro-tumoral functions. They accelerate tumor invasion and metastasis and promote angiogenesis (or formation of new blood vessels) by secreting inhibitory cytokines and upregulating immunosuppressive cell surface molecules, and ultimately inhibit T-cell responses.

Macrophages are typically the most abundant immune cell in the tumor microenvironment, or TME, of most cancers, where they generally adopt an M2 phenotype and are therefore associated with poor prognostic outcomes and increased intratumoral immunosuppression. For example, numerous studies have shown that patients with more M2 macrophages in their tumors have reduced responses to immune checkpoint inhibitors such as pembrolizumab.

Given the generally negative role of M2 macrophages in the TME, there have been numerous therapeutic approaches focused on inhibiting tumor associated macrophage, or TAM, infiltration or survival. Other approaches have sought to convert TAMs from an M2 to an M1 phenotype. While numerous studies have shown that TAM infiltration is typically associated with poor prognostic outcome, macrophages have been shown to have potent anti-tumor capabilities if appropriately activated and targeted.

The Opportunity for Engineered Macrophages in Treating Cancer

Carisma believes macrophage and monocyte cell therapies hold promise in addressing the limitations of other cell types and transforming the cell therapy treatment paradigm for solid tumors. The inherent biology of macrophages and monocytes offers several potential advantages that directly apply to current barriers for cell therapy efficacy in the solid tumor context.

Macrophages and monocytes are actively recruited into solid tumors, while other immune cells such as T-cells are often actively excluded. Macrophages are professional phagocytic cells capable of directly killing tumor cells through this unique mechanism. In addition to direct killing, macrophages can secrete pro-inflammatory factors that convert the immunosuppressive TME into an environment that promotes immunity. Importantly, macrophages and monocytes are professional antigen presenting cells, meaning they can directly present tumor-derived antigens to T-cells leading to anti-tumor T-cell responses, a phenomenon known as epitope spreading. Epitope spreading enables activity against tumor cells which either lack or lose expression of the initial antigen targeted by the CAR — a key challenge for cell therapies — and ultimately enables macrophages and monocytes to overcome target antigen heterogeneity within the patient's cancer.

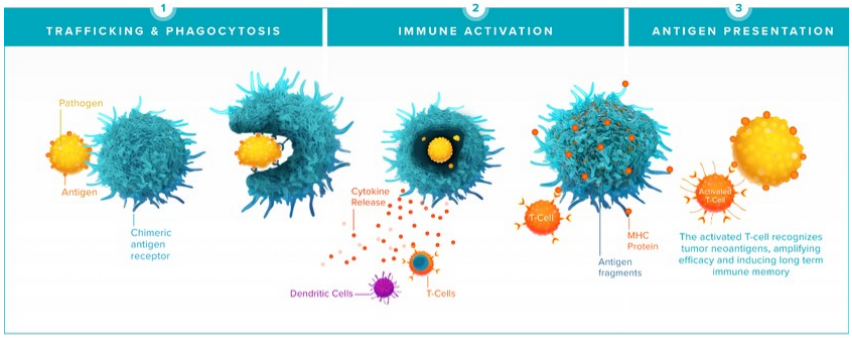
Carisma believes an approach which harnesses the direct effector functions of macrophages or monocytes, optimizes their activation status toward an inflammatory M1 phenotype, and redirects phagocytosis with molecular specificity would represent a major advance in cancer immunotherapy.

Carisma's Novel Platform

CAR-M have the potential to address the key challenges involved in treating solid tumors:

PROBLEM: **SOLID TUMORS EVADE IMMUNE DESTRUCTION**	OUR SOLUTION: **CHIMERIC ANTIGEN RECEPTOR MACROPHAGE (CAR-M))**
IMMUNE CELL TRAFFICKING Tumors limit which immune cells have access to their microenvironment.	**UTILIZING MACROPHAGES AND MONOCYTES** Macrophages and monocytes are actively recruited to solid tumors. Carisma adoptively transfers genetically engineered CAR macrophages, whose properties have been fine-tuned in the laboratory to identify and eradicate tumor cells.
IMMUNOSUPPRESSIVE SOLID TUMOR MICROENVIRONMENT Leukocytes, such as T cells, are often prevented from penetrating the tumor tissue, leading to immunologically cold tumors that fail to respond to immune therapies. Furthermore, tumors are rich with immunosuppressive factors, such as immunosuppressive cytokines, cell surface ligands, and regulatory immune cells - limiting the potential activity of immune cell therapies.	**CAR-M ACTIVATE THE TUMOR MICROENVIRONMENT** Carisma's CAR-Macrophages are polarized toward an anti-tumor, or M1, macrophage activation state, and secrete pro-inflammatory factors that generate an environment that is conducive to robust anti-tumor immunity, and recruit and activate other immune cells, such as T cells.
TARGET HETEROGENEITY AND THE DEVELOPMENT OF RESISTANCE Every cancer is unique. There is significant cell-to-cell heterogeneity within a tumor mass, allowing for the development of resistance to single-antigen targeted therapies.	**ACTIVATION OF THE ENDOGENOUS IMMUNE SYSTEM** Unlike other cell types utilized in CAR cell therapy, macrophages are professional antigen presenting cells, capable of leading to activation of the patient's own T cells, a component of the adaptive immune system. Thus, Carisma's approach allows for therapeutic efficacy beyond the antigen target which the CAR is designed to engage.

CAR-M have the ability to infiltrate solid tumors, phagocytose and destroy tumor cells directly, and present tumor-derived antigens leading to activation of the adaptive immune system. CAR-M mount anti-tumor immunity in numerous ways. First, CAR-M leverage the natural tumor-homing ability of macrophages and monocytes, the naturally most abundant immune cells in the TME, to traffic to both primary tumors and metastases, enabling engineered macrophages to act as a "Trojan horse," tricking the tumor into recruiting engineered, anti-tumor CAR-M as if they were normal monocytes or macrophages. Once within the tumor, CAR-M directly kill antigen-expressing tumor cells through phagocytosis and secretion of cytotoxic factors. CAR-M secrete inflammatory cytokines and chemokines that promote a pro-inflammatory environment and lead to the recruitment of T-cells and other leukocytes. Finally, CAR-M serve as professional antigen-presenting cells for T-cells, inducing epitope spreading, systemic anti-tumor immunity, and immune memory against tumor antigens, expanding anti-tumor immunity to target negative tumor cells and potentially preventing antigen negative relapse.



Historically, macrophages have been challenging to genetically engineer due to their inherent resistance to most commonly used genetic manipulation methods. Furthermore, controlling the activation state of macrophages has been a long-standing challenge. Carisma believes that it has overcome these challenges with its proprietary platform that efficiently engineers macrophage-based cell therapies and enables control of their activation state.

Carisma's proprietary platform enables the therapeutic use of engineered macrophages and monocytes for the treatment of cancer and other serious diseases and disorders. In its first application, solid tumors that overexpress HER2, the CAR-M platform is designed to identify and eradicate HER2 overexpressing tumor cells.

Currently, CAR-M are an individualized therapy that begin with the isolation of monocytes, the pre-cursor cell to macrophages, from blood drawn from a patient through a process called apheresis. The cells are purified, cultured, differentiated, and engineered with a CAR which bestows the macrophage with the ability to identify and eradicate cancer cells.

To enable its proprietary CAR-M therapy, Carisma had to overcome several key technical challenges, which are summarized by its platform capabilities:

- ***Gene Delivery***: Carisma has identified Ad5f35, a chimeric adenoviral vector, as a highly efficient vector for introducing genes such as CARs into primary human macrophages and monocytes. Carisma has further developed additional proprietary technologies for *ex vivo* and *in vivo* macrophage engineering.

- ***Activation State*:** Carisma demonstrated that Ad5f35 transduction leads to M1 polarization of human macrophages and monocytes and renders them resistant to conversion to M2 by immunosuppressive environments.

- ***Tumor targeting*:** Carisma demonstrated that macrophage function can be harnessed against tumors in a targeted fashion via CARs. Carisma's CARs enable antigen specific activation of macrophages and monocytes, antigen specific cancer cell phagocytosis and killing, and antigen specific release of pro — inflammatory cytokines and chemokines.

- ***T-cell activation*:** By appropriately engineering and polarizing CAR-M, Carisma has demonstrated that they are able to recruit and activate T-cells — a key aspect to solid tumor immunotherapy.

- ***Cell manufacturing processes*:** Carisma has developed manufacturing processes that enable the production of genetically engineered macrophages or monocytes for therapeutic use.

In the case of Carisma's lead product, CT-0508, a chimeric adenoviral vector, or Ad5f35, is used to deliver an anti-HER2 CAR which enables the macrophages to detect, phagocytose, kill, release inflammatory mediators, and initiate an immune reaction in response to HER2 overexpressing tumor cells. The resulting CAR-M, which are adenovirally transduced and locked into a pro-inflammatory M1 phenotype during the manufacturing process, are cryopreserved and shipped back to the patient for reinfusion.

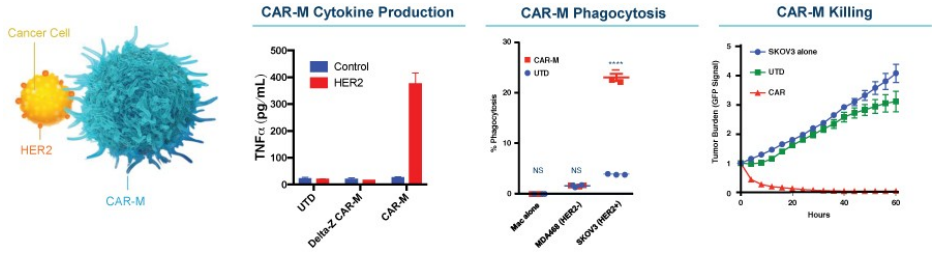
Reinfused CAR-M rapidly egress from peripheral blood and infiltrate tumor sites. Once in the tumor, CAR-M are activated by tumor-associated antigen engagement with the CAR, signaling via an intracellular signaling domain to phagocytose the tumor cell and release pro-inflammatory cytokines and chemokines that "warm up" the TME. They produce locally acting mediators that reprogram the TME, drawing in T-cells and NK cells, activating nearby antigen presenting cells, or APCs, such as dendritic cells, or DCs, and repolarizing immunosuppressive TAMs toward an M1 phenotype. In addition to direct phagocytosis of tumor cells, CAR-M present a patient's unique array of tumor antigens to T-cells, leading to a broad adaptive immune response that has the potential to generate broad anti-tumor immunity.

Pre-clinical Data

Carisma evaluated its CAR-M platform in a variety of pre-clinical *in vitro* and *in vivo* model systems and published its foundational data in Nature Biotechnology in March 2020.

First, Carisma found that Ad5f35 led to the efficient transduction of human macrophages and could be utilized to produce human CAR-M. CAR-M mediated potent antigen-specific phagocytosis and tumor killing in a targeted fashion. CAR-M took on an activated M1 phenotype, expressed pro-inflammatory cytokines and chemokines, converted bystander M2 macrophages toward an M1 phenotype, recruited T-cells, and increased antigen presentation to activate T-cells. Enhanced anti-tumor T-cell responses mediated by CAR-M were noted in humanized murine models and the findings are summarized below.

Human CAR-M Anti-Tumoral Function *In Vitro*



* SKOV3 = Human HER2+ ovarian cancer cell line
* UTD = Untransduced
* CAR = Anti-HER2 human CAR-M
* Delta^{Z} = CAR-M with a non-signaling control CAR

CAR-M were able to traffic to established tumors and co-localized with metastatic foci in the lung after intravenous administration without a pre-conditioning regimen. CAR-M treatment induced significant reduction in tumor burden and improved overall survival compared to mice treated with control macrophages in multiple mouse tumor models.

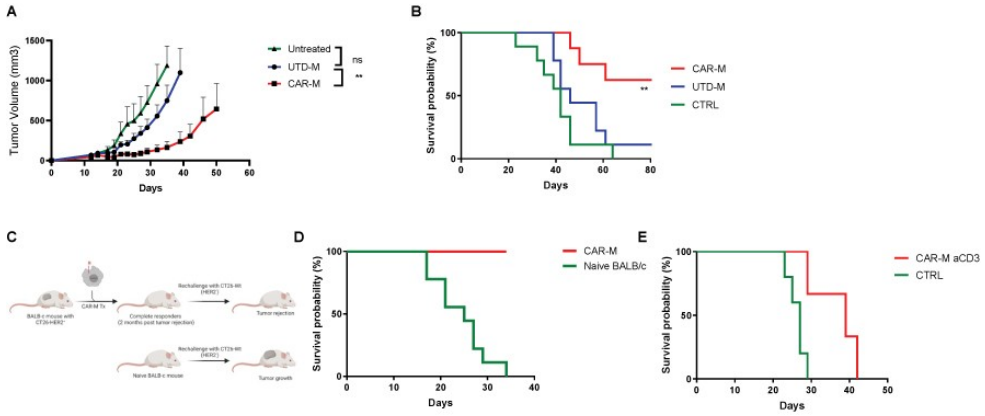
Transduction of macrophages with Ad5f35 led to the induction of a durable M1 phenotype. Despite the purported plasticity of macrophage phenotype, Ad5f35 transduced macrophages did not convert to M2 upon stimulation. CAR-M maintained a pro-inflammatory M1 state within the TME, while control macrophages were converted to M2. Additionally, CAR-M induced a pro-inflammatory signature in the surrounding TME. Given that solid tumors are rich in TAMs, Carisma evaluated the bidirectional interaction of CAR-M and M2 macrophages. While M2 macrophages failed to convert CAR-M from M1 to M2, CAR-M converted M2 macrophages to M1. Additionally, the presence of M2 macrophages did not impact the tumor killing capacity of CAR-M, highlighting their resistance to the immunosuppressive components of the TME.

Finally, CAR-M were shown to interact with cells of the adaptive immune system. CAR-M upregulated antigen presentation pathways and demonstrated heightened T-cell stimulation capacity as compared to control macrophages. Notably, CAR-M were able to present antigens to T-cells following phagocytosis. In addition, CAR-M were able to directly recruit various subtypes of T-cells.

To further its understanding of CAR-M, Carisma sought to model their function in fully immunocompetent mouse models which have an intact TME and immune system, enabling recapitulation of the complex immunological environment in human cancer patients. Toward that goal, Carisma developed a murine surrogate CAR-M to demonstrate the mechanism of action of CAR-M *in vivo* in mice which have a fully intact immune system. First, Carisma validated comparability between human and murine CAR-M. Carisma demonstrated that the same vector utilized in its clinical pipeline, Ad5f35, could be used to engineer primary murine macrophages, and confirmed thaT-cells were viable, expressed CAR, and were similarly polarized to an M1 phenotype. Functional studies showed CAR-M mediated tumor killing of target cancer cells and enhanced the *in vitro* function of T-cells. Furthermore, murine CAR-M released pro-inflammatory cytokines similarly to human CAR-M.

Pre-clinical immunocompetent solid tumor models were established via subcutaneous, or SC, injection and engraftment of the murine colorectal cancer cell line, orCT26, engineered to express human HER2. In this model, intratumoral, or IT, CAR-M monotherapy significantly reduced tumor growth and prolonged overall survival compared to untransduced macrophages (macrophages not expressing a CAR). By rechallenging complete responders several months post tumor clearance with the same tumor cells lacking HER2 expression, Carisma was able to demonstrate that CAR-M therapy leads to epitope spreading and immune memory which confers protection against antigen-negative relapse.

CAR-M Control Tumor Progression, Improve Survival and Induce Long-Term Protection against Antigen-negative Relapse



* UTD-M = Untransduced macrophage

(A) CT26-HER2+ tumors were implanted subcutaneously in immunocompetent syngeneic mice. After 15 days, mice were treated with intratumoral CAR-M, UTD-M, or left untreated. CAR-M significantly reduced tumor progression.

(B) CAR-M significantly increased long term survival compared to control groups.

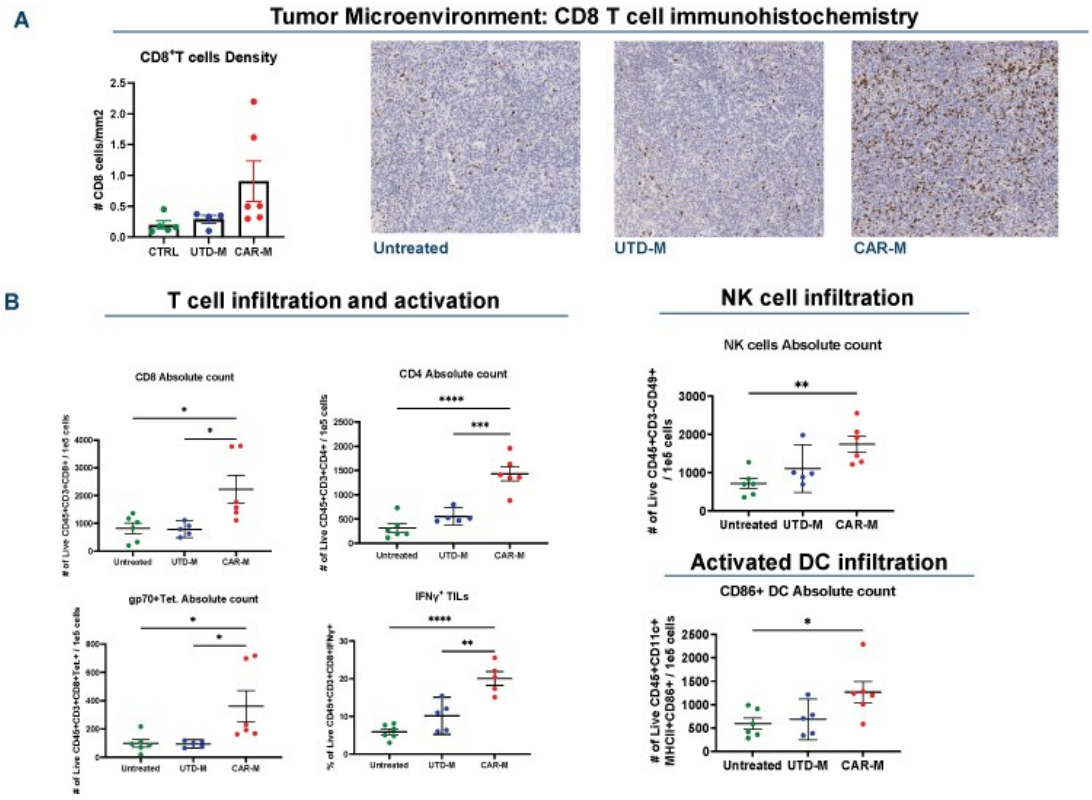
(C) Mice achieving complete responses, or CR, post CAR-M therapy were re-challenged with HER2-negative CT26-Wt tumors to model antigen negative relapse.

(D) Naïve mice succumbed to disease within 35 days, while 100% of the mice from the CAR-M treatment group survived, indicating long-term tumor protection against antigen negative relapse.

(E) T-cell depletion reversed CAR-M induced protection against antigen negative relapse, indicating that CAR-M treatment led to epitope spreading and anti-tumor T-cell memory.

Analysis of the tumor microenvironment of mice receiving CAR-M therapy demonstrated the ability of Carisma's therapy to recruit additional immune cells, including T-cells, into the tumor. CAR-M led to immune activation in the TME associated with T-cell expansion, activation, and modulation of the overall T-cell repertoire of tumor infiltrating lymphocytes — suggesting the induction of a broad anti-tumor immune response.

CAR-M Reprogram the TME and Prime T-cells



(A) Immunohistochemistry assessment showed that CAR-M treatment increased tumor CD8+ T-cell infiltration in the CT26-HER2+ model indicating activation of the TME.

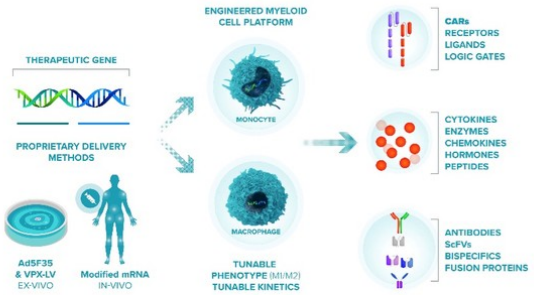
(B) Flow cytometric analysis showed increased tumor infiltration of T-cells, natural killer (NK) cells, activated CD86+ dendritic cells (DCs) and tumor associated antigen specific CD8 T-cells (gp70 Tet+) in CAR-M treated mice, suggesting epitope spreading.

Combined, these results demonstrate that CAR-M have the potential to overcome some of the key challenges cell therapies encounter in the solid tumor setting and represent a novel immunotherapeutic platform that can be broadly applied to diverse tumor antigen targets.

Carisma is applying its CAR-M platform to a broad pipeline of product candidates, and Carisma intends to build a fully integrated immunotherapy company spanning autologous cell therapy, allogeneic cell therapy, and *in vivo* macrophage gene therapy for

oncology and beyond. Carisma currently owns all rights to its product candidates and programs outside of its Moderna collaboration, which is limited to direct *in vivo* reprogrammed CAR-M in the field of oncology.

Macrophage and Monocyte Engineering Platform



Gene Delivery

At the core of Carisma's platform are its proprietary viral and non-viral approaches for delivering different payloads into macrophages and monocytes and engineering them into a variety of phenotypes depending on the disease which they are intended to treat.

For its initial solid tumor programs, Carisma's adenoviral vector enables Carisma to generate an abundant supply of CAR-M cells and engineer the cells to be locked into an M1 phenotype. Carisma selected Ad5f35 after testing commonly utilized viral and non-viral approaches and demonstrating Ad5f35's high efficiency in transducing primary human monocytes and macrophages. Ad5f35 can transduce macrophages with high efficiency, viability and reproducibility amongst donors. In addition to being highly efficient, transduction with Ad5f35 polarizes and locks macrophages into an M1 phenotype.

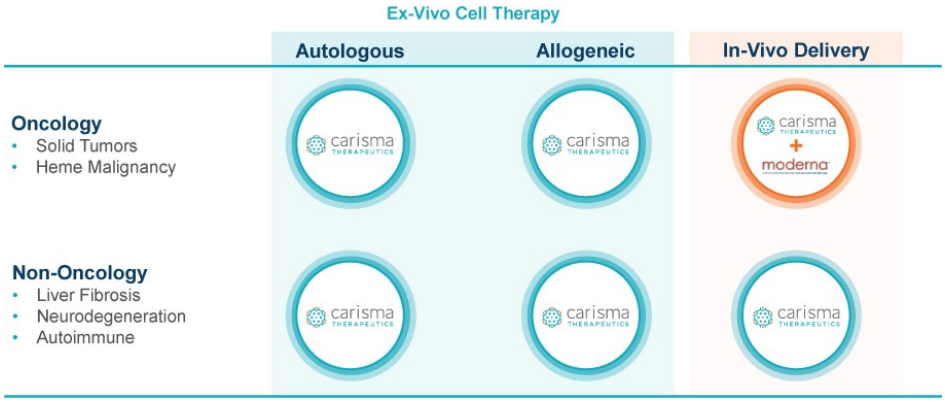
In addition to Ad5f35, Carisma's platform includes two other proprietary methods for delivering genes into macrophages. The first is a modified lentiviral vector, or Vpx-LV, which carries viral protein X. Vpx-LV depletes SAMHD1 and permits lentiviral transduction of primary human monocytes, macrophages, and dendritic cells. Vpx-LV was developed by Dr. Nathaniel Landau at New York University, and Carisma holds a global exclusive license to develop this vector. Unlike Ad5f35, which induces a potent M1 phenotype upon transduction, Vpx-LV has minimal impact on macrophage phenotype and can be utilized as a flexible tool to generate M0, M1, or M2 polarized myeloid cell therapies with durable gene expression. Additionally, Carisma has developed a proprietary non-viral mRNA-based approach to transiently engineered macrophage and a companion method to induce a durable pro-inflammatory M1 phenotype. Carisma has successfully generated M1-primed non-viral CAR-M using a research manufacturing process consisting of mRNA transfection to deliver the CAR transgene followed by IFNβ priming to polarize the cells to an M1 anti-tumoral phenotype. Non-viral CAR-M demonstrated high viability, high CAR expression, M1 polarization and anti-tumoral function

ex vivo similar to Ad5f35 engineered CAR-M. Additionally, in partnership with Moderna, Carisma is developing a myeloid tropic LNP/mRNA platform to program CAR-M directly *in vivo*.

Approach to Pipeline

Carisma's proprietary technology and engineering capabilities enabled it to pioneer the CAR-M field and conduct the first in human CAR-M clinical trial, establishing its leading position in the engineered macrophage space. Carisma's goal is to advance *ex vivo* autologous cell therapies and off-the-shelf therapies including allogeneic cell therapies and direct *in vivo* reprogramming approaches in oncology and other indications:

Expansion: Building Upon the Learnings of Autologous Cell Therapy

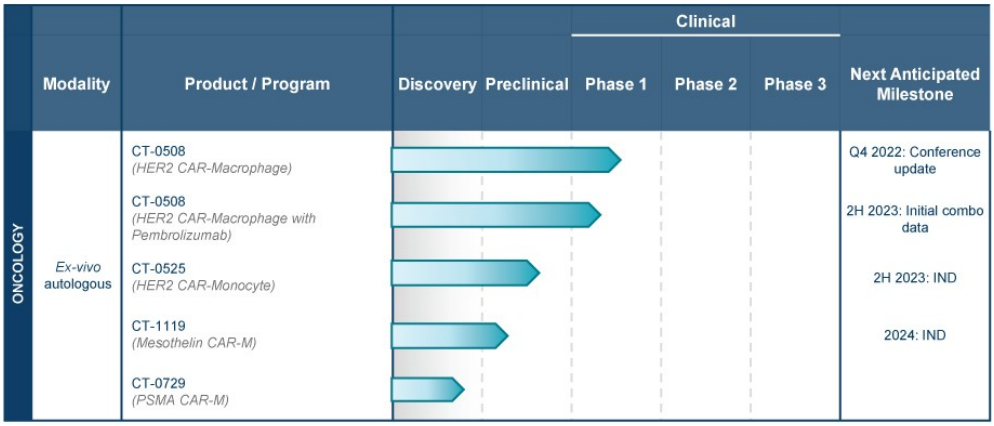


While the first iteration of its platform is the CAR macrophage, Carisma has expanded its capabilities to include multiple myeloid cell types (monocytes, macrophages, and dendritic cells), multiple gene delivery modalities (Ad5f35, Vpx-LV, and mRNA), various phenotypes (M1, M2, and subtypes thereof), and a broad variety of payloads including CARs, immune ligands, secreted or tethered cytokines, transcription factors, and other genes that enhance efficacy. Importantly, Carisma has expanded its platform to enable *in vivo* engineering of myeloid cells directly within the patient's body. Additionally, Carisma has established a robust process to edit the genome of human myeloid cells by utilizing tools such as CRISPR/Cas9, enabling gene edited macrophages with inhibitory pathways such as SIRPα genetically removed from the cell product. Carisma's engineered macrophage platform enables fine tuning the activation state of the engineered macrophage or monocyte. Finally, Carisma has established a novel Engineered Myeloid Microenvironment Converter, or EM-C, platform that utilizes proprietary synthetic cytokine switch receptors to generate engineered

macrophages that respond to M2 cytokines with M1 responses (for oncology applications) or to generate engineered macrophages that respond to M1 cytokines with M2 responses, for auto-immune or chronic inflammatory diseases.

Carisma's Pipeline of Product Candidates and Discovery Programs

Using its proprietary CAR-M platform, Carisma is developing a broad pipeline of product candidates, with an initial focus in oncology.



Lead Product Candidate: CT-0508

CT-0508 is a cell product comprised of autologous, peripheral blood monocyte-derived, pro inflammatory macrophages, transduced with a chimeric adenoviral vector, Ad5f35, containing an anti-HER2 CAR. The anti-HER2 CAR is a first-generation CAR composed of a fully human single-chain variable fragment, or scFv, derived from the monoclonal antibody trastuzumab, which is specific for human HER2. The anti-HER2 scFv is fused to a CAR backbone containing a cluster of differentiation CD8 hinge, CD8 transmembrane domain, and a CD3ζ intracellular domain. The CAR is cloned into an adenoviral vector backbone and transduced into monocyte-derived macrophages. Based on the pre-clinical data generated to date, CT-0508 CAR-M are able to specifically recognize HER2 overexpressing tumor cells, which triggers both direct killing of tumor cells and phagocytosis. Additionally, CAR engagement by HER2 on tumor cells results in the secretion of a broad array of pro-inflammatory cytokines and chemokines, which contribute to the recruitment and activation of additional immune cells to the TME, including effector T-cells and other antigen presenting cells. CT-0508 CAR-M are antigen presenting cells, and after phagocytosing tumor cells they process tumor-derived antigens and present them to T-cells, leading to T-cell immunity against tumor antigens. This additional activation of the adaptive immune system amplifies anti-tumor immune response and can lead to long term immune memory not only against HER2, the primary target, but other tumor specific neoantigens as well.

The Phase 1 clinical trial of CT-0508 is currently ongoing. As of September 1, 2022, five clinical sites were open for screening and enrollment: (i) the University of Pennsylvania Abramson Cancer Center, (ii) the University of North Carolina Lineberger Comprehensive Cancer Center, (iii) the City of Hope National Medical Center, (iv) the MD Anderson Cancer Center, and (v) the

Sarah Cannon Cancer Research Institute. The FDA has granted "Fast Track" status to CT-0508 for the treatment of patients with solid tumors. The components of CT-0508 cells are shown below:

Key Components of First-Generation CAR Construct

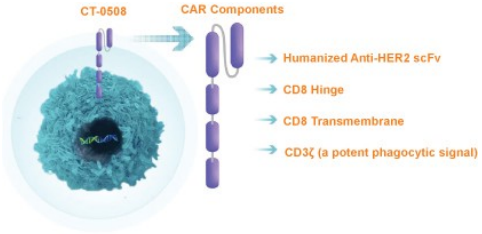


Figure Legend: CT-0508 is an autologous monocyte derived macrophage cell product engineered with the adenoviral vector Ad5f35 to express an anti-HER2 chimeric antigen receptor, or CAR. The CAR is comprised of a single chain variable fragment derived from a humanized anti-HER2 antibody which provides specificity against the target antigen. The scFv is linked to a hinge domain derived from the human CD8 protein, which enables extension and flexibility from the cell membrane surface. The hinge is linked to a CD8 transmembrane, or TM, domain which spans the cell membrane, linking the extracellular portion of the CAR to the intracellular portion of the CAR, which is comprised of CD3ζ. CD3ζ signaling is activated when the CAR binds to the target antigen, leading to macrophage activation, phagocytosis, tumor cell killing, and release of pro-inflammatory factors such as cytokines and chemokines.

CT-0508 Therapy for HER2+ Solid Tumors

While therapies targeting solid tumors that overexpress HER2 have led to improved survival in breast and gastric or gastro-esophageal junction cancers, there remains an unmet need in patients with advanced HER2 positive, or HER2+, cancers and HER2 expressing cancers, including metastatic lung, ovarian, colon, bladder, and other cancers for which there are no HER2 targeted agents.

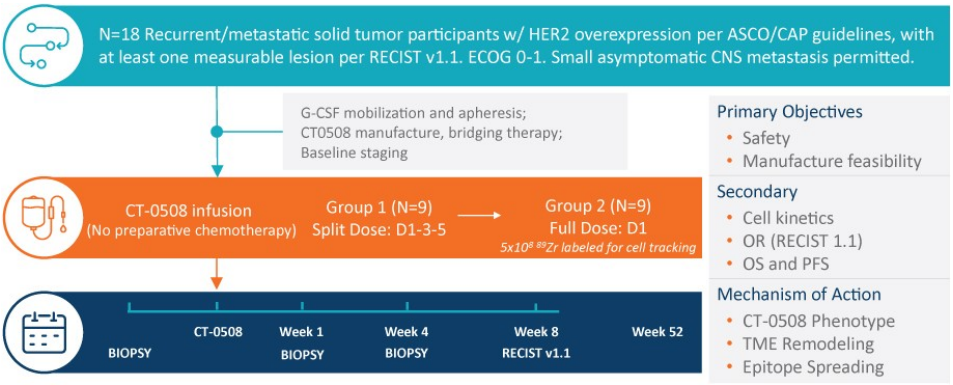
Approximately 20% of breast cancers overexpress HER2, a protein that is overexpressed on the surface of a variety of solid tumors. In addition to breast, gastric, and gastroesophageal junction cancers, HER2 is also overexpressed in a number of solid tumor indications including but not limited to bladder cancer, ovarian cancer, lung cancer and colon cancer.

HER2 Positivity Frequencies Across Tumor Types	
Tumor type	**HER2 positivity (%)**
Bladder cancer	8-70
Breast cancer	11.0-25.0
Cervical cancer	2.8-3.9
Colorectal cancer	1.6-5.0
Esophageal cancer	12.0-14.0
Extrahepatic Cholangiocarcinoma	6.3-9.0
Gallbladder cancer	9.8-12.8
Gastric adenocarcinoma	7.0-34.0
Ovarian cancer	26
Salivary duct carcinoma	30-40
Salivary mucoepidermoid carcinomas	17.6
Testicular cancer	2.4
Uterine cancer	3.0

CT-0508 Clinical Study Design – Study 101

The ongoing Phase 1 clinical trial of CT-0508 is a single-arm, open-label study of systemic intravenous administration of CT-0508. This study is intended to evaluate safety, tolerability, cell trafficking, cell-manufacturing feasibility, and preliminary evidence of efficacy in approximately 18 subjects with locally advanced or metastatic solid tumors overexpressing HER2 who have failed available therapies.

A summary of the clinical trial design, dosing regimen, sample collection regimen, and primary and secondary objectives are shown below:



Filgrastim, or recombinant G-CSF, is administered to patients five days prior to apheresis to mobilize monocytes into the peripheral blood, increasing the available circulating monocyte count prior to collection by apheresis. The CT-0508 cell product is then prepared, cryopreserved, and released following quality control testing. The first three participants in the study were hospitalized for eight days after the first infusion of CT-0508 (Day 1 to Day 8) as part of the pre-determined study design. There is no preparative chemotherapy prior to the cell product infusion. The first group of nine patients have been treated with an intra-participant dose escalation regimen consisting of:

- ***Day 1:*** Up to 0.5×10^9 cells;
- ***Day 3:*** Up to 1.5×10^9 cells; and
- ***Day 5:*** Up to 3.0×10^9 cells.

AE reporting begins at the start of mobilization and continues until any toxicities resolve or are deemed irreversible. Participants are continually reassessed for evidence of acute and/or cumulative toxicity. Approximately nine participants in the second group of patients will receive up to 5.0×10^9 total manufactured CT-0508 cells in a single infusion on Day 1.

HER2 has several advantages as a target antigen for CAR-M. In addition to being expressed in a variety of solid tumor types with significant unmet medical needs, HER2 is not shed or internalized and is only expressed at low levels in non-tumor tissues. As HER2 expression is typically maintained over the course of disease, CT-0508 may be developed for treatment of metastatic disease, for

example, in the liver and lung, as well as primary tumors. Additionally, HER2 is typically not lost after patients with metastatic cancer progress on available HER2 targeted therapies, rendering HER2 refractory patients potentially eligible for CT-0508 therapy.

Participants enrolled in Study 101 undergo one pre-treatment and two on-treatment biopsies to assess CT-0508 trafficking, impact on the TME, induction of anti-tumor T-cell immunity, and other biomarkers. Blood samples are also collected over a period of 52 weeks for evaluation of pharmacokinetics and biomarkers associated with safety and efficacy.

Based upon clinical data, Carisma may seek Regenerative Medicine Advanced Therapy, or RMAT, and PRIority MEdicine, or PRIME, designations for CT-0508, which provide an expedited developmental and approval pathway, in the United States and the European Union, respectively.

CT-0508 Clinical Data — Study 101

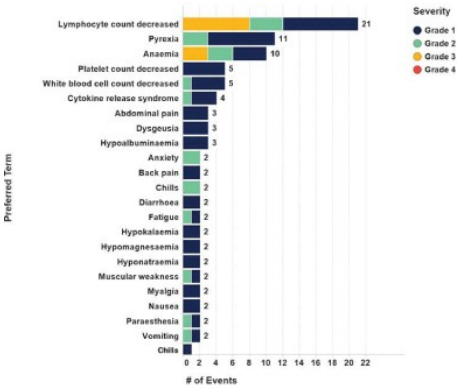
Enrollment of the first group of nine patients in the Phase 1 clinical trial of CT-0508 has been completed and enrollment in the second group is currently ongoing. Carisma successfully generated CT-0508 product for all participants enrolled in the first group of the study with an average cell viability of 89%, an average purity of 85%, and an average CAR transduction of 81%.

Carisma has reported on the safety, clinical response, and correlative studies for the first seven patients dosed in the first group of the clinical trial. Of such patients, all had HER2 overexpression levels of 2+ or higher and five had levels of HER2 3+. HER2 grading was performed based on the ASCO/CAP guidelines. Patients in the trial had three median prior therapies with a range of two to 11. Patients had a median of two prior HER2 targeted therapies, with a range of zero to nine.

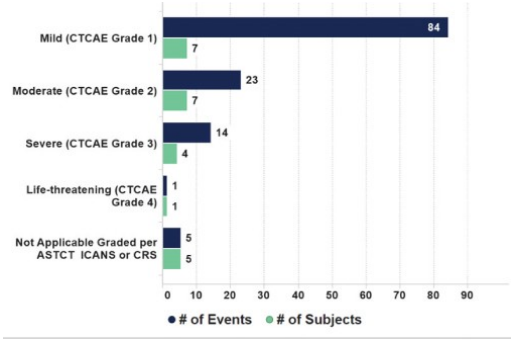
CT-0508 was well tolerated with no dose-limiting toxicities. There were no episodes of Grade 3 or Grade 4 CRS. There was one CRS Grade 2 on Day 3, characterized by fever and hypotension, which resolved on Day 4 with acetaminophen, cefepime, and fluids. All other reports of CRS were Grade 1. There were no episodes of immune cell therapy associated neurotoxic syndrome, or ICANS, reported. No patients had severe CRS. There was one related SAE of CRS and Infusion Reaction; two SAEs not related to treatment: one upper GI hemorrhage related to progressive disease, or PD, and one worsening dyspnea related to PD. No adverse events, or AEs, led to CT-0508 dose modification or discontinuation. No major organ toxicity was observed. The majority of AEs were Grades 1 and 2.

Overview of Treatment-Emergent Adverse Events (Safety Population)	
Category	n = 7 (%)
Treatment-emergent Adverse Event (TEAE)	7 (100.0)
TEAE, Related to CT-0508	6 (85.7)
TEAE, Serious AE	3 (42.9)
TEAE, Serious AE Related to CT-0508	1 (14.3)
TEAE, AEs of Special Interest	
– CRS (cytokine release syndrome)	0 (0.0)
o Grade 4	0 (0.0)
o Grade 3	1 (14.3)
o Grade 2	4 (57.1)
o Grade 1	1 (14.3)
– Pyrexia	1 (14.3)
– Infusion related reaction	
Discontinued CT-0508 due to TEAE	0 (0.0)

Summary of AEs by Preferred Term



Summary of AEs by Severity



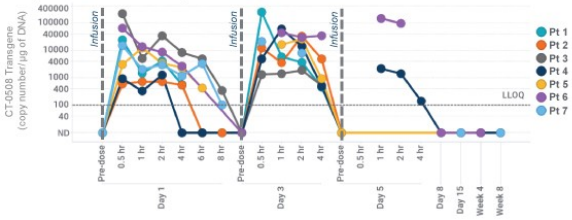
The best overall response was stable disease per RECIST 1.1 criteria. A best overall response of stable disease was observed in three out of seven patients.

Transient and low-grade fever was observed in five out of seven patients post CT-0508 infusion. All fevers resolved within 48 hours. In concordance with clinical observations, a transient increase in serum IL-6, a pro-inflammatory cytokine, was observed.

Carisma evaluated the pharmacokinetics, or PK, of CT-0508 in the peripheral blood and the tumor. Similar peripheral blood PK was observed for all seven participants with CT-0508 detectable only on infusion days for four to eight hours post-infusion, consistent with rapid migration of CAR-M from the blood to tissues following infusion. CT-0508 was detected within the TME of all six evaluable participants assessed to date using RNAscope™ technology as shown below. These data suggest that CT-0508 rapidly egresses from the peripheral blood and successfully traffic to the biopsied tumor mass.

CT-0508 Rapidly Migrates Out of the Blood and is Detected within the TME of All Participants Evaluated

Peripheral blood CT-0508 pharmacokinetics:



CT-0508 infiltration of the TME:

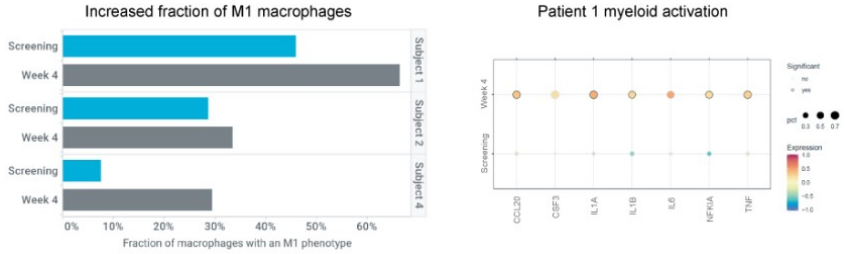
Pt	Screening	Day 8	Week 4
1	Not Detected	Detected	Detected
2	Not Detected	Detected	Detected
3	Not Detected	Detected	Not Detected
4	Not Detected	Not Detected	Detected
5	Not Detected	Detected	N/A
6	Not Detected	Detected	Not Detected

To evaluate the mechanism of action of CT-0508, single cell RNA sequencing, or scRNAseq, analysis was performed on fresh tumor biopsy to investigate changes within the TME following CT-0508 infusion. Analysis of screening (n=5), Day 8 post-infusion

(n=5) and Week 4 post-infusion (n=3) biopsies revealed increases in CD8 T-cells, macrophages, and neutrophils on treatment consistent with inflammation and activation of an immune response.

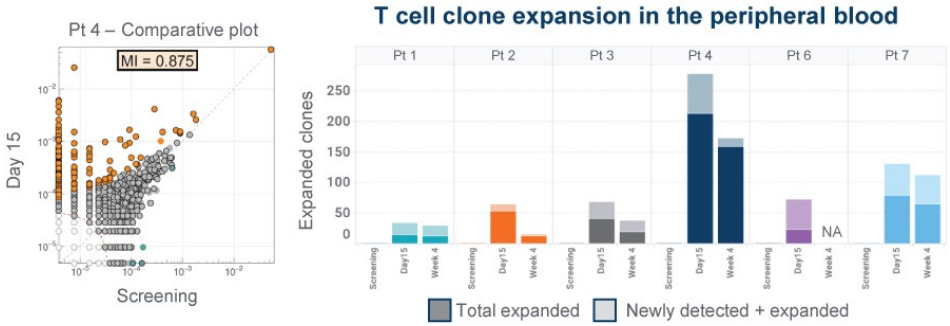
These increases were also associated with reprogramming of the infiltrating macrophages toward an M1 phenotype by Week 4.

Single Cell RNAseq Analysis Demonstrates Remodeling of the Tumor Immune Landscape Following CT-0508 Infusion



To evaluate whether CT-0508 was able to initiate anti-tumor adaptive immunity, TCR repertoire analysis was performed utilizing the Adaptive Biotechnologies™ TCR sequencing platform. The analysis was performed on peripheral blood and tumor tissue. Peripheral blood TCR repertoire analysis revealed an expansion of T-cell clones in the blood of participants post CT-0508 infusion, indicative of the initiation of an adaptive immune response.

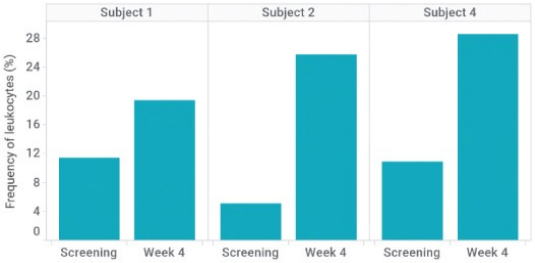
Early Expansion of T-cells in the Periphery Following CT-0508 Infusion



* MI = Morisita Index

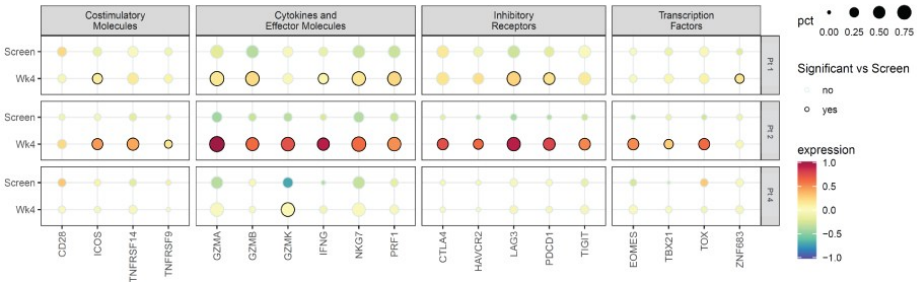
Based on scRNAseq analysis, the frequency of effector T-cells increased in all three participants with available screening and Week 4 biopsies (shown below). Furthermore, Carisma evaluated T-cell subtypes and found that Participant 1 demonstrated an increase in proliferating and effector memory CD8 T-cells, Participant 2 demonstrated an increase of all subsets except for activated CD8 T-cells, and Participant 4 demonstrated an increase in activated CD4, activated CD8 and effector memory CD8 T-cells.

Frequency of effector T-cells in TME



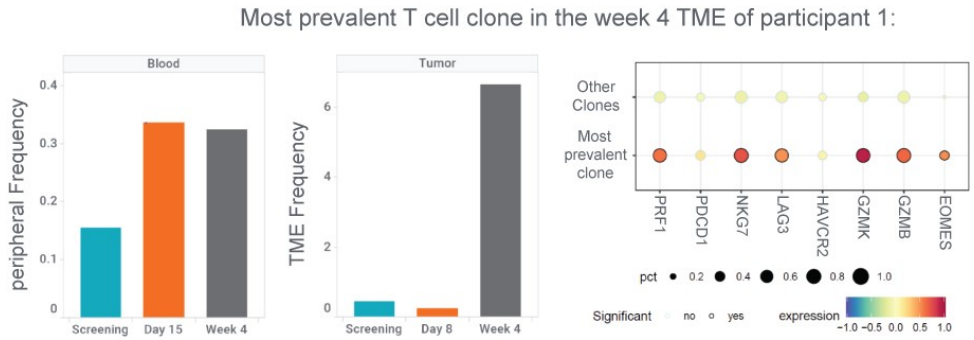
Differential tumor infiltrating lymphocyte, or TIL, gene expression demonstrated an increased expression of genes associated with T-cell activation in the CD8 TILs for all three participants with available screening and Week 4 scRNAseq.

Selected gene expression in CD8 T-cells



TCR repertoire analysis of the TME revealed that newly expanded peripheral clones accumulated over time within the TME, suggesting that these clones are tumor reactive. The most expanded clone in the Week 4 TME of Participant 1 was increased on treatment in the peripheral blood and in the TME and is a CD8 T-cell clone presenting an activated cytotoxic phenotype.

Peripherally Expanded T-cell Clones Accumulate in the TME and Adopt a Cytotoxic Phenotype



While preliminary, the clinical data to date confirmed that CT-0508 is successfully manufactured from heavily pre-treated solid tumor patients, has been well tolerated, traffics to the tumor, activates the TME, and may initiate anti-tumor adaptive immunity.

Additional CT-0508 Studies

CT-0508 and Pembrolizumab combination sub study

This open-label sub study will assess the safety and feasibility of co-administering CT-0508 in combination with the PD-1 inhibitor, pembrolizumab. The target population for this sub study are subjects at least 18 years of age who meet inclusion criteria per the main protocol and have HER2 over-expressing solid tumors and meet the sub study specific eligibility criteria. Carisma expects to report clinical data for this sub study in the second half of 2023.

CT-0508 Intraperitoneal administration sub study

This sub study has been designed to assess the safety and feasibility of CT-0508 via regional administration into the peritoneal cavity. The target population for this sub study are subjects at least 18 years of age who meet inclusion criteria per the main protocol, that have HER2 over-expressing gynecological cancers including but not limited to ovarian, fallopian tube, primary peritoneal, and endometrial cancers, who have disease spread mainly within the peritoneal cavity that meet the sub study specific eligibility criteria. Subjects will be enrolled at select clinical sites participating in Study 101 that have the capability to enroll and adequately treat subjects with intraperitoneal administration of CT-0508. Carisma expects to report clinical data for this sub study in the second half of 2023.

CT-0508 Biodistribution sub study

This open-label sub study is designed to evaluate the whole body biodistribution of CT-0508 after intravenous administration using radiolabeled CT-0508 and longitudinal PET/CT imaging. This sub study includes ^{89}Zr-oxine radiolabeling a fraction of the CT-0508 cell product, followed by administration on Day 1 and PET/CT imaging approximately on Day 1, 4, 8, 15, and 28 to assess trafficking and biodistribution of CT-0508. The target population for this sub study are subjects at least 18 years of age that meet inclusion criteria per the main protocol. Subjects will be enrolled at specific sites in Study 101 that have the capability to perform ^{89}Zr-oxine labeling, administration, and routine PET/CT analysis.

Synergistic Potential of CAR-M Therapy with T-Cell Checkpoint Inhibitors

Blocking the immune checkpoint molecule programmed cell death 1, or PD-1, has revolutionized cancer treatment for patients with a multitude of solid tumor indications. Pembrolizumab is a potent humanized immunoglobulin G4, or IgG4, monoclonal antibody, or mAb, with high specificity of binding to the PD-1 receptor, inhibiting its interaction with programmed cell death ligand 1, or PD-L1, and programmed cell death ligand 2, or PD-L2. While pembrolizumab is currently indicated for the treatment of patients across several solid tumor indications, the majority of patients have either primary or secondary resistance to immune checkpoint blockade and may benefit from combinatorial therapy that could overcome immune cell exclusion, poor antigen presentation, low T-cell infiltration, high TAM infiltration, a lack of productive co-stimulation, low mutational burden, IT immunosuppression, and a low frequency of tumor reactive T-cell clones.

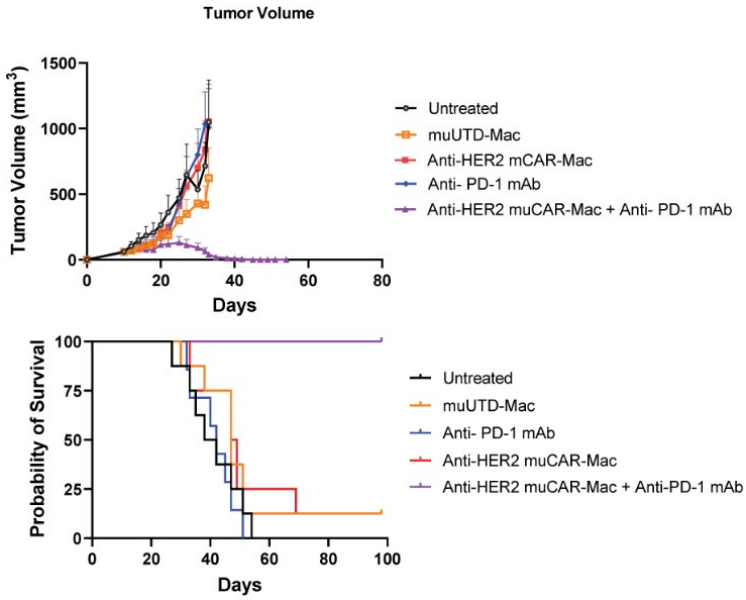
Based on the data generated during pre-clinical development, CT-0508 cell product is able to specifically recognize, cancer cells through the binding of the CAR to HER2 expressed on the surface of these cells. This interaction triggers activation of the CAR-macrophages and results in direct anti-tumor effect by killing and phagocytosis of the tumor cells. In addition, CT-0508 recruits T-cells, activates the TME, and as professional antigen presenting cells, can process and present tumor associated antigen and/or neoantigens expressed by the tumor cells, leading to T-cell immunity against these specific antigens. However, this indirect anti-tumor effect involves the engagement of T-cells that may be actively suppressed, or exhausted, within the tumor micro-environment by a variety of factors including secreted immune-modulatory factors and inhibitory ligands expressed on both immune and tumor cells. Additionally, several studies have demonstrated that patients with low mutational burden, low MHC expression, defective antigen presentation, low CD8+ T-cell infiltration, or minimal Th1 cytokine signatures tend to be unresponsive to PD-1 blockade. Therefore, based on the mechanism of action of CT-0508 and the limitations of PD-1 blockade, the combination of CAR-M therapy with PD-1

blockade therapy may be beneficial by enhancing antigen presentation (innate immunity) to initiate a robust anti-tumor T-cell response (adaptive immunity).

CAR-M and PD-1 blockade combination therapy: Pre-clinical Development

To model the combination of CT-0508 cell therapy with anti-PD-1 inhibitors, Carisma used a murine colorectal cancer cell line engineered to overexpress human HER2. Tumors were established in the flank of the immune competent mice and 14 days post tumor inoculation, mice were randomized and received either murine CAR-M alone (IV), murine PD-1 blockade alone (IP) or a combination of both treatments. Using a regimen where CAR-M was injected first when the tumor was well established, followed by the anti-PD-1 inhibitor a few days later, neither murine CAR-M (Anti-HER2 muCAR-Mac) nor murine anti-PD1 monotherapy had a significant effect on tumor growth and overall survival. However, when co-administered the combination of both therapies resulted in significant tumor growth delay associated with prolonged survival of the mice (all mice in the combination group survived until the end of the study). All mice treated with the combination of Anti-HER2 muCAR-Mac and anti-PD1 mAb completely cleared their tumors (below).

Assessment of Tumor Burden and overall survival in a Syngeneic Mouse Model of Colon Carcinoma in response to treatment with IV CAR-M and Anti-PD-1 Therapy

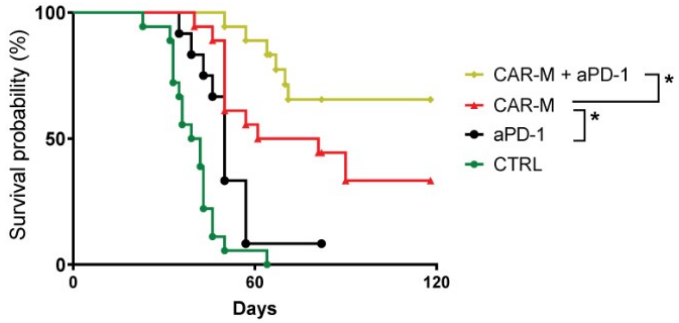


* Anti-HER2 muCAR-Mac are murine CAR-M and muUTD-Mac are untransduced murine CAR-M.

To determine the impact of Anti-HER2 muCAR-Mac and anti-PD-1 mAb combination therapy on tumor burden, tumor volumes were recorded during the treatment period (depicted in the left panel above) and mice were monitored for survival (depicted in the right panel above).

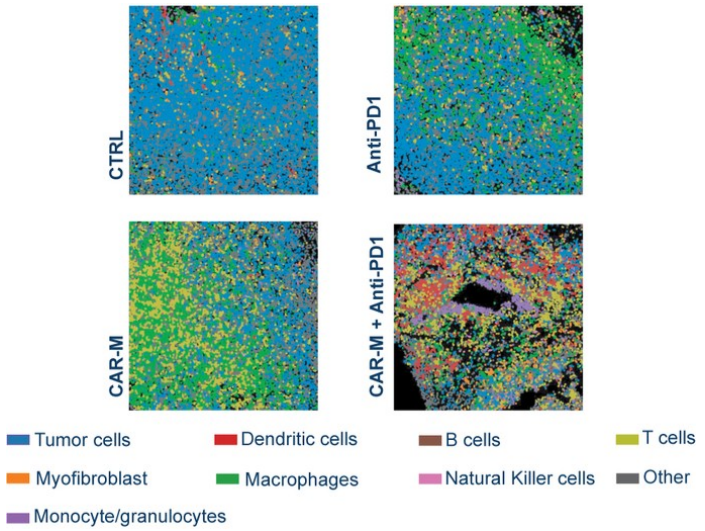
In addition to the IV CAR-M alone and in combination with anti-PD-1 therapy study described above, Carisma has performed studies with IT administered murine CAR-M. In this study, anti-PD-1 therapy was administered four times, at 3-day intervals starting 14 days post tumor inoculation (CAR-M therapy initiated on Day 15). IT murine CAR-M and anti-PD-1 therapy improved tumor control and significantly improved survival probability. Cumulative survival for all groups; 0% CR CTRL, 8.3% CR anti-PD-1, 38.9% CR CAR-M and 66.7% CR CAR-M and anti-PD-1:

IT CAR-M and Anti-PD-1 Combination Therapy Improves Survival in the CT26-HER2 Model



Analysis of immune cell populations in the TME showed that macrophages were more abundant in the CAR-M samples while other myeloid cells and DCs showed the greatest infiltration in the combination group. A significant increase in total tumor infiltrating T-cells, and in particular helper T-cells, was noted in the combination therapy.

Profound TME Modulation in Response to IT CAR-M and CAR-M +Anti-PD-1 Combination Therapy



Analysis of the TCR repertoire demonstrated that IT administration of CAR-M in combination with a PD-1 blocking monoclonal antibody led to increased frequency of T-cells in the periphery and significantly modulated the TCR repertoire in the TME suggesting enhanced adaptive anti-tumor immunity.

Based on these data, CAR-M and pembrolizumab represent a potentially synergistic immunotherapeutic combination regimen that combines CAR-M to infiltrate the TME, degrade the tumor via phagocytosis, and recruit and prime T-cells and pembrolizumab to prevent or reverse T-cell exhaustion. Patients with HER2 overexpressing tumors, such as metastatic breast cancer, gastric cancer, ovarian cancer, esophageal cancer, and others are generally poor responders to pembrolizumab. Carisma believes utilizing CT-0508 in combination with pembrolizumab represents a promising immunotherapeutic regimen that Carisma intends to evaluate in an upcoming Phase I clinical trial.

Additional Pipeline Candidates

Carisma's additional pipeline candidates are CAR-M therapies that incorporate all of the core elements of its macrophage cell engineering platform, along with certain new platform enhancements that Carisma is currently developing. The CT-1119 product candidate targets the mesothelin tumor associated antigen that is found on lung cancer, mesothelioma, pancreatic cancer, ovarian cancer, and numerous other solid tumors. The CT-0729 product candidate targets the PSMA tumor associated antigen that is found on prostate cancer.

CT-1119 (Anti-Mesothelin CAR-M)

Mesothelin is a well validated tumor associated antigen. Mesothelin has been shown to be aberrantly expressed on the surface of tumor cells and plays an important role in promoting cancer invasion and proliferation. Mesothelin has been demonstrated to be expressed at high levels in mesothelioma, lung cancer, ovarian cancer, pancreatic cancer, and other solid tumors with limited expression in normal tissue, though recent data suggests inflammation may induce expression. There are no approved anti-mesothelin

agents and no approved cell therapies targeting any of the solid tumor types that overexpress mesothelin. Mesothelin positive solid tumors represent a significant unmet medical need.

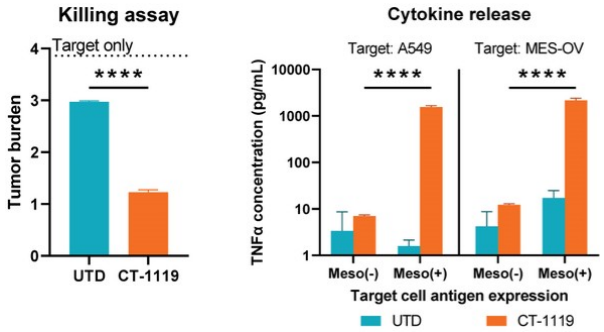
While there are no mesothelin targeted approved agents, numerous clinical trials have been conducted targeting mesothelin and safety has been established with a variety of modalities including monoclonal antibodies, antibody drug conjugates, and CAR-T-cells. Targeting mesothelin enables a similar strategy to Carisma's CT-0508 HER2 Phase I trial in that it enables (i) a basket trial design that includes patients with diverse tumor types and (ii) separate arms for systemic and regional administration. There is a significant opportunity for regional administration of CT-1119, including intraperitoneal administration for mesothelin positive ovarian cancer with peritoneal metastasis and intrapleural administration for patients with malignant mesothelioma and lung tumors. There is also a significant opportunity for patients with mesothelin positive solid tumors with systemic metastasis.

To develop a mesothelin targeted CAR-M, Carisma has screened anti-mesothelin scFv's using mRNA to identify humanized anti-mesothelin binders. Carisma obtained exclusive rights to a humanized anti-mesothelin scFv from the University of Pennsylvania. Carisma demonstrated that human CAR-M engineered with an Ad5f35 vector show high viability and efficiently express an anti-mesothelin (meso) CAR. Similar to CT-0508, CT-1119 adopts an M1 macrophage activation state.

CT-1119 effectively phagocytose mesothelin positive lung cancer (A549) and ovarian cancer (MesOV) cells as shown by two independent phagocytosis assays — a flow cytometry-based phagocytosis assay and a real time microscopy based phagocytosis assay.

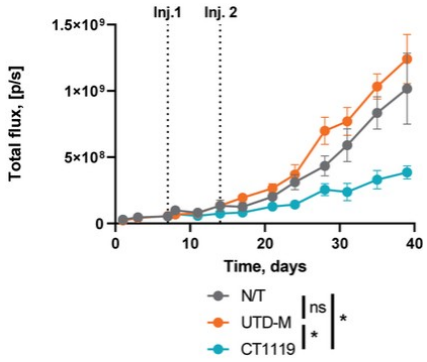
To evaluate the effector function of CT-1119, Carisma utilized mesothelin positive lung adenocarcinoma (A549) and ovarian cystadenocarcinoma (MesOV) cell lines. *In vitro*, CT-1119 shows robust killing of lung cancer cells expressing mesothelin and CAR engagement induces the release of the pro-inflammatory cytokine TNF-α following stimulation with mesothelin expressing but not wild type (Wt) cell lines:

CT-1119 Kill and Produce Cytokine in Response to Biologically Relevant Targets



In order to evaluate the direct anti-tumor activity of CT-1119 in a relevant animal model, Carisma engrafted immunodeficient NSG-S mice with A549 lung adenocarcinoma cells expressing mesothelin by intravenous administration, which creates a lung

metastasis model. CT1119 demonstrated the ability to reduce tumor progression. Further, studies in immunocompetent mouse models are ongoing.



These findings demonstrate that CT-1119, an autologous human anti-mesothelin CAR-M, can effectively phagocytose and kill target tumor cells as well as initiate pro-inflammatory cytokine production in response to mesothelin. Carisma believes that CAR-M is a feasible approach for the treatment of mesothelin expressing solid tumors and is advancing the development of this program toward a clinical trial. The IND is expected to be submitted in 2024.

CT-0729 (PSMA CAR-M)

Prostate-specific membrane antigen, or PSMA, is highly specific to prostate cancer cells. *In vitro* studies have been conducted demonstrating that Carisma can:

- Express anti-PSMA CARs on human macrophages
- Mediate phagocytosis of PSMA overexpressing tumor cells
- Induce killing of PSMA overexpressing tumor cells
- Initiate cytokine release in a PSMA specific manner
- Generate M1 polarized anti-PSMA CAR-M

CT-0729 is in the discovery stage and a lead construct has not yet been nominated.

CAR-Mono: Pre-clinical Development

Currently, the CAR-M platform requires differentiation of circulating monocytes into macrophage *ex vivo* prior to transduction with Ad5f35 to express the CAR. *Ex vivo* differentiation takes approximately one week and is associated with the loss of a fraction of cells during the differentiation process. Carisma hypothesized that monocytes could be directly engineered to express CARs, shortening the *ex vivo* manufacturing process from approximately eight days to approximately one to two days. By bypassing *ex vivo* differentiation, CAR monocytes will be administered to patients, wherein they will traffic to and enter tumor tissue, differentiating into macrophages *in vivo* rather than *ex vivo.* CAR-Mono are a precursor to the CAR macrophage. Carisma further hypothesized that CAR-Mono may have improved tumor trafficking potential, given their smaller size and increased chemokine receptor expression.

To determine the feasibility of generating CAR monocytes, or CAR-Mono, Carisma conducted *in vitro* time course studies to assess cell viability and CAR expression compared to untransduced monocytes. Following transduction with Ad5f35, CAR expression

and cell viability were tracked *in vitro* for 28 days. Viability was high (>90%) and CAR expression was high (>80%), and both stayed high for the entire 28 days of culture. Durable CAR expression is critical to enable the cells to (a) retain CAR expression while trafficking to the tumor, (b) retain CAR expression during differentiation into CAR macrophages, and (c) to enable sustained anti-tumor activity.

Carisma's first CAR-Mono program is CT-0525, an autologous anti-HER2 CAR-Mono. CT-0525 is an advanced pre-clinical program, and Carisma plans to submit an IND for CT-0525 in the second half of 2023, followed by initiation of a Phase 1 clinical trial.

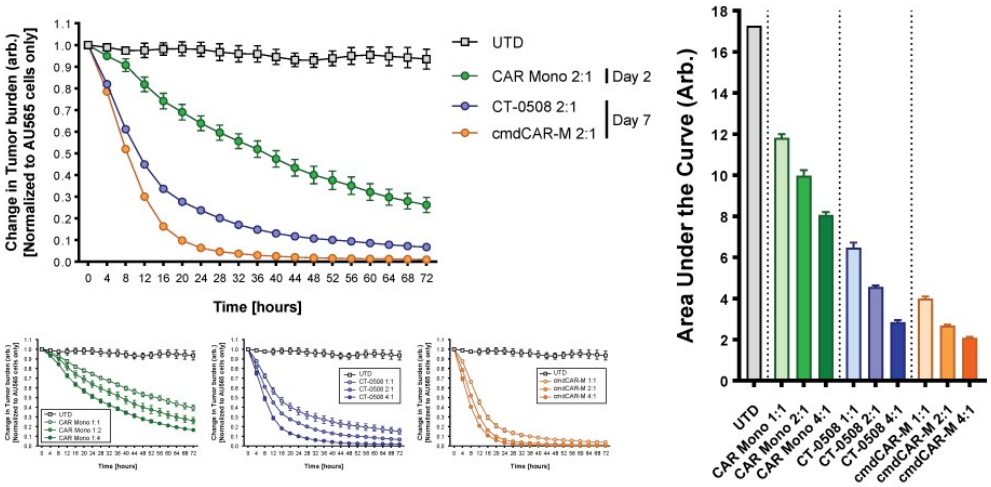
The M1 phenotype of Carisma's CAR-M platform is an important aspect of the mechanism of action. As monocytes are the precursors to macrophages, differentiation and cell morphology was evaluated after two days and seven days of culture. After seven days in culture, CAR-Mono showed a progressively increasing M1 phenotype (high CD80 and CD86 expression) and expressed CAR. Compared to untransduced monocytes cultured for two or seven days *in vitro*, Ad5f35 transduced CAR-Mono upregulated M1 markers CD80 and CD86, confirming that Ad5f35 transduction similarly induces an M1 macrophage phenotype when added at the monocyte stage. Importantly, CAR-Mono-derived CAR-M had a similar morphology to CAR-M generated using the standard method — confirming morphologically that CAR-Mono differentiate into CAR-M.

To confirm that CAR-Mono differentiate into CAR-M and take on an M1 phenotype *in vivo*, NSG-S mice were engrafted with NCI-H2444 (Non-Small Cell Lung Cancer). NSG-S mice are highly immunodeficient mice that express human Interleukin (IL)-3, human GM-CSF, and human stem cell factor. These animals support enhanced engraftment of myeloid cells compared to NOD/SCID Il2rg-/- (NSG) mice, they are ideal for studies investigating the adoptive transfer of myeloid cells. Untransduced control or CAR-Mono were intratumorally injected (N=3 donors) and tumors were harvested seven days post injection. Human immune cells were enriched using flow sorting and processed for single cell RNA sequencing. By comparing the gene expression of *in vivo* and *in vitro* differentiated untransduced and CAR monocytes, Carisma's data suggest that the monocytes have the potential to differentiate into macrophages and adopt an M1 like phenotype.

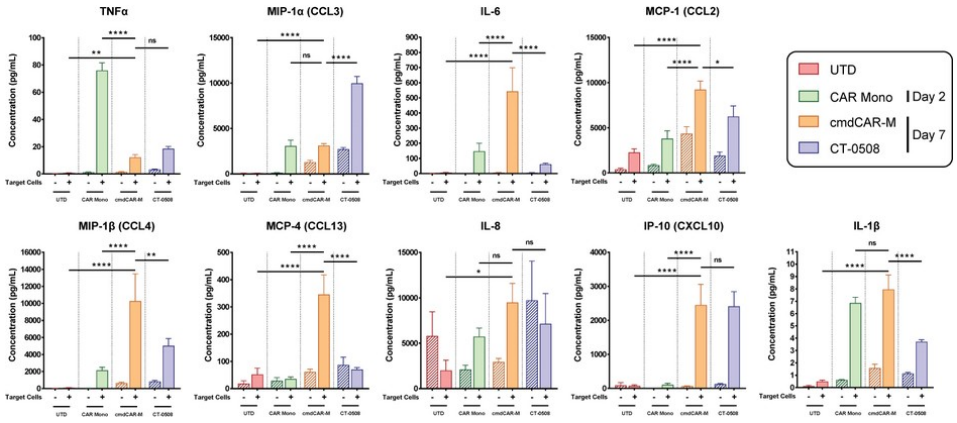
CAR-M are able to directly kill tumor cells via phagocytosis and release of cytotoxic mediators such as TNFα. Carisma evaluated the direct tumor killing capacity of CAR-Mono at Day 2 (monocyte phase) and Day 7 (macrophage phase). AU565, a HER2+ breast cancer cell line, was utilized as the target tumor cell. Carisma's data show that CAR-Mono mediated effective killing at Day 2 and that

fully differentiated CAR-Mono-derived CAR-M (Day 7) also efficiently cleared tumor cells. When comparing CAR-Mono-derived CAR-M (Day 7) to CT-0508, Carisma found that CAR-Mono led to improved tumor killing and inflammatory cytokine production.

CAR-Mono-derived CAR-M Show Robust Tumor Killing Activity



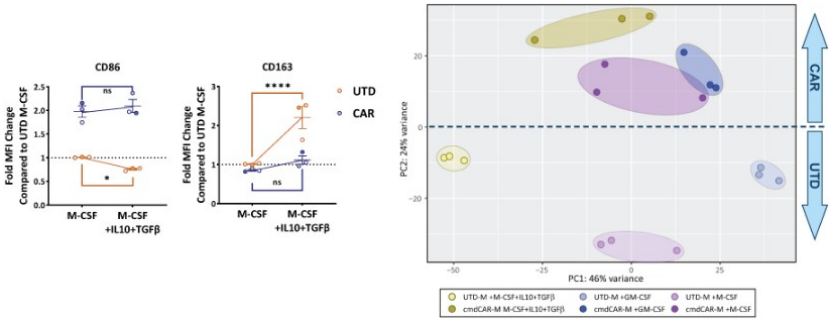
CAR-Mono-derived CAR-M Cocultures Show Robust Proinflammatory Cytokine Production



Carisma previously demonstrated that CT-0508 CAR-M are locked into an M1 phenotype by Ad5f35 transduction, and resist M2 conversion by immunosuppressive cytokines. Carisma evaluated whether CAR-Mono similarly resisted M2 environments by culturing the cells for seven days in the presence of M-CSF (differentiation factor) or M-CSF plus the immunosuppressive cytokines IL-10 and

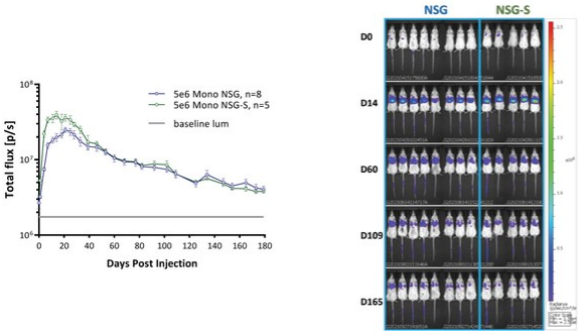
TGF-β during differentiation. CAR-Mono showed resistance to polarization and continued to express CD86 (M1) and not CD163 (M2) as demonstrated by flow cytometry and bulk RNA sequencing of untransduced and CAR-Mono-derived CAR-M. Additionally, untransduced monocytes but not CAR-Mono significantly upregulated CD163 in response to IL-10 and TGF-β.

CAR-Mono Are Protected Against M2 Polarization



An important element to Carisma's cell therapies is the long-term expression of its engineered CAR payloads by human myeloid cells. To evaluate persistence *in vivo*, monocytes were engineered with a modified Ad5f35 vector that induces the co-expression of CAR and luciferase under a single promoter by using a ribosomal skip site. This approach enables the ability to track luciferase using bioluminescent imaging and infer not only the viable persistence but also the CAR expression of human monocytes in mice. Ad5f35 engineered CAR-Luciferase Mono was injected intravenously into NSG or NSG-S mice and imaged for 180 days. While both NSG and NSG-S mice are immunodeficient, only NSG-S mice constitutively express human cytokines that promote myeloid cell survival (GM-CSF, IL3, and SCF). Carisma found that human CAR-Mono persisted for at least 180 days *in vivo*, independent of cytokine support.

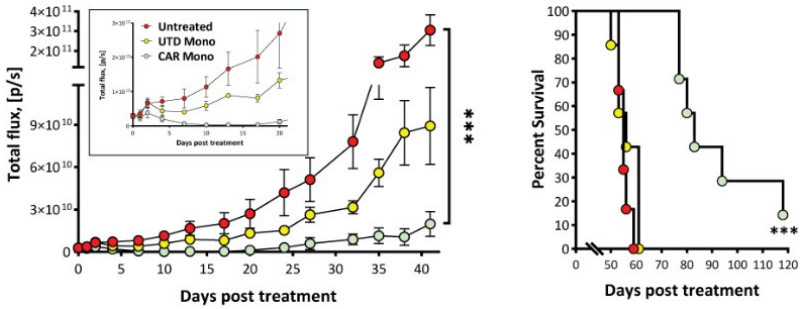
CT-0525 Show Long Term Persistence *In Vivo*



To determine whether CAR-Mono are able to control tumor growth in xenograft models, Carisma utilized a SKOV3 HER2+ ovarian cancer intraperitoneal carcinomatosis model. Anti-HER2 CAR-Mono significantly suppressed tumor growth and prolonged

survival up to 120 days post treatment, while mice that received untransduced control monocytes or mice that were left untreated only survived for <60 days. Carisma is currently evaluating CAR-Mono in immunocompetent models.

CT-0525 Suppress Tumor Growth *In Vivo*



In summary, CAR-Mono were successfully generated with high efficiency and viability in a rapid, one-to-two day manufacturing process. CAR-Mono demonstrated stable CAR expression and viability *in vitro*, and persisted for at least six months *in vivo.* CAR-Mono differentiated into CAR-M efficiently and adopted an M1 macrophage phenotype, and resisted conversion to M2 in immunosuppressive environments. CAR-Mono were able to kill tumors cells in the monocyte phase and the macrophage phase. CAR-Mono controlled tumor growth in a xenograft mouse model of cancer. Based on the pre-clinical data to date, Carisma believes that CAR-Mono represents a promising approach for cancer immunotherapy, while meaningfully expanding Carisma's proprietary platform.

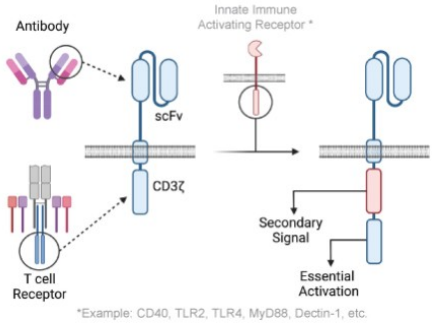
Next Generation Constructs

Carisma's discovery team is developing a next generation CAR-M platform utilizing enhanced CAR constructs to increase potency and functionality of the engineered cells. This includes optimization of each element of the CAR itself — the binder (which gives the CAR specificity to a target antigen), the hinge (which connects the binder to the transmembrane domain and gives the CAR length and flexibility), the transmembrane domain (which spans the cell membrane), and the intracellular signaling domains (which are responsible for activation of immune cell function). It is well accepted in the immunology field that T-cells require multiple signals for activation — signal 1 deriving from the TCR, and signal 2 deriving from co-stimulatory receptors such as CD28 or 4-1BB. Thus, all approved CAR-T products are second generation CARs, incorporating CD3ζ as a primary signaling domain and either 4-1BB or CD28 as co-stimulatory domains. Third generation CARs, incorporating three signaling domains, have also been evaluated in T-cells. Unlike T-cells, macrophages do *not* require co-stimulation for activation and can be activated through a single signal, such as through an Fc receptor. However, multiple signaling pathways have the ability to enhance the macrophage response and may improve targeT-cell killing, cytokine/chemokine release, and macrophage activation.

Next Generation CAR-M Constructs

Carisma has been routinely developing and evaluating novel CAR-M constructs. Carisma's well-established CAR-M assays enable a distinct opportunity to identify improved constructs in an efficient manner. Based on Carisma's early findings, CD3ζ is a potent activator of macrophage function and induces phagocytosis, cytokine release, chemokine release, killing, and activation of pro-

inflammatory genes. Given this finding, Carisma has been evaluating the addition of other innate immune receptors such as Toll-like receptors, CD40, MyD88, Dectin-1, to CD3ζ to improve upon CAR-M functionality.

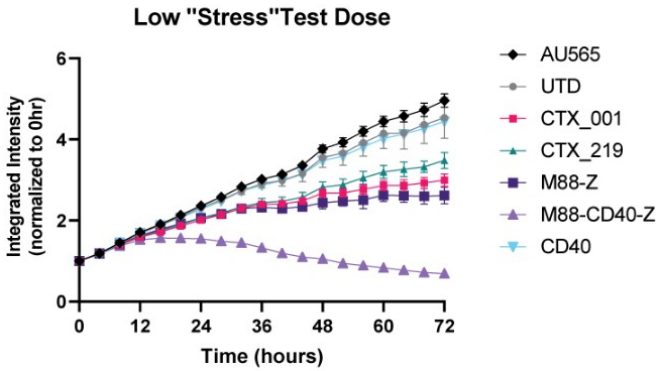


* Example: CD40, TLR2, TLR4, MyD88, Dectin-1, etc.

Next Generation Construct: Pre-clinical Development

Carisma's preliminary data assessing tumor cell killing activity with CAR variants at a low "stress test" dose shows increased potency at low effector (macrophage) to target (tumor cell) ratios. CD40 is an activating receptor found on antigen presenting cells including macrophages that is activated after binding to CD40-Ligand, typically expressed on activated T-cells. CD40 signals through numerous second messengers leading to the activation of NF-ϰB and other transcription factors that induce a potent M1 phenotype and activate antigen presenting cells. MyD88 is expressed in macrophages and acts as an adaptor that plays a pivotal role in the signaling of Toll-like receptors. Carisma has found that addition of MyD88 and CD40 to CD3ζ CAR-M, in a specific sequence with a specific hinge domain, leads to a significant improvement to macrophage anti-tumor activity.

Addition of the MyD88/CD40 pathway significantly increases CAR-M potency

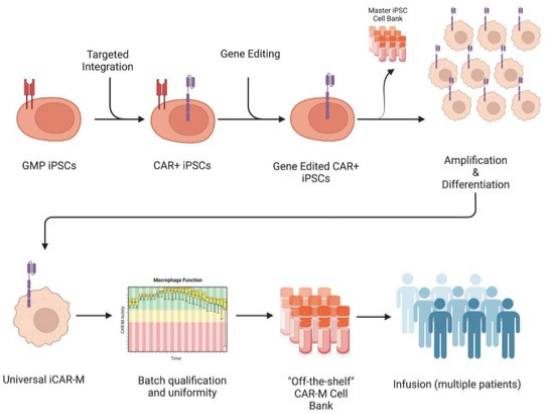


Further testing of the M88-CD40-CD3ζ CAR and other novel CAR-M are ongoing. Leading second/third generation CAR candidates may be incorporated into future autologous, allogeneic, or *in vivo* LNP programs.

Novel Modalities

Carisma is applying learnings from its autologous CAR-M data, tools, and processes to establish off-the-shelf engineered macrophage therapeutics. To broaden the application of CAR myeloid cell therapy, Carisma is actively developing a gene edited iPSC-derived macrophage platform through a Sponsored Research Agreement with Dr. Bruce Blazar, MD, Regents Professor and Children's Cancer Research Fund Land Grant Chair of Pediatric Oncology at the University of Minnesota. The goal of the collaboration is to establish a process to generate allogeneic, iPSC-derived M1, M2, or CAR myeloid cells. One approach is using allogeneic iPSC myeloid cells manufactured using the following summary process:

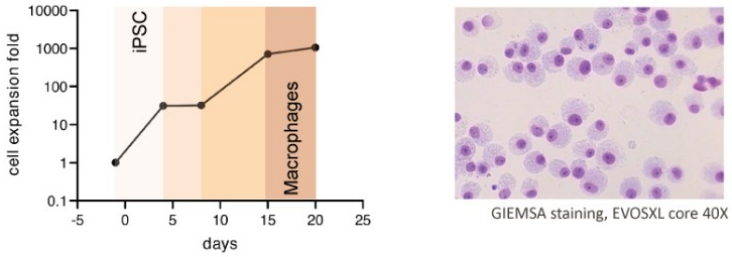
iPSC-Derived Myeloid Cells: Summary



Initial *in vitro* studies show that iPSCs can be converted to monocytes or macrophages, skewed to an M1 or M2 phenotype with cytokine culture, and can be engineered with Carisma's proprietary vectors to express tumor targeting CARs. In addition to offering an allogeneic, universal donor platform, iPSCs are expandable cells — unlike primary human monocytes or macrophages which are terminally differentiated. In the first 15 days of the process, Carisma noted >1,000x expansion. It took approximately 15 days to generate iPSC-derived monocytes and approximately 20 days to generate iPSC-derived macrophages. The process is currently being performed in a non-GMP research environment at research scale but has the potential to be developed into a commercial scale, GMP

process in the future. The macrophages generated with this process express canonical macrophage markers, appear macrophage-like with Giemsa staining and microscopic evaluation, and importantly demonstrate cell-to-cell uniformity in morphology.

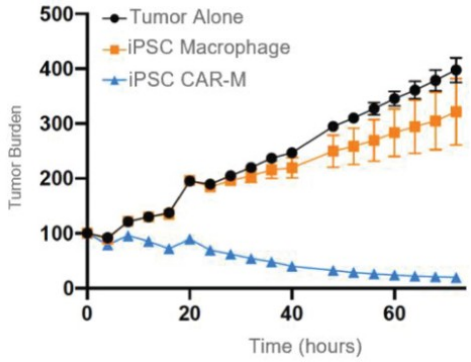
iCAR-M Production



iCAR-M Anti-Tumor Activity

In order to confirm that iPSC-derived macrophages are effectively redirected against tumor associated antigens, Carisma introduced the anti-HER2 CAR into iPSC-derived macrophages using Ad5f35. Engineered iPSC-derived macrophages efficiently expressed CAR, upregulated M1 markers, and demonstrated an acceptable viability. To evaluate anti-tumor function, Carisma conducted an *in vitro* killing assay in which AU565 HER2+ breast cancer cells were cultured alone, together with iPSC-derived control macrophages, or iPSC-derived CAR-M. As shown below, while the control iPSC macrophages had minimal anti-tumor effect (orange), the iPSC-derived CAR-M cleared tumor cells over approximately 72 hours.

iPSC-Derived CAR-M Exert Potent Anti-Tumor Activity



While iCAR-M appear to be able to exert direct anti-tumor functionality, there are inherent complexities that will be critical to inform the ultimate allogeneic macrophage strategy. CAR-M exert anti-tumor immunity through tumor infiltration, phagocytosis, cytokine/chemokine release, TME activation, T-cell recruitment, and antigen presentation. To enable an allogeneic off-the-shelf iCAR-M program, the cells will inherently be either MHC mismatched or MHC-edited (for example, MHC-I and MHC-II may be deleted using CRISPR/Cas9 editing to generate universally accepted macrophages), and thus may have limited direct antigen presentation potential. However, iCAR-M are expected to maintain the other mechanisms of action, as summarized below. Future

studies will evaluate whether allogeneic CAR-M are capable of inducing epitope spreading, as indirect mechanisms of antigen presentation have not been ruled out.

Importantly, the iPSC-derived myeloid cell platform, combined with Carisma's gene engineering capabilities, has the potential to be produced in multiple ways. First, iPSC-derived myeloid cells can be expanded, qualified, and banked prior to being used as a master cell bank source for the production of engineered myeloid cell therapies. In this example, iPSC-derived myeloid cells would be engineered with Carisma's proprietary methods (Ad5f35, Vpx-LV, modified mRNA, or other) after differentiation into the desired myeloid cell subtype. Alternatively, Carisma is optimizing methods to introduce the CAR (or other genetic payload) at the iPSC stage using targeted integration into desired genomic loci, isolating iPSC clones with integrated genes and additional potential genetic edits, and differentiating these cells into monocytes or macrophages, and skewing them to an M1 phenotype using Carisma's proprietary polarization processes. For this approach, care must be taken to ensure that the CAR (or other payload) is not epigenetically downregulated or lost during the myeloid differentiation process.

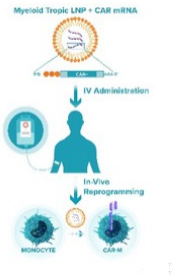
While the current focus of Carisma's discovery efforts is to ultimately generate iCAR-M, the platform will be readily adaptable to either develop (a) myeloid cells engineered with other anti-tumor payloads, or (b) myeloid cells engineered with payloads designed to ameliorate disease outside of oncology. Notably, Carisma has early non-oncology programs in liver fibrosis, neurodegeneration, and auto-immunity/chronic inflammation which can be combined with the iPSC-derived myeloid cell platform. Currently, Carisma's pipeline is focused on autologous approaches and direct *in vivo* reprogramming, and the allogeneic iPSC-derived platform is at the pre-clinical discovery stage.

LNP/mRNA Platform (Moderna Collaboration)

In partnership with Moderna, Carisma is developing an mRNA based *in vivo* CAR-M platform for oncology. This approach is highly differentiated in the cell therapy space — not only because it relies on myeloid cells as the engineered effectors, but also because it utilizes direct *in vivo* reprogramming of a patients' own cells with a well-validated LNP/mRNA platform. By engineering a patients' own cells directly within their body, *ex vivo* autologous or allogeneic cell manufacturing is entirely bypassed — significantly increasing the commercial potential of the therapy. Importantly, while this approach enables an off-the-shelf therapy, the engineered cells are autologous, as it is the patients' own cells being engineered into CAR-M *in vivo*, or directly within their body. This strategic partnership enables Carisma to apply the learnings gleaned from autologous CAR-M development to expand its pipeline to up to 12 additional oncology candidates.

Studies with the myeloid tropic LNP have shown mRNA delivery is specific for myeloid cells (monocytes, macrophages, dendritic cells). Based on clinical data using other (non-CAR) payloads, Moderna has previously demonstrated that the LNP was well-tolerated after systemic administration and could furthermore be re-dosed. Preliminary data have demonstrated that the LNP is efficient in transfecting myeloid cells *in vitro* and *in vivo*. In addition, preliminary data confirms high CAR expression, viability, and CAR-M function, and availability of pre-clinical data is expected mid-2023. The platform summary for the *in vivo* CAR-M approach is shown below:

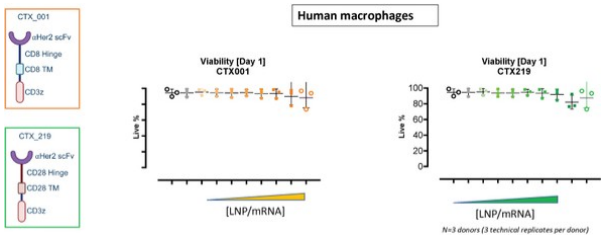
Myeloid Tropic LNP/mRNA Platform (Moderna Collaboration)



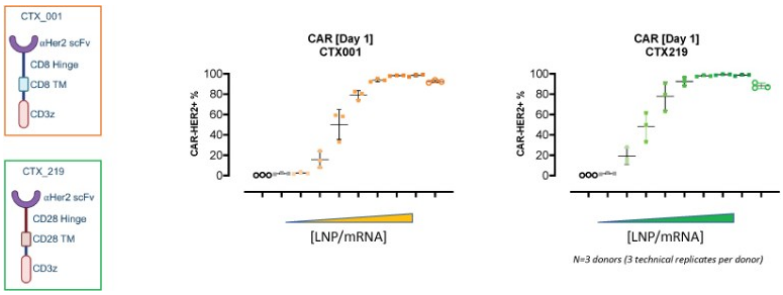
LNP/mRNA Pre-clinical Data (Moderna Collaboration): Pre-clinical Development

In vitro pre-clinical studies with the myeloid tropic LNP/mRNA platform have shown efficient transfection. Carisma has optimized conditions for *ex vivo* LNP/mRNA delivery to human and murine monocytes/macrophages, as well as primary murine myeloid cells to establish various relevant murine tumor models. Carisma's goal was to establish a platform with high viability (>70%), high transfection efficiency (>70%), and significantly increased CAR-M killing activity compared to untransfected control macrophages. Key data for the anti-HER2 CAR constructs CTX_001 and CTX_219 are shown in the figures below:

LNP Transfection is Well Tolerated by Human Macrophages

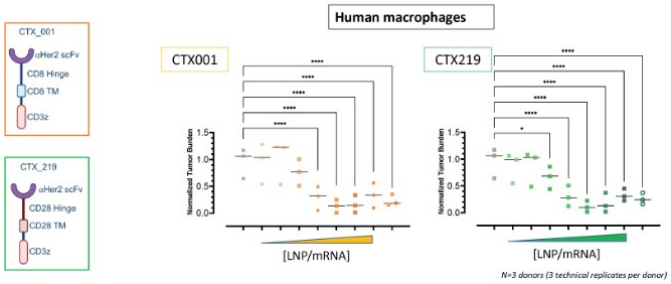


LNP Engineering leads to Dose Dependent CAR Expression



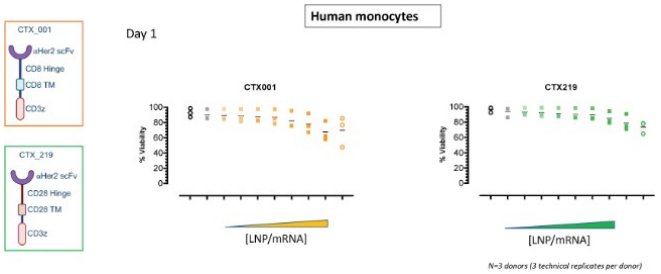
In addition to CAR expression and viability, Carisma has shown that one day post transfection, CTX001 and CTX219 mediate potent killing activity against target AU565 cells.

LNP Engineered CAR-M Display Effective Killing Function

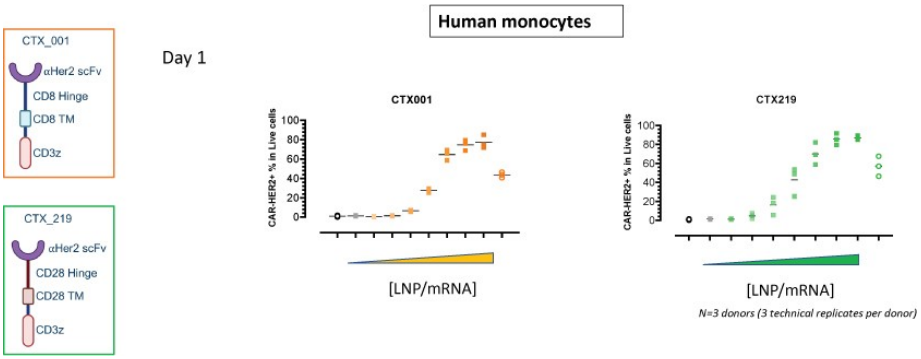


Statistical analysis was determined using Two-way ANOVA, * p<0.5 **** p<0.0001. The data were generated from N=3 donors (3 technical replicates per donor).

LNP Transfection is Well Tolerated by Human Monocytes

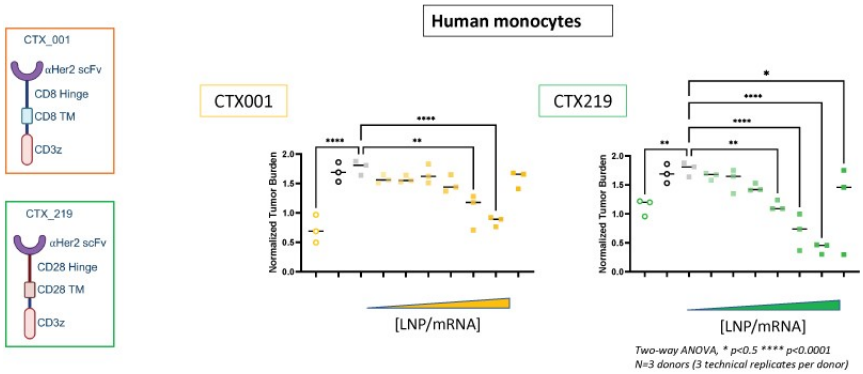


LNP Engineering leads to Dose Dependent CAR Expression in Monocytes



In addition to CAR expression and viability, Carisma has shown that monocytes engineered with LNP/mRNA encoding the CARs CTX001 and CTX219 mediate potent killing activity against target AU565 breast cancer cells. These findings demonstrate similarity between LNP engineered macrophage and monocyte effector function.

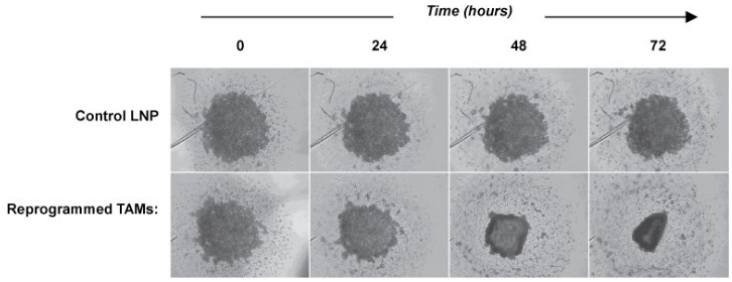
LNP Engineered CAR-Mono Display Effective Killing Function



Statistical analysis was determined using Two-way ANOVA, * p<0.5 **** p<0.0001. The data were generated from N=3 donors (three technical replicates per donor).

To model direct reprogramming of TAMs to CAR-M, Carisma generated tumor spheroids comprised of HER2+ breast cancer cells and human TAMs. Carisma confirmed that the macrophages embedded within these spheroids adopted an M2, TAM-like phenotype. Carisma added LNPs (containing CAR mRNA and an M1 polarizing gene) directly to the tumor spheroids and found that the reprogrammed TAMs mediated tumor spheroid shrinking over a 72-hour period.

Directly Reprogramming Myeloid Cells *within Tumors* with LNP/mRNA



The first four indications have been nominated by Moderna, spanning both solid tumors and hematologic malignancies. Pre-clinical platform optimization, as well as target discovery and CAR development, are ongoing in parallel. Early *in vivo* proof of concept is expected in 2023.

EM-C: A novel platform for regulation of inflammation

Cytokines in tissue microenvironments regulate the balance between pro- and anti-inflammatory signaling. Dysregulated cytokine expression causes deleterious immunosuppression or inflammation, underpinning the pathophysiology of numerous diseases. As

examples, anti-inflammatory cytokines in solid tumors suppress immune activation and safeguard the tumor, whereas pro-inflammatory cytokines in rheumatoid arthritis drive chronic inflammation. Rebalancing inflammation/immunosuppression by targeting aberrant cytokine signaling offers a generalizable approach to treating many diseases, but systemic cytokine blockade carries risks such as increased risk of serious infection. Cellular immunotherapies may offer a localized platform that could activate in response to cytokines then proportionately remodel the microenvironment's inflammatory state as needed.

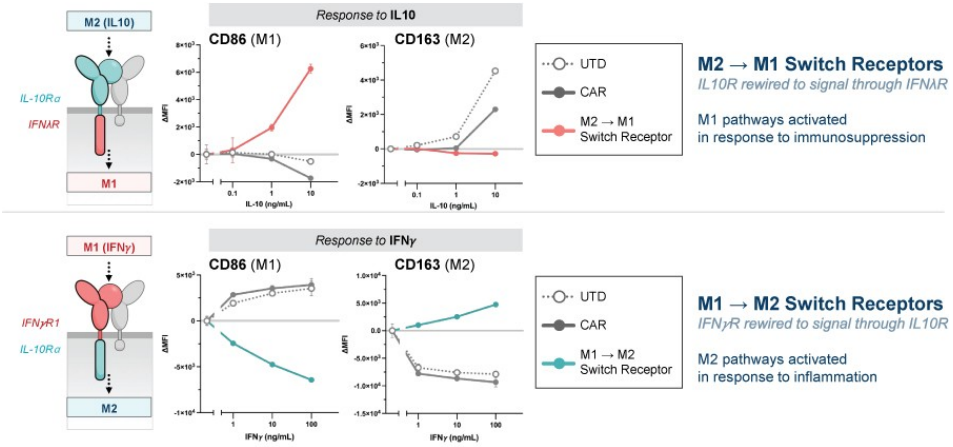
Macrophages are tissue infiltrating homeostatic regulators responsible for the initiation and resolution of inflammation. Carisma leveraged the ability of macrophages to regulate inflammation by generating macrophages that express genetically engineered, synthetic cytokine switch receptors (SR). Carisma termed this platform EM-C and evaluated its modular ability to convert immunosuppressive M2 signals into pro-inflammatory M1 responses for solid tumor microenvironment conversion, or vice versa for the conversion of pro-inflammatory M1 signals into immunosuppressive M2 responses for auto-immune or inflammatory diseases.

EM-Cs were generated by expressing SRs in primary human macrophages. First, Carisma generated SRs that convert immunosuppressive signals into inflammatory signals — focusing on IL-10. To convert IL-10 (a cytokine well known to polarize macrophages toward an M2 phenotype) in the TME into a pro-inflammatory signal, an IL-10 SR was designed by fusing the extracellular domain of the IL-10 receptor to an engineered portion of the IFNλ receptor. The *in vitro* response of IL-10 EM-Cs to IL-10 was monitored by the expression of M1 and M2 markers. While control untransduced or CAR (a control irrelevant construct) expressing macrophages responded to IL-10 through the downregulation of M1 markers and upregulation of M2 markers, IL10-SR EM-Cs upregulated M1 markers and downregulated M2 markers. These data and others demonstrate that Carisma's IL10-SR EM-Cs can induce an inflammatory response when exposed to immunosuppressive conditions. Carisma has generated numerous additional EM-Cs that respond to other immunosuppressive factors, such as TGFβ.

Conversely, Carisma sought to develop EM-Cs that can convert inflammatory cytokines into anti-inflammatory responses. As myeloid cells are recruited to sites of inflammation. This approach would enable a myeloid cell therapy that accumulates at inflammatory sites and locally shuts down inflammation. This approach may have broad utility in autoimmunity, chronic inflammation, fibrosis, transplant, and graft versus host disease. Carisma generated EM-Cs targeting IFN-γ and demonstrated that while control untransduced or CAR (an irrelevant payload) macrophages respond to IFN-γ by upregulating M1 markers and downregulating M2 markers, IFN-γ SR EM-Cs responded to IFN-γ by downregulating M1 markers and upregulating M2 markers. These data demonstrate that Carisma's proprietary EM-C platform can be broadly utilized to generate engineered macrophages with the ability to control the inflammatory nature of environments, and act as living converters, with broad potential applicability to oncology, autoimmunity, chronic inflammation, and other indications. This platform offers broad opportunity for strategic partnership.

Macrophages Expressing Cytokine Switch Receptors Can Invert

Pro- or Anti-Inflammatory Signals



Indications Beyond Oncology

While Carisma is an oncology focused company, the macrophage engineering platform Carisma has established offers broad opportunity to develop cell therapies for indications beyond oncology. Carisma has numerous early-stage research programs designed to produce development candidates for liver fibrosis, neurodegenerative disease, and autoimmunity/chronic inflammation. Carisma's new product candidates will incorporate all the core elements of its macrophage cell engineering platform, plus certain indication specific modifications uniquely designed to address the pathology of each indication. While autologous cell therapy may be utilized for proof of concept, these indications have the potential to be combined with Carisma's allogeneic or off-the-shelf therapeutic approaches. Indications beyond oncology offer opportunities for strategic partnerships to accelerate the development of these programs.

Manufacturing and Delivery

Carisma does not own or operate, and currently has no plans to establish, any manufacturing facilities. Carisma currently relies on and expects to continue to rely on third-party contract development manufacturing organizations, or CDMOs, for the manufacturing and release testing of viral vectors and cell drug products. Carisma also currently relies on third parties for patient leukapheresis material logistics as well as to package, label, store, and distribute the cell drug products.

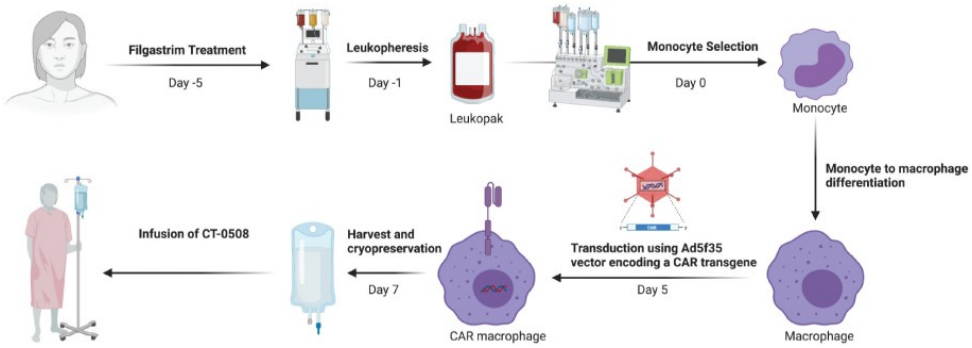
Carisma has established and will continue to establish arrangements with contract manufacturers to supply clinical materials and manufacturing capabilities for Carisma's clinical trials. Carisma currently obtains its supplies from these manufacturers on a purchase order basis and does not have long-term supply arrangements in place. Should any of these manufacturers become unavailable to Carisma for any reason, Carisma believes that there are several potential replacements, although Carisma may incur some delay in identifying and qualifying such replacements.

Carisma also plans to continue to expand the scope and number of its collaborations to further develop its manufacturing capabilities and to minimize manufacturing risk. As Carisma scales to commercialization, it expects to increase its capacity with its current suppliers and evaluate other options to secure commercial scale capacity.

Manufacturing Process for CT-0508

A CDMO is used to produce cGMP lots of viral vector. The CT-0508 drug substance process begins by isolating the monocyte population from a single fresh patient leukopak mobilized by donor pretreatment with filgrastim. The resulting monocytes are cultured in the presence of a cytokine and other factors to induce differentiation into macrophages. The resulting macrophages are then transduced with the Ad5f35 vector encoding an anti-HER2 CAR. The resulting cells are then harvested as drug substance.

Macrophages derived from a single leukopak from one patient comprise one batch of CT-0508. Final formulation is performed and transferred into freezing bags to generate drug product. The drug product is carefully frozen in a controlled process and then placed into secured storage and maintained at a temperature of >-135° Celsius. Safety and specification tests are performed and if found acceptable the product is released and shipped to clinical trial sites. The current process from receipt of leukopak to drug product and cryopreservation is eight days.



Carisma plans to continue to invest in process improvements to reduce the overall manufacturing process time and improve costs for the viral vector and cell drug product.

Intellectual Property

Carisma strives to protect and enhance its proprietary technology, inventions and improvements that Carisma believes are commercially important to the development of its business, including through seeking, maintaining and defending patent rights, whether developed internally or licensed from third parties. Carisma also intends to rely on trade secrets related to its proprietary technology platform and its know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen and maintain its proprietary position in the fields of cancer and other indications including those related to neurodegeneration, liver fibrosis and autoimmune disease, which may be important for the development of Carisma's business. Carisma additionally may rely on regulatory protection afforded through data exclusivity, market exclusivity and patent term extensions, where available.

Carisma's commercial success may depend, in part, on its ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to its business, defend, and enforce its patents, preserve the confidentiality of its trade secrets and operate without infringing the valid enforceable patents and proprietary rights of third parties. Carisma's ability to stop third parties from making, using, selling, offering to sell or importing its products may depend on the extent to which it has rights under valid and enforceable licenses, patents or trade secrets that cover these activities. With respect to both Carisma's owned and licensed intellectual property, Carisma cannot be sure that patents will be granted with respect to any of its pending patent applications or with respect to any patent applications filed by Carisma in the future, nor can it be sure that any of its existing patents or any patents that may be granted to Carisma in the future will be commercially useful in protecting its commercial products and methods of manufacturing such products, as well as being held valid if challenged.

Carisma currently controls over 10 granted patents and over 40 patent applications pending in several jurisdictions, including the United States, Europe, Australia, Brazil, Canada, China, Israel, Japan, Korea, Mexico, New Zealand, and Singapore. Intellectual property is a critical component of Carisma's business plan for maximizing return on its investments. Carisma is actively developing

intellectual property and will continue to maintain and defend United States and international patent rights for its products, technology, and development and improvement of its discovery platforms.

To maintain its competitive position in the market, Carisma has spent considerable effort securing intellectual property rights, including several patent rights related to its proprietary CAR technology and myeloid cell engineering technology.

Exclusively Licensed Intellectual Property — UPenn

Carisma has exclusive rights to three patent families, and non-exclusive rights to related know-how by virtue of a license agreement with the University of Pennsylvania. These patent families are directed to, among other things, methods of efficiently expressing CARs in myeloid cells, including monocytes, macrophages, and dendritic cells and enhancing effector activity, as well as the modified cells and compositions including such modified cells for use in several indications including various oncology targets. The applications will have an expiration date of no earlier than 2036. This licensed patent portfolio includes:

- A patent family that includes eight issued U.S. patents and three pending U.S. patent applications relating to modified macrophages, monocytes and dendric cells comprising CARs. These U.S. patents are expected to expire in 2036, absent any term adjustments or extensions. Corresponding foreign applications have been filed and are pending in Australia, Brazil, Canada, China, Europe, Israel, India, Japan, Korea, Mexico, New Zealand, Russia, Singapore, Thailand and South Africa.

- A patent family that includes one pending U.S. patent application relating to modified macrophages, monocytes and dendric cells in protein aggregate-associated disorders. Patent applications in this family are expected to expire in 2039, absent any term adjustments or extensions. Corresponding foreign applications have been filed and are pending in Australia, Canada, China, Europe, Israel, Japan, Korea, New Zealand, and Singapore.

- A patent family that includes one pending U.S. patent application relating to activation of antigen presenting cells. Patent applications in this family are expected to expire in 2040, absent any term adjustments or extensions. A corresponding foreign application has been filed in Europe.

Exclusively Licensed Intellectual Property — NYU

Carisma has exclusive rights to one patent family, and non-exclusive rights to related know-how by virtue of a license agreement with New York University, or NYU. The rights granted under the NYU license are to all indications for human use. This licensed patent portfolio includes:

- A patent family that includes one U.S. patent relating to a chimeric HIV-1 vector with an SIV minimal Vpx packaging domain and method of making virions with enhanced infectivity for macrophages and dendric cells. The U.S. patent is expected to expire in 2033, absent any term adjustments or extensions.

Carisma Owned Intellectual Property

Carisma currently owns four U.S. patent families. This owned patent portfolio includes:

- A patent family that includes one issued U.S. patent and two pending U.S. patent applications relating to macrophages, monocytes and dendric cells comprising novel CAR constructs. Patent applications in this family are expected to expire in 2041, absent any term adjustments or extensions.

- A patent family that includes one pending Patent Cooperation Treaty, or PCT, application relating to mRNA transfection of macrophages, monocytes and dendric cells comprising CARs. Patent applications in this family are expected to expire in 2041, absent any term adjustments or extensions.

- A patent family that includes one pending PCT application relating to modified immune cells for fibrosis and inflammation. Patent applications in this family are expected to expire in 2041, absent any term adjustments or extensions.

- A patent family that includes one pending PCT application relating to self-polarizing immune cells. Patent applications in this family are expected to expire in 2042, absent any term adjustments or extensions.

Carisma will also seek to generate additional intellectual property that covers enhancements to all aspects of the platform, including novel CARs, combinations, gene editing and manufacturing improvements. Where appropriate, Carisma will also look to in-license relevant technology from third parties.

Patent Term and Patent Term Extensions

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent or may be shortened if a patent is terminally disclaimed over an earlier filed patent. The term of a patent that covers a drug, biological product or medical device approved pursuant to a pre-market approval may also be eligible for patent term extension, or PTE, when FDA approval is granted, provided statutory and regulatory requirements are met. The length of the PTE is related to the length of time the drug is under regulatory review while the patent is in force. The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration date set for the patent. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent applicable to each regulatory review period may be granted an extension and only those claims regarding the approved drug are extended. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug.

Trademarks

Carisma's trademark portfolio currently includes registered U.S. trademarks for Carisma in the United States, Europe, Great Britain and Japan. In order to supplement the protection of its brand, Carisma also has a registered internet domain name. Going forward, Carisma will consider additional trademarks to enhance its brand and support its products.

Trade Secrets

Carisma relies, in some circumstances, on trade secrets to protect its unpatented technology. However, trade secrets can be difficult to protect in certain circumstances. Carisma seeks to protect its trade secrets and proprietary technology and processes, including through confidentiality agreements with its employees, consultants, scientific advisors and contractors. Carisma also seeks to preserve the integrity and confidentiality of its data and trade secrets by maintaining physical security of its premises and physical and electronic security of its information technology systems. While Carisma has confidence in these individuals, organizations and systems, agreements or security measures may be breached. Carisma may not have adequate remedies for any breach and could lose its trade secrets through such a breach. In addition, Carisma's trade secrets may otherwise become known or be independently discovered by competitors. To the extent that its consultants, contractors or collaborators use intellectual property owned by others in their work for Carisma, disputes may arise as to the rights in related or resulting trade secrets, know-how and inventions.

Moderna Collaboration Agreement

In January 2022, Carisma entered into a Collaboration and License Agreement with Moderna providing for a broad strategic partnership to discover, develop and commercialize *in vivo* engineered CAR-M therapeutics for up to 12 oncology programs. Carisma refers to this agreement as the Moderna Collaboration Agreement.

In collaboration with Moderna, Carisma has established an approach that uses Moderna's LNP/mRNA technology, together with Carisma's CAR-M platform technology, to create novel *in vivo* oncology medications.

Under the Moderna Collaboration Agreement, the parties initiate research programs during a research term, focused on the discovery and research of products directed to biological targets. Either party may nominate a target for inclusion in a research program, subject to certain exclusions. Carisma refers to a target included in a research program pursuant to designated procedures as a research target. Moderna may replace research targets pursuant to designated procedures. The first four research targets have been

nominated and all programs are currently in the discovery phase at Carisma. Moderna funds the cost of Carisma's activities in accordance with an agreed research budget.

Moderna has the right to designate up to 12 research targets as development targets during a specified development target nomination period upon payment of a development target designation milestone payment. Moderna can replace development targets with research targets during a specified period of time. If Moderna exercises its right to designate a development target, Moderna will have a worldwide, exclusive license under patents and know-how controlled by Carisma to develop and commercialize products directed to the applicable development target, subject to certain diligence obligations.

Commencing a specified time after the effective date of the Moderna Collaboration Agreement, Moderna will have the right to nominate targets relating to diseases outside the field of oncology for inclusion in research programs in specified circumstances. Such right is subject to the same exclusions as Moderna's right to nominate other targets for inclusion in research programs.

During the term of the Moderna Collaboration Agreement, Carisma and its affiliates are subject to various exclusivity obligations under which Carisma is not permitted to research, develop or commercialize particular products outside of the collaboration, including products for use as *in vivo* therapies in the field of oncology, products directed to any target included in the collaboration, or products containing a polypeptide provided by Carisma to Moderna in connection with a research program that are directed to any development target.

Under the terms of the Moderna Collaboration Agreement, Carisma received a $45.0 million up-front cash payment. Assuming Moderna develops and commercializes 12 products, each directed to a different development target, Carisma is also eligible to receive up to between $247.0 million and $253.0 million per product in development target designation, development, regulatory and commercial milestone payments. In addition, Carisma is eligible to receive mid to high single digit tiered royalties on net sales of any products that are commercialized under the agreement, which may be subject to reductions. Moderna has also agreed to cover the cost of certain milestone payments and royalties Carisma owes to a licensor under one of its intellectual property in-license agreements that Carisma is sublicensing to Moderna under the Moderna Collaboration Agreement, which royalties Moderna may deduct in part from any royalties owed to Carisma.

Unless earlier terminated, the Moderna Collaboration Agreement will expire upon the expiration of all royalty obligations thereunder. The royalty period for each product developed under the Moderna Collaboration Agreement will expire on a country-by-country basis upon the later of (1) the expiration of the last-to-expire valid patent claim of specified patents, (2) the expiration of regulatory-based exclusivity for such product in such country or (3) a specified period after the first commercial sale with respect to such product in such country. Moderna has the right to terminate the Moderna Collaboration Agreement for convenience in its entirety or with respect to a specific product or target on ninety days' prior notice. Either Carisma or Moderna may terminate the Moderna Collaboration Agreement in its entirety if the other party is in material breach and such breach is not cured within the specified cure period, except in the case of Moderna's breach of its diligence obligations, termination by Carisma is limited to the applicable target and product. In addition, either Carisma or Moderna may terminate the Moderna Collaboration Agreement in the event of specified insolvency events involving the other party. As an alternative to termination in the event of Carisma's uncured material breach of certain sections of the agreement, Moderna has the option to continue the collaboration under the agreement with reduced payment obligations.

University of Pennsylvania License Agreement

In November 2017, Carisma entered into a license agreement with the Trustees of the University of Pennsylvania, or Penn, which was amended in February 2018, January 2019, March 2020 and June 2021. Carisma refers to this agreement as the Penn License Agreement. Pursuant to the Penn License Agreement, Penn granted Carisma (1) an exclusive, worldwide license, with specified rights to sublicense, under Penn's interest in specified patents related to CAR macrophages, monocytes or dendritic cells, which Carisma refers to collectively as CAR-M, (2) an exclusive, worldwide license, with specified rights to sublicense, under Penn's interest in specified patents related to CAR-M directed to mesothelin, and (3) a nonexclusive, worldwide license under Penn's interest in specified know-how related to CAR-M, with limited rights to sublicense only in combination with specified products or patents. These licensed patents and know-how arose primarily from research conducted by Dr. Saar Gill and Dr. Michael Klichinsky at the University of Pennsylvania, co-founders of Carisma. The foregoing licenses are subject to rights retained by Penn for specified non-commercial uses and rights retained by the United States government. Under the Penn License agreement, Carisma is obligated to use

commercially reasonable efforts to pursue development and commercialization of at least one CAR-M product in oncology and non-oncology fields.

Carisma is responsible for paying Penn an annual license maintenance fee in the low tens of thousands of dollars, payable until Carisma's first payment of a royalty. Carisma is required to pay Penn up to $10.9 million per product in development and regulatory milestone payments, up to $30.0 million per product in commercial milestone payments, and up to an additional $1.7 million in development and regulatory milestone payments for the first CAR-M product directed to mesothelin. While the agreement remains in effect, Carisma is required to pay Penn low to mid-single digit percentage tiered royalties on annual net sales of licensed products, which may be subject to reductions. Penn is guaranteed a minimum royalty payment amount in the low hundreds of thousands of dollars for each year after the first commercial sale of a licensed product. Carisma must also pay Penn a percentage in the mid-single digits to low double digits of certain types of income Carisma receives from sublicensees. In addition, Carisma is required to pay Penn an annual alliance management fee in the low tens of thousands of dollars, ending after several years, unless Carisma provides funding to Penn for research and development activities that extend beyond a specified date, in which case Carisma will continue to owe the alliance management fee for each year in which Carisma continues to fund such activities. Carisma also paid Penn an upfront fee in the low hundreds of thousands of dollars for the license to the patents related to the mesothelin binder that is incorporated into the CAR design for Carisma's mesothelin product candidate. Carisma is responsible for a pro rata share of costs relating to the prosecution and maintenance of the licensed patents.

The license agreement remains in effect until the later of (1) expiration or abandonment of the last licensed patent or (2) loss of regulatory exclusivity. Carisma may terminate the agreement for convenience upon thirty days' prior notice. Penn may terminate the agreement for Carisma's material breach, subject to a specified cure period, except for certain breaches for which Penn may terminate immediately. Penn may also terminate if Carisma becomes the subject of a specified insolvency event.

New York University License Agreement

In July 2020, Carisma entered into a license agreement with NYU. Carisma refers to this agreement as the NYU License Agreement. Pursuant to the NYU License Agreement, NYU granted Carisma (1) an exclusive, worldwide license, with specified rights to sublicense, under NYU's interest in specified patents related to the Vpx-LV and (2) a nonexclusive, worldwide license, with specified rights to sublicense, under NYU's interest in specified know-how related to the Vpx-LV, in each case to develop, manufacture, use and sell products developed using the Vpx-LV, which Carisma refers to as Licensed Products. The foregoing licenses are subject to rights retained by NYU to use, and to permit other non-commercial entities to use, the licensed patents and licensed know-how for educational and research purposes, as well as rights retained by the United States government. Under the NYU License Agreement, Carisma is obligated to use reasonable diligence to carry out a specified development plan and to obtain regulatory approval for Licensed Products in the U.S. and each of the other countries in which Carisma or its sublicensees intend to produce, use, and/or sell Licensed Products, as well as to begin the regular commercial production, use, and sale of the Licensed Products in good faith in accordance with the development plan and to continue diligently thereafter to commercialize the Licensed Products.

Carisma is required to pay NYU an annual license maintenance fee in the mid tens of thousands of dollars; up to $1,685,000 per Licensed Product in development and regulatory milestone payments; and low single digit percentage tiered royalties on annual net sales of Licensed Products on a country-by-country basis until the later of (1) 12 years after first commercial sale of a Licensed Product in such country or (2) expiration of the last to expire licensed patent. Carisma must also pay NYU a percentage in the low single digits to low double digits of certain types of income Carisma receives from sublicensees or assignees of the agreement. Carisma is also responsible for all costs relating to the prosecution, maintenance, and defense of the licensed patents.

The NYU License Agreement remains in effect until the expiration of all royalty terms in all countries. Either party may terminate the NYU License Agreement for the other party's uncured material breach or insolvency or bankruptcy.

Competition

The biopharmaceutical industry, and in particular the cell therapy field, is characterized by intense investment and competition aimed at rapidly advancing new technologies, intense competition, and a strong emphasis on intellectual property and proprietary products. Carisma's platform and therapeutic product candidates are expected to face substantial competition from multiple technologies, marketed products, and numerous other therapies being developed by other biopharmaceutical companies, academic

research institutions, governmental agencies, and public and private research institutions. Many of Carisma's potential competitors have substantially greater financial, technical, and other resources, such as larger research and development staff, established manufacturing capabilities and facilities, and experienced marketing organizations with well-established sales forces, and any product candidates that Carisma successfully develops and commercializes will compete with existing therapies and new therapies that may become available in the future. In addition, there is substantial patent infringement litigation in the biopharmaceutical industry, and, in the future, Carisma may bring or defend such litigation against its competitors.

The key competitive factors affecting the success of Carisma's product candidates, if approved, are likely to be their efficacy, safety, convenience and price, the level of competition, and the availability of coverage and adequate reimbursement from third-party payors.

Unlike other cell therapy approaches, Carisma's CAR-M platform is based on engineering macrophages and monocytes with proprietary vectors, constructs, and processes, enabling a differentiated platform from other cell therapy competitors that primarily focus on T or NK cells. While Carisma believes that its scientific expertise, novel technology, and intellectual property position offer competitive advantages, Carisma faces competition from multiple other cell therapy technologies and companies. Other companies developing engineered myeloid cell therapies include, among others, Myeloid Therapeutics, Shoreline Biosciences, Inceptor Bio, Thunder Bio, Resolution Therapeutics, CellOrigin, Sirpant Therapeutics, and others.

Due to the broad promise of cell therapies, and the potential of myeloid cell-based approaches to expand cell therapy efficacy into solid tumors, Carisma expects increasing competition from new and existing companies across several fronts, which include, among others:

- ***Myeloid cell therapies:*** Myeloid Therapeutics, Shoreline Biosciences, Inceptor Bio, Thunder Bio, CellOrigin, Deverra
- ***Autologous T-cell therapies:*** Adaptimmune Therapeutics, Autolus Therapeutics, Bluebird, Bristol Myers Squibb, Kite/Gilead, Novartis, Gracell, TCR2, Poseida, Vor, TMunity, among others
- ***Allogeneic T-cell therapies:*** Allogene, Atara, Century, Cellectis, Celyad, CRISPR, Fate, Gracell, Kite/Gilead, Legend, Poseida, Precision Bio, Sana, Vor, among others
- ***NK and other cell therapies:*** Artiva, Celularity, Century, Editas, Fate, Fortress, ImmunityBio, Nkarta, NKGen, Takeda, Adicet, Gamida Cell, among others
- ***Direct in vivo reprogrammed cell therapies:*** Umoja, Ensoma, Interius, Tidal/Sanofi, BioNTech

In addition to competition from other cell therapy companies, any products that Carisma develops may also face competition from other types of therapies. Other companies developing non-cell therapies, including gene therapies, include Gilead, ALX Oncology, Trillium, Five-Prime, Immune-Onc, Pionyr, Infinity, NextCure, OncoResponse, Curis, Faron, Apexigen, Pfizer, Dren, and multiple biotechnology and pharmaceutical companies developing other directly competitive technologies such as small molecules, immune agonists, antibodies, bi/tri specific antibodies, antibody drug conjugates, and other solid tumor therapeutics.

Carisma also competes with third parties for retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, its programs. Carisma may pursue the in-license or acquisition of rights to complementary technologies and product candidates on an opportunistic basis. The acquisition and licensing of technologies and product candidates is a competitive area, and a number of more established companies also have similar strategies to in-license or acquire technologies and product candidates that Carisma may consider attractive. These established companies may have a competitive advantage over Carisma due to their size, cash resources and greater development and commercialization capabilities. In addition, companies that perceive Carisma to be a competitor may be unwilling to assign or license rights to Carisma. Carisma also may be unable to in-license or acquire the relevant technology or product candidate on terms that would allow it to make an appropriate return on its investment.

Carisma's commercial opportunity could be reduced or eliminated if its competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that it may develop. Carisma's competitors also may obtain FDA or other regulatory approval for their products more rapidly than it may obtain

approval for Carisma's, which could result in its competitors establishing a strong market position before it is able to enter the market. In addition, Carisma's ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, pricing, reimbursement, sales, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products, including biological products. The processes for obtaining marketing approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

Licensure and Regulation of Biologics in the United States

In the United States, Carisma's product candidates are regulated as biological products, or biologics, under the PHSA and the FDCA, and its implementing regulations and guidance. A company, institution, or organization which takes responsibility for the initiation and management of a clinical development program for such products, and for their regulatory approval, is typically referred to as a sponsor. The failure of a sponsor to comply with the applicable U.S. requirements at any time during the product development process, including pre-clinical testing, clinical testing, the approval process, or post-approval process, may subject a sponsor to delays in the conduct of the study, regulatory review, and approval, and/or administrative or judicial sanctions.

A sponsor seeking approval to market and distribute a new biologic in the United States generally must satisfactorily complete each of the following steps:

- pre-clinical laboratory tests, animal studies, and formulation studies all performed in accordance with the FDA's GLP regulations and standards and other applicable regulations;
- completion of the manufacture, under cGMP conditions, of the drug substance and drug product that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- design of a clinical protocol and submission to the FDA of an IND application for human clinical testing, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials to establish the safety, potency, and purity of the product candidate for each proposed indication, in accordance with current GCP;
- preparation and submission to the FDA of a BLA for a biologic product requesting marketing for one or more proposed indications, including submission of detailed information on the manufacture and composition of the product in clinical development and proposed labelling;
- review of the product by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities, including those of third parties, at which the product, or components thereof, are produced to assess compliance with cGMP requirements and to assure that the facilities, methods, and controls are adequate to preserve the product's identity, strength, quality, and purity;
- satisfactory completion of any FDA audits of the pre-clinical studies and clinical trial sites to assure compliance with GLP, as applicable, and GCP, and the integrity of clinical data in support of the BLA;

- payment of user PDUFA, securing FDA approval of the BLA and licensure of the new biologic product; and
- compliance with any post-approval requirements, including the potential requirement to implement a or REMS and any post-approval studies or other post-marketing commitments required by the FDA.

Pre-clinical Studies

Before testing any biologic product candidate in humans, the product candidate must undergo pre-clinical testing. Pre-clinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as studies to evaluate the potential for efficacy and toxicity in animal studies. The conduct of the pre-clinical tests and formulation of the compounds for testing must comply with federal regulations and requirements, including GLP regulations and standards and the United States Department of Agriculture's Animal Welfare Act, if applicable. The results of the pre-clinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND application.

Investigational New Drug Application

An IND is an exemption from the FDCA that allows an unapproved product candidate to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer such investigational product to humans. The IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about the product or conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In that case, the IND sponsor and the FDA must resolve any outstanding FDA concerns before the clinical trials can begin or recommence. As a result, submission of the IND may result in the FDA not allowing the trials to commence or allowing the trial to commence on the terms originally specified by the sponsor in the IND.

If the FDA raises concerns or questions either during this initial 30-day period, or at any time during the IND process, it may choose to impose a partial or complete clinical hold. Clinical holds are imposed by the FDA whenever there is concern for patient safety and may be a result of new data, findings, or developments in clinical, pre-clinical, and/or chemistry, manufacturing, and controls. This order issued by the FDA would delay either a proposed clinical trial or cause suspension of an ongoing trial, until all outstanding concerns have been adequately addressed and the FDA has notified the company that investigations may proceed. This could cause significant delays or difficulties in completing Carisma's planned clinical trial or future clinical trials in a timely manner.

Following the issuance of a clinical hold or partial clinical hold, a clinical investigation may only resume once the FDA has notified the sponsor that the investigation may proceed. The FDA will base that determination on information provided by the sponsor correcting the deficiencies previously cited or otherwise satisfying the FDA that the investigation can proceed or recommence. Occasionally, clinical holds are imposed due to manufacturing issues that may present safety issues for the clinical study subjects.

Expanded Access to an Investigational Drug for Treatment Use

Expanded access, sometimes called "compassionate use," is the use of investigational products outside of clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. The rules and regulations related to expanded access are intended to improve access to investigational products for patients who may benefit from investigational therapies. FDA regulations allow access to investigational products under an IND by the company or the treating physician for treatment purposes on a case-by-case basis for: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings); intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or treatment IND application.

When considering an IND application for expanded access to an investigational product with the purpose of treating a patient or a group of patients, the sponsor and treating physicians or investigators will determine suitability when all of the following criteria apply: patient(s) have a serious or immediately life-threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context or condition to be treated; and the expanded use of the investigational drug for the requested treatment will not interfere initiation, conduct, or completion of clinical investigations that could support marketing approval of the product or otherwise compromise the potential development of the product.

There is no obligation for a sponsor to make its drug products available for expanded access; however, as required by the 21st Century Cures Act, or Cures Act, passed in 2016, if a sponsor has a policy regarding how it evaluates and responds to expanded access requests, sponsors are required to make such policies publicly available upon the earlier of initiation of a Phase 2 or Phase 3 clinical trial, or 15 days after the investigational drug or biologic receives designation as a breakthrough therapy, fast track product, or regenerative medicine advanced therapy.

In addition to and separate from expanded access, on May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a manufacturer to make its investigational products available to eligible patients as a result of the Right to Try Act.

Human Clinical Trials in Support of a BLA

Clinical trials involve the administration of the investigational product candidate to healthy volunteers or patients with the disease or condition to be treated under the supervision of a qualified principal investigator in accordance with GCP requirements. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, inclusion and exclusion criteria, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. When a foreign clinical trial is not conducted under an IND, the sponsor must ensure that the trial complies with certain regulatory requirements, including GCP requirements, of the FDA in order to use the trial as support for an IND or application for marketing approval. The GCP requirements encompass both ethical and data integrity standards for clinical trials. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign trials are conducted in a manner comparable to that required for clinical trials in the United States.

Further, each clinical trial must be reviewed and approved by an IRB either centrally or individually at each institution at which the clinical trial will be conducted. The IRB will consider, among other things, clinical trial design, patient informed consent, ethical factors, the safety of human subjects, and the possible liability of the institution. An IRB must operate in compliance with FDA regulations. The FDA, IRB, or the clinical trial sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the clinical trial is not being conducted in accordance with FDA requirements or that the participants are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP rules and the requirements for informed consent.

Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board, or DSMB. This group may recommend continuation of the trial as planned, changes in trial conduct, or cessation of the trial at designated check points based on certain available data from the trial to which only the DSMB has access.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Additional studies may be required after approval.

- *Phase 1* clinical trials are initially conducted in a limited population to test the product candidate for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion, and pharmacodynamics in healthy humans or, on occasion, in patients, such as cancer patients.

- *Phase 2* clinical trials are generally conducted in a limited patient population to identify possible adverse effects and safety risks, evaluate the efficacy of the product candidate for specific targeted indications and determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 3 clinical trials.

- *Phase 3* clinical trials proceed if the Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile. Phase 3 clinical trials are undertaken within an expanded patient population to further evaluate dosage, provide substantial evidence of clinical efficacy, and further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites. A well-controlled, statistically robust Phase 3 trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a biologic; such Phase 3 studies are referred to as "pivotal."

In some cases, the FDA may approve a BLA for a product but require the sponsor to conduct additional clinical trials to further assess the product's safety and effectiveness after approval. Such post-approval trials are typically referred to as Phase 4 clinical trials. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of biologics approved under accelerated approval regulations. If the FDA approves a product while a company has ongoing clinical trials that were not necessary for approval, a company may be able to use the data from these clinical trials to meet all or part of any Phase 4 clinical trial requirement or to request a change in the product labeling. The failure to exercise due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for products.

A clinical trial may combine the elements of more than one phase and the FDA often requires more than one Phase 3 trial to support marketing approval of a product candidate. A company's designation of a clinical trial as being of a particular phase is not necessarily indicative that the study will be sufficient to satisfy the FDA requirements of that phase because this determination cannot be made until the protocol and data have been submitted to and reviewed by the FDA. Generally, pivotal trials are Phase 3 trials, but they may be Phase 2 trials if the design provides a well-controlled and reliable assessment of clinical benefit, particularly in an area of unmet medical need.

Finally, sponsors of clinical trials are required to register and disclose certain clinical trial information on a public registry (clinicaltrials.gov) maintained by the U.S. National Institutes of Health, or NIH. In particular, information related to the product, patient population, phase of investigation, study sites and investigators and other aspects of the clinical trial is made public as part of the registration of the clinical trial. Both NIH and the FDA have recently signaled the government's willingness to begin enforcing those requirements against non-compliant clinical trial sponsors. The failure to submit clinical trial information to clinicaltrials.gov, as required, is a prohibited act under the FDCA with violations subject to potential civil monetary penalties of up to $10,000 for each day the violation continues.

Special Regulations and Guidance Governing Gene Therapy Products

The FDA has defined a gene therapy product as one that mediates its effects by transcription and/or translation of transferred genetic material and/or by integrating into the host genome and which is administered as nucleic acids, viruses, or genetically engineered microorganisms. The products may be used to modify cells *in vivo* or transferred to cells *ex vivo* prior to administration to the recipient. Within the FDA, the Center for Biologics Evaluation and Research, or CBER, regulates gene therapy products. Within CBER, the review of gene therapy and related products is consolidated in the OTAT, and the FDA has established the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER on its reviews. CBER works closely with the Local Biosafety Board, a federal advisory committee, in reviewing proposed and ongoing gene therapy protocols and engaging in a public discussion of scientific, safety, ethical, and societal issues related to those protocols. The NIH and the Recombinant DNA Advisory Committee, or RAC, a federal advisory committee, also advise the FDA on gene therapy issues and other issues related to emerging technologies. The FDA and the NIH have published guidance documents with respect to the development and submission of gene therapy protocols.

The FDA has issued various guidance documents regarding gene therapies, including final guidance documents released in January 2020 relating to chemistry, manufacturing and controls information for gene therapy INDs, gene therapies for rare diseases and gene therapies for retinal disorders, as well as draft guidance in January 2021 for Human Gene Therapy for Neurodegenerative Diseases. Although the FDA has indicated that these and other guidance documents it previously issued are not legally binding, Carisma believes that its compliance with them is likely necessary to gain approval for any gene therapy product candidate Carisma may develop. The guidance documents provide additional factors that the FDA will consider at each of the above stages of development and relate to, among other things, the proper pre-clinical assessment of gene therapies; the chemistry, manufacturing, and control information that should be included in an IND application; the proper design of tests to measure product potency in support of an IND or BLA application; and measures to observe delayed adverse effects in subjects who have been exposed to investigational gene therapies when the risk of such effects is high. Further, the FDA usually recommends that sponsors observe subjects for potential

gene therapy-related delayed adverse events for a 15-year period, including a minimum of five years of annual examinations followed by 10 years of annual queries, either in person or by questionnaire.

Further, to facilitate adverse event reporting and dissemination of additional information about gene therapy trials, the FDA and the NIH established the Genetic Modification Clinical Research Information System, or GeMCRIS. Investigators and sponsors of human gene transfer trials can utilize this web-based system to report serious adverse events and to provide annual reports.

Finally, for a gene therapy product, the FDA also will not approve the product if the manufacturer is not in compliance with good tissue practices, or GTP. These standards are found in FDA regulations and guidance that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue-based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure thatT-cell and tissue-based products are manufactured in a manner designed to prevent the introduction, transmission, and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing.

Pediatric Studies

Under the Pediatric Research Equity Act of 2003, or PREA, a BLA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. Sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the sponsor plans to conduct, including study objectives and design, any deferral or waiver requests, and other information required by regulation. The sponsor, the FDA, and the FDA's internal review committee must then review the information submitted, consult with each other, and agree upon a final plan. The FDA or the sponsor may request an amendment to the plan at any time.

The FDA may, on its own initiative or at the request of the sponsor, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. A deferral may be granted for several reasons, including a finding that the product or therapeutic candidate is ready for approval for use in adults before pediatric trials are completed. The FDA is required to send a PREA Non-Compliance letter to sponsors who have failed to submit their pediatric assessments under PREA, have failed to seek or obtain a deferral or deferral extension or have failed to request approval for a required pediatric formulation. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation, although FDA has recently taken steps to limit what it considers abuse of this statutory exemption in PREA. The FDA also maintains a list of diseases that are exempt from PREA requirements due to low prevalence of disease in the pediatric population.

Compliance with cGMP Requirements

In connection with its review of a BLA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in full compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The PHSA emphasizes the importance of manufacturing control for products like biologics whose attributes cannot be precisely defined.

Manufacturers and others involved in the manufacture and distribution of products must also register their establishments with the FDA and certain state agencies. Both domestic and foreign manufacturing establishments must register and provide additional information to the FDA upon their initial participation in the manufacturing process. Any product manufactured by or imported from a facility that has not registered, whether foreign or domestic, is deemed misbranded under the FDCA. Establishments may be subject to periodic unannounced inspections by government authorities to ensure compliance with cGMPs and other laws. Inspections must follow a "risk-based schedule" that may result in certain establishments being inspected more frequently. Manufacturers may also have to provide, on request, electronic or physical records regarding their establishments. Delaying, denying, limiting, or refusing inspection by the FDA may lead to a product being deemed to be adulterated. Changes to the manufacturing process, specifications or container closure system for an approved product are strictly regulated and often require prior FDA approval before being implemented. The FDA's regulations also require, among other things, the investigation and correction of any deviations from cGMP and the imposition of reporting and documentation requirements upon the sponsor and any third-party manufacturers involved in producing the approved product.

Submission and Filing of a BLA

The results of product candidate development, pre-clinical testing, and clinical trials, including negative or ambiguous results as well as positive findings, are submitted to the FDA as part of a BLA requesting license to market the product. The BLA must contain extensive manufacturing information and detailed information on the composition of the product and proposed labeling as well as payment of a user fee. Under federal law, the submission of most BLAs is subject to an application user fee, which for federal fiscal year 2022 is $3,117,218 for an application requiring clinical data. The sponsor of a licensed BLA is also subject to an annual program fee, which for federal fiscal year 2022 is $369,413. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses.

Following submission of a BLA, the FDA has 60 days to conduct a preliminary review of the application and it must inform the sponsor within that period of time whether the BLA is sufficiently complete to permit substantive review. In the event that FDA determines that an application does not satisfy this standard, it will issue a Refuse to File, or RTF, determination to the sponsor. The FDA may request additional information and studies, and the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing.

Once the submission has been accepted for filing, the FDA begins an in-depth review of the application. Under the goals and policies agreed to by the FDA under the PDUFA, the FDA has ten months in which to complete its initial review of a standard application and respond to the sponsor, and six months for a priority review of the application. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs. The review process may often be significantly extended by FDA requests for additional information or clarification. The review process and the PDUFA goal date may be extended by three months if the FDA requests or if the sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

The FDA may also refer the application to an advisory committee for review, evaluation, and recommendation as to whether the application should be approved. In particular, the FDA may refer applications for novel biologic products or biologic products that present difficult questions of safety or efficacy to an advisory committee. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates, and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

The FDA's Decision on a BLA

Under the PHSA, the FDA may approve a BLA if it determines that the product is safe, pure, and potent, and the facility where the product will be manufactured meets standards designed to ensure that it continues to be safe, pure, and potent. Specifically, the FDA must determine that the expected benefits of the proposed product outweigh its potential risks to patients. This "benefit-risk" assessment is informed by the extensive body of evidence about the proposed product in the BLA. On the basis of the FDA's evaluation of the application and accompanying information, including the results of the inspection of the manufacturing facilities and any FDA audits of pre-clinical and clinical trial sites to assure compliance with GCPs, the FDA may issue a complete response letter, or CRL, or an approval letter.

If the application is not approved, the FDA will issue a CRL, which will contain the conditions that must be met in order to secure final approval of the application and will outline recommended actions the sponsor might take to obtain approval of the application. Sponsors that receive a CRL may submit to the FDA information that represents a complete response to the issues identified by the FDA, withdraw the application or request a hearing. The FDA will not approve an application until issues identified in the CRL have been addressed. If a CRL is issued, the sponsor will have one year to respond to the deficiencies identified by the FDA, at which time the FDA can deem the application withdrawn or, in its discretion, grant the sponsor an additional six-month extension to respond.

An approval letter, on the other hand, authorizes commercial marketing of the product with specific prescribing information for specific indications. The FDA may limit the approved indication(s) for use of the product. It may also require that contraindications, warnings, or precautions be included in the product labeling. In addition, the FDA may call for post-approval studies, including Phase 4 clinical trials, to further assess the product's efficacy and/or safety after approval. The agency may also require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, to help ensure that the benefits of the product outweigh the potential risks.

REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patent registries. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Expedited Review Programs

The FDA is authorized to expedite the review of applications in several ways. None of these expedited programs changes the standards for approval but each may help expedite the development or approval process governing product candidates.

- Fast Track designation. The sponsor of a product candidate may request the FDA to designate the product for a specific indication as a Fast Track product concurrent with or after the filing of the IND. Candidate products are eligible for Fast Track designation if *they* are intended to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product candidate and the specific indication for which it is being studied. In addition to other benefits, such as the ability to have greater interactions with the FDA, the FDA may initiate review of sections of a Fast Track application before the application is complete, a process known as rolling review.

- Breakthrough therapy designation. To qualify for the breakthrough therapy program, product candidates must be intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence must indicate that such product candidates may demonstrate substantial improvement on one or more clinically significant endpoints over existing therapies. The FDA will seek to ensure the sponsor of a breakthrough therapy product candidate receives intensive guidance on an efficient drug development program, intensive involvement of senior managers and experienced staff on a proactive, collaborative and cross-disciplinary review and rolling review.

- Priority review. A product candidate is eligible for priority review if it treats a serious condition and, if approved, it would be a significant improvement in the safety or effectiveness of the treatment, diagnosis or prevention compared to marketed products. FDA aims to complete its review of priority review applications within six months as opposed to 10 months for standard review.

- Accelerated approval. Drug or biologic products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval. Accelerated approval means that a product candidate may be approved on the basis of adequate and well controlled clinical trials establishing that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity and prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug or biologic product candidate receiving accelerated approval perform adequate and well controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials.

- Regenerative advanced therapy. With passage of the Cures Act, Congress authorized the FDA to accelerate review and approval of products designated as regenerative advanced therapies. A product is eligible for this designation if it is a regenerative medicine therapy that is intended to treat, modify, reverse or cure a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product candidate has the potential to address unmet medical needs for such disease or condition. The benefits of a regenerative advanced therapy designation include early interactions with the FDA to expedite development and review, benefits available to breakthrough therapies, potential eligibility for priority review and accelerated approval based on surrogate or intermediate endpoints.

Post-Approval Regulation

If regulatory approval for marketing of a product or new indication for an existing product is obtained, the sponsor will be required to comply with all regular post-approval regulatory requirements as well as any post-approval requirements that the FDA

have imposed as part of the approval process. The sponsor will be required to report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information and comply with requirements concerning advertising and promotional labeling requirements. Manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMP regulations, which impose certain procedural and documentation requirements upon manufacturers. Accordingly, the sponsor and its third-party manufacturers must continue to expend time, money, and effort in the areas of production and quality control to maintain compliance with cGMP regulations and other regulatory requirements.

A product may also be subject to official lot release, meaning that the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official lot release, the manufacturer must submit samples of each lot, together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot, to the FDA. The FDA may in addition perform certain confirmatory tests on lots of some products before releasing the lots for distribution. Finally, the FDA will conduct laboratory research related to the safety, purity, potency, and effectiveness of pharmaceutical products.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability. If a company is found to have promoted off-label uses, it may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the Department of Justice, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. In September 2021, the FDA published final regulations which describe the types of evidence that the agency will consider in determining the intended use of a biologic product.

Orphan Drug Designation and Exclusivity

Orphan drug designation in the United States is designed to encourage sponsors to develop products intended for rare diseases or conditions. In the United States, a rare disease or condition is statutorily defined as a condition that affects fewer than 200,000 individuals in the United States or that affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available the biologic for the disease or condition will be recovered from sales of the product in the United States.

Orphan drug designation qualifies a company for tax credits and market exclusivity for seven years following the date of the product's marketing approval if granted by the FDA. An application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. A product becomes an orphan when it receives orphan drug designation from the Office of Orphan Products Development at the FDA based on acceptable confidential requests made under the regulatory provisions. The product must then go through the review and approval process like any other product.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. In addition, a sponsor of a product that is otherwise the same product as an already approved orphan drug may seek and obtain orphan drug designation for the subsequent product for the same rare disease or condition if it can present a plausible hypothesis that its product may be clinically superior to the first drug. More than one sponsor may receive orphan drug designation for the same product for the same rare disease or condition, but each sponsor seeking orphan drug designation must file a complete request for designation.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same product for the same indication for seven years, except in certain limited circumstances. If a product designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity.

The period of exclusivity begins on the date that the marketing application is approved by the FDA. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same drug for the same condition is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Under Omnibus legislation enacted in December 2020, the requirement for a product to show clinical superiority applies to drugs and biologics that received orphan drug designation before enactment of FDARA in 2017, but have not yet been approved or licensed by FDA. In addition, the FDA may approve a second application for the same product for a different use or a second application for a clinically superior version of the product for the same use.

The FDA and Congress may further reevaluate the Orphan Drug Act and its regulations and policies. This may be particularly true in light of a decision from the Court of Appeals for the 11th Circuit in September 2021 finding that, for the purpose of determining the scope of exclusivity, the term "same disease or condition" means the designated "rare disease or condition" and could not be interpreted by the FDA to mean the "indication or use."

Pediatric Exclusivity

Pediatric exclusivity is another type of non-patent exclusivity in the United States and for biologics, if granted, provides for the attachment of an additional six months of regulatory exclusivity to the term of any existing regulatory exclusivity, including orphan exclusivity. This six-month exclusivity may be granted if a BLA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity that cover the product are extended by six months.

Biosimilars and Exclusivity

The 2010 Patient Protection and Affordable Care Act, which was signed into law in March 2010, included a subtitle called the BPCIA. The BPCIA established a regulatory scheme authorizing the FDA to approve biosimilars and interchangeable biosimilars. A biosimilar is a biological product that is highly similar to an existing FDA-licensed "reference product." As of January 1, 2021, the FDA has approved 29 biosimilar products for use in the United States. To date, the FDA has approved a number of biosimilars, and the first interchangeable biosimilar product was approved on July 30, 2021, and a second product previously approved as a biosimilar was designated as interchangeable in October 2021. The FDA has also issued numerous guidance documents outlining its approach to reviewing and licensing biosimilars and interchangeable biosimilars under the PHSA, including a draft guidance issued in November 2020 that seeks to provide additional clarity to manufacturers of interchangeable biosimilars.

Under the BPCIA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and proposed biosimilar product in terms of safety, purity, and potency. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product, and (for products administered multiple times) that the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date of approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own pre-clinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity, and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. There have been recent government proposals to reduce the 12-year reference product exclusivity period, but none has been enacted to date. At the same time, since passage of the BPCIA, many states have passed laws or amendments to laws, which address pharmacy practices involving biosimilar products.

Federal and State Data Privacy and Security Laws

Under HIPAA, the U.S. Department of Health and Human Services has issued regulations to protect the privacy and security of protected health information used or disclosed by covered entities including certain healthcare providers, health plans, and healthcare clearinghouses. HIPAA also regulates standardization of data content, codes, and formats used in healthcare transactions and standardization of identifiers for health plans and providers. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their regulations, including the omnibus final rule published on January 25, 2013, also imposes certain obligations on the business associates of covered entities that obtain protected health information in providing services to or on behalf of covered entities. In addition to federal privacy regulations, there are a number of state laws governing confidentiality and security of health information that are applicable to Carisma's business. In addition to possible federal civil and criminal penalties for HIPAA violations, state attorneys general are authorized to file civil actions for damages or injunctions in federal courts to enforce HIPAA and seek attorney's fees and costs associated with pursuing federal civil actions. Accordingly, state attorneys general (along with private plaintiffs) have brought civil actions seeking injunctions and damages resulting from alleged violations of HIPAA's privacy and security rules. New laws and regulations governing privacy and security may be adopted in the future as well.

Additionally, California recently enacted legislation that has been dubbed the first "GDPR-like" law in the United States, the CCPA. The CCPA creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA went into effect on January 1, 2020 and requires covered companies to provide new disclosures to California consumers, provide such consumers new ways to opt-out of certain sales of personal information, and allow for a new cause of action for data breaches. The CCPA could impact Carisma's business activities depending on how it is interpreted and exemplifies the vulnerability of Carisma's business to not only cyber threats but also the evolving regulatory environment related to personal data and protected health information.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of Carisma's current or future business activities, including certain clinical research, sales, and marketing practices and the provision of certain items and services to Carisma's customers, could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or reporting requirements in multiple jurisdictions could increase the possibility that a healthcare company may fail to comply fully with one or more of these requirements. If Carisma's operations are found to be in violation of any of the privacy or data security laws or regulations described above that are applicable to Carisma, or any other laws that apply to Carisma, Carisma may be subject to penalties, including potentially significant criminal, civil, and administrative penalties, damages, fines, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements, and/or oversight if Carisma becomes subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of Carisma's operations, any of which

could adversely affect Carisma's ability to operate its business and its results of operations. To the extent that any of Carisma's product candidates, once approved, are sold in a foreign country, Carisma may be subject to similar foreign laws.

Patent Term Restoration and Extension

In the United States, a patent claiming a new biologic product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. Assuming grant of the patent for which the extension is sought, the restoration period for a patent covering a product is typically one-half the time between the effective date of the IND clearing clinical studies and the submission date of the BLA, plus the time between the submission date of the BLA and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The USPTO reviews and approves the application for any patent term extension in consultation with the FDA.

FDA Approval of Companion Diagnostics

In August 2014, the FDA issued final guidance clarifying the requirements that will apply to approval of therapeutic products and *in vitro* companion diagnostics. According to the guidance, for novel drugs, a companion diagnostic device and its corresponding therapeutic should be approved or cleared contemporaneously by the FDA for the use indicated in the therapeutic product's labeling. Approval or clearance of the companion diagnostic device will ensure that the device has been adequately evaluated and has adequate performance characteristics in the intended population. In July 2016, the FDA issued a draft guidance intended to assist sponsors of the drug therapeutic and *in vitro* companion diagnostic device on issues related to co-development of the products. The 2014 guidance also explains that a companion diagnostic device used to make treatment decisions in clinical trials of a biologic product candidate generally will be considered an investigational device, unless it is employed for an intended use for which the device is already approved or cleared. If used to make critical treatment decisions, such as patient selection, the diagnostic device generally will be considered a significant risk device under the FDA's Investigational Device Exemption, or IDE, regulations. Thus, the sponsor of the diagnostic device will be required to comply with the IDE regulations. According to the guidance, if a diagnostic device and a product are to be studied together to support their respective approvals, both products can be studied in the same investigational study, if the study meets both the requirements of the IDE regulations and the IND regulations. The guidance provides that depending on the details of the study plan and subjects, a sponsor may seek to submit an IND alone, or both an IND and an IDE.

In April 2020, the FDA issued additional guidance which describes considerations for the development and labeling of companion diagnostic devices to support the indicated uses of multiple biological oncology products, when appropriate. The 2020 guidance expands on the policy statement in the 2014 guidance by recommending that companion diagnostic developers consider a number of factors when determining whether their test could be developed, or the labeling for approved companion diagnostics could be revised through a supplement, to support a broader labeling claim such as use with a specific group of oncology therapeutic products (rather than listing an individual therapeutic product(s)).

Under the FDCA, *in vitro* diagnostics, including companion diagnostics, are regulated as medical devices. In the United States, the FDCA and its implementing regulations, and other federal and state statutes and regulations govern, among other things, medical device design and development, pre-clinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotion, sales and distribution, export and import, and post market surveillance. Unless an exemption applies, diagnostic tests require marketing clearance or approval from the FDA prior to commercial distribution.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the product candidate to obtain pre-market approval, or PMA, simultaneously with approval of the therapeutic product candidate. The PMA process, including the gathering of clinical and pre-clinical data and the submission to and review by the FDA, can take several years or longer. It involves a rigorous premarket review during which the sponsor must prepare and provide the FDA with reasonable assurance of the device's safety and effectiveness and information about the device and its components regarding, among other things, device design, manufacturing and labeling. PMA applications are subject to an application fee. For federal fiscal year 2022, the standard fee is $374,858 and the small business fee is $93,714.

Coverage, Pricing, and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which Carisma may seek regulatory approval by the FDA or other government authorities. In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use any product candidates Carisma may develop unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of such product candidates. Even if any product candidates Carisma may develop are approved, sales of such product candidates will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers, and managed care organizations, provide coverage, and establish adequate reimbursement levels for, such product candidates. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover any product candidates Carisma may develop could reduce physician utilization of such product candidates once approved and have a material adverse effect on Carisma's sales, results of operations and financial condition. Additionally, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor. Third-party reimbursement and coverage may not be available to enable Carisma to maintain price levels sufficient to realize an appropriate return on Carisma's investment in product development. In addition, any companion diagnostic tests require coverage and reimbursement separate and apart from the coverage and reimbursement for their companion pharmaceutical or biological products. Similar challenges to obtaining coverage and reimbursement, applicable to pharmaceutical or biological products, will apply to any companion diagnostics.

The containment of healthcare costs also has become a priority of federal, state and foreign governments and the prices of pharmaceuticals have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement, and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which a company or its collaborators receive marketing approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Outside the United States, ensuring adequate coverage and payment for any product candidates Carisma may develop will face challenges. Pricing of prescription pharmaceuticals is subject to governmental control in many countries. Pricing negotiations with governmental authorities can extend well beyond the receipt of regulatory marketing approval for a product and may require Carisma to conduct a clinical trial that compares the cost effectiveness of any product candidates Carisma may develop to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in Carisma's commercialization efforts.

In the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies (so called health technology assessments) in order to obtain reimbursement or pricing approval. For example, the European Union provides options for its member states to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other member states allow companies to fix their own prices for products but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Recently, many countries in the European Union have increased the amount of discounts required

on pharmaceuticals and these efforts could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. The downward pressure on healthcare costs in general, particularly prescription products, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic, and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states, and parallel trade (arbitrage between low-priced and high-priced member states), can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of Carisma's products, if approved in those countries.

Healthcare Law and Regulation

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of pharmaceutical products that are granted marketing approval. Arrangements with providers, consultants, third-party payors, and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to physicians and teaching physicians and patient privacy laws and regulations and other healthcare laws and regulations that may constrain Carisma's business and/or financial arrangements. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving, or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;

- the federal civil and criminal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious, or fraudulent or knowingly making, using, or causing to made or used a false record or statement to avoid, decrease, or conceal an obligation to pay money to the federal government;

- the Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from making, or offering or promising to make improper payments to non-U.S. officials for the purpose of obtaining or retaining business or otherwise seeking favorable treatment; and

- the federal transparency requirements under the ACA, which require certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the CMS within the U.S. Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians, other healthcare providers, and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring pharmaceutical manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures. In addition, certain state and local laws require drug manufacturers to register pharmaceutical sales representatives in the jurisdiction. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

If Carisma's operations are found to be in violation of any of these laws or any other governmental regulations that may apply to Carisma, Carisma may be subject to significant civil, criminal, and administrative penalties, damages, fines, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid, integrity oversight and reporting obligations, and the curtailment or restructuring of Carisma's operations.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States.

In March 2010, the United States Congress enacted the ACA, which, among other things, includes changes to the coverage and payment for products under government healthcare programs. Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. For example, in August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2012 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of up to 2% per fiscal year, which will remain in effect through 2031 pursuant to the Coronavirus Aid, Relief and Economic Security Act or CARES Act. The American Taxpayer Relief Act of 2012, which was enacted in January 2013, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers, and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. Further, with passage of the Inflation Reduction Act in August 2022, Congress extended the expansion of ACA premium tax credits through 2025. Those subsidies were originally extended through 2022 under the American Rescue Plan Act of 2021. These laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices Carisma may obtain for any of Carisma's product candidates for which Carisma may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used.

Since enactment of the ACA, there have been, and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts and Jobs Act of 2017, or the TCJA, which was signed by President Trump on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, became effective in 2019 Further, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the PPACA is an essential and inseverable feature of the ACA and therefore because the mandate was repealed as part of the Tax Act, the remaining provisions of the ACA are invalid as well. The U.S. Supreme Court heard this case on November 10, 2020 and, on June 17, 2021, dismissed this action after finding that the plaintiffs do not have standing to challenge the constitutionality of the ACA. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

Although the previous administration took executive actions to undermine or delay implementation of the ACA, those actions were rescinded with issuance of an Executive Order on January 28, 2021, by President Biden which directs federal agencies to reconsider rules and other policies that limit Americans' access to health care, and consider actions that will protect and strengthen that access. Under this Executive Order, federal agencies are directed to re-examine: policies that undermine protections for people with pre-existing conditions, including complications related to COVID-19; demonstrations and waivers under Medicaid and the ACA that may reduce coverage or undermine the programs, including work requirements; policies that undermine the Health Insurance Marketplace or other markets for health insurance; policies that make it more difficult to enroll in Medicaid and the ACA; and policies that reduce affordability of coverage or financial assistance, including for dependents.

The prices of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. There have been several recent U.S. congressional inquiries, as well as proposed and enacted state and federal legislation designed to, among other things, bring more transparency to pharmaceutical pricing, review the relationship between pricing and manufacturer patient programs, and reduce the costs of pharmaceuticals under Medicare and Medicaid. In 2020, President Trump issued several executive orders intended to lower the costs of prescription products and certain provisions in these orders have been incorporated into regulations. These regulations include an interim final rule implementing a most favored nation model for prices that would tie Medicare Part B payments for certain physician-administered pharmaceuticals to the lowest price paid in other economically advanced countries, effective January 1, 2021. That rule, however, has been subject to a nationwide preliminary injunction and, on December 29, 2021, CMS issued a final rule to rescind it. With issuance of this rule, CMS stated that it will explore all options to incorporate value into payments for Medicare Part B pharmaceuticals and improve beneficiaries' access to evidence-based care.

In addition, in October 2020, HHS and the FDA published a final rule allowing states and other entities to develop a Section 804 Importation Program, or SIP, to import certain prescription products from Canada into the United States. The final rule is currently the subject of ongoing litigation, but at least six states (Vermont, Colorado, Florida, Maine, New Mexico, and New Hampshire) have passed laws allowing for the importation of products from Canada with the intent of developing SIPs for review and approval by the FDA. Further, on November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The implementation of the rule has been delayed by the Biden administration from January 1, 2022 to January 1, 2023 in response to ongoing litigation. The rule also creates a new safe harbor for price reductions reflected at the point-of-

sale, as well as a new safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers, the implementation of which has been delayed until January 1, 2026, by the Infrastructure Investment and Jobs Act.

More recently, with passage of the Inflation Reduction Act in August 2022, Congress authorized Medicare beginning in 2026 to negotiate lower prices for certain costly single-source drug and biologic products that do not have competing generics or biosimilars. This provision is limited in terms of the number of pharmaceuticals whose prices can be negotiated in any given year and it only applies to drug products that have been approved for at least 9 years and biologics that have been licensed for 13 years. Drugs and biologics that have been approved for a single rare disease or condition are categorically excluded from Medicare price negotiations. Further, the new legislation provides that if pharmaceutical companies raise prices in Medicare faster than the rate of inflation, they must pay rebates back to the government for the difference. The new law also caps Medicare out-of-pocket drug costs at an estimated $4,000 a year in 2024 and, thereafter beginning in 2025, at $2,000 a year.

On July 9, 2021, President Biden signed Executive Order 14063, which focuses on, among other things, the price of pharmaceuticals. The Order directs HHS to create a plan within 45 days to combat "excessive pricing of prescription pharmaceuticals and enhance domestic pharmaceutical supply chains, to reduce the prices paid by the federal government for such pharmaceuticals, and to address the recurrent problem of price gouging." On September 9, 2021, HHS released its plan to reduce pharmaceutical prices. The key features of that plan are to: (a) make pharmaceutical prices more affordable and equitable for all consumers and throughout the health care system by supporting pharmaceutical price negotiations with manufacturers; (b) improve and promote competition throughout the prescription pharmaceutical industry by supporting market changes that strengthen supply chains, promote biosimilars, and increase transparency; and (c) foster scientific innovation to promote better healthcare and improve health by supporting public and private research and making sure that market incentives promote discovery of valuable and accessible new treatments.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. A number of states, for example, require pharmaceutical manufacturers and other entities in the supply chain, including health carriers, pharmacy benefit managers, wholesale distributors, to disclose information about pricing of pharmaceuticals. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. These measures could reduce the ultimate demand for Carisma's products, once approved, or put pressure on Carisma's product pricing. Carisma expects that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for Carisma's product candidates or additional pricing pressures.

Employees and Human Capital Resources

As of September 20, 2022, Carisma had 91 full-time employees, including a total of 34 employees with M.D. or Ph.D. degrees. Of these full-time employees, 80 are engaged in research and development activities. None of Carisma's employees are represented by labor unions or covered by collective bargaining agreements. Carisma considers its relationship with its employees to be good.

Carisma's human capital objectives are focused on attracting, developing, and retaining talent. Cash compensation plans and equity grants are designed to attract, retain and to motivate employees, directors, and select consultants to achieve our corporate objectives.

Facilities

Carisma's principal facilities consist of office and laboratory space in Philadelphia, Pennsylvania. Carisma occupies approximately 4,369 square feet of office space under a lease that is expected to expire in January 2030 and approximately 3,600 square feet of laboratory space under a lease that expires in October 2023. Carisma believes that its facilities are sufficient to meet its current needs.

Legal Proceedings

Carisma is currently not a party to any material legal proceedings.

SESEN BIO MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with Sesen Bio's financial statements and related notes included elsewhere in this proxy statement/prospectus. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Sesen Bio's actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set out under the section entitled "Risk Factors" beginning on page 26 of this proxy statement/prospectus and elsewhere in this proxy statement/prospectus. See also the section entitled "Cautionary Statement Concerning Forward-Looking Statements" beginning on page 114 of this proxy statement/prospectus.

Overview

Sesen Bio is a late-stage clinical company that was previously focused on advancing TFPTs for the treatment of patients with cancer. Sesen Bio's most advanced product candidate, Vicineum, also known as VB4-845, is a locally-administered targeted fusion protein composed of an EpCAM antibody fragment tethered to a truncated form of Pseudomonas exotoxin A for the treatment of NMIBC.

On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development of Vicineum in the U.S. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following Sesen Bio's discussions with the FDA, which are further described below. Sesen Bio has turned its primary focus to consummating a strategic transaction with the goal of maximizing shareholder value. Additionally, Sesen Bio intends to seek a partner for the further development of Vicineum.

On July 15, 2022, Sesen Bio approved the 2022 restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following the decision to pause further development of Vicineum in the U.S. The 2022 restructuring plan includes an incremental reduction in Sesen Bio's workforce as well as additional cost-saving initiatives intended to preserve capital while Sesen Bio prepares to consummate a strategic transaction with the goal of maximizing shareholder value. The 2022 restructuring plan is expected to be substantially complete by the end of the fourth quarter of 2022. Sesen Bio currently estimates that it will incur aggregate restructuring charges in the third and fourth quarters of 2022 ranging from approximately $13.0 million to $14.0 million, consisting primarily of severance and other employee-related cash costs of approximately $8.0 million, one-time cash costs associated with the termination of certain contracts of approximately $3.0 million and other cash costs associated with the 2022 restructuring plan of approximately $3.0 million. In addition to the cost savings expected from the 2022 restructuring plan, Sesen Bio is working closely with certain of its contract partners to negotiate refunds that may further offset the restructuring charges and otherwise mitigate costs.

Current Strategy

The Merger

In May 2022, Sesen Bio announced that it had commenced a process to explore and evaluate strategic alternatives to enhance stockholder value, and had engaged a financial advisor to assist Sesen Bio in this process. Sesen Bio then commenced an extensive process of evaluating strategic alternatives, including identifying and reviewing potential candidates for a strategic acquisition or other transaction as described in the section entitled "*The Merger — Background of the Merger*" beginning on page 122 of this proxy statement/prospectus. On September 21, 2022, Sesen Bio announced that it had entered into the Merger Agreement. Although Sesen Bio has entered into the Merger Agreement and intends to consummate the merger, there is no assurance that it will be able to successfully consummate the merger on a timely basis, or at all. If, for any reason, the merger does not close, the Sesen Bio board of directors may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Sesen Bio, resume its research and development activities and continue to operate the business of Sesen Bio or dissolve and liquidate its assets.

If the merger is not completed, the Sesen Bio board of directors may decide that it is in the best interests of the Sesen Bio stockholders to dissolve the company and liquidate its assets. In that event, the amount of cash available for distribution to the Sesen Bio stockholders would depend heavily on the timing of such decision and, ultimately, such liquidation, since the amount of cash

available for distribution continues to decrease as Sesen Bio funds its operations and incurs fees and expenses related to the merger. In addition, if the Sesen Bio board of directors were to approve and recommend, and the Sesen Bio stockholders were to approve, a dissolution of Sesen Bio, it would be required under Delaware corporate law to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to the Sesen Bio stockholders. As a result of this requirement, a portion of Sesen Bio's assets may need to be reserved pending the resolution of such obligations. In addition, Sesen Bio may be subject to litigation or other claims related to a liquidation and dissolution of the company. If a liquidation and dissolution were pursued, the Sesen Bio board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, the Sesen Bio stockholders could lose all or a significant portion of their investment in the event of a liquidation and dissolution of Sesen Bio.

Components of Sesen Bio's Results of Operations

License and Related Revenue

License revenue consists of revenue recognized pursuant to Sesen Bio's commercialization partnership agreements, including the Qilu License Agreement, which is assessed under ASC Topic 606, Revenue, or ASC 606. In the future, Sesen Bio may generate revenue from a combination of milestone payments and royalties in connection with the Qilu License Agreement.

Research and Development

Research and development expenses consist primarily of costs incurred for the development of Vicineum for the treatment of NMIBC, which include:

- employee-related expenses, including salaries, benefits, travel and share-based compensation expense;
- expenses incurred under agreements with CROs and investigative sites that conduct Sesen Bio's clinical trials;
- expenses associated with developing manufacturing capabilities;
- expenses associated with transferring manufacturing capabilities to CMOs for commercial-scale production;
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance and other supplies;
- expenses associated with regulatory activities; and
- expenses associated with license milestone fees.

Sesen Bio expenses research and development costs as incurred. Sesen Bio recognizes external development costs based on an evaluation of the progress to completion of specific tasks using information and data provided to Sesen Bio by its vendors and its clinical sites.

Sesen Bio allocates direct research and development expenses, consisting principally of external costs, such as fees paid to investigators, consultants, central laboratories and CROs in connection with its clinical trials, costs related to manufacturing or purchasing clinical trial materials and technology transfer and license milestone fees, to specific product programs. Sesen Bio does not allocate employee and contractor-related costs, costs associated with Sesen Bio's platform and facility expenses, including depreciation or other indirect costs, to specific product programs because these costs may be deployed across multiple product programs under research and development and, as such, are separately classified. The table below provides research and development expenses incurred for Vicineum for the treatment of NMIBC and other expenses by category. Sesen Bio expects to significantly reduce its research and development expenses as it turns its primary focus to assessing potential strategic alternatives with the goal of maximizing shareholder value and seeking a partner for the further development of Vicineum.

Sesen Bio did not allocate research and development expenses to any other specific product program during the periods presented (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Programs:				
Vicineum for the treatment of NMIBC	$ 27,432	$ 4,332	$ 28,892	$ 7,898
Total direct program expenses	27,432	4,332	28,892	$ 7,898
Personnel and other expenses:				
Employee and contractor-related expenses	2,113	2,389	5,080	4,660
Platform-related lab expenses	22	64	96	114
Facility expenses	123	143	277	268
Other expenses	254	300	360	366
Total personnel and other expenses	2,512	2,896	5,813	5,408
Total Research and Development	**$ 29,944**	**$ 7,228**	**$ 34,705**	**$ 13,306**

General and Administrative

General and administrative expenses consist primarily of salaries and related costs for personnel, including share-based compensation and benefits, in executive, operational, finance, legal, business development and human resource functions. Other general and administrative expenses include facility-related costs, professional fees for legal, estimated payments to settle litigation, insurance, investment banking fees, patent, consulting and accounting services, and pre-commercial U.S. market research. Sesen Bio's general and administrative expenses may increase due to increases in professional and advisory fees as Sesen Bio assesses potential strategic alternatives.

Change in Fair Value of Contingent Consideration

In connection with the Viventia Acquisition in September 2016, Sesen Bio recorded contingent consideration pertaining to the amounts potentially payable to Viventia's shareholders pursuant to the terms of the Share Purchase Agreement among Sesen Bio, Viventia and the other signatories thereto and are based on regulatory approval in certain markets and future revenue levels. The fair value of contingent consideration is assessed at each balance sheet date and changes, if any, to the fair value are recognized in earnings (or loss) for the period.

Other Income, Net

Other income, net consists primarily of interest income earned on cash and cash equivalents and, to a lesser extent, any gains or losses on foreign exchange.

Provision for Income Taxes

Benefit for income taxes is driven by the intangible impairment charge, changing the value of deferred tax liabilities. Provision for income taxes consists of income taxes incurred to non-U.S. jurisdictions pursuant to Sesen Bio's OUS business development partnership agreements, including the Qilu License Agreement.

Sesen Bio's Results of Operations

Comparison of the three months ended June 30, 2022 and 2021

	Three Months Ended June 30,		Increase/(Decrease)	
	2022	2021	Dollars	Percentage
	(in thousands, except percentages)			
Revenue:				
License and related revenue	$ —	$ 2,234	$ (2,234)	(100)%
Total revenue	—	2,234	(2,234)	(100)%
Operating expenses:				
Research and development	$ 29,944	$ 7,228	$ 22,716	314 %
General and administrative	15,589	6,805	8,784	129 %
Intangibles impairment charge	27,764	—	27,764	—
Change in fair value of contingent consideration	(37,300)	13,600	(50,900)	(374)%
Total operating expenses	35,997	27,633	8,364	30 %
Loss from Operations	(35,997)	(25,399)	(10,598)	42 %
Other income (expense):				
Other income (expense), net	162	(43)	205	(477)%
Loss Before Taxes	**$ (35,835)**	**$ (25,442)**	**$ (10,393)**	**41 %**
Benefit from income taxes	3,875	—	3,875	—
Net Loss After Taxes	**$ (31,960)**	**$ (25,442)**	**$ (6,518)**	**26 %**

License Revenue

Sesen Bio did not record any revenue for the three months ended June 30, 2022. Revenue for the three months ended June 30, 2021 was $2.2 million, which was due to clinical supply revenue resulting from the delivery of drug product to Qilu, Sesen Bio's OUS business development partner for Greater China and license revenue for additional purchase price due to the recovery of VAT by Qilu.

Research and Development

Research and development expenses were $29.9 million for the three months ended June 30, 2022, compared to $7.2 million for the three months ended June 30, 2021. The increase of $22.7 million was primarily due to the expense of prepaid balances related to consumables and manufacturing reservations as the balances were evaluated and deemed to have no future value ($25.2 million). This increase was partially offset by lower costs associated with manufacturing ($2.5 million).

General and Administrative

General and administrative expenses were $15.6 million for the three months ended June 30, 2022, compared to $6.8 million for the three months ended June 30, 2021. The increase of $8.8 million was primarily due to an increase in legal expense ($10.3 million). This increase was driven by the preliminary settlements of the securities and derivative litigation net of expected insurance recovery ($8.6 million), related legal fees ($0.9 million), legal fees related to the internal review ($0.3 million) and other legal expenses ($0.5 million). This increase was partially offset by a decrease in marketing and commercial expenses, which were incurred in the second quarter of 2021 in preparation for potential commercial launch but were discontinued as a result of the Complete Response Letter received in August 2021 ($1.5 million).

Change in Fair Value of Contingent Consideration

The non-cash change in fair value of contingent consideration was income of $37.3 million for the three months ended June 30, 2022, compared to a loss of $13.6 million for the three months ended June 30, 2021. The decrease in the fair value of contingent consideration of $37.3 million for the three months ended June 30, 2022 was driven by Sesen Bio's strategic decision to voluntarily pause further development of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following

recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Sesen Bio intends to seek a partner for the further development of Vicineum. Sesen Bio expects that any partner who acquires Vicineum from Sesen Bio will be obligated to make any payments to the former shareholders of Viventia under the Share Purchase Agreement.

The change in fair value of contingent consideration was a loss of $13.6 million for the three months ended June 30, 2021. This was primarily attributable to changes in the competitive landscape, higher probability of regulatory success, expanded patient population, and to a lesser extent by refinement of timelines in certain markets outside the U.S., which was prior to the receipt of a CRL from the FDA.

Benefit (Provision) from Income Taxes

For the three months ended June 30, 2022, Sesen Bio recorded a benefit from income taxes of $3.9 million. In the second quarter of 2022, Sesen Bio determined that the fair value of the Vicineum E.U. rights was zero, which resulted in an impairment charge of $14.7 million. In connection with this impairment charge, in the second quarter of 2022, Sesen Bio wrote-down the associated deferred tax liability by $4.0 million as a benefit, partially offset by $0.1 million income tax paid to foreign jurisdictions pursuant to the Qilu License Agreement. See Note 8, “Intangible Assets and Goodwill,” of Sesen Bio’s condensed consolidated financial statements for the quarter ended June 30, 2022 for further information regarding the impairment charge. No provision for income taxes was recorded for the three months ended June 30, 2021.

Net loss

For the three months ended June 30, 2022, net loss was $32.0 million, compared to net loss of $25.4 million for the three months ended June 30, 2021. The change was primarily attributable to increases in research and development, or R&D, and general and administrative, or G&A, expense ($31.5 million), primarily driven by the reduction of prepaid balances related to consumables and manufacturing reservations and the preliminary settlements of the securities and derivative litigation. Additionally, license and related revenue recognized decreased ($2.2 million). This was partially offset by favorable changes in non-cash related expenses of $27.0 million (including tax benefit).

Comparison of the six months ended June 30, 2022 and 2021

	Six Months Ended June 30,		Increase/(Decrease)	
	2022	2021	Dollars	Percentage
	(in thousands, except percentages)			
Revenue:				
License and related revenue	$ —	$ 6,544	$ (6,544)	(100)%
Total revenue	—	6,544	(6,544)	(100)%
Operating expenses:				
Research and development	$ 34,705	$ 13,306	$ 21,399	161 %
General and administrative	24,564	12,098	12,466	103 %
Restructuring charge	—	—	—	—
Intangibles impairment charge	27,764	—	27,764	—
Change in fair value of contingent consideration	(50,200)	61,760	(111,960)	(181)%
Total operating expenses	36,833	87,164	(50,331)	(58)%
Loss from Operations	(36,833)	(80,620)	43,787	(54)%
Other income (expense), net	191	(46)	237	(515)%
Loss Before Taxes	**(36,642)**	**(80,666)**	**44,024**	**(55)%**
Benefit (provision) from income taxes	3,875	(288)	4,163	(1,445)%
Net Loss After Taxes	**$ (32,767)**	**$ (80,954)**	**$ 48,187**	**(60)%**

License Revenue

Sesen Bio did not record any revenue for the six months ended June 30, 2022. Revenue for the six months ended June 30, 2021 was $6.5 million, which was due to achieving the IND milestone in China pursuant to the Qilu License Agreement, clinical supply revenue resulting from the delivery of drug product to Qilu, Sesen Bio's OUS partner for Greater China, and license revenue for additional purchase price due to the recovery of VAT by Qilu.

Research and Development

Research and development expenses were $34.7 million for the six months ended June 30, 2022, compared to $13.3 million for the six months ended June 30, 2021. The increase of $21.4 million was primarily due to the expense of prepaid balances related to consumables and manufacturing reservations as the balances were deemed to have no future value ($25.2 million). This increase was partially offset by lower costs associated with manufacturing ($3.7 million).

General and Administrative

General and administrative expenses were $24.6 million for the six months ended June 30, 2022, compared to $12.1 million for the six months ended June 30, 2021. The increase of $12.5 million was primarily due to an increase in legal expense ($13.3 million) driven by the preliminary settlements of the securities and derivative litigation net of expected insurance recovery ($8.6 million), related legal fees ($1.2 million), legal fees related to the internal review ($3.2 million) and other legal expenses ($0.3 million). In addition, employee-related compensation, primarily driven by increased headcount and the retention program implemented in the fourth quarter of 2021 ($1.2 million) and increased insurance expense ($0.3 million). This was partially offset by decreases in marketing and commercial expenses ($1.7 million) and consultant fees ($0.9 million), which were incurred during the first half of 2021 in preparation for potential commercial launch but were discontinued as a result of the Complete Response Letter received in August 2021 and other general expenses ($0.1 million).

Change in Fair Value of Contingent Consideration

The non-cash change in fair value of contingent consideration was income of $50.2 million for the six months ended June 30, 2022, compared to a loss of $61.8 million for the six months ended June 30, 2021. The decrease in the fair value of contingent consideration of $50.2 million for the six months ended June 30, 2022 was driven by Sesen Bio's strategic decision to voluntarily pause further development of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Sesen Bio intends to seek a partner for the further development of Vicineum. Sesen Bio expects that any partner who acquires Vicineum from Sesen Bio will be obligated to make any payments to the former shareholders of Viventia under the Share Purchase Agreement.

The change in fair value of contingent consideration was a loss of $61.8 million for the six months ended June 30, 2021. This was primarily attributable to changes in the competitive landscape, higher probability of regulatory success, expanded patient population, and to a lesser extent by refinement of timelines in certain markets outside the U.S., which was prior to the receipt of a CRL from the FDA.

Provision for Income Taxes

For the six months ended June 30, 2022, Sesen Bio recorded a benefit from income taxes of $3.9 million. In the second quarter of 2022, Sesen Bio determined that the fair value of the Vicineum E.U. rights was zero, which resulted in an impairment charge of $14.7 million. In connection with this impairment charge, in the second quarter of 2022, Sesen Bio wrote-down the associated deferred tax liability by $4.0 million as a benefit, partially offset by $0.1 million income tax paid to foreign jurisdictions pursuant to the Qilu License Agreement. See to Note 8, "Intangible Assets and Goodwill," of Sesen Bio's condensed consolidated financial statements for the quarter ended June 30, 2022 for further information regarding the impairment charge. For the six months ended June 30, 2021, Sesen Bio recorded a provision for income taxes of $0.3 million. This provision consisted of income taxes paid to foreign jurisdictions pursuant to the Qilu License Agreement.

Net Loss

For the six months ended June 30, 2022 net loss was $32.8 million, compared to net loss of $81.0 million, for the six months ended June 30, 2021. The decrease of $48.2 million was primarily due to decreases in operating expense ($50.3 million) and the tax provision ($4.2 million) partially offset by a decrease in license and related revenue recognized ($6.5 million). The decrease in operating expense ($50.3 million) was driven by non-cash adjustments ($84.2 million), partially offset by a $33.9 million increase in expense. This increase was primarily due to the reduction of Sesen Bio prepaid balances related to consumables and manufacturing reservations and the preliminary settlements of the securities and derivative litigation.

Comparison of the Years Ended December 31, 2021 and December 31, 2020

	Year ended December 31,		Increase/(Decrease)	
	2021	2020	Dollars	Percentage
	(in thousands, except percentages)			
Revenue:				
License and related revenue	$ 26,544	$ 11,236	$ 15,308	136 %
Total revenue	26,544	11,236	15,308	136 %
Operating expenses:				
Research and development	$ 25,312	$ 29,191	$ (3,879)	(13)%
General and administrative	29,393	14,302	15,091	106 %
Restructuring charge	5,528	—	5,528	— %
Intangibles impairment charge	31,700	—	31,700	— %
Change in fair value of contingent consideration	(56,840)	(11,180)	(45,660)	408 %
Total operating expenses	35,093	32,313	2,780	9 %
Loss from Operations	(8,549)	(21,077)	12,528	(59)%
Other (expense) income:				
Other (expense) income, net	(60)	125	(185)	(148)%
Net Loss and Comprehensive Loss Before Taxes	**(8,609)**	**(20,952)**	**12,343**	**(59)%**
Benefit (provision) for income taxes	8,273	(1,445)	9,718	(673)%
Net Loss and Comprehensive Loss After Taxes	**$ (336)**	**$ (22,397)**	**$ 22,061**	**(98)%**

License Revenue

Revenue for the year ended December 31, 2021 was $26.5 million, primarily due to the $20.0 million milestone achieved pursuant to the Roche License Agreement upon initiating a Phase II clinical trial, $5.0 million related to the Qilu License Agreement (achievement of the IND milestone, clinical supply revenue, and license revenue for additional purchase price due to the recovery of VAT), and $1.5 million upfront milestone revenue achieved pursuant to the MENA License Agreement. Revenue for the year ended December 31, 2020 was $11.2 million, which was due to the recognition of revenue pursuant to the Qilu License Agreement.

Research and Development

Research and development expenses were $25.3 million for the year ended December 31, 2021, compared to $29.2 million for the year ended December 31, 2020. The decrease of $3.9 million was primarily due to lower costs associated with technology transfer and manufacturing ($7.4 million). This was partially offset by increases in employee-related compensation driven by increased headcount as part of the commercial build and the retention program implemented after receipt of the CRL in August 2021 ($2.1 million), regulatory and clinical consulting fees ($1.0 million) and certain other R&D expense, none of which were individually material ($0.5 million).

General and Administrative

General and administrative expenses were $29.4 million for the year ended December 31, 2021, compared to $14.3 million for the year ended December 31, 2020. The increase of $15.1 million was primarily due to increases in employee-related compensation ($5.0 million), legal costs ($4.8 million), and marketing and commercial expenses ($4.1 million) driven by preparation for the

commercial launch of Vicineum prior to the issuance of the CRL in August 2021. Additionally, increases in accounting services ($0.4 million), insurance expenses ($0.4 million), IT expenses ($0.3 million) and others ($0.1 million) contributed to the increase.

Restructuring Charge

On August 30, 2021, Sesen Bio approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following receipt of the CRL from the FDA regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC, or the 2021 restructuring plan. The 2021 restructuring plan included a reduction in Sesen Bio's workforce by 18 positions (or approximately 35% of its workforce) as well as additional cost-saving initiatives intended to preserve capital while it continued development of Vicineum.

Restructuring expenses were $5.5 million for the year ended December 31, 2021, compared to no restructuring expenses for the year ended December 31, 2020. The increase was due to one-time costs associated with the 2021 restructuring plan implemented in response to the CRL for severance and other employee-related costs ($2.8 million) and termination of certain contracts ($2.7 million).

Intangibles Impairment Charge

Sesen Bio recorded an intangibles impairment charge of $31.7 million during the year ended December 31, 2021. Sesen Bio did not record any impairment charges during the year ended December 31, 2020. In August 2021, Sesen Bio received a CRL from the FDA regarding its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The impairment charge of $31.7 million for the year ended December 31, 2021 relates to the full impairment of its U.S. in-process research and development asset due to expected delays in the start of commercialization and lower probabilities of success, combined with higher operating expenses expected to be incurred prior to commercialization, resulting in lower expected future cash flows estimated in the U.S. market at this time.

Change in Fair Value of Contingent Consideration

The non-cash change in fair value of contingent consideration was income of $56.8 million for the year ended December 31, 2021, compared to income of $11.2 million for the year ended December 31, 2020. The decrease in the fair value of contingent consideration of $45.7 million from the year ended December 31, 2020 to the year ended December 31, 2021, was driven by the receipt of a CRL from the FDA, regarding its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. Due to the inherent uncertainty in the path forward for Vicineum, Sesen Bio reassessed the underlying assumptions used to develop the revenue projections upon which the fair value of the contingent consideration is based. The most significant and impactful assumptions in Sesen Bio's revenue projection models are timing of product launch and probabilities of clinical and regulatory success POS; Sesen Bio expects delays in the start of commercialization and estimate lower POS as a direct result of the CRL and its withdrawal of the MAA. Sesen Bio will need to conduct an additional clinical trial, which will lead to delays in the start of commercialization globally. Sesen Bio has assessed a range of commercialization timeline assumptions and applied a probability to each outcome based on management's best estimate. In addition, Sesen Bio assumed a lower POS in achieving certain clinical and regulatory milestones in the range of approximately 45% to 55% globally. Sesen Bio participated in Type A Meetings with the FDA on October 29, 2021 and December 8, 2021 to discuss questions related to CMC and clinical issues raised in the CRL. Both meetings helped Sesen Bio determine the appropriate path forward for Vicineum. Any changes in these assumptions and estimates or other information obtained, may have a significant impact on the remeasurement of the contingent consideration liability in the future.

The change in fair value of contingent consideration was income of $11.2 million for the year ended December 31, 2020. This was primarily attributable to significantly higher discount rates as a result of financial market conditions as of the year ended December 31, 2020, offset by changes to the competitive landscape.

Other (expense) income, net

Other expense, net was $0.1 million for the year ended December 31, 2021, compared to other income of $0.1 million for the year ended December 31, 2020. The change of $0.2 million was due primarily to lower interest income.

Provision for Income Taxes

For the twelve months ended December 31, 2021, Sesen Bio recorded a benefit from income taxes of $8.3 million. In the third quarter of 2021, Sesen Bio determined that the fair value of the Vicineum U.S. in-process research and development asset was zero, which resulted in an impairment charge of $31.7 million. In connection with this impairment charge, in the third quarter of 2021, Sesen Bio wrote-down the associated deferred tax liability by $8.6 million as a benefit. See Note 8, "Intangibles and Goodwill," to Sesen Bio's audited annual consolidated financial statements for the fiscal year ended December 31, 2021 for further information regarding the impairment charge. For the twelve months ended December 31, 2020, Sesen Bio recorded a provision for income taxes of $1.4 million. This provision consisted of income taxes paid to non-U.S. jurisdictions pursuant to Sesen Bio's commercialization partnership agreements.

Liquidity and Capital Resources

Overview

As of June 30, 2022, Sesen Bio had cash, cash equivalents and marketable securities of $161.2 million, net working capital of $124.4 million and an accumulated deficit of $349.0 million. Sesen Bio incurred negative cash flows from operating activities of $1.4 million for the six months ended June 30, 2022, compared to negative cash flows of $41.6 million for the six months ended June 30, 2021. Sesen Bio believes that, based on its current operating plans and financial forecasts, Sesen Bio's cash, cash equivalents and marketable securities of $161.2 million as of June 30, 2022, are sufficient to fund its current operating plan for at least twelve months from the date of filing its Form 10-Q for the fiscal quarter ended June 30, 2022 on August 8, 2022.

Since Sesen Bio's inception, Sesen Bio has received no revenue from sales of Sesen Bio's products, and Sesen Bio anticipates that operating losses will continue for the foreseeable future as Sesen Bio continues to assess any potential strategic alternatives that Sesen Bio may pursue. Sesen Bio has financed its operations to date primarily through private placements of its common stock, preferred stock, common stock warrants and convertible bridge notes, venture debt borrowings, Sesen Bio's initial public offering, follow-on public offerings, sales effected in ATM offerings, its OUS business development partnerships and license agreements and, to a lesser extent, from a collaboration.

Sesen Bio has entered into an Open Market Sale Agreement with Jefferies LLC, or Jefferies, dated November 29, 2019, as amended by Amendment No. 1 dated October 30, 2020, Amendment No. 2 dated February 17, 2021 and Amendment No. 3, dated June 1, 2021, as amended, or the Sale Agreement, under which Sesen Bio may issue and sell shares of Sesen Bio common stock from time to time through Jefferies, or the ATM Offering. In June and July 2021, Sesen Bio filed prospectus supplements with the SEC in connection with the offer and sale of up to an aggregate of $200.0 million of Sesen Bio common stock pursuant to the Sale Agreement of which $97.8 million of common shares remain available for future issuance as of June 30, 2022. Sales of common stock under the Sale Agreement are made by any method that is deemed to be an ATM offering as defined in Rule 415(a)(4) of the Securities Act, including sales made directly on or through the Nasdaq Stock Market or any other existing trading market for Sesen Bio common stock. Sesen Bio may sell shares of Sesen Bio common stock efficiently from time to time but have no obligation to sell any Sesen Bio common stock and may at any time suspend offers under the Sale Agreement or terminate the Sale Agreement. Subject to the terms and conditions of the Sale Agreement, Jefferies will use its commercially reasonable efforts to sell common stock from time to time, as the sales agent, based upon Sesen Bio's instructions, which include a prohibition on sales below a minimum price set by Sesen Bio from time to time. Sesen Bio has provided Jefferies with customary indemnification rights, and Jefferies is entitled to a commission at a fixed rate equal to 3.0% of the gross proceeds for each sale of Sesen Bio common stock under the Sale Agreement. Sesen Bio did not sell any shares of Sesen Bio common stock pursuant to the Sale Agreement during the six months ended June 30, 2022. Sesen Bio raised $136.8 million of net proceeds from the sale of 47.1 million shares of Sesen Bio common stock at a weighted-average price of $2.99 per share during the six months ended June 30, 2021, including $64.3 million of net proceeds from the sale of 16.5 million shares of Sesen Bio common stock at a weighted-average price of $4.02 per share during the three months ended June 30, 2021. Share issue costs, including sales agent commissions, related to the ATM Offering totaled $2.0 million and $4.2 million for the three and six months ended June 30, 2021, respectively.

Funding Requirements

Sesen Bio's future success is dependent on its ability to identify and ultimately consummate a strategic transaction. Sesen Bio is subject to a number of risks similar to other clinical companies that have determined to focus primarily on pursuing a strategic transaction, including, those which are described in the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus.

Sesen Bio will incur substantial expenses if and as it:

- addresses its ongoing securities litigation and derivative litigation;
- maintains, expands and protects its intellectual property portfolio;
- reduces its personnel and incurs related severance and employee-related costs;
- winds down and disposes of the equipment and physical infrastructure that had been used to supports its research and development activities;
- terminates contracts with its CMOs;
- terminates its property leases in Winnipeg, Manitoba, Cambridge, Massachusetts and Philadelphia, Pennsylvania;
- restores its Winnipeg manufacturing facility to the state in which it was originally leased; and
- explores, evaluates and pursues any strategic alternatives in connection with the review process it has initiated.

Sesen Bio's future capital requirements will depend on many factors, including:

- the outcome and timing of any pending or future litigation involving Sesen Bio or its business;
- the outcome and timing of the process it has initiated to review strategic alternatives, which may include the sale of Sesen Bio, a merger, acquisition or other business combination, a strategic partnership with one or more parties, or the licensing, sale or divestiture of some of its proprietary technologies;
- the costs and timing of maintaining and enforcing its intellectual property rights and defending any intellectual property-related claims; and
- its obligation to make milestone, royalty and other payments to third-party licensors under its licensing agreements.

Until such time, if ever, as Sesen Bio can generate substantial revenues, Sesen Bio expects to finance its cash needs through a combination of equity offerings, debt financings, or government or other third-party funding To the extent that Sesen Bio raises additional capital through the sale of equity or convertible debt securities, the ownership interests of existing Sesen Bio stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of existing Sesen Bio stockholders. Debt financing, if available, may involve agreements that include liens or other restrictive covenants limiting Sesen Bio's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Sesen Bio is unable to raise additional funds when needed, Sesen Bio may be required to delay, limit, reduce or terminate its assessment of strategic alternatives. If Sesen Bio does not successfully consummate a strategic alternative, the Sesen Bio board of directors may decide to pursue a liquidation and dissolution of the company.

Contractual and Other Obligations

For information related to Sesen Bio's cash requirements from known contractual and other obligations, see the description of Contingent Consideration in Note 5 "Fair Value Measurement and Financial Instruments," as well as the description of Sesen Bio's leases in Note 11 "Leases," and the description of Sesen Bio's license agreement and collaborations in Note 17, "License Agreements" of "*Financial Statements — Notes to Condensed Consolidated Financial Statements*" beginning on page F-46 of this proxy statement/prospectus.

Cash Flows

The following table sets forth a summary of Sesen Bio's cash flows for the six months ended June 30, 2022 and 2021 (in thousands):

	Six Months Ended June 30,	
	2022	2021
Net Cash Used in Operating Activities	$ (1,441)	$ (41,616)
Net Cash Used in Investing Activities	(89,095)	(49)
Net Cash Provided by Financing Activities	—	137,312
Net (Decrease) Increase in Cash, Cash Equivalents and Restricted Cash	**$ (90,536)**	**$ 95,647**

Net Cash Used in Operating Activities

Net cash used in operating activities was $1.4 million for the six months ended June 30, 2022 and consisted primarily of a net loss of $32.8 million, adjusted for non-cash items including, a decrease in the fair value of contingent consideration ($50.2 million), intangible impairment charge ($27.8 million), share-based compensation ($3.7 million), and a net increase in operating assets and liabilities ($50.1 million).

Net cash used in operating activities was $41.6 million for the six months ended June 30, 2021 and consisted primarily of a net loss of $81.0 million, which includes $6.5 million of revenue recognized pursuant to certain of Sesen Bio's out-license agreements, adjusted for non-cash items, including share-based compensation ($2.2 million), an increase in the fair value of contingent consideration ($61.8 million) and a net decrease in operating assets and liabilities of ($24.7 million).

Net Cash Used in Investing activities

Net cash used in investing activities was $89.1 million for the six months ended June 30, 2022 and consisted of marketable security purchases.

Net cash used in investing activities consisted of de minimis purchases and sales or property and equipment during the six months ended June 30, 2021.

Net Cash Provided by Financing activities

Net cash provided by financing activities was zero for the six months ended June 30, 2022.

Net cash provided by financing activities was $137.3 million for the six months ended June 30, 2021 and consisted primarily of $136.8 million net proceeds from the sale of common stock under the ATM Offering.

Critical Accounting Policies and Use of Estimates

The preparation of Sesen Bio's condensed consolidated financial statements in accordance with U.S. GAAP and the rules and regulations of the SEC require the use of estimates and assumptions, based on complex judgments considered reasonable, and affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of expenses during the reporting period. Sesen Bio's critical accounting policies are those policies which involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on Sesen Bio's financial condition or results of operations. Sesen Bio management has determined that its most critical accounting policies are those relating to the fair value of indefinite-lived intangible assets, goodwill; contingent consideration; revenue recognition; development and regulatory milestone payments and other costs; and research and development costs.

Fair Value of Indefinite-Lived Intangible Assets

Sesen Bio's intangible assets consist of indefinite-lived, acquired IPR&D worldwide product rights to Vicineum as a result of the acquisition of Viventia in 2016. IPR&D assets acquired in a business combination are considered indefinite-lived until the completion or abandonment of the associated research and development efforts.

Indefinite-lived intangible assets are quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Impairment testing of indefinite-lived intangible assets requires management to estimate the future discounted cash flows of an asset using assumptions believed to be reasonable, but which are unpredictable and inherently uncertain. Actual future cash flows may differ from the estimates used in impairment testing. Sesen Bio recognizes an impairment loss when and to the extent that the estimated fair value of an intangible asset is less than its carrying value. In addition, on a quarterly basis, Sesen Bio performs a qualitative review of its business operations to determine whether events or changes in circumstances have occurred which could indicate that the carrying value of Sesen Bio's intangible assets was not recoverable. If an impairment indicator is identified, an interim impairment assessment is performed.

During the second quarter of 2022, Sesen Bio observed an evolution of the current market treatment paradigm in NMIBC, with substantial uptake of intravesical chemotherapy (monotherapy and combination therapy) during the ongoing BCG shortage. Sesen Bio has also experienced a sustained decline in share price and a resulting decrease in its market capitalization. On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development in the U.S. of Vicineum, and intends to seek a partner for the further development of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Sesen Bio updated the discounted cash flow model using the market participant approach and considered preliminary terms of potential partnering deal to conclude the fair value of E.U. asset. Sesen Bio concluded that the carrying value of its intangible asset of Vicineum E.U. rights of $14.7 million was fully impaired as of June 30, 2022.

Goodwill

Goodwill on Sesen Bio's condensed consolidated balance sheets is the result of its acquisition of Viventia in September 2016 and represents the difference between the purchase price and the fair value of the identifiable tangible and intangible net assets acquired under the acquisition method of accounting. Goodwill is not amortized; rather than recording periodic amortization, goodwill is quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Impairment testing of goodwill requires management to estimate the future discounted cash flows of a reporting unit using assumptions believed to be reasonable, but which are unpredictable and inherently uncertain. Actual future cash flows may differ from the estimates used in impairment testing. If the fair value of the equity of a reporting unit exceeds the reporting unit's carrying value, including goodwill, then goodwill is considered not to be impaired. Sesen Bio recognizes a goodwill impairment

when and to the extent that the fair value of the equity of a reporting unit is less than the reporting unit's carrying value, including goodwill. Sesen Bio has only one reporting unit. In addition, on a quarterly basis, Sesen Bio performs a qualitative review of its business operations to determine whether events or changes in circumstances have occurred which could have a material adverse effect on the estimated fair value of each reporting unit and thus indicate a potential impairment of the goodwill carrying value. If an impairment indicator is identified, an interim impairment assessment is performed.

During the second quarter of 2022, Sesen Bio observed continued trends in its market capitalization as compared to the carrying value of Sesen Bio's single reporting unit as well as changes in certain assumptions in the fair value of the business including market share, length and cost of a clinical study, and time to potential market launch. Sesen Bio identified these changes as potential impairment indicators and performed a quantitative impairment analysis in advance of its typical annual assessment date of October 1. Sesen Bio reassessed the underlying assumptions used to develop its revenue projections, which were then used as significant inputs to determine the fair value of equity. Sesen Bio updated its revenue forecast models based on further expected launch delays in both U.S. and OUS regions. Sesen Bio also recently observed an evolution of the current treatment paradigm in NMIBC, with substantial uptake of intravesical chemotherapy (monotherapy and combination therapy) during the ongoing BCG shortage resulting in lower projected peak market share for Vicineum. Sesen Bio also considered other factors including the preliminary valuations of strategic alternatives during the fair value assessment. As a result of the interim impairment test, Sesen Bio concluded that the carrying value of its goodwill of $13.1 million was fully impaired as of June 30, 2022.

Contingent Consideration

Contingent consideration on Sesen Bio's condensed consolidated balance sheets is the result of Sesen Bio's acquisition of Viventia in September 2016 and represents the discounted present value of future commercial launch milestones and net sales earnout payments due to the former shareholders of Viventia pursuant to the Share Purchase Agreement. Contingent consideration is measured at its estimated fair value on a recurring basis at each reporting period, with fluctuations in value resulting in a non-cash charge to earnings (or loss) during the period. The estimated fair value measurement is based on significant unobservable inputs (Level 3 within the fair value hierarchy), including internally developed financial forecasts, probabilities of success and timing of certain milestone events and achievements, which are unpredictable and inherently uncertain. Actual future cash flows may differ from the assumptions used to estimate the fair value of contingent consideration. The valuation of contingent consideration requires the use of significant assumptions and judgments, which management believes are consistent with those that would be made by a market participant. Management reviews its assumptions and judgments on an ongoing basis as additional market and other data is obtained, and any future changes in the assumptions and judgments utilized by management may cause the estimated fair value of contingent consideration to fluctuate materially, resulting in earnings volatility.

The estimated fair value of Sesen Bio's contingent consideration was determined using probabilities of successful achievement of regulatory milestones and commercial sales, the period in which these milestones and sales were expected to be achieved through 2033, the level of commercial sales of Vicineum forecasted for the U.S., Europe, Japan, China and other potential markets. Earnouts were determined using an earnout rate of 2% on all commercial net sales of Vicineum through December 2033. The discount rate applied to the 2% earnout was derived from its estimated weighted-average cost of capital, which has fluctuated from 9.3% as of December 31, 2021 to 10.2% as of June 30, 2022. Milestone payments constitute debt-like obligations, and therefore a high-yield debt index rate was applied to the milestones in order to determine the estimated fair value. This index rate was 8.0% as of December 31, 2021.

On July 15, 2022, Sesen Bio made the strategic decision to voluntarily pause further development in the U.S. of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Additionally, Sesen Bio intends to seek a partner for the further development of Vicineum. Sesen Bio expects any partner who acquires Vicineum from the company will be obligated to make any payments to the former shareholders of Viventia under the Share Purchase Agreement. Accordingly, as of June 30, 2022, Sesen Bio no longer expects to pay related milestone and earnout payments, with the exception of the potential 2% earnout payment related to the Greater China region since those territory rights have already been out-licensed. Therefore, the June 30, 2022 balance relates to contingent consideration related to projected net sales in the Greater China region as compared to the December 31, 2021 balance which was based upon projected world-wide net sales.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and net operating loss and research and development credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. A valuation allowance is recorded to the extent it is more likely than not that some portion or all of the deferred tax assets will not be realized. As of June 30, 2022, Sesen Bio reduced its deferred tax liabilities by $4.0 million as a result of an intangibles impairment charge, driven by the decision to pause the development of Vicineum.

Unrecognized income tax benefits represent income tax positions taken on income tax returns that have not been recognized in the financial statements. Sesen Bio recognizes the benefit of an income tax position only if it is more likely than not (greater than 50%) that the tax position will be sustained upon tax examination, based solely on the technical merits of the tax position. Otherwise, no benefit is recognized. The tax benefits recognized are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Sesen Bio recognizes accrued interest and penalties related to uncertain tax positions as income tax expense in its condensed consolidated statements of operations. As of June 30, 2022 and December 31, 2021, Sesen Bio did not have any uncertain tax positions.

Research and Development Costs

Research and development activities are expensed in the period incurred. Research and development expenses consist of both internal and external costs associated with all basic research activities, clinical development activities and technical efforts required to develop a product candidate. Internal research and development consist primarily of personnel costs, including salaries, benefits and share-based compensation, facilities leases, research-related overhead, pre-approval regulatory and clinical trial costs, manufacturing and other contracted services, license fees and other external costs.

In certain circumstances, Sesen Bio is required to make advance payments to vendors for goods or services that will be received in the future for use in research and development activities. In such circumstances, the advance payments are recorded as prepaid assets and expensed when the activity has been performed or when the goods have been received.

Recently Issued Accounting Standards

Recently issued accounting standards are discussed in Note 4, "Recent Accounting Pronouncements" of "*Financial Statements — Notes to Condensed Consolidated Financial Statements*" on page F-46 of this proxy statement/prospectus.

CARISMA MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of Carisma's financial condition and results of operations should be read in conjunction with Carisma's consolidated financial statements and the related notes included elsewhere in this proxy statement/prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this proxy statement/prospectus, including information with respect to Carisma's plans and strategy for its business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set out under the section entitled "Risk Factors" beginning on page 26 of this proxy statement/prospectus, Carisma's actual results could differ materially from the results described in or implied by these forward-looking statements. See also the section entitled "Cautionary Statement Concerning Forward-Looking Statements" beginning on page 114 of this proxy statement/prospectus.

Overview

Carisma is a clinical stage cell therapy company focused on utilizing Carisma's proprietary macrophage and monocyte cell engineering platform to develop transformative immunotherapies to treat cancer and other serious diseases. Carisma has created a comprehensive cell therapy platform to enable the therapeutic use of engineered macrophage and monocyte cells. Carisma developed its proprietary CAR-M technology with an initial focus in oncology as the first application of its cell therapy platform. Using its CAR-M technology, Carisma engineers macrophages with the genetically modified CAR that targets specific tumor associated antigens. Carisma's CAR-M technology is designed to redirect the engineered macrophages and monocytes, which belong to a subgroup of white blood cells called myeloid cells. Macrophages and monocytes are part of the innate immune system and can detect and degrade harmful substances through a process referred to as phagocytosis, in which the harmful substance is engulfed, destroyed and in turn, leads to the activation of a broad immune response.

To harness the powerful immunologic functions of macrophages against cancer, Carisma has developed a proprietary Chimeric Antigen Receptor Macrophage, or CAR-M, platform technology. Chimeric antigen receptors, or CARs, are synthetically engineered receptors that are designed to bestow immune cells with the ability to target specific antigens on the surface of cancer cells. By introducing CARs into macrophage and monocyte cells, Carisma can redirect their potent innate immune functions against cancer. Carisma's CAR-M platform technology incorporates proprietary tumor targeting constructs, vectors to deliver CARs to macrophages and monocytes and novel manufacturing processes. Carisma's CAR-M therapeutics are designed to infiltrate the solid tumor microenvironment, kill cancer cells via targeted phagocytosis, and activate other immune cells, such as T-cells, to initiate a robust anti-tumor immune response.

Beyond CT-0508, Carisma has a broad pipeline of cell therapy assets in various stages of pre-clinical development. In addition to the development of *ex vivo* CAR-M cell therapies, Carisma is also developing *in vivo* CAR-M gene therapies, wherein immune cells are directly engineered within the patient's body. To advance its *in vivo* CAR-M therapeutics, Carisma established a strategic collaboration with Moderna focused on the development and potential commercialization of up to twelve product candidates, of which four have already been nominated. In collaboration with Moderna, Carisma has established an approach that uses Moderna's LNP/mRNA technology, together with Carisma's CAR-M platform technology, to create novel *in vivo* oncology gene therapies. Carisma believes this approach has the potential to enable a series of off-the-shelf product candidates to target a patient's own myeloid cells against cancer cells directly within their body. As part of the agreement with Moderna, Carisma received a $45.0 million up-front cash payment and an investment by Moderna in the form of a $35.0 million convertible note, in addition to future research funding and the opportunity for milestone payments and royalties.

Through its robust internal discovery engine, Carisma is building upon its platform to enhance and expand the utility of macrophage cell and gene therapies, leading to the creation of multiple product candidates with the potential to treat cancer and other serious diseases. By replacing the targeting domain of the CAR, Carisma can reprogram the target antigen specificity of the CAR-M cell product and develop candidates against a range of cancer indications and therapeutic areas beyond oncology. As a result, Carisma believes the flexibility of its macrophage and monocyte cell engineering platform will allow Carisma to rapidly generate new product candidates suitable for clinical development in a cost-efficient manner to expand its pipeline. In addition to acting as a first line of defense in the innate immune system, macrophages are found in all tissues in the body where they serve key regulatory functions such as wound healing, termination of immune responses and tissue regeneration. Using its macrophage and monocyte *ex vivo* and *in vivo* engineering platform, Carisma is pursuing early research and development of multiple assets for the potential treatment of diseases beyond oncology, including liver fibrosis, neurodegeneration, and other immunologic and inflammatory diseases.

By investing in early platform research and accessing key enabling technologies, Carisma is enhancing and expanding its platform capabilities and reinforcing its leadership position in the engineered macrophage field. Carisma has developed proprietary CAR-M platform enhancements directed toward key product parameters that are important for efficacy, safety and patient access to its CAR-M therapies. Carisma plans to apply these technology enhancements to future CAR-M product candidates.

Carisma was formed as Carma Therapeutics LLC, a Pennsylvania limited liability company, in April 2016 and converted to a Delaware corporation in May 2017. To date, Carisma has not yet commercialized any products or generated any revenue from product sales and has financed its operations primarily with proceeds from sales of Carisma's preferred stock, proceeds from Carisma's collaboration with Moderna, research tax credits and convertible debt financing. Carisma's operations to date have been limited to organizing and staffing the company, business planning, capital raising, establishing and maintaining its intellectual property portfolio, building its pipeline of product candidates, conducting drug discovery activities, undertaking pre-clinical studies, manufacturing process development studies, conducting early-stage clinical trials, and providing general and administrative support for these operations. Carisma has devoted substantially all of its financial resources and efforts to pursuing discovery, research and development of its product candidates. Carisma only recently initiated clinical development of its lead product candidate, CT-0508, and is in the pre-clinical testing stages for its other product candidates.

Carisma's net losses were $40.8 million for the year ended December 31, 2021 and $28.3 million for the year ended December 31, 2020. As of June 30, 2022, Carisma had $81.6 million in cash, cash equivalents and marketable securities and an accumulated deficit of $123.2 million. Carisma expects to devote substantial financial resources to its ongoing and planned activities, particularly as it conducts its ongoing clinical trial of CT-0508 and pursues related combination strategies, prepares for, initiates and conducts its planned clinical trials of CT-1119 and CT-0729 and advances its discovery programs and continues its product development efforts. In addition, if Carisma obtains marketing approval for CT-0508 or any other product candidate it is developing or develops in the future, it expects to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution. Furthermore, upon the closing of the merger, Carisma expects to incur additional costs associated with operating as a public company.

Accordingly, Carisma will need to obtain substantial additional funding in connection with its continuing operations. If Carisma is unable to raise capital or obtain adequate funds when needed or on acceptable terms, it may be required to delay, limit, reduce or terminate its discovery and product development programs or any future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself. In addition, attempting to secure additional financing may divert the time and attention of Carisma management from day-to-day activities and distract from its discovery and product development efforts.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, Carisma is unable to accurately predict the timing or amount of increased expenses or when, or if, it will be able to achieve or maintain profitability. Carisma may never succeed in these activities and, even if it does, may never generate revenues that are significant enough to achieve profitability. Even if Carisma does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. Carisma's failure to become and remain profitable would depress the value of its company and could impair its ability to raise capital, expand its business, maintain its discovery and product development efforts, diversify its pipeline of product candidates or even continue its operations.

Moderna Collaboration and License Agreement

In January 2022, Carisma entered into the Moderna Collaboration Agreement, which provides for a broad strategic partnership with Moderna to discover, develop and commercialize *in vivo* engineered CAR-M therapeutics for up to twelve oncology programs. Moderna's mRNA platform builds on continuous advances in basic and applied mRNA science, delivery technology and manufacturing, and has allowed the development of therapeutics and vaccines for infectious diseases, immuno-oncology, rare diseases, cardiovascular diseases and auto-immune diseases. The first four research targets have been nominated and all programs are currently in the discovery phase at Carisma.

In collaboration with Moderna, Carisma has established an approach that uses Moderna's LNP/mRNA technology, together with Carisma's CAR-M platform technology, to create novel *in vivo* oncology gene therapies. Carisma believes this approach has the potential to enable a series of off-the-shelf product candidates to target a patient's own myeloid cells against cancer cells directly within their body.

The collaboration is managed by a joint steering committee, or JSC, which is comprised of representatives from Carisma and Moderna. Decisions of the JSC are made by consensus, with each party having one vote. If the JSC is unable to agree, and the parties' executives are not able to resolve the dispute, then Moderna has final decision-making authority, subject to specified limitations.

Under the terms of the Moderna Collaboration Agreement, Carisma received a $45.0 million up-front cash payment. Assuming Moderna develops 12 products, each directed to a different Development Target, Carisma is also eligible to receive up to $30.0 million in development target designation payments, up to $100.0 million per product in other development and regulatory milestone payments, and up to $150.0 million per product in commercial milestone payments. In addition, Carisma is eligible to receive mid to high single digit tiered royalties on net sales of any products that are commercialized under the agreement, which may be subject to reductions. Moderna has also agreed to cover the cost of certain milestone payments and royalties Carisma owes to a licensor under one of its intellectual property in-license agreements that Carisma is sublicensing to Moderna under the Moderna Collaboration Agreement in the form of royalty reductions.

Impact of the COVID-19 Pandemic

Carisma is carefully monitoring the COVID-19 pandemic which continues to evolve worldwide. The continued spread of COVID-19 and the measures taken by governmental authorities, and any future epidemic disease outbreaks, could cause difficulties recruiting or retaining patients for Carisma's clinical trials, disrupt the supply chain and the manufacture or shipment of pre-clinical materials, delay, limit or prevent Carisma's employees and third parties from continuing research and development activities which could delay Carisma's pre-clinical studies, and increase its development costs and/or have a material adverse effect on Carisma's business, financial condition and results of operations. The effect of the COVID-19 pandemic on Carisma's development timelines is difficult to assess or predict. The future impact of the COVID-19 pandemic on Carisma's industry, the healthcare system and Carisma's current and future operations and financial condition will depend on future developments, which are highly uncertain and cannot be predicted with confidence.

Financial Operations Overview

Revenues

To date, Carisma has not generated any revenue from product sales and does not expect to generate any revenue from the sale of products for the foreseeable future. Carisma's revenues to date have been generated from the Moderna Collaboration Agreement. Moderna reimburses Carisma for all costs incurred by it in connection with its research and development activities under the Moderna Collaboration Agreement plus a reasonable margin for the respective services performed. Carisma expects that its revenue for at least the next several years will be derived primarily from Moderna Collaboration Agreement, other current collaboration agreements and any additional collaborations that it may enter into in the future. To date, Carisma has not received any royalties under the Moderna Collaboration Agreement.

Research and development expense

Research and development expenses consist primarily of costs incurred for Carisma's research activities, including discovery efforts and the development of product candidates, and include:

- expenses incurred to conduct the necessary pre-clinical studies and clinical trials required to obtain regulatory approval;
- salaries, benefits and other related costs, including stock-based compensation expense, for personnel engaged in research and development functions;
- costs of funding research performed by third parties, including pursuant to agreements with CROs, as well as investigative sites and consultants that conduct Carisma's pre-clinical studies and clinical trials;
- expenses incurred under agreements with CMOs, including manufacturing scale-up expenses and the cost of acquiring and manufacturing pre-clinical study and clinical trial materials;

- costs of outside consultants, including their fees, stock-based compensation and related travel expenses;
- the costs of laboratory supplies and acquiring materials for pre-clinical studies;
- facility-related expenses, which include direct depreciation costs of equipment and expenses for rent and maintenance of facilities and other operating costs; and
- third-party licensing fees.

Research and development activities are central to Carisma's business model. Product candidates in later stages of clinical development will generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. Carisma expects its research and development expenses to increase significantly over the next several years as it increases personnel costs, including stock-based compensation, conducts ongoing and planned clinical trials for CT-0508, conducts research and development activities under the Moderna Collaboration Agreement and conducts other clinical and pre-clinical activities for other product candidates and prepares regulatory filings for any of its product candidates.

The successful development of Carisma's current or future product candidates is highly uncertain. At this time, Carisma cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidates. The success of CT-0508 and Carisma's other product candidates will depend on several factors, including the following:

- successfully completing pre-clinical studies;
- successfully initiating future clinical trials;
- successfully enrolling patients in and completing clinical trials;
- scaling up manufacturing processes and capabilities to support clinical trials of CT-0508 and any other product candidate;
- applying for and receiving marketing approvals from applicable regulatory authorities;
- obtaining and maintaining intellectual property protection and regulatory exclusivity for CT-0508 and any other product candidates it is developing or may develop in the future;
- making arrangements with third-party manufacturers, or establishing commercial manufacturing capabilities, for both clinical and commercial supplies of its product candidates;
- establishing sales, marketing and distribution capabilities and launching commercial sales of its products, if and when approved, whether alone or in collaboration with others;
- acceptance of CT-0508 and any other product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage, adequate pricing and adequate reimbursement from third-party payors, including government payors;
- maintaining, enforcing, defending and protecting its rights in its intellectual property portfolio;
- not infringing, misappropriating or otherwise violating others' intellectual property or proprietary rights; and

- maintaining a continued acceptable safety profile of its products following receipt of any marketing approvals.

A change in the outcome of any of these variables with respect to the development, manufacture or commercialization activities of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if Carisma is required to conduct additional clinical trials or other testing of its product candidates beyond those that it currently contemplates, if Carisma is unable to successfully complete clinical trials of its product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive, if there are safety concerns or if Carisma determines that the observed safety or efficacy profile would not be competitive in the marketplace , it could be required to expend significant additional financial resources and time on the completion of clinical development. Product commercialization will take several years, and Carisma expects to spend a significant amount in development costs.

General and administrative expense

General and administrative expense consists primarily of personnel expenses, including salaries, benefits and stock-based compensation expense for employees in executive, finance, accounting, business development and human resource functions. General and administrative expense also includes corporate facility costs, including rent, utilities, depreciation and maintenance, and costs not otherwise included in research and development expense, legal fees related to intellectual property and corporate matters as well as fees for accounting and consulting services.

Carisma expects that its general and administrative expense will increase in the future to support its continued research and development activities, potential commercialization efforts and increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses. Increased costs associated with being a public company will also include expenses related to services associated with maintaining compliance with the requirements of Nasdaq and the SEC, insurance and investor relations costs. If any of Carisma's current or future product candidates obtains marketing approval, Carisma expects that it would incur significantly increased expenses associated with sales and marketing efforts.

Interest expense

Interest expense consists of interest on the Carisma convertible note that was entered into concurrently with the Moderna Collaboration Agreement including non-cash interest expense associated with the amortization of the debt discount.

Change in fair value of derivative liability

Change in fair value of the derivative liability for the redemption feature of the Carisma convertible note reflects the non-cash charge for changes in the fair value of the derivative liability that is subject to re-measurement at each balance sheet date until Carisma's obligations under the Carisma convertible note are satisfied.

Income tax provision

Since inception, Carisma has incurred significant net losses. As of December 31, 2021, Carisma had net operating loss carryforwards, or NOLs, for federal and state income tax purposes of $76.4 million. Carisma has provided a valuation allowance against the full amount of its deferred tax assets since, in the opinion of Carisma management, based upon its historical and anticipated future losses, it is more likely than not that the benefits will not be realized. As of June 30, 2022, Carisma remained in a full valuation allowance position.

Carisma's utilization of its NOLs may be subject to a substantial annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50 percent, as defined under Sections 382 and 383 of the Code, respectively, as well as similar state provisions. Carisma has recorded a valuation allowance on all of its deferred tax assets, including its deferred tax assets related to its NOLs.

Results of Operations

Comparison of the Six Months Ended June 30, 2022 and 2021

The following table summarizes Carisma's results of operations for the six months ended June 30, 2022 and 2021 (in thousands):

	Six Months Ended June 30,	
	2022	2021
Collaboration revenues	$ 3,525	$ —
Operating expenses:		
Research and development	22,979	16,022
General and administrative	4,635	2,176
Total operating expenses	27,614	18,198
Operating loss	(24,089)	(18,198)
Change in fair value of derivative liability	(701)	—
Interest (expense) income, net	(1,370)	7
Net loss	$ (26,160)	$ (18,191)

Collaboration Revenues

Collaboration revenues were $3.5 million for the six months ended June 30, 2022, which related to the research and development activities completed under the Moderna Collaboration Agreement that Carisma executed in January 2022.

Research and Development Expenses

Carisma tracks outsourced development, outsourced personnel costs and other external research and development costs of its CT-0508 program. Carisma does not track its internal research and development costs on a program-by-program basis. The following table summarizes Carisma's research and development expenses for the six months ended June 30, 2022 and 2021 (in thousands):

	Six Months Ended June 30,	
	2022	2021
CT-0508	$ 4,736	$ 5,993
Personnel costs, including stock-based compensation	7,114	3,685
Other clinical and pre-clinical development expenses	2,013	1,193
Facilities and other expenses	9,116	5,151
Total research and development expenses	$ 22,979	$ 16,022

Research and development expenses for the six months ended June 30, 2022 were $23.0 million, compared to $16.0 million for the six months ended June 30, 2021. The increase of $7.0 million was primarily attributable to a $3.4 million increase in Carisma's personnel costs attributable to an increase in its research and development employee headcount, a $4.0 million increase in facilities and other expenses primarily due to the additional leases entered into during the six months ended June 30, 2022, and a $0.8 million increase in the pre-clinical discovery work associated with the Moderna Collaboration Agreement. Carisma had a reduction of $1.3 million in direct costs associated with CT-0508 as it completed a portion of its Phase 1 clinical trial in late 2021.

General and Administrative Expenses

The following table summarizes Carisma's general and administrative expenses for the six months ended June 30, 2022 and 2021 (in thousands):

	Six Months Ended June 30,	
	2022	2021
Personnel costs, including stock-based compensation	$ 1,261	$ 995
Legal and professional fees	2,591	577
Facilities and supplies	344	376
Other expenses	439	228
Total general and administrative expenses	$ 4,635	$ 2,176

General and administrative expenses for the six months ended June 30, 2022 were $4.6 million, compared to $2.2 million for the six months ended June 30, 2021. The increase of $2.5 million was primarily attributable to a $2.0 million increase in legal and professional fees in support of Carisma's patent portfolio and expanding infrastructure in preparation to operate as a public company, a $0.3 million increase in personnel costs attributable to an increase in employee headcount and a $0.2 million increase in other expenses attributable to the increase in travel and public relations in preparation to operate as a public company.

Interest (Expense) Income, net

Carisma recognized $1.4 million in interest expense for the six months ended June 30, 2022, which was attributable primarily to the outstanding principal balance associated with the Carisma convertible note issued to Moderna in January 2022 including non-cash interest expense associated with the amortization of the debt discount.

Change in Fair Value of Derivative Liability

Carisma recognized a $0.7 million non-cash charge for the increase in fair value of the derivative liability associated with the redemption feature of the Carisma convertible note with Moderna. The increase was attributable to the timing in which Carisma estimates a settlement event for the derivative to occur.

Unrealized Loss on Marketable Securities

Carisma recognized a $0.2 million non-cash charge for the decrease in fair value which was attributable to the available-for-sale marketable securities of U.S. Treasury securities.

Comparison of the Years Ended December 31, 2021 and 2020

	Year Ended December 31,	
	2021	2020
Operating expenses:		
Research and development	$ 34,387	$ 23,292
General and administrative	6,407	5,086
Total operating expenses	40,794	28,378
Operating loss	(40,794)	(28,378)
Interest income	10	29
Net loss	$ (40,784)	$ (28,349)

Research and Development Expenses

The following table summarizes Carisma's research and development expenses for the year ended December 31, 2021 and 2020 (in thousands):

	Year Ended December 31,	
	2021	2020
CT-0508	$ 10,570	$ 7,225
Personnel costs, including stock-based compensation	8,490	4,850
Other clinical and pre-clinical development expenses	5,035	4,812
Facilities and other expenses	10,292	6,405
Total research and development expense	$ 34,387	$ 23,292

Research and development expenses for the year ended December 31, 2021 were $34.4 million, compared to $23.3 million for the year ended December 31, 2021. The increase of $11.1 million was primarily due to an increase in Carisma's personnel costs of $3.6 million attributable to an increase in Carisma's research and development employee headcount and higher stock-based compensation and $3.9 million increase attributable to an increase in facilities and supplies due to increased use of lab spaces and increased lab supplies as Carisma continued increasing its clinical and pre-clinical work. Carisma also had a $3.3 million increase in its direct costs associated with CT-0508 as it initiated its Phase 1 clinical trial in early 2021, and an increase in other clinical and pre-clinical development expenses of $0.2 million as Carisma continues to further discover and develop earlier stage product candidates.

General and Administrative Expense

The following table summarizes Carisma's general and administrative expenses for the year ended December 31, 2021 and 2020 (in thousands):

	Year Ended December 31,	
	2021	2020
Personnel costs, including stock-based compensation	$ 2,446	$ 2,479
Legal and professional fees	2,321	1,300
Facilities and supplies	869	641
Other expenses	771	666
Total general and administrative expense	$ 6,407	$ 5,086

General and administrative expenses for the year ended December 31, 2021 were $6.4 million, compared to $5.1 million for the year ended December 31, 2020. The increase of $1.3 million was primarily attributable to a $1.0 million increase in legal and professional fees in support of Carisma's patent portfolio and expanding infrastructure in preparation to operate as a public company as well as a $0.2 million increase in facilities and supplies.

Liquidity and Capital Resources

Sources of Liquidity

As of June 30, 2022, Carisma had $81.6 million in cash, cash equivalents and marketable securities and an accumulated deficit of $123.2 million. To date, Carisma has not yet commercialized any products or generated any revenue from product sales and has financed its operations primarily with proceeds from sales of Carisma's preferred stock, proceeds from Carisma's collaboration with Moderna, research tax credits and convertible debt financing. Since June 2018, Carisma has sold convertible preferred stock, raising aggregate net proceeds of $122.2 million. In January 2022, Carisma received $80.0 million from Moderna comprised of an upfront non-refundable payment of $45.0 million in connection with the Moderna Collaboration Agreement and $35.0 million in connection with the Carisma convertible note.

Carisma Convertible Note

If not earlier converted or repaid, the Carisma convertible note is payable on demand beginning in July 2023 and accrues interest at an annual rate beginning at 0.33% through March 2022 and then increases by 0.767% each month thereafter, capped at an annual rate of 8.0% in January 2023. Upon the completion of a qualified financing event, the outstanding principal and accrued interest under the Carisma convertible note will automatically convert into shares of Carisma issued in connection with the qualified financing at a conversion price equal to the lesser of (a) 90% of the purchase price paid by other investors in such qualified financing and (b) $21.06 per share on an as converted to common stock basis.

Cash Flows

The following table shows a summary of Carisma's cash flows for the periods indicated (in thousands):

	Six Months Ended June 30,		Year Ended December 31,	
	2022	2021	2021	2020
Cash provided by (used in)				
Operating activities	$ 20,303	$ (18,563)	$ (37,328)	$ (27,012)
Investing activities	(44,141)	(1,001)	(1,871)	(440)
Financing activities	34,985	15,962	15,962	72,258
Net change in cash and cash equivalents	$ 11,147	$ (3,602)	$ (23,237)	$ 44,806

Cash Flows from Operating Activities

During the six months ended June 30, 2022, Carisma provided $20.3 million of net cash in operating activities. Cash provided by operating activities reflected Carisma's net loss of $26.2 million that was offset by $4.2 million of non-cash charges related to depreciation and amortization expense, stock-based compensation, reductions in the operating right of use, or ROU assets, non-cash interest on the Carisma convertible note, and the change in fair value of the derivative liability and a $42.2 million net change in Carisma's operating assets and liabilities, which was primarily attributable to the upfront non-refundable payment received from Moderna pursuant to the Moderna Collaboration Agreement.

During the six months ended June 30, 2021, Carisma used $18.6 million of net cash in operating activities. Cash used in operating activities reflected Carisma's net loss of $18.2 million that was offset by $1.0 million of non-cash charges related to depreciation and amortization expense, stock-based compensation and reductions in the operating ROU assets and a $1.3 million net change in Carisma's operating assets and liabilities attributable to the timing in which Carisma makes payments to its vendors for research and development activities.

During the year ended December 31, 2021, Carisma used $37.3 million of net cash in operating activities. Cash used in operating activities reflected Carisma's net loss of $40.8 million that was offset by $2.0 million of non-cash charges related to depreciation and amortization expense, stock-based compensation and reductions in the operating ROU assets and a $1.5 million net change in Carisma's operating assets and liabilities attributable to the timing in which Carisma pays its vendors for research and development activities.

During the year ended December 31, 2020, Carisma used $27.0 million of net cash in operating activities. Cash used in operating activities reflected Carisma's net loss of $28.3 million that was offset by $1.8 million of non-cash charges related to depreciation and amortization expense, stock-based compensation and reductions in the operating ROU assets and a $0.5 million net change in Carisma's operating assets and liabilities attributable to the timing in which Carisma pays its vendors for research and development activities.

Cash Flows from Investing Activities

During the six months ended June 30, 2022, Carisma used $42.1 million for the purchase of marketable securities.

During the six months ended June 30, 2022 and 2021 and for the years ended December 31, 2021 and 2020, Carisma used $2.0 million, $1.0 million, $1.9 million and $0.4 million, respectively, for the purchase of property and equipment.

Cash Flows from Financing Activities

During the six months ended June 30, 2022, Carisma received $35.0 million of net cash from financing activities attributable to the proceeds from the Carisma convertible note. Immediately prior to completion of the merger, the outstanding principal and unpaid interest of the Carisma convertible note will convert into shares of Carisma capital stock.

During the six months ended June 30, 2021 and for the year ended December 31, 2021, Carisma received $16.0 million of net cash from financing activities, primarily attributable to the net proceeds from the sale of its Series B convertible preferred stock.

During the year ended December 31, 2020, Carisma received $72.3 million of net cash from financing activities attributable from the sale of its Series A and Series B convertible preferred stock.

Funding Requirements

Carisma expects to devote substantial financial resources to its ongoing and planned activities, particularly as it conducts its ongoing clinical trial of CT-0508 and pursues related combination strategies, prepares for, initiates and conducts its planned clinical trials of CT-1119 and CT-0729 and advances its discovery programs and continues its product development efforts.

Carisma expects its expenses to increase substantially in connection with its ongoing activities, particularly as it advances its pre-clinical activities and clinical trials. In addition, if Carisma obtains marketing approval for CT-0508 or any other product candidate it is developing or develops in the future, it expects to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution. Furthermore, upon the closing of the merger, it expects to incur additional costs associated with operating as a public company. Accordingly, Carisma will need to obtain substantial additional funding in connection with its continuing operations. If Carisma is unable to raise capital or obtain adequate funds when needed or on acceptable terms, it may be required to delay, limit, reduce or terminate its discovery and product development programs or any future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself. In addition, attempting to secure additional financing may divert the time and attention of Carisma management from day-to-day activities and distract from its discovery and product development efforts.

Carisma's future capital requirements will depend on many factors, including:

- the progress, costs and results of its ongoing clinical trial of CT-0508 and other planned and future clinical trials;
- the scope, progress, costs and results pre-clinical testing and clinical trials of CT-0508 for additional combinations, targets and indications;
- the number of and development requirements for additional indications for CT-0508 or for any other product candidates;
- the success of its collaborations with Moderna or others;
- its ability to scale up its manufacturing processes and capabilities to support clinical trials of CT-0508 and other product candidates it is developing and develops in the future;
- the costs, timing and outcome of regulatory review of CT-0508 and other product candidates it is developing and may develop in the future;
- potential changes in the regulatory environment and enforcement rules;
- its ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the payment of license fees and other costs of its technology license arrangements;

- the costs and timing of future commercialization activities, including product manufacturing, sales, marketing and distribution, for CT-0508 and other product candidates it is developing and may develop in the future for which it may receive marketing approval;
- its ability to obtain and maintain acceptance of any approved products by patients, the medical community and third-party payors;
- the amount and timing of revenue, if any, received from commercial sales of CT-0508 and any other product candidates it is developing or develops in the future for which it receives marketing approval;
- potential changes in pharmaceutical pricing and reimbursement infrastructure;
- the availability of raw materials for use in production of its product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing its intellectual property and proprietary rights and defending any intellectual property-related claims; and
- the extent to which it in-licenses or acquires additional technologies or product candidates.

As of June 30, 2022, Carisma had cash, cash equivalents and marketable securities of $81.6 million. Immediately prior to the consummation of the merger, certain investors have agreed to purchase shares of Carisma common stock for an aggregate purchase price of approximately $30.6 million. The closing of the Carisma pre-closing financing is conditioned upon the satisfaction or waiver of the conditions to the closing of the merger set forth in the Merger Agreement. Carisma believes that following consummation of the pre-closing financing and the merger, it will have cash, cash equivalents and marketable securities sufficient to sustain its operating expenses and capital expenditure requirements at least through the end of 2024. However, Carisma has based this estimate on assumptions that may prove to be wrong, and its operating plan may change as a result of many factors currently unknown to Carisma. In addition, changing circumstances could cause Carisma to consume capital significantly faster than it currently anticipates, and Carisma may need to spend more than currently expected because of circumstances beyond its control. As a result, Carisma could deplete its capital resources sooner than it currently expects. In addition, because the successful development of CT-0508, CT-1119, CT-0729 and any combination studies or other product candidates that it pursues is highly uncertain, at this time Carisma cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidate.

Identifying potential product candidates and conducting pre-clinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and Carisma may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, Carisma's product candidates, if approved, may not achieve commercial success. Carisma will not generate commercial revenues unless and until it can achieve sales of products, which it does not anticipate for a number of years, if at all. Accordingly, Carisma will need to obtain substantial additional financing to achieve its business objectives. Adequate additional financing may not be available to Carisma on acceptable terms, or at all, and may be impacted by the economic climate and market conditions. For example, market volatility resulting from the COVID-19 pandemic, any other future infectious diseases, epidemics or pandemics or general U.S. or global economic or market conditions could also adversely impact Carisma's ability to access capital as and when needed. Alternatively, Carisma may seek additional capital due to favorable market conditions or strategic considerations, even if it believes it has sufficient funds for its current or future operating plans.

Until such time, if ever, as the combined company, operating as Carisma, can generate substantial revenues from product sales, Carisma expects to finance its cash needs through a combination of public and private equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or licensing arrangements. To the extent that Carisma raises additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of those securities may include liquidation or other preferences that adversely affect your rights as a holder of Carisma common stock. Debt financing and preferred equity financing, if available, would increase Carisma's fixed payment obligations and may involve agreements that include covenants limiting or restricting Carisma's operations and ability to take specific actions, such as incurring additional debt, making acquisitions, engaging in acquisition, merger or collaboration transactions, selling or licensing Carisma's

assets, making capital expenditures, redeeming its stock, making certain investments, declaring dividends or other operating restrictions that could adversely impact Carisma's ability to conduct its business.

If Carisma raises funds through additional collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, Carisma may have to relinquish valuable rights to its intellectual property, future revenue streams, discovery programs or product candidates, grant licenses on terms that may not be favorable to Carisma or grant rights to develop and market product candidates that Carisma would otherwise prefer to develop and market itself, any of which may have a material adverse effect on Carisma's business, operating results and prospects. If Carisma is unable to raise capital or obtain adequate funds when needed or on acceptable terms, it may be required to delay, limit, reduce or terminate its discovery and product development programs or any future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself.

Contractual Obligations and Commitments

The following table summarizes Carisma's contractual obligations and commitments at June 30, 2022 (in thousands):

	Total	Less than 1 Year	1 to 3 Years	4 to 5 Years	More than 5 Years
Contractual obligations:					
Operating lease commitments[1]	$ 7,860	$ 5,244	$ 1,864	$ 487	$ 264
Finance lease commitments	289	111	178	—	—
Convertible promissory note[2]	37,338	—	37,149	—	—
Total contractual obligations	$ 45,487	$ 5,355	$ 39,191	$ 487	$ 264

(1) Reflects obligations pursuant to Carisma's office and laboratory leases in Philadelphia, Pennsylvania.

(2) Reflects principal and interest payments pursuant to the Carisma convertible note issued to Moderna in January 2022. The table above assumes cash settlement at the contractual maturity date in July 31, 2023. Settlement may be through the conversion of outstanding principal and interest into shares of Carisma capital stock that may be issued in connection with a qualified or unqualified financing event and prior to maturity.

The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. Carisma's contracts with CMOs, CROs and other third parties for the manufacture of its product candidates and to support pre-clinical research studies and clinical testing are generally cancelable by Carisma upon prior notice and do not contain any minimum purchase commitments. Payments due upon cancellation consisting only of payments for services provided or expenses incurred, including noncancelable obligations of Carisma's service providers, up to the date of cancellation are not included in the table above as the amount and timing of such payments are not known.

The table above does not include any potential milestone or royalty payments that Carisma may be required to make under license agreement with Penn and under licensing agreements with other third parties not considered material. Carisma excluded these milestone and royalty payments given that the timing and likelihood of any such payments cannot be reasonably estimated at this time.

University of Pennsylvania License

In November 2017, Carisma entered into a license agreement with Penn for certain intellectual property licenses, which was amended in February 2018, January 2019, March 2020 and June 2021. Carisma is responsible for paying Penn an annual license maintenance fee in the low tens of thousands of dollars, payable until Carisma's first payment of a royalty. Carisma is required to pay Penn up to $10.9 million per product in development and regulatory milestone payments, up to $30.0 million per product in commercial milestone payments, and up to an additional $1.7 million in development and regulatory milestone payments for the first CAR-M product directed to mesothelin. While the license agreement remains in effect, Carisma is required to pay Penn low to mid-single digit percentage tiered royalties on annual net sales of licensed products, which may be subject to reductions. Penn is guaranteed a minimum royalty payment amount in the low hundreds of thousands of dollars for each year after the first commercial sale of a licensed product. Carisma must also pay Penn a percentage in the mid-single digits to low double digits of certain types of

income Carisma receives from sublicensees. In addition, Carisma is required to pay Penn an annual alliance management fee in the low tens of thousands of dollars, ending after several years, unless Carisma provides funding to Penn for research and development activities that extend beyond a specified date, in which case Carisma will continue to owe the alliance management fee for each year in which Carisma continues to fund such activities. Carisma also paid Penn an upfront fee in the low hundreds of thousands of dollars for the license to the patents related to the mesothelin binder that is incorporated into the CAR design for Carisma's mesothelin product candidate. Carisma is responsible for a pro rata share of costs relating to the prosecution and maintenance of the licensed patents.

Critical Accounting Policies

Carisma management's discussion and analysis of its financial condition and results of operations are based on its consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of the consolidated financial statements requires Carisma to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in its consolidated financial statements. On an ongoing basis, Carisma evaluates its estimates and judgments, including those related to accrued expenses, fair value of Carisma common stock and stock-based compensation. Carisma bases its estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While Carisma's significant accounting policies are described in more detail in Note 3 to its audited consolidated financial statements included elsewhere in this proxy statement/prospectus, Carisma believes the following accounting policies are the most critical to the judgments and estimates used in the preparation of its consolidated financial statements.

Revenues from Contracts

Carisma accounts for its revenue in accordance with Accounting Standards Codification, or ASC, 606, *Revenue from Contracts with Customers*, or ASC 606. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five steps at inception of the agreement or upon material modification of the agreement: (i) identifies the contract(s) with a customer; (ii) identifies the performance obligations in the contract; (iii) determines the transaction price, including variable consideration, if any; (iv) allocates the transaction price to the performance obligations in the contract; and (v) recognizes revenue when (or as) the entity satisfies a performance obligation.

Carisma considers the pattern of satisfaction of the performance obligations under step (v) above to be a critical accounting estimate. More specifically, the determination of the level of achievement of research and development service performance obligations, whose pattern of satisfaction is measured using costs incurred to date as compared to total costs incurred and expected to be incurred in the future is driven by a critical accounting estimate.

In estimating the costs expected to be incurred in the future, Carisma management uses its most recent budget and long-range plan, adjusted for any pertinent information. While this is Carisma's best estimate as of the reporting period, costs expected to be incurred in the future require management's judgment as the scope and timing of research and development activities may change significantly over time. Carisma may adjust the scope of its research and development activities based on several factors, such as additional work needed to support advancement of product candidate or change in the number of patients in trials. Further, research and development services may no longer be within the scope of a collaboration agreement, as has been the case with certain of Carisma's programs. The timing of when research and development costs are expected to be incurred may change as a result of external factors, such as delays caused by manufacturing or supply chain, or difficulty in enrolling patients; or internal factors, such as prioritization of programs. Carisma's estimate of the scope and timing of research and development services performed relative to the actual scope and timing may have a significant impact on revenue recognition.

Research and Development Accruals

Research and development expenses consist primarily of costs incurred in connection with the development of Carisma's product candidates. Carisma expenses research and development costs as incurred.

Carisma accrues expenses for pre-clinical studies and activities performed by third parties based upon estimates of the proportion of work completed over the term of the individual trial and patient enrollment rates in accordance with agreements with third parties. Carisma determines the estimates by reviewing contracts, vendor agreements and purchase orders, and through discussions with its internal clinical personnel and external service providers as to the progress or stage of completion of activities or services and the agreed-upon fee to be paid for such services. However, actual costs and timing of clinical trials are highly uncertain, subject to risks and may change depending upon a number of factors, including Carisma's clinical development plan.

Carisma makes estimates of its accrued expenses as of each balance sheet date in its consolidated financial statements based on facts and circumstances known at that time. If the actual timing of the performance of services or the level of effort varies from the estimate, Carisma will adjust the accrual accordingly. Non-refundable advance payments for goods and services, including fees for process development or manufacturing and distribution of pre-clinical supplies that will be used in future research and development activities, are deferred and recognized as expense in the period that the related goods are consumed or services are performed.

Milestone payments within Carisma's licensing and collaboration arrangements are recognized when achievement of the milestone is deemed probable to occur. To the extent products are commercialized and future economic benefit has been established, commercial milestones that become probable are capitalized and amortized over the estimated remaining useful life of the intellectual property. In addition, Carisma accrues royalty expense and sublicense non-royalty payments, as applicable, for the amount it is obligated to pay, with adjustments as sales are made.

Stock-Based Compensation

Carisma measures compensation expense for all stock-based awards based on the estimated fair value of the award on the grant date. Carisma uses the Black-Scholes option pricing model to value its stock option awards. Carisma recognizes compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period of the award. Carisma has not issued awards where vesting is subject to a market or performance condition.

The Black-Scholes option pricing model requires the use of subjective assumptions that include the expected stock price volatility and the fair value of the underlying common stock on the date of grant. See Note 8 to Carisma's audited consolidated financial statements and Note 8 to Carisma's unaudited interim consolidated financial statements included elsewhere in this proxy statement/prospectus for information concerning certain of the specific assumptions Carisma used in applying the Black-Scholes option pricing model to determine the estimated fair value of its stock options granted during the years ended December 31, 2021 and 2020 and for the six months ended June 30, 2022 and 2021.

Estimating the fair value of common stock

Carisma is required to estimate the fair value of Carisma common stock underlying its stock-based awards. Because Carisma common stock is not currently publicly traded, the fair value of Carisma common stock has been estimated on each grant date by the Carisma board of directors, with input from Carisma management, considering its most recently available third-party valuation of Carisma common stock.

The Carisma board of directors considered various objective and subjective factors to estimate the estimated fair value of Carisma common stock, including:

- the estimated value of all classes of securities outstanding;
- the anticipated capital structure that will directly impact the value of the currently outstanding securities;
- Carisma's results of operations and financial position;

- the status of Carisma's research and development efforts;
- the composition of, and changes to, Carisma's management team and the Carisma board of directors;
- the lack of liquidity of Carisma common stock as a private company;
- Carisma's stage of development and business strategy and the material risks related to its business and industry;
- external market conditions affecting the life sciences and biotechnology industry sectors;
- the likelihood of achieving a liquidity event for the holders of Carisma common stock, such as an initial public offering, or a sale of the company, given the prevailing market conditions; and
- the market value and volatility of comparable companies.

In estimating the fair value of Carisma common stock, the Carisma board of directors considered the subjective factors discussed above in conjunction with the most recent valuations of Carisma common stock that were prepared by an independent third party. The independent valuation prepared as of February 28, 2022 was utilized by the Carisma board of directors when estimating the fair value of Carisma common stock for the awards granted after such date and through June 30, 2022. The independent valuation prepared as of April 1, 2021 was utilized by the Carisma board of directors when estimating the fair value of Carisma common stock for the awards granted after such date and through December 31, 2021. These third-party valuations resulted in an estimated fair value of Carisma common stock of $2.68 and $2.77 per share as of February 28, 2022 and April 1, 2021, respectively.

Redemption feature

The redemption feature of the Carisma convertible note with Moderna is marked-to-market each reporting period with the changes in fair value recorded to other expense in the consolidated statements of operations until the obligations under the Carisma convertible note are satisfied. The fair value of the redemption feature of the Carisma convertible note is estimated by using a discounted cash flow method in conjunction with assuming the probability of completing a qualified financing. During the six months ended June 30, 2022, the discount factor used was 12% and a 90% probability of completing a qualified financing prior to the maturity date of the Carisma convertible note was assumed. The estimated time of conversion ranged from six to twelve months.

Recent Accounting Pronouncements

See Note 3 to Carisma's unaudited interim consolidated financial statements included elsewhere in this proxy statement/prospectus for a description of recent accounting pronouncements applicable to its consolidated financial statements.

Off-Balance Sheet Arrangements

Carisma does not have any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. Carisma does not engage in off-balance sheet financing arrangements. In addition, Carisma does not engage in trading activities involving non-exchange traded contracts. Carisma therefore believes that it is not materially exposed to any financing, liquidity, market or credit risk that could arise if it had engaged in these relationships.

Qualitative and Quantitative Disclosures About Market Risk

Carisma is exposed to market risks in the ordinary course of its business. These risks primarily include interest rate sensitivities. Carisma's interest-earning assets consist of cash, cash equivalents and marketable securities. Interest income earned on these assets was de minimis for the years ended December 31, 2021 and 2020 and for the six months ended June 30, 2022 and 2021.

MANAGEMENT FOLLOWING THE MERGER

Executive Officers and Directors

The combined company's board of directors will initially be fixed at seven members, consisting of six directors designated by Carisma and one director designated by Sesen Bio. The staggered structure of the current Sesen Bio board of directors will remain in place for the combined company's board of directors following the completion of the merger.

The following table sets forth the name, age as of September 20, 2022 and position of each of the individuals who are expected to serve as executive officers and directors of the combined company.

Name	Age	Position
Executive Officers		
Steven Kelly	57	President and Chief Executive Officer, Director
Richard Morris	49	Chief Financial Officer
Michael Klichinsky, Pharm.D., Ph.D.	32	Chief Scientific Officer
Non-Employee Directors		
Sanford Zweifach	66	Director, Chair
Thomas R. Cannell, D.V.M.	61	Director
Regina Hodits, Ph.D.	52	Director
Briggs Morrison, M.D.	63	Director
Björn Odlander, M.D., Ph.D.	64	Director
Chidozie Ugwumba	40	Director

Executive Officers

Steven Kelly has served as Carisma's President and Chief Executive Officer and as a member of the Carisma board of directors since February 2018. Prior to joining Carisma, Mr. Kelly served as Chief Executive Officer of Pinteon Therapeutics, a biotechnology company, from April 2014 to July 2015 and as the Chief Executive Officer of Theracrine, Inc., a biopharmaceutical company, from June 2011 to August 2012. Mr. Kelly currently serves on the board of directors of Artelo Biosciences, Inc. (Nasdaq: ARTL). Mr. Kelly received a B.S. from the University of Oregon and an M.B.A. from Cornell University. Carisma believes Mr. Kelly is qualified to serve as a member of the combined company's board of directors because of his extensive knowledge of Carisma based on his current role as its President and Chief Executive Officer, as well as his significant biopharmaceutical industry and management experience.

Richard Morris has served as Carisma's Chief Financial Officer since June 2021. Prior to joining Carisma, Mr. Morris served as Chief Financial Officer of Passage Bio, Inc., a genetic medicines company, from October 2019 to May 2021 and as Executive Vice President and Chief Financial Officer of Context Therapeutics, LLC, a biopharmaceutical company, or Context, from November 2017 to July 2019. Prior to Context, Mr. Morris served as Chief Financial Officer of Vitae Pharmaceuticals Incorporated, a biopharmaceutical company, from 2014 to October 2016, and held several senior financial roles over 12 years at ViroPharma Incorporated, a biopharmaceutical company, including Chief Accounting Officer and Vice President, Financial and Strategic Planning. Mr. Morris received a B.S. in Accounting from Saint Joseph's University and has been a CPA since 1999.

Michael Klichinsky, *Pharm.D., Ph.D.* has served as Carisma's Chief Scientific Officer since April 2022. He co-founded Carisma in 2016 and served as Vice President of Discovery of Carisma from October 2018 to April 2021 and as Senior Vice President of Research of Carisma from April 2021 to April 2022. Dr. Klichinsky received a Doctor of Pharmacy from the University of Sciences in Philadelphia and a Ph.D. in Pharmacology from the University of Pennsylvania.

Non-Employee Directors

Sanford Zweifach has served as a member and Chair of the Carisma board of directors since November 2021. Mr. Zweifach has served as the Founder and President of Pelican Consulting Group, a biotechnology consulting firm, since December 2019. Mr. Zweifach founded and served as Chief Executive Officer of Nuvelution Pharma, Inc., a pharmaceutical company, from June 2015 to

November 2019. Mr. Zweifach currently serves on the boards of directors of Essa Pharma Inc. (Nasdaq: EPIX) and Compugen Ltd. (Nasdaq: CGEN). Mr. Zweifach received a B.A. in Biology from University of California San Diego and a M.S. in Human Physiology from University of California Davis. Carisma believes Mr. Zweifach is qualified to serve as Chair of the combined company's board of directors because of his extensive experience in the biopharmaceutical industry and service on the boards of other public and private biopharmaceutical companies.

Thomas R. Cannell, *D.V.M.*, has served as Sesen Bio's President and Chief Executive Officer and a member of the Sesen Bio board of directors since August 2018. Prior to joining Sesen Bio, Dr. Cannell served as Orexigen Therapeutics, Inc.'s Chief Operating Officer & President of Global Commercial Products from July 2016 to July 2018, and as its Chief Commercial Officer from March 2015 to June 2016. Prior to Orexigen, Dr. Cannell spent 27 years with Merck & Co., Inc., where he held senior leadership positions in global commercialization, consumer marketing, and sales operations and management for both development-stage programs and approved marketed products. Dr. Cannell received a D.V.M. from Washington State University. Carisma believes Dr. Cannell is qualified to serve as a member of the combined company's board of directors because of his extensive industry experience and scientific background.

Regina Hodits, *Ph.D.,* has served as a member of the Carisma board of directors since June 2018. Dr. Hodits has served as a Managing Partner at Wellington Partners, a venture capital firm investing in companies mainly in areas of technology, life sciences and digital media, since 2010. Prior to that, Dr. Hodits served as Partner of Atlas Ventures from 2004 to 2010. She currently serves on the board of directors of Onward Medical. Dr. Hodits received a Master's degree in Chemical Engineering and a Ph.D. in biochemistry from Technical University of Vienna, Austria. Carisma believes Dr. Hodits is qualified to serve as a member of the combined company's board of directors because of her scientific background and training in biochemistry, extensive experience with biopharmaceutical companies and service on the boards of other biopharmaceutical companies.

Briggs Morrison, *M.D.,* has served as a member of the Carisma board of directors since July 2020. Dr. Morrison has served as President, Head of Research and Development of Syndax Pharmaceuticals Inc., a biopharmaceutical company, since February 2022; he was previously Chief Executive Officer of Syndax Pharmaceuticals Inc. from June 2015. Dr. Morrison currently serves on the boards of directors of Repare Therapeutics Inc. (Nasdaq: RPTX), Werewolf Therapeutics Inc. (Nasdaq: HOWL), Arvinas, Inc. (Nasdaq: ARVN) and Syndax Pharmaceuticals Inc. (Nasdaq: SNDX). Dr. Morrison received an M.D. from the University of Connecticut and a B.S. in Biology from Georgetown University. Carisma believes Dr. Morrison is qualified to serve as a member of the combined company's board of directors due to his extensive executive leadership experience, medical background and training, and extensive service on the boards of other public and private biopharmaceutical companies.

Björn Odlander, *M.D., Ph.D.* has served as a member of the Carisma board of directors since February 2022. Dr. Odlander is a co-founder of HealthCap, a family of venture capital funds investing globally in life sciences, where he has been a Managing Partner since 1996. Dr. Odlander received a M.D. and Ph.D. from Karolinska Institute. Dr. Odlander is qualified to serve as a member of the combined company's board of directors with his medical background and training, industry background and extensive experience of investments in the life-science sector.

Chidozie Ugwumba has served as a member of the Carisma board of directors since December 2020. Mr. Ugwumba has served as Managing Partner of SymBiosis, a venture capital firm focused on investments in biotherapeutics, since August 2021. Prior to SymBiosis, Mr. Ugwumba served as a Managing Director and the Co-Head of the Direct and Impact Investment Group of WIT, LLC, an investment management entity affiliated with Walton Enterprises, from 2018 to 2021 and on the Private Credit and Infrastructure teams at Partners Group, a global private investment manager, from 2015 to 2018. Mr. Ugwumba currently serves on the board of directors of Clene, Inc. (Nasdaq: CLNN). Mr. Ugwumba received an M.B.A. from Cornell University and a B.A. in Political Science from Amherst College. Carisma believes Mr. Ugwumba is qualified to serve as a member of the combined company's board of directors because of his significant experience and expertise in biopharmaceutical investments and his overall industry knowledge.

Director Independence

Applicable Nasdaq Listing Rules require that the combined company's board of directors be comprised of a majority of independent directors. Based upon information requested from and provided by each proposed director concerning his or her background, employment and affiliations, including family relationships, Carisma expects that the combined company's board of directors will determine that each member of the combined company's board of directors, except Mr. Kelly, Carisma's current President and Chief Executive Officer, who will serve as President and Chief Executive Officer of the combined company, and

Dr. Cannell, Sesen Bio's current President and Chief Executive Officer, will qualify as an "independent director" as defined under applicable Nasdaq Listing Rules. In making such determination, the combined company's board of directors will consider the current and prior relationships that each director has with Carisma and Sesen Bio and all other facts and circumstances that the company's board of directors deems relevant in determining the independence of each director, including the interests of each director in the merger, any relevant related party transactions and the beneficial ownership of Carisma or Sesen Bio common stock by each director. See the sections entitled "*Interests of Carisma Directors and Executive Officers in the Merger*," "*Related Party Transactions of Directors and Executive Officers of the Combined Company*" and "*Principal Stockholders of Carisma*" beginning on pages 144, 349 and 375, respectively, of this proxy statement/prospectus for additional information.

In addition, Nasdaq Listing Rules require that, subject to specified exceptions, each member of the combined company's audit, compensation and nominating and corporate governance committees be independent under the Exchange Act. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under applicable Nasdaq Listing Rules, a director will only qualify as an "independent director" if, in the opinion of the combined company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of the combined company may not, other than in his or her capacity as a member of the audit committee, the combined company's board of directors, or any other committee of the combined company's board of directors, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the combined company or any of its subsidiaries or otherwise be an affiliated person of the combined company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1, the board of directors must consider, for each member of a compensation committee of the combined company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

There are no family relationships among any of the proposed directors or officers of the combined company.

Composition of the Board of Directors

The Sesen Bio board of directors currently consists of six members divided into three staggered classes, with one class elected at each annual meeting to serve for a three-year term. The staggered structure of the current Sesen Bio board of directors will remain in place for the combined company's board of directors following the completion of the merger.

Committees of the Board of Directors Following the Merger

The Sesen Bio board of directors has an established audit committee, compensation committee and nominating and corporate governance committee, each of which operate pursuant to a charter adopted by the Sesen Bio board of directors. After completion of the merger, the combined company's board of directors will continue to have such standing committees.

Audit Committee

The responsibilities of the Sesen Bio audit committee include:

- appointing, approving the compensation of, and assessing the independence of, Sesen Bio's registered public accounting firm;
- overseeing the work of the independent registered public accounting firm, including through the receipt and consideration of reports and other communications from such firm;
- reviewing and discussing with management and the independent registered public accounting firm (x) the annual and quarterly financial statements and related disclosures (including any interim financial statements to be included in Sesen Bio's periodic disclosures filed with the SEC); (y) earnings press releases; and (z) litigation or other legal matters that could have a significant impact on Sesen Bio's financial results;

- monitoring internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing Sesen Bio's internal audit function;
- overseeing Sesen Bio's risk assessment and risk management policies;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- meeting independently with Sesen Bio's internal audit advisor, if applicable, and the independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions;
- preparing the audit committee report required by SEC rules; and
- conducting a periodic self-assessment of the committee and its charter.

The audit committee of the combined company is expected to retain these duties and responsibilities following the completion of the merger.

In connection with the closing of the merger, the combined company's board of directors is expected to select members of the audit committee. Sesen Bio and Carisma believe that, following the completion of the merger, the composition of the audit committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee

The responsibilities of the Sesen Bio compensation committee include:

- reviewing and approving, or making recommendations to the Sesen Bio board of directors with respect to, the compensation of the chief executive officer and other executive officers;
- overseeing an evaluation of Sesen Bio's senior executives, including the establishment of corporate goals and objectives applicable to the chief executive officer and other executive officers;
- reviewing and approving, or making recommendations to the Sesen Bio board of directors with respect to, the terms of any binding offer letters, employment agreements, termination agreements or arrangements, change-in-control agreements, severance agreements, indemnification agreements or other material compensatory agreements with the chief executive officer or the other executive officers;
- reviewing and making recommendations to the Sesen Bio board of directors with respect to incentive-compensation and equity-based plans that are subject to approval by the Sesen Bio board of directors;
- overseeing and administering Sesen Bio stock option, stock incentive, employee stock purchase and other equity-based plans;
- retaining the services, following the determination of independence under applicable Nasdaq Listing Rules and Exchange Act rules, of Sesen Bio's compensation consultant, as well as overseeing and considering the recommendations of the compensation consultant;
- reviewing and making recommendations to the Sesen Bio board of directors with respect to director compensation;

- establishing, if deemed advisable by the Sesen Bio board of directors, and monitoring compliance with, stock ownership guidelines for the chief executive officer, directors and other executive officers;
- reviewing and discussing annually with management the compensation disclosure required by SEC rules;
- preparing the compensation committee report required by SEC rules; and
- conducting a periodic self-assessment of the committee and its charter.

The compensation committee of the combined company is expected to retain these duties and responsibilities following completion of the merger.

In connection with the closing of the merger, the combined company's board of directors is expected to select members of the compensation committee. Sesen Bio and Carisma believe that, following the completion of the merger, the composition of the compensation governance committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Nominating and Corporate Governance Committee

The responsibilities of the Sesen Bio nominating and corporate governance committee include:

- identifying individuals qualified to become members of the Sesen Bio board of directors;
- recommending to the Sesen Bio board of directors the persons to be nominated for election as directors and to each of the board committees;
- reviewing and making recommendations to the Sesen Bio board of directors with respect to board leadership structure;
- reviewing and making recommendations to the Sesen Bio board of directors with respect to management succession planning;
- reviewing and making recommendations to the Sesen Bio board of directors with respect to the adequacy of the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws;
- developing and recommending corporate governance guidelines to the Sesen Bio board of directors;
- overseeing a periodic evaluation of the Sesen Bio board of directors; and
- conducting a periodic self-assessment of the committee and its charter.

The nominating and corporate governance committee of the combined company is expected to retain these duties and responsibilities following completion of the merger.

In connection with the closing of the merger, the combined company's board of directors is expected to select members of the nominating and corporate governance committee. Sesen Bio and Carisma believe that, following the completion of the merger, the composition of the nominating and corporate governance committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee Interlocks and Insider Participation

In connection with the closing of the merger, the combined company's board of directors is expected to select members of the compensation committee. None of the proposed executive officers of the combined company serve, or in the past year has served, as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity

that has one or more of its executive officers who is proposed to serve on the combined company's board of directors or compensation committee following the completion of the merger.

Code of Business Conduct and Ethics

The combined company will adopt a written code of business conduct and ethics, substantially in the form of Sesen Bio's current Code of Business Conduct and Ethics, that applies to its directors, officers and employees, including the principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, of the combined company. The combined company will post a current copy of the code on its website, www.carismatx.com. In addition, the combined company intends to post on its website all disclosures that are required by law or Nasdaq Listing Rules concerning any amendments to, or waivers from, any provision of the code of business conduct and ethics. The information contained on, or that can be accessed through, the website is not a part of this prospectus. The website address is included in this prospectus solely as an inactive textual reference.

Director Compensation

Prior to the merger, Carisma did not have a formal policy to provide any cash or equity compensation to its non-employee directors for their service on the Carisma board of directors or committees of the Carisma board of directors. In connection with Mr. Zweifach's election as a member and Chair of the Carisma board of directors in November 2021, the Carisma board of directors authorized an annual cash retainer of $75,000 to be paid to Mr. Zweifach in equal quarterly installments and a grant to Mr. Zweifach of options to purchase 97,200 shares of Carisma common stock. In connection with Mr. Morrison's election as a member of the Carisma board of directors in July 2020, the Carisma board of directors authorized a grant to Mr. Morrison of options to purchase 33,332 shares of Carisma common stock. For additional information on compensation paid to directors of Carisma, see the section entitled "*Carisma Executive Compensation — Carisma Director Compensation*" beginning on page 347 of this proxy statement/prospectus.

In connection with the closing of the merger and the transition of the board of directors, the combined company expects to evaluate Sesen Bio's director compensation practices and finalize the combined company's non-employee director compensation program, pursuant to which non-employee directors will be eligible to receive compensation for service on the board of directors of the combined company and its committees. The board of directors of the combined company expects to review director compensation periodically to ensure that director compensation remains competitive such that the combined company is able to recruit and retain qualified directors.

SESEN BIO EXECUTIVE COMPENSATION

Sesen Bio's named executive officers for 2021 are Thomas R. Cannell, D.V.M., its President and Chief Executive Officer, Monica Forbes, its Chief Financial Officer, and Glen MacDonald, Ph.D., its Chief Technology Officer.

Summary Compensation Table

The following table sets forth information regarding compensation awarded to, earned by or paid to each of Sesen Bio's named executive officers for the years ended December 31, 2021 and 2020.

Name and Principal Position	Year	Salary ($)	Bonus ($)[4]	Stock Awards ($)[5]	Option awards ($)[6]	Non-equity incentive plan compensation ($)[7]	All other compensation ($)[8]	Total ($)
Thomas R. Cannell, D.V.M.[1]	2021	558,362	—	—	4,123,086	236,250	4,000	4,921,698
President and Chief Executive Officer	2020	532,917	—	—	817,449	348,140	4,000	1,702,506
Monica Forbes[2]	2021	377,958	—	148,778	1,195,695	145,447	4,000	1,871,878
Chief Financial Officer and Treasurer	2020	360,500	1,000	—	259,329	174,500	—	795,329
Glen MacDonald, Ph.D.[3]	2021	362,156	—	143,262	618,463	135,625	14,486	1,273,992
Chief Technology Officer	2020	343,714	1,000	—	155,033	160,917	14,067	674,731

(1) Dr. Cannell's base salary was increased from $535,600 to $562,500, effective March 1, 2021.

(2) Ms. Forbes' base salary was increased from $362,600 to $380,750, effective March 1, 2021.

(3) Dr. MacDonald's base salary was increased from $353,961 to $368,180, effective March 1, 2021. Dr. MacDonald's base salary, non-equity incentive plan and all other compensation is paid by Sesen Bio in Canadian dollars and the above amounts for Dr. MacDonald's base salary, non-equity incentive plan and all other compensation have been converted to U.S. dollars using the exchange rate between the Canadian and the U.S. dollar in effect at fiscal year-end. The exchange rates in effect on December 31, 2021 and December 31, 2020 were 0.7824, and 0.7849, respectively.

(4) The amounts reported in the "Bonus" column reflect a $1,000 holiday bonus paid to all employees, other than Dr. Cannell, in December 2020.

(5) The amounts reported in the "Stock awards" column reflect the aggregate grant date fair value of performance-based restricted stock units awarded during the year computed in accordance with the provisions of Financial Accounting Standards Board Accounting Standard Codification, or ASC, Topic 718. See Note 14 to Sesen Bio's financial statements appearing at the end of Sesen Bio's Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.

(6) The amounts reported in the "Option awards" column reflect the aggregate grant date fair value of stock options awarded during the year computed in accordance with the provisions of Financial Accounting Standards Board Accounting Standard Codification, or ASC, Topic 718. See Note 14 to Sesen Bio financial statements appearing at the end of Sesen Bio's Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.

(7) The amounts reported in the "Non-equity incentive plan compensation" column reflect bonuses that were earned by Sesen Bio's executive officers in the fiscal years ending December 31, 2021 and 2020 based on the achievement of pre-established performance goals that were previously communicated to Sesen Bio's executive officers. See "Bonus Compensation" below for additional information.

(8) For Dr. Cannell, for the years 2021 and 2020, and for Ms. Forbes, for the year 2021, the amounts reported reflect discretionary 401(k) matching contributions contributed to Sesen Bio's 401(k) retirement plan as approved by the Sesen Bio compensation committee. For Dr. MacDonald, the amounts reported in 2021 and 2020 reflect Company-paid pension contributions on behalf of Dr. MacDonald to the defined contribution pension plan that Sesen Bio maintain for all of its Canadian employees.

Narrative to Summary Compensation Table

Employment Agreements with Named Executive Officers

Thomas R. Cannell, D.V.M.

On August 7, 2018, Sesen Bio entered into an employment agreement with Dr. Cannell, which provides that his employment will continue until either Sesen Bio or Dr. Cannell provides notice of termination in accordance with the terms of the agreement. In addition, Sesen Bio entered into a non-competition, non-solicitation, confidentiality and assignment agreement with Dr. Cannell, which prohibits him from competing with Sesen Bio, soliciting Sesen Bio's employees and customers and disclosing confidential information during the term of his employment and for one year following the conclusion of his service with Sesen Bio.

Pursuant to Dr. Cannell's employment agreement, he is entitled to receive an annual base salary, which will be reviewed at least annually and will be subject to increase (but not decrease) from time to time, as determined by the Sesen Bio board of directors. In February 2022, the Sesen Bio compensation committee approved an increase in Dr. Cannell's annual base salary to $576,563, effective March 1, 2022. In addition, pursuant to his employment agreement, Dr. Cannell is eligible to receive an annual cash bonus, which is based on the achievement of individual and corporate performance objectives, calculated as a percentage of his annual base salary, and which will be determined by the Sesen Bio board of directors, in its sole discretion. Dr. Cannell's target annual bonus for 2020 and 2021 was 50% of his annual base salary. Dr. Cannell's target annual bonus for 2022 is 50% of his annual base salary.

Monica Forbes

On August 26, 2019, Sesen Bio entered into an employment agreement with Ms. Forbes in connection with her appointment as Sesen Bio's Chief Financial Officer and Treasurer. Ms. Forbes' employment agreement provides that her employment will continue until either Sesen Bio or Ms. Forbes provides notice of termination in accordance with the terms of the agreement. In addition, Sesen Bio entered into a non-competition, non-solicitation, confidentiality and assignment agreement with Ms. Forbes, which prohibits her from competing with Sesen Bio, soliciting Sesen Bio's employees and customers and disclosing confidential information during the term of her employment and for one year following the conclusion of her service with Sesen Bio.

Pursuant to Ms. Forbes' employment agreement, she is entitled to receive an annual base salary, which will be reviewed at least annually and will be subject to increase (but not decrease) from time to time, as determined by the Sesen Bio board of directors. In February 2022, the Sesen Bio compensation committee approved an increase in Ms. Forbes' annual base salary to $400,000, effective March 1, 2022. In addition, pursuant to her employment agreement, Ms. Forbes is eligible to receive an annual cash bonus based on the achievement of individual and corporate performance objectives, calculated as a percentage of her annual base salary, and which will be determined by the Sesen Bio board of directors, in its sole discretion. Ms. Forbes' annual target bonus for (i) 2020 was equal to 35% of her annual base salary, and (ii) 2021 was equal to 40% of her annual base salary. Ms. Forbes' annual target bonus for 2022 is equal to 40% of her annual base salary.

Glen MacDonald, Ph.D.

On September 20, 2016, Sesen Bio entered into an employment agreement with Dr. MacDonald. Dr. MacDonald's employment agreement provides that his employment will continue until either Sesen Bio or Dr. MacDonald provides notice of termination in accordance with the terms of the agreement. In addition, Sesen Bio entered into a non-competition, non-solicitation, confidentiality and assignment agreement with Dr. MacDonald, which prohibits him from competing with Sesen Bio, soliciting Sesen Bio's employees and customers and disclosing confidential information during the term of his employment and for one year following the conclusion of his service with Sesen Bio.

Pursuant to Dr. MacDonald's employment agreement, he is entitled to receive an annual base salary, which will be reviewed at least annually and will be subject to increase (but not decrease) from time to time, as determined by the Sesen Bio board of directors.

In February 2022, the Sesen Bio compensation committee approved an increase in Dr. MacDonald's annual base salary to $379,166, effective March 1, 2022. In addition, pursuant to his employment agreement, Dr. MacDonald is eligible to receive an annual cash bonus based on the achievement of individual and corporate performance objectives, calculated as a percentage of his annual base salary, and which will be determined by the Sesen Bio board of directors, in its sole discretion. Dr. MacDonald's annual target bonus for (i) 2020 was equal to 35% of his annual base salary, and (ii) 2021 is equal to 40% of his annual base salary. Dr. MacDonald's annual target bonus for 2022 is equal to 40% of his annual base salary.

Equity Awards

Although Sesen Bio does not have a formal policy with respect to the grant of equity incentive awards to its executive officers, or any formal equity ownership guidelines applicable to them, Sesen Bio believes that equity grants provide its executives with a strong link to its long-term performance, create an ownership culture and help to align the interests of its executives and Sesen Bio stockholders. In addition, Sesen Bio believes that equity grants with a time-based vesting feature promote executive retention by incentivizing its executive officers to remain in Sesen Bio's employment during the vesting period. Accordingly, the Sesen Bio board of directors periodically reviews the equity incentive compensation of its executive officers and from time to time may grant equity incentive awards to them, including in the form of Sesen Bio options and Sesen Bio RSUs (both time-based RSUs and performance-based RSUs, or Sesen Bio PSUs).

On February 18, 2022, Sesen Bio granted Dr. Cannell an award of 606,800 RSUs. Each Sesen Bio RSU represents a contingent right to receive one share of Sesen Bio common stock. The Sesen Bio RSU award vests annually in equal amounts over a four year period following the grant date, subject to Dr. Cannell's continued service with Sesen Bio on the applicable vesting date. On February 18, 2022, Sesen Bio also granted Dr. Cannell an award of 606,800 Sesen Bio PSUs. Each Sesen Bio PSU represents a contingent right to receive one share of Sesen Bio common stock upon the satisfaction of pre-determined performance criteria related to completing patient enrollment for the new clinical trial. Subject to continued employment, such Sesen Bio PSUs vest upon the determination by the Sesen Bio compensation committee of the level of achievement of a clinical trial milestone. On February 19, 2021, Sesen Bio granted Dr. Cannell options to purchase 2,000,000 shares of Sesen Bio common stock at an exercise price of $3.17 per share. These options vest 6.25% every three months over four years commencing on January 1, 2021, subject to Dr. Cannell's continued service with Sesen Bio on the applicable vesting date. On February 13, 2020, Sesen Bio granted Dr. Cannell options to purchase 1,450,000 shares of Sesen Bio common stock at an exercise price of $0.8911 per share. These options vest 6.25% every three months over four years, subject to Dr. Cannell's continued service with Sesen Bio on the applicable vesting date.

On February 18, 2022, Sesen Bio granted Ms. Forbes an award of 542,250 RSUs. Each Sesen Bio RSU represents a contingent right to receive one share of Sesen Bio common stock. The Sesen Bio RSU award vests annually in equal amounts over a four year period following the grant date, subject to Ms. Forbes's continued service with Sesen Bio on the applicable vesting date. On February 18, 2022, Sesen Bio also granted Ms. Forbes an award of 180,750 Sesen Bio PSUs. Each Sesen Bio PSU represents a contingent right to receive one share of Sesen Bio common stock upon the satisfaction of pre-determined performance criteria related to completing patient enrollment for the new clinical trial. Subject to continued employment, such Sesen Bio PSUs vest upon the determination by the Sesen Bio compensation committee of the level of achievement of a clinical trial milestone. On February 19, 2021, Sesen Bio granted Ms. Forbes options to purchase 580,000 shares of Sesen Bio common stock at an exercise price of $3.17 per share. These options vest 6.25% every three months over four years commencing on January 1, 2021, subject to Ms. Forbes' continued service with Sesen Bio on the applicable vesting date. On February 13, 2020, Sesen Bio granted Ms. Forbes options to purchase 460,000 shares of Sesen Bio common stock at an exercise price of $0.8911 per share. These options vest 6.25% every three months over four years, subject to Ms. Forbes' continued service with Sesen Bio on the applicable vesting date.

On February 18, 2022, Sesen Bio granted Dr. MacDonald an award of 308,925 RSUs. Each Sesen Bio RSU represents a contingent right to receive one share of Sesen Bio common stock. The Sesen Bio RSU award vests annually in equal amounts over a four year period following the grant date, subject to Dr. MacDonald's continued service with Sesen Bio on the applicable vesting date. On February 18, 2022, Sesen Bio also granted Dr. MacDonald an award of 102,975 Sesen Bio PSUs. Each Sesen Bio PSU represents a contingent right to receive one share of Sesen Bio common stock upon the satisfaction of pre-determined performance criteria related to completing patient enrollment for the new clinical trial. Subject to continued employment, such Sesen Bio PSUs vest upon the determination by the Sesen Bio compensation committee of the level of achievement of a clinical trial milestone. On February 19, 2021, Sesen Bio granted Dr. MacDonald options to purchase 300,000 shares of Sesen Bio common stock at an exercise price of $3.17 per share. These options vest 6.25% every three months over four years commencing on January 1, 2021, subject to Dr. MacDonald's continued service with Sesen Bio on the applicable vesting date. On February 13, 2020, Sesen Bio granted Dr. MacDonald options to

purchase 275,000 shares of Sesen Bio common stock at an exercise price of $0.8911 per share. These options vest 6.25% every three months over four years, subject to Dr. MacDonald's continued service with Sesen Bio on the applicable vesting date.

In addition, on September 9, 2021, the Sesen Bio board of directors and Sesen Bio compensation committee approved a retention program, or the 2021 retention program, for all current employees, except for the Chief Executive Officer, pursuant to which Sesen Bio has provided certain incentives designed to retain such employees. Pursuant to the 2021 retention program and effective as of October 1, 2021, Sesen Bio's executive officers, except for the Chief Executive Officer, were granted a Sesen Bio PSU award equal to the value of approximately fifty percent of the executive officer's then-current base salary. Under the 2021 retention program, Ms. Forbes was granted an award of 190,375 Sesen Bio PSUs and Dr. MacDonald was granted an award of 183,317 Sesen Bio PSUs. Each Sesen Bio PSU represents a contingent right to receive one share of Sesen Bio common stock upon the satisfaction of pre-determined performance criteria. Subject to continued employment, such awards vest on September 30, 2023 upon the determination by the Sesen Bio compensation committee of the level of achievement of certain key milestones consisting of a clinical trial milestone (weighted 50%), an employee retention milestone (weighted 30%) and a cash management milestone (weighted 20%).

Bonus Compensation

With respect to the fiscal year ended December 31, 2021, each of Sesen Bio's named executive officers was eligible to receive a performance-based bonus based on the achievement of corporate objectives and individual objectives. Since Sesen Bio's Chief Executive Officer is responsible for the overall performance of Sesen Bio's business, his annual bonus was based solely on Sesen Bio's overall performance in achieving corporate objectives. In November 2020, the Sesen Bio compensation committee and the Sesen Bio board of directors reviewed a detailed set of overall corporate objectives for fiscal 2021 for use under the Sesen Bio annual bonus plan. These corporate objectives are initially prepared by management, reviewed (and revised, if determined appropriate) by the Sesen Bio compensation committee, and then presented to the full Sesen Bio board of directors for approval. The Sesen Bio compensation committee assigns weighting to the corporate objectives, but uses its judgment to determine a percentage that it believes fairly represents Sesen Bio's achievement level for the year.

In February 2022, the Sesen Bio compensation committee reviewed Sesen Bio's 2021 corporate performance against Sesen Bio's corporate objectives and noted that while Sesen Bio made substantial progress on Sesen Bio regulatory and financial goals during 2021, Sesen Bio had certain corporate setbacks as well. Further, the Sesen Bio compensation committee and the Sesen Bio board of directors determined to modify certain corporate objectives related to commercialization, which were determined to be no longer

applicable in light of the CRL, as further described below. The weighting of the remaining corporate objectives was adjusted accordingly. Such objectives and outcomes included the following:

2021 Corporate Objective	Outcome	Weighting		Score
Achieve FDA acceptance of the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC after 1Q 2021	Sesen Bio exceeded the target for this objective. The BLA for Vicineum was accepted with Priority Review during Q1 2021, which was earlier than the target.	22	%	24
Receive FDA approval of the BLA in the second half of 2021	Sesen Bio did not meet this objective. The FDA issued a Complete Response Letter regarding Sesen Bio's BLA for Vicineum.	22	%	0
Submit the MAA for Vysyneum for the treatment of BCG-unresponsive NMIBC to the EMA after Q1 2021	Sesen Bio did not meet this objective. While Sesen Bio submitted the MAA earlier than its target date, Sesen Bio withdrew the MAA in order to pause its plans to pursue regulatory approval of Vysyneum in the E.U. until there is more clarity from the FDA on next steps for Vicineum in the U.S.	6	%	0
Strengthen balance sheet and extend cash runway by finishing fiscal 2021 with $40.0 million -$50.0 million	Sesen Bio exceeded the target for this objective by ending fiscal 2021 with a strong balance sheet of $163.0 million in cash and cash equivalents. The strength of Sesen Bio's balance sheet will be critical to supporting Sesen Bio's business going forward, including future clinical development of Vicineum.	50	%	60
Total		**100**	**%**	**84**

As a result, and as noted in the table below, the Sesen Bio compensation committee and the Sesen Bio board of directors approved 2021 performance cash bonus payments to Sesen Bio's named executive officers based on an assessment of corporate performance during 2021.

			Target		
Name	Annual Base Salary ($)	Annual Bonus (%)[1]	Annual Bonus ($)[1]	Company Scorecard Result	Final Award
Thomas R. Cannell, D.V.M.	562,500	50 %	$ 281,250	84 %	$ 236,250
Monica Forbes	380,750	40 %	$ 152,300	84 %	$ 145,447
Glen MacDonald. Ph.D.[2]	364,583	40 %	$ 145,833	84 %	$ 135,625

(1) 2021 target annual bonus opportunity was a percentage of 2021 base salary.

(2) Dr. MacDonald's annual base salary is paid by Sesen Bio in Canadian dollars and was $465,974 CAD as of December 31, 2021. It has been converted to U.S. dollars using the exchange rate of 0.7824 in effect on December 31, 2021.

Outstanding Equity Awards at December 31, 2021

The following table sets forth information regarding all outstanding equity awards held by each of Sesen Bio's named executive officers as of December 31, 2021.

	Option Awards				Stock Awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Equity incentive plan awards: Number of unearned shares, units or other rights that have not vested (#)	Equity incentive plan awards: Market or payout value of unearned shares, units or other rights that have not vested ($)
Thomas R. Cannell, D.V.M.	1,096,875	253,125 (1)	1.60	8/7/2028	—	—
	687,500	312,500 (2)	0.8285	2/21/2029	—	—
	634,375	815,625 (3)	0.8911	2/13/2030	—	—
	375,000	1,625,000 (8)	3.17	2/19/2031	—	—
Monica Forbes	—	—	—	—	190,375 (9)	155,156 (10)
	135,000	105,000 (4)	1.16	8/1/2029		
	157,500	122,500 (5)	1.13	8/26/2029	—	—
	201,250	258,750 (3)	0.8911	2/13/2030	—	—
	108,750	471,250 (8)	3.17	2/19/2031	—	—
Glen MacDonald, Ph.D.	—	—	—	—	183,317 (9)	149,403 (10)
	100,000	—	3.37	9/20/2026	—	—
	10,896	—	2.28	4/3/2027	—	—
	102,780 (6)	—	1.59	10/4/2027	—	—
	131,250	18,750 (7)	1.50	4/9/2028	—	—
	171,875	78,125 (2)	0.8285	2/21/2029	—	—
	120,313	154,687 (3)	0.8911	2/13/2030	—	—
	56,250	243,750 (8)	3.17	2/19/2031	—	—

(1) Option vests over four years, with 25% of the shares underlying the option vesting on August 7, 2019, the first anniversary of the grant date, and 6.25% of the shares underlying the option vesting quarterly thereafter until the fourth anniversary of the grant date.

(2) Option vests over four years, with 6.25% of the shares underlying the option vesting at the end of each successive three-month period beginning on January 1, 2019.

(3) Option vests over four years, with 6.25% of the shares underlying the option vesting at the end of each successive three-month period beginning on February 13, 2020.

(4) Option vests over four years, with 25% of the shares underlying the option vesting on August 1, 2020, the first anniversary of the grant date, and 6.25% of the shares underlying the option vesting quarterly thereafter until the fourth anniversary of the grant date.

(5) Option vests over four years, with 6.25% of the shares underlying the option vesting at the end of each successive three-month period beginning on August 26, 2019.

(6) On October 4, 2017, Dr. MacDonald was granted an option to purchase 120,000 shares of common stock, with the option vesting in installments based on the achievement of certain strategic and clinical milestones. On January 18, 2018, the Sesen Bio compensation committee determined that one of these performance milestones was met, resulting in vesting of the option with respect to 22,980 shares. On March 14, 2018, the Sesen Bio compensation committee determined that one of these performance milestones was met, resulting in vesting of the option with respect to 30,000 shares. On June 12, 2018, the Sesen Bio

compensation committee determined that one of these performance milestones was met, resulting in vesting of the option with respect to 24,900 shares. On July 10, 2019, the Sesen Bio compensation committee determined that one of these performance milestones was met, effective May 4, 2019, resulting in vesting of the option with respect to 24,900 shares.

(7) Option vests over four years, with 6.25% of the shares underlying the option vesting at the end of each successive three-month period beginning on August 9, 2018.

(8) Option vests over four years, with 6.25% of the shares underlying the option vesting at the end of each successive three-month period beginning on January 1, 2021.

(9) Performance-based restricted stock units granted on October 1, 2021 pursuant to the 2021 retention program. Subject to continued employment, such awards vest on September 30, 2023 upon the determination by the Sesen Bio compensation committee of the level of achievement of certain key milestones consisting of a clinical trial milestone, an employee retention milestone and cash management milestones, as described above under "*Narrative to Summary Compensation Table — Equity Awards*" above.

(10) Based on the per share closing market price of the Sesen Bio common stock on December 31, 2021 of $0.815.

Potential Payments to Named Executive Officers Upon Termination or Change in Control Transaction

Pursuant to their respective employment agreements with Sesen Bio, upon execution and effectiveness of a release of claims, each of Dr. Cannell, Ms. Forbes and Dr. MacDonald will be entitled to severance payments if his or her employment is terminated under specified circumstances.

Dr. Cannell. If Sesen Bio terminates Dr. Cannell's employment without cause, as defined in his employment agreement, or if Dr. Cannell terminates his employment with Sesen Bio for good reason, as defined in his employment agreement, absent a change in control transaction, as defined in his employment agreement, Sesen Bio is obligated to (i) pay Dr. Cannell's base salary for a period of 12 months, payable in accordance with Sesen Bio's then-current payroll practices, (ii) pay Dr. Cannell an amount equal to his target bonus payment for the year in which the termination of employment occurs, prorated for the portion of the year in which he was employed, and (iii) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Dr. Cannell and certain of his dependents with group health and dental insurance for a period up to 12 months.

If Sesen Bio terminates Dr. Cannell's employment without cause or if Dr. Cannell terminates his employment with Sesen Bio for good reason, in each case within 18 months following a change in control transaction, as defined in his employment agreement, Sesen Bio is obligated to (i) pay Dr. Cannell an amount equal to his base salary for 24 months, payable in accordance with Sesen Bio's then-current payroll practices, (ii) pay Dr. Cannell an amount equal to two times his target bonus payment for the year in which the termination of employment occurs, (iii) accelerate in full the vesting of all of Dr. Cannell's outstanding equity awards, and (iv) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Dr. Cannell and certain of his dependents with group health and dental insurance for a period of up to 24 months.

Ms. Forbes. If Sesen Bio terminates Ms. Forbes' employment without cause, as defined in her employment agreement, or if Ms. Forbes terminates her employment with Sesen Bio for good reason, as defined in her employment agreement, absent a change in control transaction, as defined in her employment agreement, Sesen Bio is obligated to (i) pay Ms. Forbes' base salary for a period of 12 months, payable in accordance with Sesen Bio's then-current payroll practices, and (ii) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Ms. Forbes and certain of her dependents with group health and dental insurance for a period of up to 12 months. In addition, if, prior to September 30, 2023, Sesen Bio terminates Ms. Forbes' employment without cause, then each Sesen Bio PSU earned as of the time of such termination of employment based on the achievement of the applicable performance milestone, as determined by the Sesen Bio compensation committee in its sole discretion, will become vested as of the date of such termination of employment.

If Sesen Bio terminates Ms. Forbes employment without cause or if Ms. Forbes terminates her employment with Sesen Bio for good reason, in each case within 12 months following a change in control transaction, as defined in her employment agreement, Sesen Bio is obligated to (i) pay Ms. Forbes' base salary for a period of 12 months, payable in accordance with Sesen Bio's then-current payroll practices, (ii) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Ms. Forbes and

certain of her dependents with group health and dental insurance for a period of 12 months, and (iii) accelerate in full the vesting of all of Ms. Forbes' outstanding equity awards.

Dr. MacDonald. If Sesen Bio terminates Dr. MacDonald's employment without cause, as defined in his employment agreement, or if Dr. MacDonald terminates his employment with Sesen Bio for good reason, as defined in his employment agreement, absent a change in control transaction, as defined in his employment agreement, Sesen Bio is obligated to (i) pay Dr. MacDonald's base salary for a period of 12 months, payable in accordance with Sesen Bio's then-current payroll practices and (ii) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Dr. MacDonald and certain of his dependents with group health and dental insurance for a period of up to 12 months.

If Sesen Bio terminates Dr. MacDonald's employment without cause or if Dr. MacDonald terminates his employment with Sesen Bio for good reason, in each case within 12 months following a change in control transaction, as defined in his employment agreement, Sesen Bio is obligated to: (i) pay Dr. MacDonald's base salary for a period of 12 months, payable in accordance with Sesen Bio's then-current payroll practices, (ii) continue, to the extent allowed by applicable law and the applicable plan documents, to provide Dr. MacDonald and certain of his dependents with group health and dental insurance for a period of 12 months, and (iii) accelerate in full the vesting of all of Dr. MacDonald's outstanding equity awards. In addition, if, prior to September 30, 2023, Sesen Bio terminates Dr. MacDonald's employment without cause, then each Sesen Bio PSU earned as of the time of such termination of employment based on the achievement of the applicable performance milestone, as determined by the Sesen Bio compensation committee in its sole discretion, will become vested as of the date of such termination of employment.

Sesen Bio's obligation to pay the severance payments to Dr. Cannell, Ms. Forbes and Dr. MacDonald pursuant to their respective employment agreements, as described above, is contingent upon the executive's execution and non-revocation of a release of claims in favor of Sesen Bio. In addition, Sesen Bio's obligation to pay such severance payments is subject to such executive officer's compliance with certain restrictive covenants, including non-competition and non-solicitation (of employees and customers) covenants, which run for one year following the executive's termination of employment.

Taxation. To the extent that any severance or other compensation payment to Dr. Cannell or Ms. Forbes pursuant to his or her employment agreement or any other agreement constitutes an "excess parachute payment" within the meaning of Sections 280G and 4999 of the Code, then he or she will receive the full amount of such severance and other payments, or a reduced amount intended to avoid the application of Sections 280G and 4999 of the Code, whichever provides the executive with the highest amount on an after-tax basis.

401(k) Plan

Sesen Bio maintains a defined contribution 401(k) retirement plan for its employees in which substantially all of Sesen Bio's full-time U.S. employees are eligible to participate, including its executive officers. Participants may contribute a percentage of their annual compensation to this plan, subject to statutory limitations. Sesen Bio made matching contributions of $64,153 to the plan for the year ended December 31, 2021.

Limitation of Liability and Indemnification

Sesen Bio's Certificate of Incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the DGCL and provides that no director will have personal liability to Sesen Bio or to Sesen Bio stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of Sesen Bio's directors:

- for any breach of the director's duty of loyalty to Sesen Bio or Sesen Bio stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of the Sesen Bio directors will be further limited to the greatest extent permitted by the DGCL.

In addition, the Sesen Bio Certificate of Incorporation provides that Sesen Bio must indemnify its directors and officers and Sesen Bio must advance expenses, including attorneys' fees, to its directors and officers in connection with legal proceedings, subject to very limited exceptions.

Sesen Bio maintains a general liability insurance policy that covers specified liabilities of its directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, Sesen Bio has entered into indemnification agreements with all of its directors and executive officers. These indemnification agreements may require Sesen Bio, among other things, to indemnify each such director and executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of its directors or executive officers.

Some of Sesen Bio's non-employee directors may, through their relationships with their employers, be insured or indemnified against specified liabilities incurred in their capacities as members of the Sesen Bio board of directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, executive officers or persons controlling Sesen Bio, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Director Compensation

Sesen Bio's non-employee directors are compensated for their services on the Sesen Bio board of directors as follows:

Compensation		
Annual Board Cash Retainer	$	40,000
Additional Retainer for Non-Executive Chair of the Board	$	30,000
Additional Retainers for Committee Chairs		
· Audit	$	15,000
· Compensation	$	10,000
· Nominating and Corporate Governance	$	8,000
· Science	$	10,000
Additional Retainers for Committee Members		
· Audit	$	7,500
· Compensation	$	5,000
· Nominating and Corporate Governance	$	4,000
· Science	$	5,000
Annual Equity Award (non-employee directors)		65,000 Sesen Bio options and 40,000 Sesen Bio RSUs
Initial Equity Award (non-employee directors)		130,000 Sesen Bio options and 80,000 Sesen Bio RSUs

The Sesen Bio compensation committee engages Radford, its independent compensation consultant, to provide advice on the competitiveness of Sesen Bio's non-employee director compensation program and ensure that both cash and equity components of Sesen Bio's non-employee director compensation program remain market competitive. In February 2022, the Sesen Bio compensation committee and Sesen Bio board of directors, based on a market analysis prepared by Radford, approved annual board, chair and committee cash retainers, as well as a combination of options and Sesen Bio RSUs for both the initial and annual equity awards to non-employee directors. In its approvals, the Sesen Bio compensation committee and the Sesen Bio board of directors considered the time commitment and responsibilities of Sesen Bio's directors as well as the size of the Sesen Bio board of directors. Consistent with the prior year, cash compensation aligns with the 50th percentile of the Radford market analysis and equity compensation aligns with the 75th percentile of the Radford market analysis.

The Sesen Bio options granted to Sesen Bio's non-employee directors will have an exercise price equal to the fair market value of the Sesen Bio common stock on the date of grant and will expire ten years after the date of grant. The initial stock options granted to Sesen Bio's non-employee directors will, subject to the director's continued service on the Sesen Bio board of directors, vest monthly in equal amounts over a three-year period following the grant date. The annual stock options granted to Sesen Bio's non-employee directors will, subject to the director's continued service on Sesen Bio board of directors, vest monthly in equal amounts over a one-year period following the grant date.

The initial restricted stock units granted to Sesen Bio's non-employee directors will vest annually in equal amounts over a three-year period following the grant date. The annual restricted stock units granted to Sesen Bio's non-employee directors will vest on the first anniversary of the grant date. Each restricted stock unit represents a contingent right to receive one share of Sesen Bio's common stock and is subject to continued service with Sesen Bio on the applicable vesting date.

Each annual cash fee will be payable in arrears in four equal quarterly installments on the last day of each quarter, provided that the amount of each payment will be prorated for any portion of a quarter that a director is not serving on the Sesen Bio board of directors.

Each member of the Sesen Bio board of directors will also be entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending meetings of the Sesen Bio board of directors and any committee on which he or she serves.

The table below shows all compensation to Sesen Bio's non-employee directors during 2021.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)[1]	Total ($)
Jay S. Duker, M.D.	86,288	164,994	251,282
Jane V. Henderson [2]	56,435	164,994	221,429
Jason A. Keyes	54,015	164,994	219,009
Carrie L. Bourdow	50,916	164,994	215,910
Peter K Honig, M.D.[3]	21,298	449,516	470,814
Michael A.S. Jewett, M.D.[4]	20,258	449,516	469,774

(1) Immediately following the annual meeting of stockholders held on May 3, 2021, Dr. Duker, Ms. Henderson, Mr. Keyes and Ms. Bourdow each received an option to purchase 92,500 shares of Sesen Bio common stock at an exercise price of $2.79 per share. These stock options vest over twelve months, with 1/12th of the shares underlying the option vesting at the end of each one-month period following May 3, 2021. In connection with their appointment to the Sesen Bio board of directors, on July 20, 2021, Dr. Honig and Dr. Jewett each received an option to purchase 185,000 shares of Sesen Bio common stock at an exercise price of $3.86 per share. These stock options vest monthly in equal amounts over a three-year period following the July 20, 2021 grant date. The amounts reported in the "Option Awards" column reflect the aggregate grant date fair value of stock-based compensation awarded during the year computed in accordance with the provisions of Financial Accounting Standards Board ASC Topic 718. See Note 14 to Sesen Bio's financial statements appearing at the end of Sesen Bio's Annual Report on Form 10-K for the year ended December 31, 2021 regarding assumptions underlying the valuation of equity awards.

(2) Ms. Henderson resigned from the Sesen Bio board of directors effective on November 22, 2021.

(3) Dr. Honig was appointed to the Sesen Bio board of directors on July 20, 2021.

(4) Dr. Jewett was appointed to the Sesen Bio board of directors on July 20, 2021.

During 2021, Sesen Bio did not provide any additional compensation to Dr. Cannell, its President and Chief Executive Officer, for his service as a director. Dr. Cannell's compensation as a named executive officer is set forth above under "*Executive Compensation — Summary Compensation Table*" above.

The table below shows all stock options held by each of Sesen Bio's non-employee directors as of December 31, 2021.

Name	Stock Options Outstanding (#)
Jay S. Duker, M.D.	288,787
Jane V. Henderson (1)	309,849
Peter K Honig, M.D.	185,000
Michael A.S. Jewett, M.D.	185,000
Jason A. Keyes	269,500
Carrie L. Bourdow	269,500

(1) Ms. Henderson resigned from the Sesen Bio board of directors effective on November 22, 2021.

CARISMA EXECUTIVE COMPENSATION

This section describes the material elements of compensation awarded to, earned by or paid to each of Carisma's named executive officers in 2021. Carisma's "named executive officers" for 2021 are (i) Steven Kelly, Carisma's President and Chief Executive Officer, (ii) Richard Morris, Carisma's Chief Financial Officer, and (iii) Michael Klichinsky, Carisma's Chief Scientific Officer.

Summary Compensation Table

The following table sets forth information regarding compensation awarded to, earned by, or paid to each of Carisma's named executive officers for the years ended December 31, 2021 and 2020.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option awards[1]	Total
Steven Kelly					
President & Chief Executive Officer	2021	416,148	158,080	482,883	1,057,111
	2020	400,000	144,000	—	544,000
Richard Morris[2]					
Chief Financial Officer	2021	227,500	73,255	606,630	907,385
	2020	—	—	—	—
Michael Klichinsky, Pharm.D., Ph.D.[3]					
Chief Scientific Officer	2021	300,000	87,750	163,430	551,180
	2020	245,000	71,663	—	316,663

(1) The amounts reported in the "Option awards" column reflect the grant date fair value of Carisma options awarded during the year computed in accordance with the provisions of Financial Accounting Standard Board, or FASB, Accounting Standards Codification, or ASC, Topic 718. See Note 3 to Carisma's consolidated financial statements appearing at the end of this proxy/statement prospectus regarding assumptions underlying the valuation of option awards. These amounts reflect the accounting cost for these stock options and do not reflect the actual economic value that may be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options or the sale of the common stock underlying such stock options.

(2) Mr. Morris was appointed as Carisma's Chief Financial Officer on June 1, 2021. His annual base salary for 2021 was $390,000.

(3) Dr. Klichinsky was appointed as Carisma's Chief Scientific Officer in April, 2022. Prior to that, he served as Senior Vice President of Research for Carisma.

Narrative Disclosure to Summary Compensation Table

Base Compensation

Carisma uses base compensation or salaries to recognize the experience, skills, knowledge and responsibilities required of its executive officers. None of the Carisma named executive officers is currently party to an employment agreement or other agreement or arrangement that provides for automatic or scheduled increases in base compensation or salary.

For the year ended December 31, 2021, the annual base salaries for Mr. Kelly, Mr. Morris and Dr. Klichinsky were $416,000, $390,000 and $300,000, respectively.

Bonus Compensation

The Carisma board of directors may, in its discretion, award bonuses to the Carisma named executive officers from time to time. The Carisma named executive officers are eligible for annual performance-based bonuses up to a specified percentage of their base compensation or salary, subject to approval by the Carisma board of directors. Performance-based bonuses, which are calculated as a percentage of base compensation or salary, are designed to motivate Carisma's executive officers to achieve annual goals based on Carisma's strategic, financial and operating performance objectives.

With respect to 2021 performance, the Carisma board of directors awarded performance-based bonuses of $158,080, $73,255 and $87,750, respectively, to Mr. Kelly, Mr. Morris and Dr. Klichinsky.

Equity Incentives

Although Carisma does not have a formal policy with respect to the grant of equity incentive awards to its executive officers, or any formal equity ownership guidelines applicable to them, Carisma believes that equity grants provide its executives with a strong link to Carisma's long-term performance, create an ownership culture and help to align the interests of Carisma executive officers and Carisma stockholders. Accordingly, Carisma uses stock options to compensate its executive officers in the form of initial grants in connection with the commencement of employment and also at various other times, if Carisma or they have performed as expected or better than expected. In addition, Carisma believes that equity grants with a time-based vesting feature promote executive retention because this feature incentivizes its executive officers to remain in Carisma's employment during the vesting period. The option awards that Carisma has granted to its executive officers typically become exercisable as to 25% of the shares underlying the option on the first anniversary of the vesting commencement date and as to an additional 2.0833% of the original number of shares underlying the option monthly thereafter. Vesting rights cease upon termination of employment and exercise rights for previously vested stock options cease shortly after termination, though exercisability is extended in the case of death or disability.

Carisma executive officers are eligible to participate in the Carisma Plan. All Carisma options have been granted pursuant to the Carisma Plan. For a description of the Carisma Plan, see the section entitled "*— 2017 Stock Incentive Plan*" beginning on page 344 of this proxy statement/prospectus.

None of the Carisma executive officers is currently party to an employment agreement that provides for the automatic award of stock options. Carisma granted stock option awards to each of the Carisma named executive officers during the year ended December 31, 2021, as described in more detail in the "Outstanding Equity Awards at December 31, 2021" table below.

Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including no voting rights and no right to receive dividends or dividend equivalents.

Carisma has historically granted stock options with exercise prices that are equal to the fair market value of Carisma common stock on the date of grant as determined by the Carisma board of directors, based on a number of objective and subjective factors.

Outstanding Equity Awards at December 31, 2021

The following table sets forth information regarding all outstanding equity awards held by each of Carisma's named executive officers as of December 31, 2021.

	Option Awards			
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date
Steven Kelly	315,743	13,728 (1)	1.18	9/18/2028
	—	219,000 (2)	2.77	3/31/2031
Richard Morris	—	174,326 (3)	2.77	5/31/2031
Michael Klichinsky, Pharm.D., Ph.D.	30,000	— (4)	0.19	11/01/2027
	31,666	8,334 (5)	1.18	10/21/2028
	—	59,000 (6)	2.77	3/31/2031

(1) This Carisma option vests over four years, with 25% of the shares vested on February 12, 2019 and 2.0833% of the original number of shares vested thereafter in equal monthly installments through February 12, 2022, subject to continued service.

(2) This Carisma option vests over four years, with 25% of the shares vested on April 1, 2022 and 2.0833% of the original number of shares vested thereafter in equal monthly installments through April 1, 2025, subject to continued service.

(3) This Carisma option vests over four years, with 25% of the shares vested on June 1, 2022 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through June 1, 2025, subject to continued service.

(4) This Carisma option is fully vested.

(5) This Carisma option vests over four years, with 25% of the shares vested on October 22, 2019 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through October 22, 2022, subject to continued service.

(6) This Carisma option vests over four years, with 25% of the shares vested on April 1, 2022 and 2.0833% of the original number of shares vested thereafter in equal monthly installments through April 1, 2025, subject to continued service.

Employment Agreements with Named Executive Officers

Carisma has entered into written employment agreements with each of its executive officers. These agreements set forth the terms of the executive officer's compensation, including base salary, annual discretionary bonus eligibility and severance benefits, among other matters. The employment agreements with the Carisma named executive officers are summarized below.

Agreement with Steven Kelly

On February 12, 2018, Carisma entered into an offer letter, or the Kelly Agreement, with Mr. Kelly in connection with his employment as Carisma's President and Chief Executive Officer. Under the Kelly Agreement, Mr. Kelly is an at-will employee and his employment with Carisma can be terminated by Mr. Kelly or Carisma at any time and for any reason. Pursuant to the Kelly Agreement, Mr. Kelly's annualized base salary may be adjusted from time to time in accordance with normal business practice and in the sole discretion of Carisma. He is eligible to receive an annual performance bonus of up to a specified percentage of his base salary for the applicable calendar year.

Under the Kelly Agreement, in the event of the termination of Mr. Kelly's employment by Carisma without cause or by him for good reason, Mr. Kelly is entitled, subject to his execution of and compliance with a separation and release of claims agreement in Carisma's favor and his continued compliance with certain restrictive covenants, to (i) continued payment of his base salary for a period of 12 months following the date his release of claims becomes effective and (ii) payment of a pro-rated portion of his annual target discretionary bonus.

After the date of the Kelly Agreement, the Carisma board of directors approved increases to Mr. Kelly's annualized base salary to $400,000 for 2020 and $416,000 for 2021. The Carisma board of directors has authorized an annual performance bonus percentage of 40% for Mr. Kelly. In 2022, the Carisma board of directors authorized an increase in Mr. Kelly's annualized base salary to $440,000.

Agreement with Richard Morris

On March 15, 2021, Carisma entered into an offer letter, or the Morris Agreement, with Mr. Morris in connection with his employment as Carisma's Chief Financial Officer. Under the Morris Agreement, Mr. Morris is an at-will employee, and his employment with Carisma can be terminated by Mr. Morris or Carisma at any time and for any reason. Pursuant to the Morris Agreement, Mr. Morris's annualized base salary may be adjusted from time to time in accordance with normal business practice and in the sole discretion of Carisma. He is eligible to receive an annual performance bonus of up to a specified percentage of his base salary for the applicable calendar year. The Morris Agreement also provided for an initial grant of options to purchase 174,326 shares of Carisma common stock, subject to the approval of the Carisma board of directors, or the Morris Grant.

Under the Morris Agreement, in the event of the termination of Mr. Morris' employment by Carisma without cause or by him for good reason, Mr. Morris is entitled, subject to his execution of and compliance with a separation and release of claims agreement in Carisma's favor and his continued compliance with certain restrictive covenants, to (i) continued payment of his base salary for a period of 12 months following the date his release of claims becomes effective and (ii) payment of a pro-rated portion of his annual target discretionary bonus. In addition, in the event that Mr. Morris' employment is terminated by Carisma without cause or by Mr. Morris for good reason, within 12 months following a change in control event (as defined in the Carisma Plan), then 100% of the unvested portion of the Morris Grant shall be accelerated and immediately vest and become exercisable.

In connection with the Morris Agreement, the Carisma board of directors approved an annualized base salary of $390,000 for 2021 and an annual performance bonus percentage of 35% for Mr. Morris. In 2022, the Carisma board of directors authorized an increase in Mr. Morris' annualized base salary to $400,000.

Agreement with Michael Klichinsky

On October 18, 2018, Carisma entered into an offer letter, or the Klichinsky Agreement, with Dr. Klichinsky in connection with his employment as Carisma's Vice President of Discovery Research. Under the Klichinsky Agreement, Dr. Klichinsky is an at-will employee, and his employment with Carisma can be terminated by Dr. Klichinsky or Carisma at any time and for any reason. Pursuant to the Klichinsky Agreement, Dr. Klichinsky's annualized base salary may be adjusted from time to time in accordance with normal business practice and in the sole discretion of Carisma. He is eligible to receive an annual performance bonus of up to a specified percentage of his base salary for the applicable calendar year.

Under the Klichinsky Agreement, in the event of the termination of Dr. Klichinsky's employment by Carisma without cause or by him for good reason, Dr. Klichinsky is entitled, subject to his execution of and compliance with a separation and release of claims agreement in Carisma's favor and his continued compliance with certain restrictive covenants, to (i) continued payment of his base salary for a period of 12 months following the date his release of claims becomes effective and (ii) payment of a pro-rated portion of his annual target discretionary bonus.

After the date of the Klichinsky Agreement, the Carisma board of directors approved increases to Dr. Klichinsky's annualized base salary to $245,000 for 2020 and $300,000 for 2021. In 2022, Dr. Klichinsky was promoted to Chief Scientific Officer of Carisma, and the Carisma board of directors authorized an increase in his annualized base salary to $340,000 and an increase of his annual performance bonus percentage to 35%.

Employee Invention, Non-Disclosure, Non-Competition and Non-Solicitation Agreements

Each of Carisma's executive officers has entered into standard forms of agreements with respect to proprietary and confidential information, developments, non-competition, and non-solicitation. Under these agreements, each executive officer has agreed to protect Carisma's confidential and proprietary information during and after the executive officer's employment with Carisma, not to compete with Carisma during his or her employment and for a period generally lasting for one year after the termination of his or her employment, and not to solicit Carisma's employees, consultants, clients or customers during his or her employment and for a period generally lasting for one year after the termination of his or her employment. In addition, under these agreements, each executive officer has agreed that Carisma owns all developments and inventions that are developed by such executive officer within the scope of and during the period of his or her employment with Carisma that are related to Carisma's business or research and development conducted or planned to be conducted by Carisma at the time such development is created. Each executive officer has also agreed to provide Carisma with a non-exclusive, royalty-free, perpetual license to use any prior inventions that such executive officer incorporates into inventions assigned to Carisma under these agreements.

2017 Stock Incentive Plan

The Carisma board of directors adopted, and the Carisma stockholders approved, the Carisma Plan in September 2017. The Carisma Plan was amended on June 22, 2018, December 21, 2020, November 9, 2021 and April 7, 2022 to increase the number of shares of Carisma common stock available for issuance under the Carisma Plan. At the effective time of the merger, Sesen Bio will assume the Carisma Plan and each Carisma option in accordance with the terms of the Carisma Plan and the applicable stock option agreements evidencing by which such Carisma options but with such changes to such documents as Carisma and Sesen Bio mutually agree are appropriate to reflect the substitution of the Carisma option for a Sesen Bio option. The material terms of the Carisma Plan are summarized below.

The Carisma Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards. Carisma's employees, officers, directors, as well as its consultants and advisors, are eligible to receive awards under the Carisma Plan. Incentive stock options, however, may only be granted to Carisma employees.

Authorized Shares. As of September 20, 2022, Carisma had reserved an aggregate of 2,664,018 shares of Carisma common stock for the issuance of awards under the Carisma Plan. As of September 20, 2022, 1,900,829 stock options were issued and outstanding under the Carisma Plan to purchase shares of Carisma common stock at a weighted average exercise price of $1.80 per share and 717,753 shares of Carisma common stock remained available for the issuance of future awards under the Carisma Plan.

Plan Administration. Pursuant to the terms of the Carisma Plan, the Carisma board of directors (or a committee delegated by the Carisma board of directors) administers the Carisma Plan and, subject to any limitations in the Carisma Plan, selects the recipients of awards and determines:

- the number of shares of Carisma common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of a share of Carisma common stock on the date of grant; and
- the number of shares of Carisma common stock subject to any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of a share of Carisma common stock on the date of grant and the duration of such awards may not be in excess of ten years).

Transferability of Awards. The Carisma Plan prohibits awards from being sold, assigned, transferred, pledged, hypothecated or otherwise encumbered by the person to whom such awards are granted, either voluntarily or by operation of law, and, during the life of a participant in the Carisma Plan, awards are exercisable only by the participant, except that certain awards may be transferred to family members through gifts or domestic relations orders or to an executor or guardian upon the death or disability of the participant. Carisma is not required to recognize any such permitted transfer until such time as a permitted transferee delivers to Carisma a written instrument, as a condition to such transfer, in form and substance satisfactory to Carisma confirming that such transferee shall be bound by all of the terms and conditions of the applicable award.

Effect of Certain Changes in Capitalization. Upon the occurrence of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Carisma common stock other than an ordinary cash dividend, under the terms of the Carisma Plan, Carisma is required to equitably adjust (or make substitute awards, if applicable), in the manner determined by the Carisma board of directors:

- the number and class of securities available under the Carisma Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to and the repurchase price per share subject to each outstanding award of restricted stock; and
- the share and per-share related provisions and the purchase price, if any, of each outstanding restricted stock unit award and each outstanding other stock-based award.

Effect of Certain Corporate Transactions. Upon the occurrence of a merger or other reorganization event (as defined in the Carisma Plan), the Carisma board of directors may, on such terms as the Carisma board of directors determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and Carisma), take any

one or more of the following actions pursuant to the Carisma Plan as to all or any (or any portion of) outstanding awards, other than awards of restricted stock:

- provide that outstanding awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to a participant, provide that all of the participant's unexercised and/or unvested awards will terminate immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of the notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of Carisma common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to participants with respect to each award held by a participant equal to (1) the number of shares of Carisma common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (2) the excess, if any, (A) of the cash payment for each share of Carisma common stock surrendered in the reorganization event, over (B) the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award; and/or
- provide that, in connection with Carisma's liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings).

The Carisma board of directors is not obligated under the Carisma Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than Carisma's liquidation or dissolution, Carisma's repurchase and other rights with respect to outstanding awards of restricted stock will continue for the benefit of the succeeding company and will, unless the Carisma board of directors determines otherwise, apply to the cash, securities, or other property which the Carisma common stock was converted into or exchanged for pursuant to the reorganization event in the same manner and to the same extent as they applied to the shares of Carisma common stock subject to the restricted stock award. However, the Carisma board of directors may provide for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or in any other agreement between a participant and Carisma, either initially or by amendment, or provide for forfeiture of such restricted stock if issued at no cost. Upon Carisma's liquidation or dissolution, except to the extent specifically provided to the contrary in the restricted stock award agreement or any other agreement between the participant and Carisma, all restrictions and conditions on all restricted stock awards then outstanding will automatically be deemed terminated or satisfied.

Notwithstanding the provisions of the Carisma Plan described above related to reorganization events, except to the extent specifically provided to the contrary in the applicable award agreement or in any other agreement between a participant and Carisma:

- each stock option granted under the Carisma Plan will be immediately exercisable in full if, on or prior to the first anniversary of the date of the consummation of the change in control event (as defined in the Carisma Plan), the participant's employment with Carisma or the acquiring or succeeding corporation is terminated for good reason (as defined in the Carisma Plan) by the participant or is terminated without cause (as defined in the Carisma Plan) by Carisma or the acquiring or succeeding corporation; and
- each award of restricted stock or restricted stock units will immediately become free from all conditions or restrictions if, on or prior to the first anniversary of the date of the consummation of the change in control event, the participant's employment

with Carisma or the acquiring or succeeding corporation is terminated for good reason by the participant or is terminated without cause by Carisma or the acquiring or succeeding corporation.

The Carisma board of directors may specify in an award agreement at the time of the grant the effect of a change in control event on any stock appreciation right or other stock-based award.

Acceleration. At any time, the Carisma board of directors may provide that any award under the Carisma Plan will become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

Amendment of Plan and Awards. The Carisma board of directors may amend, suspend, or terminate the Carisma Plan or any portion thereof at any time, however if approval of the Carisma stockholders as to any modification or amendment is required under the Internal Revenue Code of 1986, as amended, with respect to incentive stock options, the Carisma board of directors may not effect such modification or amendment without such approval. The Carisma board of directors may amend, modify or terminate any outstanding award, however the participant's consent to such action is required unless the Carisma board of directors determines that the action, taking into account any related action, does not materially and adversely affect the participant's rights under the Carisma Plan or the change is otherwise permitted by the Carisma Plan. Furthermore, the Carisma board of directors may amend any outstanding award granted under the Carisma Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such award or, without stockholder approval, cancel any outstanding award and grant in substitution therefor new awards under the Carisma Plan covering the same or a different number of shares of Carisma common stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled award.

Termination. No award may be granted under the Carisma Plan on or after the date that is ten years following the earlier of (i) the date on which the Carisma Plan was adopted by the Carisma board of directors or (ii) the date the Carisma Plan was approved by the Carisma stockholders, but all awards previously granted may extend beyond such date.

Potential Payments to Named Executive Officers Upon Termination or Change in Control

The Carisma named executive officers are entitled to certain payments upon termination or a change in control as set forth above under the sections entitled "*— Employment Agreements with Named Executive Officers*" and "*— 2017 Stock Incentive Plan — Effect of Certain Corporate Transactions*".

Carisma Director Compensation

The table below shows all compensation to non-employee directors of Carisma during the year ended December 31, 2021.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)[1][2]	Total ($)
Margarita Chavez(3)	—	—	—
Regina Hodits, Ph.D.	—	—	—
Briggs Morrison, M.D.	—	49,860 [4]	49,860
Björn Odlander, M.D., Ph.D.	—	—	—
Chidozie Ugwumba	—	—	—
Sanford Zweifach	9,375 [5]	269,244 [6]	278,619

(1) The amount reported in the "Option Awards" column reflects the aggregate grant date fair value of Carisma options awarded during the year computed in accordance with the provisions of ASC Topic 718. See Note 3 to Carisma's consolidated financial statements appearing at the end of this proxy statement/prospectus regarding assumptions underlying the valuation of option awards. This amount reflects the accounting cost for Carisma option and does not reflect the actual economic value that may be realized by the non-employee director upon the vesting of the stock option, the exercise of the stock option or the sale of the common stock underlying such stock option.

(2) As of December 31, 2021, the aggregate number of shares of the Carisma common stock subject to outstanding option awards for each non-employee director was as follows: Mr. Morrison, 51,332 shares; and Mr. Zweifach, 97,200 shares.

(3) Ms. Chavez is not expected to serve as a director of the combined company.

(4) Represents an option to purchase 18,000 shares of Carisma common stock granted on June 1, 2021, in respect of Mr. Morrison's board services.

(5) Represents fees paid to Mr. Zweifach in connection with his service as Chair of the Carisma board of directors for the year ended December 31, 2021.

(6) Represents an option to purchase 97,200 shares of Carisma common stock granted on November 9, 2021, in respect of Mr. Zweifach's board services.

During the year ended December 31, 2021, Carisma did not provide any additional compensation to Mr. Kelly, its President and Chief Executive Officer, for his service as a director. Mr. Kelly's compensation as a named executive officer is set forth above under "*Carisma Executive Compensation — Summary Compensation Table*".

RELATED PARTY TRANSACTIONS OF DIRECTORS AND EXECUTIVE OFFICERS OF THE COMBINED COMPANY

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements, with Sesen Bio's and Carisma's directors and executive officers, including those discussed in the sections entitled "*Management Following the Merger*," "*Sesen Bio Executive Compensation*" and "*Carisma Executive Compensation*," beginning on pages 324 330 and 341, respectively, of this proxy statement/prospectus, the following is a description of each transaction occurring since January 1, 2019 and any currently proposed transactions in which:

- either Sesen Bio or Carisma was or is to be a participant;
- the amounts involved exceeded or will exceed the lesser of $120,000 or 1% of the average of Sesen Bio's or Carisma's the total assets at year end for the last two completed fiscal years; and
- any director, executive officer, holder of more than 5% of the voting securities of Sesen Bio, Carisma, or an affiliate or immediate family member of the foregoing persons, had or will have a direct or indirect material interest.

Sesen Bio Transactions

Manufacturing and Office Lease

Sesen Bio leases a manufacturing, laboratory, and office facility in Winnipeg, Manitoba, from an affiliate of Leslie Dan, a former director of Sesen Bio who retired from the Sesen Bio board of directors in July 2019, under a two-year renewable lease through September 2022 with a right to renew the lease for one subsequent three-year term. For the years ended December 31, 2021, 2020 and 2019, Sesen Bio had a rent expense for this facility of $327,000, $301,000 and $320,000, respectively.

Protoden License

Sesen Bio is party to an intellectual property license agreement under which Sesen Bio pays fees to Protoden Technologies Inc., or Protoden, a company owned by an affiliate of Mr. Dan. Pursuant to the agreement, Sesen Bio has an exclusive, perpetual, irrevocable and non-royalty bearing license, with the right to sublicense, under certain patents and technology to make, use and sell products that utilize such patents and technology. The annual fee is $100,000. Beginning on January 1, 2025, the licenses granted to Sesen Bio will require no further payments to Protoden. Sesen Bio paid $100,000 under this license agreement to Protoden in each of the years ended December 31, 2021, 2020 and 2019.

Carisma Transactions

Private Placements of Securities

Series A Convertible Preferred Stock Financing

In June 2018, November 2018 and March 2020, Carisma and CARISMA Therapeutics S.à r.l., a société à responsabilité limitée organized under the laws of Luxembourg and a subsidiary of Carisma, or Carisma Europe, as applicable, issued and sold an aggregate of 5,201,017 shares of the Carisma Series A preferred stock, $0.0001 par value per share and an aggregate of 937,501 Class B Shares, with a nominal value of one tenth of one eurocent (EUR 0.001), of Carisma Europe, or the Class B exchangeable shares, of which (i) 4,701,925 shares of Series A preferred stock and all of the Class B exchangeable shares were sold at a price per share of $10.40 in cash, for an aggregate purchase price of $58,650,030.40 and (ii) 499,092 shares of Carisma Series A preferred stock were sold at a price per share of $8.06 against payment by cancellation or conversion of indebtedness of Carisma to the applicable purchaser, including interest. Carisma also issued one share of Special Voting Preferred Stock of Carisma, $0.0001 par value per share, to the holder of the Class B exchangeable shares, which share shall be automatically cancelled at such time as all Class B exchangeable shares have been exchanged for capital stock of Carisma.

The following table sets forth the aggregate number of shares of the Carisma Series A preferred stock and Class B exchangeable shares that were issued and sold to Carisma directors, executive officers and holders of more than 5% of Carisma voting securities and their affiliates in the transactions and the aggregate amount of consideration for such shares:

Purchaser[1]	Shares of Series A Preferred Stock	Shares of Class B Exchangeable Shares	Aggregate Purchase Price
AbbVie Biotechnology Ltd	947,762	—	$ 8,500,003.20
HealthCap VII L.P.	250,647	937,501	$ 11,000,017.60
Entities affiliated with IPG	947,186	—	$ 8,500,003.20
MRL Ventures Fund, LLC	480,770	—	$ 5,000,008.00
The Trustees of the University of Pennsylvania	309,594	—	$ 2,750,009.60
TPG Biotechnology Partners V, L.P	673,076	—	$ 6,999,990.40
Wellington Life Sciences V GmbH & Co. KG	798,072	—	$ 8,299,948.80

(1) See section entitled "*Principal Stockholders of Carisma*" beginning on page 375 of this proxy statement/prospectus for additional information about shares held by these entities.

Series B Convertible Preferred Stock Financing

In December 2020 and February 2021, Carisma and Carisma Europe, as applicable, issued and sold an aggregate of 3,499,866 shares of the Carisma Series B preferred stock, $0.0001 par value per share and an aggregate of 297,764 Class B-1 Shares, with a nominal value of one tenth of one eurocent (EUR 0.001), of Carisma Europe, or the Class B-1 exchangeable shares, all of which were sold at a price per share of $15.60 in cash, for an aggregate purchase price of $59,243,028.00. Carisma also issued one share of Carisma Series B special voting preferred stock, $0.0001 par value per share, to the holder of the Class B-1 exchangeable shares, which share shall be automatically cancelled at such time as all Class B-1 exchangeable shares have been exchanged for capital stock of Carisma.

The following table sets forth the aggregate number of shares of the Carisma Series B preferred stock and Class B-1 exchangeable shares that were issued and sold to Carisma directors, executive officers and holders of more than 5% of Carisma voting securities and their affiliates in the transactions and the aggregate amount of consideration for such shares:

Purchaser[1]	Shares of Series B Preferred Stock	Shares of Class B-1 Exchangeable Shares	Aggregate Purchase Price
AbbVie Biotechnology Ltd	256,398	—	$ 3,999,808.80
Briggs Morrison	6,410	—	$ 99,996.00
HealthCap VII L.P.	—	297,764	$ 4,645,118.40
Entities affiliated with IPG	577,120	—	$ 9,003,072.00
MRL Ventures Fund, LLC	134,609	—	$ 2,099,900.40
SymBiosis II, LLC	961,492	—	$ 14,999,275.20
The Trustees of the University of Pennsylvania	170,131	—	$ 2,654,043.60
TPG Biotechnology Partners V, L.P	168,681	—	$ 2,631,423.60
Wellington Life Sciences V GmbH & Co. KG	200,007	—	$ 3,120,109.20

(1) See section entitled "*Principal Stockholders of Carisma*" beginning on page 375 of this proxy statement/prospectus for additional information about shares held by these entities.

Carisma Pre-Closing Financing

On September 20, 2022, immediately prior to the execution and delivery of the Merger Agreement, Carisma entered into a subscription agreement with certain investors named therein in connection with the Carisma pre-closing financing. Pursuant to the Subscription Agreement, the investors agreed to purchase an aggregate of 1,964,101 shares of Carisma common stock, at a price of $15.60 per share, for aggregate gross proceeds of $30.6 million. The closing of the Carisma pre-closing financing is conditioned upon the satisfaction or waiver of the conditions to the merger as well as certain other conditions. Seven of the investors or their affiliates

are beneficial holders of more than 5% of Carisma's capital stock, and the table below sets forth the number of shares of Carisma common stock expected to be purchased by such holders at the closing of the Carisma pre-closing financing:

Purchaser[1]	Shares of Common Stock	Aggregate Purchase Price
AbbVie Biotechnology Ltd	243,590	$ 3,800,004.00
HealthCap VII L.P.	303,205	$ 4,729,998.00
MRL Ventures Fund, LLC	160,256	$ 2,499,993.60
SymBiosis II, LLC	205,128	$ 3,199,996.80
The Trustees of the University of Pennsylvania	179,487	$ 2,799,997.20
TPG Biotechnology Partners V, L.P	44,872	$ 700,003.20
Wellington Life Sciences V GmbH & Co. KG	211,538	$ 3,299,992.80

(1) See section entitled "*Principal Stockholders of Carisma*" beginning on page 375 of this proxy statement/prospectus for additional information about shares held by these entities.

Other Agreements with Carisma Stockholders

Investor Rights Agreement

In December 2020, Carisma and Carisma Europe entered into an amended and restated investor rights agreement, or the Investor Rights Agreement, with certain holders of Carisma common stock, the Series A preferred stock, Series B preferred stock, Class B exchangeable shares and Class B-1 exchangeable shares, including certain holders of 5% of Carisma's capital stock, and including certain affiliates of Carisma's directors and their affiliates. The Investor Rights Agreement provides such holders with certain registration rights, including the right to demand that Carisma file a registration statement or request that their shares be covered by a registration statement that Carisma is otherwise filing. The Investor Rights Agreement also provides certain major investors with certain information and observer rights. The Investor Rights Agreement is expected to be terminated in connection with the closing of the merger.

Voting Agreement

In December 2020, Carisma and Carisma Europe entered into an amended and restated voting agreement, or the Voting Agreement, with certain holders of Carisma common stock, Series A preferred stock, Series B preferred stock, Class B exchangeable shares and Class B-1 exchangeable shares, including certain holders of 5% of Carisma's capital stock, and including certain of Carisma's directors and their affiliates. Pursuant to the Voting Agreement, such holders party thereto agreed to vote their shares in favor of the election of certain directors and specified transactions approved by the requisite majority of the shares of voting capital stock held by such holders. The Voting Agreement is expected to be terminated in connection with the closing of the merger.

Right of First Refusal and Co-Sale Agreement

In December 2020, Carisma entered into an amended and restated right of first refusal and co-sale agreement, or the ROFR Agreement, with certain holders of Carisma common stock, the Series A preferred stock, Series B preferred stock, Class B exchangeable shares and Class B-1 exchangeable shares, including certain holders of 5% of its capital stock, and including certain of Carisma's directors and their affiliates. Pursuant to the ROFR Agreement, Carisma has a right of first refusal in respect of certain sales of securities by certain holders of its capital stock. To the extent Carisma does not exercise such right in full, certain holders of its capital stock are granted certain rights of first refusal and co-sale in respect of such sales. The ROFR Agreement is expected to be terminated in connection with the closing of the merger.

Share Exchange and Voting Agreement

In December 2020, Carisma and Carisma Europe entered into an amended and restated share exchange and voting agreement, or the Share Exchange Agreement, with certain holders of the Series A preferred stock, Series B preferred stock, Class B exchangeable shares and Class B-1 exchangeable shares, including certain holders of 5% of its capital stock, and including certain of Carisma's directors and their affiliates. The Share Exchange Agreement provides for the exchange of the Class B exchangeable shares and Class B-1 exchangeable shares for shares of Series A preferred stock and Series B preferred stock, respectively, either voluntarily or automatically, upon certain circumstances as set forth therein. In connection with the closing of the merger, the Class B exchangeable shares and Class B-1 exchangeable shares will be exchanged into Carisma preferred stock, and the Share Exchange Agreement will terminate.

License Agreements

In November 2017, Carisma entered into the Penn License Agreement with Penn. Pursuant to the Penn License Agreement, Carisma is responsible for paying Penn an annual license maintenance fee in the low tens of thousands of dollars, payable until Carisma's first payment of a royalty. Carisma is required to pay Penn up to $10.9 million per product in development and regulatory milestone payments, up to $30.0 million per product in commercial milestone payments, and up to an additional $1.7 million in development and regulatory milestone payments for the first CAR-M product directed to mesothelin. Penn is a holder of 5% or more of the Carisma capital stock. For additional detail on the Penn License Agreement see the section entitled "*Carisma Business — University of Pennsylvania License Agreement*" beginning on page 277 of this proxy statement/prospectus.

Indemnification

The Carisma Certificate of Incorporation provides that Carisma will provide indemnification, and advancement of expenses to, directors and officers to the fullest extent permitted by applicable law.

Policies for Approval of Related Party Transactions

Carisma does not have a written policy regarding the review and approval of related person transactions. Nevertheless, with respect to such transactions, it has been the practice of the Carisma board of directors to consider the nature of and business reasons for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in the best interests of, or not contrary to, Carisma's best interests.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

On September 20, 2022, Sesen Bio, Merger Sub, and Carisma entered into the Merger Agreement, pursuant to which, among other things, and subject to the satisfaction or waiver of certain conditions set forth in the Merger Agreement, Merger Sub will merge with and into Carisma, with Carisma continuing as a wholly-owned subsidiary of Sesen Bio and the surviving corporation of the merger. At the effective time of the merger, Sesen Bio will change its name to "CARISMA Therapeutics Inc."

Immediately prior to the execution and delivery of the Merger Agreement, Carisma entered into a subscription agreement in connection with the Carisma pre-closing financing, pursuant to which certain investors agreed to purchase shares of Carisma common stock at an aggregate purchase price of $30.6 million. The closing of the Carisma pre-closing financing is conditioned upon the satisfaction or waiver of the conditions to the closing of the merger set forth in the Merger Agreement. The shares of Carisma common stock issued in the Carisma pre-closing financing will be converted into shares of Sesen Bio common stock in the merger in accordance with the exchange ratio. As of immediately after the effective time of the merger, the Carisma convertible note will automatically convert into a number of shares of Sesen Bio common stock calculated in accordance with the terms of the Carisma convertible note and based on the exchange ratio for the conversion of Carisma capital stock into Sesen Bio common stock.

Prior to the effective time, Sesen Bio will enter into the CVR Agreement with a rights agent pursuant to which Sesen Bio stockholders of record as of a date agreed to by Sesen Bio and Carisma prior to the effective time will receive one CVR for each outstanding share of Sesen Bio common stock held by such stockholders on such date. Each CVR will represent the contractual right to receive contingent cash payments upon the receipt by Sesen Bio of certain proceeds payable by Roche, if any, pursuant to the Roche Asset Purchase Agreement, upon the achievement by Roche of a specified milestone set forth in the Roche Asset Purchase Agreement, subject to certain customary deductions, including for expenses and taxes. The CVRs will not have any voting or dividend rights, will not represent any equity or ownership interest in Sesen Bio or its subsidiaries, and interest will not accrue on any amounts payable on the CVRs. Prior to the effective time, Sesen Bio may declare a pre-closing dividend to its common stockholders of record consisting of (a) one CVR for each outstanding share of Sesen Bio common stock held by such stockholder as of such date, representing the right to receive contingent payments upon the occurrence of certain events set forth in, and subject to and in accordance with the terms and conditions of, the CVR Agreement and (b) a special cash dividend in an amount not to exceed $25.0 million in the aggregate and contingent upon Sesen Bio's net cash as of the closing of the merger having been determined to be greater than or equal to $100.0 million.

At the effective time of the merger, each outstanding share of Carisma capital stock, including shares of Carisma common stock issued in connection with the Carisma pre-closing financing, will be converted into the right to receive a number of shares of Sesen Bio common stock equal to the exchange ratio. The exchange ratio was initially estimated at the time of the execution of the Merger Agreement to be 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock and is subject to adjustment prior to the closing for, among other things, Sesen Bio's net cash at the cash determination time. Because Sesen Bio's final net cash will not be determined until the closing, and because the number of shares of Sesen Bio common stock issuable to Carisma stockholders is determined based on, among other things, Sesen Bio's final net cash, Sesen Bio stockholders cannot be certain of the exact number of shares that will be issued to Carisma stockholders when Sesen Bio stockholders vote on the proposals at the Sesen Bio special meeting. The exchange ratio referenced above is an estimate only and the final exchange ratio will be determined pursuant to a formula described in more detail in the section entitled "*The Merger Agreement — Merger Consideration*" in this proxy statement/prospectus.

The following selected unaudited pro forma condensed combined financial data gives effect to the (i) merger, (ii) the Carisma pre-closing financing, (iii) the automatic conversion of the Carisma convertible note, and (iv) the pre-closing dividend. Additionally, the unaudited pro forma condensed combined balance sheet reflects the proceeds received by Sesen Bio in connection with the Roche Asset Purchase Agreement in July 2022.

The merger is accounted for as a reverse recapitalization under U.S. GAAP because the primary assets of Sesen Bio are cash, cash equivalents, and marketable securities. For financial reporting purposes, Carisma has been determined to be the accounting acquirer based upon the terms of the merger and other factors including: (i) Carisma stockholders and other persons holding securities that are convertible into Carisma common stock are expected to own approximately 65.6% of the fully diluted closing Sesen Bio common stock immediately following the effective time of the merger (based on estimates made at the time of the execution of the Merger Agreement), (ii) Carisma will hold the majority (six of seven) of board seats of the combined company, and (iii) Carisma's management will hold all key positions in the management of the combined company. The "fully diluted closing Sesen Bio common stock" as used herein means (x) the number of outstanding shares of Sesen Bio common stock, which amount excludes the shares of Sesen Bio common stock available for issuance under the 2014 Incentive Plan and the 2009 Incentive Plan, as well as inducement grants made outside of the Sesen Bio stockholder-approved plans and out-of-the-money Sesen Bio options, *plus* (y) the number of outstanding shares of Carisma common stock, which amount includes the shares of Carisma common stock available for issuance under the Carisma Plan.

The unaudited pro forma condensed combined financial information was prepared in accordance with Article 11 of Regulation S-X. The Sesen Bio and Carisma unaudited pro forma condensed combined balance sheet data assume that the merger took place on June 30, 2022, and combines the Sesen Bio and Carisma historical balance sheets at June 30, 2022. The Sesen Bio and Carisma unaudited pro forma condensed combined statements of operations data assume that the merger took place as of January 1, 2021 and combines the historical results of Sesen Bio and Carisma for the six months ended June 30, 2022 and the year ended December 31, 2021. The historical financial statements of Sesen Bio and Carisma, which are included in this proxy statement/prospectus, have been adjusted to give pro forma effect to events that are (i) directly attributable to the merger, (ii) factually supportable, and (iii) with respect to the statements of operations, expected to have a continuing impact on the combined results.

The unaudited pro forma condensed combined financial statements are based on the assumptions and adjustments that are described in the accompanying notes. The unaudited pro forma condensed combined financial statements and pro forma adjustments have been prepared based on preliminary estimates of fair value of assets acquired and liabilities assumed. A final determination of these estimated fair values will be based on the actual net tangible assets of Sesen Bio that exist as of the date of completion of the merger. Differences between these preliminary estimates and the final fair value of assets and liabilities acquired may occur and these differences could have a material impact on the accompanying unaudited pro forma condensed combined financial statements and the combined company's future results of operations and financial position. The actual amounts recorded as of the completion of the merger may differ materially from the information presented in these unaudited pro forma condensed combined financial statements as a result of the amount of cash used by Sesen Bio's operations between the signing of the Merger Agreement and the closing of the merger; the timing of the closing of the merger; and other changes in Sesen Bio's assets and liabilities that occur prior to the completion of the merger.

The unaudited pro forma condensed combined financial statements do not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the merger. The unaudited pro forma condensed combined financial statements have been prepared for illustrative purposes only and are not necessarily indicative of the financial position or results of operations in future periods or the results that actually would have been realized had Sesen Bio and Carisma been a combined company during the specified period. The unaudited pro forma condensed combined financial statements, including the notes thereto, should be read in conjunction with the separate historical audited financial statements of Sesen Bio and Carisma for the year ended December 31, 2021 and the unaudited condensed financial statements of Sesen Bio and Carisma for the six months ended June 30, 2022 included elsewhere in this proxy statement/prospectus.

Unaudited Pro Forma Condensed Combined Balance Sheet
As of June 30, 2022
(in thousands, except per share amounts)

	CARISMA Therapeutics Inc.	Sesen Bio, Inc.	Transactions Adjustments	Notes	Other Transaction Adjustment	Notes	Pro Forma Combined
ASSETS							
Current assets:							
Cash and cash equivalents	$ 39,698	$ 72,090	$ (17,993)	A	$ 40,000	I	$ 133,795
Short-term marketable securities	41,906	69,454	—		—		111,360
Accounts receivable	—	73	—		—		73
Other receivables	—	14,046	—		—		14,046
Prepaid expenses and other current assets	2,559	757	—		—		3,316
Total current assets	**84,163**	**156,420**	**(17,993)**		**40,000**		**262,590**
Restricted cash	—	30	—		—		30
Marketable securities	—	19,641	—		—		19,641
Property and equipment, net	5,799	30	—		—		5,829
Right of use assets – operating leases	7,396	42	—		—		7,438
Total assets	**$ 97,358**	**$ 176,163**	**$ (17,993)**		**$ 40,000**		**$ 295,528**
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLERS' EQUITY (DEFICIT)							
Current liabilities:							
Accounts payable	$ 3,868	$ 1,667	$ —		$ —		$ 5,535
Accrued expenses	3,987	29,851	(563)	B	—		33,275
Deferred revenues	447	—	—		—		447
Operating lease liabilities	4,774	—	—		—		4,774
Finance lease liabilities	83	—	—		—		83
Other current liabilities	—	487	—		—		487
Total current liabilities	**13,159**	**32,005**	**(563)**		**—**		**44,601**
Contingent consideration	—	1,800	—		—		1,800
Convertible promissory note	32,485	—	(32,485)	C	—		—
Deferred revenues, noncurrent	45,000	—	—		—		45,000
Derivative liability	4,521	—	(4,521)	C	—		—
Operating lease liabilities, noncurrent	2,207	—	—		—		2,207
Finance lease liabilities, noncurrent	172	—	—		—		172
Total liabilities	**97,544**	**33,805**	**(37,569)**	D	**—**		**93,780**
Convertible preferred stock	107,808	—	(107,808)		—		—
Stockholders' equity (deficit):							
Common stock	—	199	389	E	2	K	590
Additional paid-in capital	965	491,464	(203,898)	E	39,998	I,K	328,529
Accumulated other comprehensive income (loss)	(197)	(281)	281	E	—		(197)
Accumulated deficit	(123,157)	(349,024)	345,007	E	—		(127,174)
Total stockholders' equity (deficit) attributable to Carisma and Sesen Bio	(122,389)	142,358	141,779		40,000		201,748
Equity attributable to noncontrolling interests	14,395	—	(14,395)	F	—		—
Total stockholders' equity (deficit)	**(107,994)**	**142,358**	**127,384**		**40,000**		**201,748**
Total liabilities and stockholders' equity (deficit)	**$ 97,358**	**176,163**	**$ (17,993)**		**$ 40,000**		**$ 295,528**

See accompanying notes to the unaudited pro forma condensed combined financial statements

Unaudited Pro Forma Condensed Combined Statements of Operations
For the Six Months Ended June 30, 2022
(in thousands, except per share amounts)

	CARISMA Therapeutics Inc.	Sesen Bio, Inc.	Transaction Adjustments	Notes	Pro Forma Combined
Collaboration revenues	$ 3,525	$ —	$ —		$ 3,525
Operating expenses:					
Research and development	22,979	34,705	—		57,684
General administrative	4,635	24,564	—		29,199
Intangibles impairment charge	—	27,764	—		27,764
Change in fair value of contingent consideration	—	(50,200)	—		(50,200)
Total operating expenses	27,614	36,833	—		64,447
Loss from operations	(24,089)	(36,833)	—		(60,922)
Non-operating income (expense):					
Change in fair value of derivative liability	(701)	—	701	G	—
Interest income (expense), net	(1,370)	—	1,494	G	124
Other income	—	191	—		191
Loss before income taxes	(26,160)	(36,642)	2,195		(60,607)
Income tax benefit	—	3,875	—		3,875
Net Loss	$ (26,160)	$ (32,767)	$ 2,195		$ (56,732)
Net loss per share, basic and diluted	$ (24.11)	$ (0.16)	$		$ (0.10)
Weighted average common shares outstanding, basic and diluted	1,085	199,463	389,284	H	589,832

See accompanying notes to the unaudited pro forma condensed combined financial statements

Unaudited Pro Forma Condensed Combined Statements of Operations
For the Year Ended December 31, 2021
(in thousands, except per share amounts)

	CARISMA Therapeutics Inc.	Sesen Bio, Inc.	Transaction Adjustments	Notes	Other Transaction Adjustment	Notes	Pro Forma Combined
Collaboration revenues	$ —	$ 26,544	$ —		$ (20,000)	J	$ 6,544
Operating Expenses:							
Research and development	34,387	25,312	—		—		59,699
General and administrative	6,407	29,393	—		—		35,800
Restructuring charge	—	5,528	—		—		5,528
Intangibles impairment charge	—	31,700	—		—		31,700
Change in fair value of contingent consideration	—	(56,840)	—		—		(56,840)
Total operating expenses	40,794	35,093	—		—		75,887
Loss from operations	(40,794)	(8,549)	—		(20,000)		(69,343)
Non-operating income (expense):							
Interest income	10	—	—		—		10
Other income	—	(60)	—		—		(60)
Loss before income taxes	(40,784)	(8,609)	—		(20,000)		(69,393)
Income tax expense	—	8,273	—		—		8,273
Net Loss	$ (40,784)	$ (336)	$ —		$ (20,000)		$ (61,120)
Net loss per share, basic and diluted	$ (37.62)	$ (0.00)					$ (0.10)
Weighted average common shares outstanding, basic and diluted	1,084	182,323	402,948	K			586,355

See accompanying notes to the unaudited pro forma condensed combined financial statements

NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

1. Description of Transactions

Merger Transaction

On September 20, 2022, Sesen Bio and Carisma entered into the Merger Agreement pursuant to which a wholly-owned subsidiary of Sesen Bio will merge with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio. After completion of the merger, Sesen Bio is expected to be renamed "CARISMA Therapeutics Inc." and to trade under the symbol "CARM." As of October 14, 2022, the Sesen Bio common stock is listed on the Nasdaq Capital Market under the symbol "SESN."

At the effective time of the merger, each outstanding share of Carisma capital stock (including shares of Carisma common stock issued in connection with the Carisma pre-closing financing) will be converted into the right to receive shares of Sesen Bio common stock equal to the exchange ratio. Based on estimates made at the time of the Merger Agreement, the exchange ratio was initially estimated to be 24.5844 shares of Sesen Bio common stock for each share of Carisma capital stock and is subject to adjustment prior to the closing. Among other things, the exchange ratio will be adjusted to the extent that Sesen Bio's net cash at closing is less than or greater than $125.0 million and based on the amount of the Carisma pre-closing financing.

Sesen Bio currently estimates, assuming a closing date of December 31, 2022, that (i) it will have approximately $125.0 million in net cash immediately prior to closing, (ii) the Carisma pre-closing financing amount will be $30.6 million, (iii) the outstanding shares of Sesen Bio common stock, Sesen Bio RSUs, Sesen Bio options and Sesen Bio warrants as of the closing will be equal to 226,071,005 and (iv) the outstanding shares of Carisma capital stock as of the closing on a fully diluted and as-converted basis will be equal to 14,886,514. Accordingly, it is currently estimated that the exchange ratio at closing will be 24.5844 and, based solely on such exchange ratio, at closing: (a) Carisma stockholders as of immediately prior to the merger (not including the shares of Carisma common stock issued in the Carisma pre-closing financing) are expected to own approximately 58.3% of the fully diluted closing Sesen Bio common stock, (b) the shares of Carisma common stock issued in the Carisma pre-closing financing to Carisma stockholders as of immediately prior to the merger are expected to represent approximately 7.4% of the fully diluted closing Sesen Bio common stock, (c) the Sesen Bio stockholders as of immediately prior to the merger (excluding for this purpose certain out-of-the-money Sesen Bio options) are expected to own approximately 34.3% of the fully diluted closing Sesen Bio common stock, (d) the shares of Sesen Bio common stock issued upon the conversion of the Carisma convertible note are expected to represent approximately 5.5% of the fully diluted closing Sesen Bio common stock, and (e) the shares of Carisma capital stock available for issuance under the Carisma Plan as of immediately prior to the merger are expected to represent approximately 6.6% of the fully diluted closing Sesen Bio common stock, in each case, subject to adjustment of the exchange ratio as set forth in the Merger Agreement and described herein.

Because Sesen Bio's final net cash will not be determined until the closing, Sesen Bio stockholders cannot be certain of the exact number of shares that will be issued to Carisma stockholders when Sesen Bio stockholders vote on the proposals at the Sesen Bio special meeting. The exchange ratio referenced above is an estimate only and the final exchange ratio will be determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus.

As of the effective time of the merger, each Carisma option that is outstanding and unexercised immediately prior to the effective time granted under the Carisma Plan, or otherwise, whether or not vested, will be, along with the Carisma Plan, assumed by Sesen Bio and will become an option to purchase solely that number of shares of Sesen Bio common stock equal to the product obtained by multiplying (i) the number of shares of Carisma common stock by (ii) the exchange ratio, and rounding the resulting number down to the nearest whole number of shares of Sesen Bio common stock. The per share exercise price for Sesen Bio common stock issuable upon exercise of each Carisma option assumed shall be determined by dividing (a) the per share exercise price of Carisma common stock by (b) the exchange ratio, and rounding the resulting exercise price up to the nearest whole cent. Any restriction on the exercise of any Carisma option assumed will continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such Carisma option shall otherwise remain unchanged.

Pre-Closing Financing

As a condition of the Merger Agreement, certain investors have entered into the subscription agreement with Carisma pursuant to which such investors have agreed, subject to the terms and conditions of the subscription agreement, to purchase shares of Carisma common stock prior to closing for an aggregate purchase price of $30.6 million.

Pre-Closing Dividend

Prior to the effective time, Sesen Bio may declare a pre-closing dividend to its stockholders consisting of the right to receive contingent payments as discussed in greater detail in the section entitled "*Agreements Related to the Merger — CVR Agreement*" beginning on page 181 of this proxy statement/prospectus and a special cash dividend of up to $25.0 million in the aggregate and contingent upon Sesen Bio's net cash as of the closing of the merger being greater than or equal to $100.0 million.

Conversion of Carisma Convertible Note

Upon completion of the merger, Carisma's $35.0 million convertible note and accrued interest will convert into shares of Sesen Bio common stock.

Contingent Value Rights Agreement

Prior to the effective time, Sesen Bio will enter into the CVR Agreement with a rights agent pursuant to which Sesen Bio stockholders will receive one CVR for each share of Sesen Bio common stock held. Each CVR will represent the contractual right to receive contingent cash payments upon the receipt by Sesen Bio of certain proceeds payable by Roche, if any, pursuant to the Roche Asset Purchase Agreement, upon the achievement by Roche of a specified milestone set forth in the Roche Asset Purchase Agreement. The CVRs will not have any voting or dividend rights and will not represent any equity or ownership interest in Sesen Bio.

Other Transaction

Sesen Bio Sale of Legacy Technology to Roche

On July 15, 2022, Sesen Bio executed the Roche Asset Purchase Agreement pursuant to which Roche purchased all patent rights and know-how related to the monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by Sesen Bio. Sesen Bio received an upfront payment from Roche of $40.0 million upon execution of the Roche Asset Purchase Agreement. In addition, Sesen Bio is eligible to receive an additional $30.0 million payment from Roche upon Roche's initiation of a Phase 3 clinical trial with EBI-031 for a defined indication if initiated prior to December 31, 2026 which will be paid to Sesen Bio stockholders through the CVR Agreement.

2. Basis of Presentation

The unaudited pro forma condensed combined financial statements were prepared in accordance with the regulations of the SEC. The unaudited pro forma condensed combined balance sheet as of June 30, 2022 is presented as if the merger had been completed on June 30, 2022. The unaudited pro forma condensed combined statements of operations for the six months ended June 30, 2022 and the year ended December 31, 2021 assumes that the merger occurred on January 1, 2021, and combines the historical results of Carisma and Sesen Bio.

Additionally, the unaudited pro forma condensed combined balance sheet and statements of operations data reflect the other transactions that will have occurred at or prior to the completion of the merger.

For accounting purposes, Carisma is considered to be the acquiring company and the merger will be accounted for as a reverse recapitalization of Sesen Bio by Carisma because at the closing of the merger, the primary pre-combination assets of Sesen Bio will be cash, cash equivalents and marketable securities. The final exchange ratio will be determined based on a net cash calculation prior to the closing. Sesen Bio currently estimates that it will have approximately $125.0 million in net cash immediately prior to the closing of the merger, assuming for this purpose that the closing is December 31, 2022. The exchange ratio will be adjusted dollar-for-dollar by the amount that the net cash amount is less than $125.0 million. The pro forma financial statements reflect Sesen Bio

management's estimates of the fair value of Sesen Bio's net assets that will be contributed to Carisma as part of the merger. However, the actual exchange ratio will vary based on the net cash calculation prior to the closing as described above and that difference could be material. A 10% decrease in Sesen Bio's net cash would increase the exchange ratio by 9.8%. A 10% increase in Sesen Bio's net cash could decrease the exchange ratio by 8.2%. As such, the estimated exchange ratio reflected in these unaudited pro forma condensed combined financial statements does not purport to represent what the actual exchange ratio will be when the merger is completed.

Under reverse recapitalization accounting, the assets and liabilities of Sesen Bio will be recorded, as of the completion of the merger, at their fair values which are expected to approximate book values because of the short-term nature of the instruments. No goodwill or intangible assets are expected to be recognized. The historical financial statements of Sesen Bio and Carisma, which are provided elsewhere in this proxy statement/prospectus, have been adjusted to give pro forma effect to events that are (i) directly attributable to the merger, (ii) factually supportable, and (iii) with respect to the statements of operations, expected to have a continuing impact on the combined results.

Pro forma adjustments related to the Carisma pre-closing financing for aggregate cash proceeds of $30.6 million and reflect the conversion of the Carisma convertible note into shares of Sesen Bio common stock effective as of immediately after the effective time of the merger.

The unaudited pro forma condensed combined financial statements also give effect to the other transactions that are not directly attributable to the merger but are deemed relevant to the pro forma financial position and operations of the combined companies.

To the extent there are significant changes to the business following completion of the merger, the assumptions and estimates set forth in the unaudited pro forma condensed combined financial statements could change significantly. Accordingly, the pro forma adjustments are subject to further adjustments as additional information becomes available and as additional analyses are conducted following the completion of the merger. There can be no assurances that these additional analyses will not result in material changes to the estimates of fair value.

3. Pro Forma Adjustments

The pro forma adjustments were based on the preliminary information available at the time of the preparation of the unaudited pro forma condensed combined financial information. The unaudited pro forma condensed combined financial information, including the notes thereto, are qualified in their entirety by reference to, and should be read in conjunction with, the separate historical audited financial statements of Sesen Bio and Carisma for the year ended December 31, 2021 and the unaudited condensed financial statements of Sesen Bio and Carisma for the six months ended June 30, 2022 included elsewhere in this proxy statement/prospectus.

Merger Transaction Adjustments

A Reflects (i) approximately $30.6 million in proceeds from the Carisma pre-closing financing, (ii) payment of a $25.0 million special cash dividend (iii) payment of total estimated unpaid transaction costs and (iv) payment of severance costs upon consummation of the merger.

(amounts in thousands)	CARISMA Therapeutics Inc.	Sesen Bio, Inc.	Total
Proceeds from Carisma pre-closing financing, net of issuance costs	$ 30,640	$ —	$ 30,640
Special cash dividend payment to Sesen Bio stockholders	—	(25,000)	(25,000)
Payment of transaction costs	(7,233)	(8,000)	(15,233)
Payment of severance costs	—	(8,400)	(8,400)
Pro forma adjustment	$ 23,407	$ (41,400)	$ (17,993)

B Reflects payment of total estimated unpaid transaction costs as of June 30, 2022 in connection with the merger and settlement of accrued interest upon conversion of the Carisma convertible note:

(amounts in thousands)	CARISMA Therapeutics Inc.	Sesen Bio, Inc.	Total
Unpaid transaction costs as of June 30, 2022	$ —	$ (375)	$ (375)
Accrued interest for Carisma convertible note	(188)	—	(188)
Total	$ (188)	$ (375)	$ (563)

C Settlement of the Carisma convertible note and related derivative liability through the issuance of Sesen Bio common stock upon completion of the merger.

D Conversion of Carisma convertible preferred stock into common stock of the combined company upon completion of the merger.

E To record the (i) exchange ratio adjustment to Carisma's common stock outstanding, (ii) conversion of Carisma convertible preferred stock into common stock, (iii) the elimination of Carisma's noncontrolling interest upon conversion of Carisma convertible preferred stock, (iv) sale of Carisma common stock, net of issuance costs, in connection with Carisma pre-closing financing, (v) automatic conversion of the Carisma convertible note, (vi) elimination of Sesen Bio's historical equity carrying value, (vii) issuance of common stock upon the acceleration of unvested Sesen Bio RSUs and PSUs upon closing of the merger, (viii) special cash dividend payment to Sesen Bio stockholders, (ix) post-combination stock-based compensation expense for Sesen Bio options and Sesen Bio RSUs and (x) payment of transaction and severance costs:

(amounts in thousands)	Common stock shares	Common stock amount	Additional paid-in capital	Accumulated other comprehensive income	Accumulated deficit	Noncontrolling interests	Total
Adjustment to Carisma common stock outstanding in connection with the exchange ratio	25,599	$ 28	$ (28)	$ —	$ —	$ —	$ —
Issuance of common stock upon conversion of Carisma convertible preferred shares	213,906	214	107,594	—	—	—	107,808
Issuance of common stock upon conversion of Carisma noncontrolling interest	30,368	30	14,365	—	—	(14,395)	—
Issuance of common stock upon completion of Carisma pre-closing financing	48,286	48	30,592	—	—	—	30,640
Issuance of common stock upon settlement of Carisma convertible note, accrued interest and related derivative liability	63,146	63	39,646	—	(2,515)	—	37,194
Elimination of Sesen Bio's historical carrying values	—	—	(349,305)	281	349,024	—	—
Issuance of common stock upon acceleration of Sesen Bio RSUs and PSUs	5,750	6	(6)	—	—	—	—
Special cash dividend payment to Sesen Bio stockholders	—	—	(25,000)	—	—	—	(25,000)
Post-combination stock-based compensation costs	—	—	1,502	—	(1,502)	—	—
Payment of transaction costs and severance expenses	—	—	(23,258)	—	—	—	(23,258)
Pro forma adjustment	387,055	$ 389	$ (203,898)	$ 281	$ 345,007	$ (14,395)	$ 127,384

F Issuance of common stock upon conversion of Carisma noncontrolling interests.

G Elimination of interest expense and change in fair value of derivative liability associated with the Carisma convertible note and related derivative, respectively, that were settled upon completion of the merger.

H The pro forma combined basic and diluted earnings per share have been adjusted to reflect the pro forma net loss for the six months ended June 30, 2022 and the year ended December 31, 2021. In addition, the number of shares used in calculating the pro forma combined basic and diluted net income per share has been adjusted to reflect the estimated total number of shares of common stock of the combined company that would be outstanding as of the closing. The following table sets forth the calculation of the pro forma weighted average number of common shares outstanding — basic and diluted.

(amounts in thousands)	Six months ended June 30, 2022	Year ended December 31, 2021
Effect of applying estimated exchange ratio to Carisma common stock	25,589	25,567
Conversion of Carisma preferred stock and noncontrolling interest	244,274	240,820
Issuance of common stock in connection with Carisma pre-closing financing	48,286	48,286
Issuance of common stock upon settlement of Carisma convertible note, accrued interest and related derivative liability	63,146	63,146
Issuance of shares of common stock of the combined company to Sesen Bio stockholders	7,989	25,129
	389,284	402,948

Other Transaction Adjustments

I Reflects proceeds received from Sesen Bio in connection with the Roche Asset Purchase Agreement in July 2022 of $40.0 million.

J Elimination of development milestone revenue received from Roche during the year ended December 31, 2021 related to the assets sold to Roche in July 2022.

K Reflects the issuance of 2.2 million shares of Sesen Bio common stock from the vesting of RSUs subsequent to June 30, 2022.

DESCRIPTION OF SESEN BIO CAPITAL STOCK

The following description of Sesen Bio's capital stock is not complete and may not contain all the information you should consider before investing in Sesen Bio's capital stock. This description is summarized from, and qualified in its entirety by reference to, the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws, which have been publicly filed with the SEC. See the section entitled "Where You Can Find More Information" on page 382 of this proxy statement/prospectus. The following information does not give effect to the proposed reverse stock split described in Proposal No. 2 in this proxy statement/prospectus.

General

Sesen Bio is authorized to issue up to 400,000,000 shares of common stock with a par value of $0.001 per share. As of September 20, 2022, there were 201,701,853 shares of common stock outstanding and no shares of preferred stock outstanding.

Rights of Common Stock

Voting Rights. Holders of Sesen Bio common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. When a quorum is present at any meeting, a plurality of the votes properly cast for election to any office shall elect to such office and a majority of the votes properly cast upon any question other than an election to an office shall decide the question, except when a larger vote is required by law, by the Sesen Bio Certificate of Incorporation or by the Sesen Bio Bylaws.

The Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws do not provide for cumulative voting rights. Because of this, the holders of a majority of the shares of Sesen Bio common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends. Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of outstanding Sesen Bio common stock are entitled to receive dividends, if any, as may be declared from time to time by the Sesen Bio board of directors out of legally available funds.

Liquidation Rights. In the event of Sesen Bio's liquidation or dissolution, the holders of Sesen Bio common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any holders of then outstanding preferred stock.

Other Rights. The terms of Sesen Bio common stock do not include any preemptive, conversion or subscription rights, nor any redemption or sinking fund provisions. Sesen Bio common stock is not subject to future calls or assessments by Sesen Bio.

Preferred Stock

The Sesen Bio board of directors is authorized to issue up to 5,000,000 shares of preferred stock in one or more series, with such rights, preferences and privileges as shall be determined by the Sesen Bio board of directors. The rights, preferences and privileges of the holders of Sesen Bio common stock are subject to, and may be adversely affected by, the rights of shares of any series of preferred stock that Sesen Bio may classify and issue in the future.

Fully Paid and Nonassessable

All of Sesen Bio's outstanding shares of common stock are fully paid and nonassessable.

Sesen Bio Options

As of June 30, 2022, there were 17,161,134 shares of Sesen Bio common stock issuable upon the exercise of outstanding Sesen Bio options, at a weighted-average exercise price of $1.83 per share.

Sesen Bio Restricted Stock Units

As of June 30, 2022, there were 8,062,699 shares of Sesen Bio common stock issuable upon the vesting and settlement of outstanding Sesen Bio RSUs.

Sesen Bio Warrants

As of June 30, 2022, there were 198,535 shares of Sesen Bio common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of $3.57 per share.

Anti-Takeover Effect of Sesen Bio's Certificate of Incorporation and Bylaw Provisions

The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws contain provisions that could make it more difficult to complete an acquisition of Sesen Bio by means of a tender offer, a proxy contest or otherwise or the removal and replacement of its incumbent officers and directors.

Staggered Board; Removal of Directors. The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws divide the Sesen Bio board of directors into three classes with staggered three-year terms. In addition, The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of Sesen Bio common stock present in person or by proxy and entitled to vote. Under the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws, any vacancy on the Sesen Bio board of directors, including a vacancy resulting from an enlargement of the Sesen Bio board of directors, may be filled only by vote of a majority of Sesen Bio directors then in office. Furthermore, the Sesen Bio Certificate of Incorporation provides that the authorized number of directors may be changed only by the resolution of the Sesen Bio board of directors. The classification of the Sesen Bio board of directors and the limitations on the ability of Sesen Bio stockholders to remove directors, change the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of Sesen Bio.

Stockholder Action; Special Meeting of stockholders; Advance Notice Requirements for stockholder Proposals and Director Nominations. The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide that any action required or permitted to be taken by Sesen Bio stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by the chairman of the Sesen Bio board of directors, the Sesen Bio chief executive officer or the Sesen Bio board of directors. In addition, the Sesen Bio Bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to the Sesen Bio board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the Sesen Bio board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to the Sesen Bio corporate secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of Sesen Bio outstanding voting securities. These provisions also could discourage a third party from making a tender offer for Sesen Bio common stock because even if the third party acquired a majority of Sesen Bio's outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-Majority Voting. The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. The Sesen Bio Bylaws may be amended or repealed by a majority vote of the Sesen Bio board of directors or the affirmative vote of the holders of at least 75% of the votes that all Sesen Bio stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all Sesen Bio stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of the Sesen Bio Certificate of Incorporation described above.

Delaware Law. Sesen Bio is subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding upon consummation of the transaction, excluding for purposes of determining the number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the consummation of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Listing

Sesen Bio common stock is listed on the Nasdaq Capital Market under the symbol "SESN."

Transfer Agent and Registrar

The transfer agent and registrar for Sesen Bio common stock is Computershare Trust Company, Inc.

COMPARISON OF RIGHTS OF HOLDERS OF SESEN BIO STOCK AND CARISMA STOCK

Both Sesen Bio and Carisma are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the merger is completed, Carisma stockholders will become stockholders of Sesen Bio, and their rights will be governed by the DGCL, the Sesen Bio Bylaws and the Sesen Bio Certificate of Incorporation, as amended by the amendment thereto attached to this proxy statement/prospectus as *Annex G*, assuming Proposal No. 2 is approved by Sesen Bio stockholders at the Sesen Bio special meeting.

The table below summarizes the material differences between the current rights of Carisma stockholders under the Carisma Certificate of Incorporation and the Carisma Bylaws, and the rights of Sesen Bio stockholders, post-merger, under the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws, each as amended, as applicable, and as in effect immediately following the merger.

While Sesen Bio and Carisma believe that the summary tables cover the material differences between the rights of their respective stockholders prior to the merger and the rights of Sesen Bio stockholders following the merger, these summary tables may not contain all of the information that is important to you. These summaries are not intended to be a complete discussion of the respective rights of Sesen Bio stockholders and Carisma stockholders and are qualified in their entirety by reference to the DGCL and the various documents of Sesen Bio and Carisma that are referred to in the summaries. You should carefully read this entire proxy statement/prospectus and the other documents referred to in this proxy statement/prospectus for a more complete understanding of the differences between being a stockholder of Sesen Bio or Carisma before the merger and being a stockholder of Sesen Bio after the merger. Sesen Bio has filed copies of the Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws with the SEC and will send copies of the documents referred to in this proxy statement/prospectus to you upon your request. Carisma will also send copies of its documents referred to in this proxy statement/prospectus to you upon your request. See the section entitled "*Where You Can Find More Information*" on page 382 of this proxy statement/prospectus.

Current Carisma Rights Versus Post-Merger Sesen Bio Rights

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
	Elections; Voting; Procedural Matters	
Authorized Capital Stock	The Carisma Certificate of Incorporation authorizes the issuance of up to 14,910,158 shares of common stock, par value $0.0001 per share, and 10,946,041 shares of preferred stock, par value of $0.0001 per share.	The Sesen Bio Certificate of Incorporation authorizes the issuance of up to 400,000,000 shares of common stock, par value $0.001 per share, and 5,000,000 shares of preferred stock, par value $0.001 per share.
Number of Directors	The Carisma Certificate of Incorporation and the Carisma Bylaws provide that the number of directors that constitute the Carisma board of directors is established by the Carisma stockholders or the Carisma board of directors.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide that the number of directors that constitute the Sesen Bio board of directors is established by the Sesen Bio board of directors.
Stockholder Nominations and Proposals	The Carisma Bylaws do not contain advance notice requirements for stockholder proposals.	The Sesen Bio Bylaws provide that in order for a stockholder to make a director nomination or propose business at an annual meeting of stockholders, the stockholder must give timely written notice to the Sesen Bio Secretary, which must be received not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting (with certain adjustments if the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting).

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
Quorum	The Carisma Bylaws provide that the holders of a majority in voting power of the shares of the Carisma capital stock issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Carisma board of directors in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business.	The Sesen Bio Bylaws provide that the holders of a majority in voting power of the shares of Sesen Bio capital stock issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Sesen Bio in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business.
Structure of Board of Directors; Term of Directors; Election of Directors	The Carisma Certificate of Incorporation and the Carisma Bylaws provide that the directors shall be elected at the annual meeting of stockholders. Each director holds office until the next annual meeting of stockholders or until a successor is elected and qualified, or until such director's earlier death resignation or removal. The holders of record of the Carisma Series B preferred stock and Series B Special Voting preferred stock, exclusively and as a separate class, shall be entitled to elect one director, and the holders of record of the Carisma Series A preferred stock and Special Voting preferred stock, exclusively and together as a single class, shall be entitled to elect three directors. The holders of record of Carisma capital stock, exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide for the division of the Sesen Bio board of directors into three staggered classes. Each director shall serve for a term ending on the date of the third annual meeting of stockholders following the annual meeting of stockholders at which such director was elected, provided, however, that the term of each director shall continue until the election and qualification of such director's successor and be subject to such director's earlier death, resignation or removal.
Removal of Directors	The Carisma Certificate of Incorporation and the Carisma Bylaws provide for the removal of any one or more or all the directors, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except that directors elected by the holders of a particular class or series of stock may be removed without cause only by the vote of the holders of a majority of the outstanding shares of such class or series.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide for the removal of any of its directors only for cause and requires the affirmative vote of the holders of at least seventy-five percent of the votes which all the stockholders would be entitled to cast in any annual election of directors or class of directors.
Special Meetings	The Carisma Bylaws provide that special meetings of stockholders may be called at any time by only the Carisma board of directors, the Chair of the Carisma board of directors, the Carisma Chief Executive Officer, or the Carisma President, and may not be called by any other person or persons.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide that a special meeting of stockholders may be called only by the Sesen Bio board of directors, the Chair of the Sesen Bio board of directors or the Sesen Bio Chief Executive Officer, and may not be called by any other person or persons.
Cumulative Voting	The Carisma Certificate of Incorporation provides that there shall be no cumulative voting.	The Sesen Bio Certificate of Incorporation provides that there shall be no cumulative voting.

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
Vacancies	The Carisma Certificate of Incorporation and the Carisma Bylaws provide that, subject to the rights of holders of any series of Carisma preferred stock to elect directors, unless and until filled by the stockholders, any vacancy or newly-created directorship on the Carisma board of directors may be filled by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. A vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series. A director elected to fill a vacancy shall be elected for the unexpired term of such director's predecessor in office, and a director chosen to fill a position resulting from a newly-created directorship shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified, or until such director's earlier death, resignation or removal.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws provide that any vacancy occurring on the Sesen Bio board of directors shall be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor and to such director's earlier death, resignation or removal.
Voting Stock	Under the Carisma Certificate of Incorporation and the Carisma Bylaws, each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder. Each holder of Carisma preferred stock shall be entitled to cast the number of votes equal to the number of whole shares of Carisma common stock into which such shares of preferred stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter; provided that each holder of the Carisma Special Voting preferred stock and Series B Special Voting preferred stock shall be entitled to cast the number of votes equal to the number of votes to which the holders of the Class B Exchangeable Shares and the Class B-1 Exchangeable Shares of CARISMA Therapeutics S.à r.l., or Carisma Europe, respectively, would be entitled to cast if such exchangeable shares had, before the record date for such vote, been exchanged for shares of the applicable series of Carisma preferred stock pursuant to the terms of the Amended and Restated Share Exchange and Voting Agreement, dated December 22, 2020, by and among Carisma, Carisma Europe and the holders of such exchangeable shares.	Under the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws, each stockholder shall at every meeting of the stockholders be entitled to one vote for each share of stock held by such stockholder.

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
Stockholder Action by Written Consent	Under the Carisma Certificate of Incorporation and the Carisma Bylaws, any action required or permitted to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such action were present and voted.	The Sesen Bio Certificate of Incorporation and Sesen Bio Bylaws provide that stockholders may not take any action by written consent in lieu of a meeting.
Notice of Stockholder Meeting	Under the Carisma Bylaws, notice of each meeting of stockholders shall be given not less than 10 or more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the DGCL) by the stockholder to whom the notice is given. The notice of all meetings shall state the place, if any, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called.	Under the Sesen Bio Bylaws, notice of each stockholder meeting must specify the place, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose(s) for which the meeting is called. Notice shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the DGCL) by the stockholder to whom the notice is given.
Conversion Rights and Protective Provisions	The Carisma Certificate of Incorporation provides that holders of Carisma preferred stock have the right to convert such shares into shares of Carisma common stock at any time at a conversion rate in accordance with the terms of the Carisma Certificate of Incorporation. In addition, upon either (i) the closing of the sale of shares of Carisma common stock in a firm-commitment underwritten public offering in which the price is at least $46.80 per share and which results in at least $50 million of proceeds or (ii) the date and time, or the occurrence of an event, specified by vote or written consent in accordance with the terms of the Carisma Certificate of Incorporation, all outstanding shares of Carisma preferred stock will be converted into shares of Carisma common stock.	The Sesen Bio Certificate of Incorporation does not provide that stockholders have preemptive, conversion or other protective rights.

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
Right of First Refusal	Pursuant to an Amended and Restated Right of First Refusal and Co-Sale Agreement, dated December 22, 2020, or the ROFR Agreement, certain stockholders party to the ROFR Agreement, or a Key Holder, wishing to transfer any shares of Carisma capital stock must first provide Carisma with the right to purchase such shares. In such an event, if Carisma does not elect to exercise its right of first refusal in full, certain investors party to the ROFR Agreement, or the Investors, have a secondary right of first refusal to purchase all or any portion of the shares of Carisma common stock which are proposed for sale or transfer by the Key Holders.	Sesen Bio does not have a right of first refusal in place.
Right of Co-Sale	Pursuant to the ROFR Agreement, each Investor has a right of co-sale with respect to any Carisma capital stock proposed to be transferred or sold by any Key Holder which is not earlier purchased by Carisma by exercise of its right of first refusal (as described above) or by any Investor by exercise of their secondary right of first refusal (as described above).	Sesen Bio does not have a right of co-sale in place.
Right of First Offer	Pursuant to an Amended and Restated Investor Rights Agreement, dated December 22, 2020, or the Investor Rights Agreement, if Carisma or Carisma Europe proposes to offer or sell certain new securities, Carisma and/or Carisma Europe, as applicable, must first offer such new securities to certain investors party to the Investor Rights Agreement.	Sesen Bio does not have a right of first offer place.
Forum Selection	The Carisma Certificate of Incorporation provides that unless Carisma consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of Carisma, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of Carisma to Carisma or Carisma stockholders, (iii) any action asserting a claim against Carisma, its directors, officers or employees arising pursuant to any provision of the DGCL or the Carisma Certificate of Incorporation or the Carisma Bylaws or (iv) any action asserting a claim against Carisma, its directors, officers or employees governed by the internal affairs doctrine.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws do not provide for a specific forum.

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
Registration Rights	Under the Investor Rights Agreement, certain holders of Carisma capital stock that are party to the Investor Rights Agreement have certain registration rights, including the right to demand that Carisma file a registration statement, so called "demand" registration rights, or request that their shares be covered by a registration statement that Carisma is otherwise filing, so-called "piggyback" registration rights.	The Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws do not provide registration rights to holders of Sesen Bio common stock.
	Indemnification of Officers and Directors and Advancement of Expenses; Limitation on Personal Liability	
Indemnification; Advancement of Expenses	The Carisma Certificate of Incorporation provides that Carisma shall provide indemnification of (and advancement of expenses to) directors, officers, and agents of Carisma (and any other persons to which the DGCL permits Carisma to provide indemnification), to the fullest extent permitted by applicable law through bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the DGCL.	The Sesen Bio Certificate of Incorporation provides that Sesen Bio shall indemnify its directors and officers if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Sesen Bio, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The Sesen Bio Certificate of Incorporation provides that Sesen Bio will pay the expenses incurred by or on behalf of an indemnitee in defending an action, suit, proceeding or investigation or any appeal therefrom in advance of its final disposition, provided, however, that such payment of expenses in advance of the final disposition of the proceeding will be made only upon receipt of an undertaking by or on behalf of the indemnitee to repay all amounts so advanced in the event that it shall ultimately be determined by final judicial decision from which there is no further right to appeal that the indemnitee is not entitled to be indemnified.
	Dividends	
Declaration and Payment of Dividends	The Carisma Certificate of Incorporation states that the dividend rights of the holders of Carisma common stock are subject to and qualified by the rights, powers, and preferences of the holders of the Carisma preferred stock. Carisma shall not declare, pay or set aside dividends on shares of any other class or series of Carisma capital stock (other than dividends on shares of Carisma common stock payable in shares of Carisma common stock) unless (in addition to obtaining any of the consents required in the Carisma Certificate of Incorporation) the holders of the Carisma Series A and Series B preferred stock receive certain dividends as set forth in the Carisma Certificate of Incorporation. The Carisma Special Voting preferred stock and Series B Special Voting preferred stock shall not be entitled to receive any dividends.	The Sesen Bio Certificate of Incorporation provides that holders of Sesen Bio common stock are entitled to receive dividends as may be lawfully declared from time to time by the Sesen Bio board of directors.

Provision	Carisma (Pre-Merger)	Sesen Bio (Post-Merger)
	Amendments to Certificate of Incorporation or Bylaws	
General Provisions	Provisions of the Carisma Certificate of Incorporation may be amended, altered or repealed in the manner prescribed by the DGCL and the Carisma Certificate of Incorporation. The Carisma Certificate of Incorporation provides that the affirmative vote of the holders of at least two-thirds of the voting power represented by the outstanding shares of the Carisma preferred stock, voting together as a single class are required to authorize amend, waive, alter or repeal any provision of the Carisma Certificate of Incorporation or the Carisma Bylaws, in a manner that adversely affects the powers, preferences or rights of the Carisma preferred stock. The Carisma Certificate of Incorporation and the Carisma Bylaws provide that the Carisma Bylaws may be altered, amended or repealed, in whole or in part, or new bylaws may be adopted by the Carisma board of directors or by the affirmative vote of the holders of a majority of the shares of the Carisma capital stock issued and outstanding and entitled to vote at any annual meeting of stockholders, or at any special meeting of stockholders, provided notice of such alteration, amendment, repeal or adoption of new bylaws shall have been stated in the notice of such special meeting.	Provisions of the Sesen Bio Certificate of Incorporation may be amended, altered or repealed in the manner prescribed by the DGCL and the Sesen Bio Certificate of Incorporation. The Sesen Bio Certificate of Incorporation provides that the Sesen Bio board of directors has the power to amend, alter or repeal the Sesen Bio Bylaws by the affirmative vote of a majority of the directors present at any regular or special meeting of the Sesen Bio board of directors at which a quorum is present. The Sesen Bio Certificate of Incorporation provides that the stockholders have the power to amend, alter or repeal the Sesen Bio Bylaws by the affirmative vote of the holders of at least seventy-five percent of the votes that all the stockholders would be entitled to cast in any annual election of directors or class of directors.

PRINCIPAL STOCKHOLDERS OF SESEN BIO

Except where specifically noted, the following information and all of the information in this proxy statement/prospectus does not give effect to the proposed reverse stock split. The table below sets forth the beneficial ownership of Sesen Bio common stock as of September 20, 2022 by the following individuals or entities:

- each of Sesen Bio's directors;
- each of Sesen Bio's named executive officers;
- all of Sesen Bio's current directors and executive officers as a group; and
- each person or entity known by Sesen Bio to own beneficially more than 5% of the outstanding shares of Sesen Bio common stock.

The column entitled "Percentage" is based on a total of 201,701,853 shares of Sesen Bio common stock outstanding as of September 20, 2022.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to Sesen Bio common stock. Shares of Sesen Bio common stock (i) subject to Sesen Bio options that are currently exercisable or exercisable within 60 days after September 20, 2022 and (ii) underlying Sesen Bio RSUs that are expected to vest and settle within 60 days after September 20, 2022 are considered outstanding and beneficially owned by the person holding such Sesen Bio option or Sesen Bio RSU, as applicable, for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise set forth below, the persons and entities in this table have sole voting and investment power with respect to all of the shares of Sesen Bio common stock beneficially owned by them, subject to applicable community property laws, where applicable. Except as otherwise set forth below, the address of each beneficial owner is c/o Sesen Bio, Inc., 245 First Street, Suite 1800, Cambridge, Massachusetts 02142.

Except as contemplated by the merger and the Carisma pre-closing financing, Sesen Bio does not know of any arrangements the operation of which may at a subsequent date result in a change in control of Sesen Bio.

	Shares Beneficially Owned	
Name of Beneficial Owner	Number of Shares	Percentage
Directors and Named Executive Officers:		
Jay S. Duker, M.D.[(1)]	310,454	*
Peter K Honing, M.D.[(2)]	98,750	*
Carrie L. Bourdow[(3)]	278,056	*
Jason A. Keyes[(4)]	278,056	*
Michael A.S. Jewett, M.D.[(5)]	98,750	*
Thomas R. Cannell, D.V.M.[(6)]	4,159,375	2.1 %
Monica Forbes[(7)]	975,000	*
Glen MacDonald, Ph.D.[(8)]	918,364	*
All current executive officers and directors as a group (10 persons)[(9)]	7,816,805	3.9 %
Greater than 5% stockholders:		
The Vanguard Group[(10)]	12,366,756	6.1 %

* Represents less than 1% of the issued and outstanding shares of Sesen Bio common stock as of September 20, 2022.

(1) Consists of 310,454 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(2) Consists of 98,750 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(3) Consists of 278,056 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(4) Consists of 278,056 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(5) Consists of 98,750 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(6) Consists of 4,159,375 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(7) Consists of 975,000 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(8) Consists of 918,364 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(9) Consists of 7,816,805 shares of Sesen Bio common stock issuable upon the exercise of Sesen Bio options exercisable within 60 days after September 20, 2022.

(10) Holdings for The Vanguard Group are as of December 31, 2021 and are based solely on information on Schedule 13G filed on February 10, 2022. As reported therein, The Vanguard Group reports sole voting power over 0 shares of Sesen Bio common stock, shared voting power over 343,061 shares of Sesen Bio common stock, sole dispositive power over 11,951,290 shares of Sesen Bio common stock and shared dispositive power over 415,466 shares of Sesen Bio common stock. The address of the principal business office of The Vanguard Group is 100 Vanguard Blvd., Malvern, PA 19355.

PRINCIPAL STOCKHOLDERS OF CARISMA

The following table sets forth information with respect to the beneficial ownership of Carisma capital stock on an as converted basis as of September 20, 2022 by:

- each of Carisma's directors;
- each of Carisma's named executive officers;
- all of Carisma's directors and executive officers as a group; and
- each person or entity known by Carisma to beneficially own more than 5% of Carisma capital stock.

The percentage of beneficial ownership prior to the merger and the Carisma pre-closing financing in the table below is based on 11,021,584 shares outstanding as of September 20, 2022.

Carisma has determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules require that Carisma includes shares of Carisma common stock issuable pursuant to the exercise of Carisma options that are either immediately exercisable or exercisable within 60 days of September 20, 2022. These shares of Carisma common stock are deemed to be outstanding and beneficially owned by the person holding those Carisma options for the purpose of calculating the percentage ownership of that person, but they are not treated as outstanding for the purpose of calculating the percentage ownership of any other person. Unless otherwise indicated, Carisma believes that the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, based on information provided to Carisma by such persons or entities, subject to applicable community property laws.

Except as otherwise set forth below, the address of each person or entity listed in the table is c/o CARISMA Therapeutics Inc., 3675 Market Street, Suite 200, Philadelphia, Pennsylvania 19104.

	Shares Beneficially Owned	
Name of Beneficial Owner	Number of Shares	Percentage
Directors and Named Executive Officers:		
Margarita Chavez	—	*
Regina Hodits, Ph.D.	—	*
Steven Kelly[1]	439,731	3.84 %
Michael Klichinsky, Pharm.D., PhD.[2]	354,704	3.19 %
Richard Morris[3]	61,740	*
Briggs Morrison, M.D.[4]	34,221	*
Björn Odlander, M.D., Ph.D.	—	*
Chidozie Ugwumba	—	*
Sanford Zweifach[5]	24,300	—
All current executive officers and directors as a group (9 persons)[6]	914,696	8.11 %
Greater than 5% stockholders:		
AbbVie Biotechnology Ltd[7]	1,204,160	10.93 %
HealthCap VII L.P.[8]	1,485,912	13.48 %
Entities affiliated with IPG[9]	1,524,306	13.83 %
MRL Ventures Fund, LLC[10]	615,379	5.58 %
SymBiosis II, LLC[11]	961,492	8.72 %
The Trustees of the University of Pennsylvania[12]	969,725	8.80 %
TPG Biotechnology Partners V, L.P.[13]	841,757	7.64 %
Wellington Life Sciences V GmbH & Co. KG[14]	998,079	9.06 %

* Represents less than 1% of the issued and outstanding shares of Carisma common stock as of September 20, 2022.

(1) Consists of 439,731 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(2) Consists of (i) 255,000 shares of Carisma common stock and (ii) 99,704 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(3) Consists of 61,740 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(4) Consists of (i) 6,410 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock and (ii) 27,811 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(5) Consists of 24,300 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(6) Consists of (i) 255,000 shares of Carisma common stock, (ii) 6,410 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock and (iii) 653,286 shares of Carisma common stock issuable upon the exercise of Carisma options exercisable within 60 days after September 20, 2022.

(7) Consists of (i) 947,762 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (ii) 256,398 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by AbbVie Biotechnology Ltd. AbbVie Biotechnology Ltd. holds voting and investment control over the shares. Margarita Chavez is employed as a Managing Director of AbbVie Ventures and is a member of the Carisma board of directors. Ms. Chavez disclaims beneficial ownership of all shares held by AbbVie Biotechnology Ltd. except to the extent of her pecuniary interest therein, if any. The business address of AbbVie Biotechnology Ltd. is Thistle House, 4 Burnaby Street, Hamilton HM 11, Bermuda.

(8) Consists of (i) 250,647 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock, (ii) 937,501 shares of Carisma common stock issuable upon the conversion of the Carisma special voting preferred stock and (iii) 297,764 shares of Carisma common stock issuable upon the conversion of the Carisma Series B special voting preferred stock held by HealthCap VII, L.P. HealthCap VII GP SA, a Swiss registered L.C.C. is the sole general partner of HealthCap VII, L.P. and has voting and investment control over the shares. HealthCap VII GP SA disclaims beneficial ownership of all shares held by HealthCap VI L.P., except to the extent of its pecuniary interest therein. Björn Odlander is a Managing Partner of HealthCap and is a member of the Carisma board of directors. Dr. Odlander disclaims beneficial ownership of all shares held by HealthCap VII L.P. except to the extent of his pecuniary interest therein, if any. The business address of HealthCap VII L.P. is c/o HealthCap VII GP SA, Avenue Villamont 23, CH 1005 Lausanne Switzerland.

(9) Consists of (i) (a) 947,186 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (b) 237,376 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by IPG Cayman LP, (ii) 141026 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by IPG USA SCO LP and (iii) 198,718 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by CT SPV Investment LP., or collectively, the IPG entities. IP Group, Inc. has voting and investment control over the shares held by the IPG entities. The business address of the IPG entities is c/o IP Group, Inc., 1 Righter Parkway, Suite 260, Wilmington, Delaware 19803.

(10) Consists of (i) 480,770 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (ii) 134,609 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by MRL Ventures Fund, LLC. MRL Ventures Fund, LLC holds investment and voting control over the shares. The business address of MRL Ventures Fund, LLC is One Merck Drive, Whitehouse Station, New Jersey 08889.

(11) Consists of 961,492 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by SymBiosis II, LLC, which exercises voting and investment control of the shares. Chidozie Ugwumba is the Managing Partner of Symbiosis II, LLC and as such has sole voting and investment control over the shares. Mr. Ugwumba is also a member of the Carisma board of directors. The business address of Symbiosis II, LLC is 609 S.W. 8th Street, Suite 365, Bentonville, Arkansas 72712.

(12) Consists of (i) 490,000 shares of Carisma common stock, (ii) 309,594 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (iii) 170,131 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock, held by The Trustees of the University of Pennsylvania. The Trustees of the University of Pennsylvania has investment and voting control over the shares. A business address of The Trustees of the University of Pennsylvania is 2929 Walnut Street, Suite 300, Philadelphia, Pennsylvania 19104.

(13) Consists of (i) 673,076 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (ii) 168,681 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by TPG Biotechnology Partners V, L.P., a Delaware limited partnership. The general partner of TPG Biotechnology Partners V, L.P. is TPG Biotechnology GenPar V, L.P., a Delaware limited partnership, whose general partner is TPG Biotech GenPar V Advisors, LLC, a Delaware limited liability company, whose sole member is TPG Operating Group I, L.P., a Delaware limited partnership, whose general partner is TPG Holdings I-A, LLC, a Delaware limited liability company, whose managing member is TPG GPCo, LLC, a Delaware limited liability company, whose managing member is TPG Inc., a Delaware corporation, whose shares of Class B common stock (which represent a majority of the combined voting power of the common stock) are held by TPG Group Holdings (SBS), L.P., a Delaware limited partnership, whose general partner is TPG Group Holdings (SBS) Advisors, LLC, a Delaware limited liability company, whose managing member is TPG GP A, LLC, a Delaware limited liability company, which is owned by entities owned by David Bonderman, James G. Coulter and Jon Winkelried. Messrs. Bonderman, Coulter and Winkelried may therefore be deemed to beneficially own the securities directly held by TPG Biotechnology Partners V, L.P. Messrs. Bonderman, Coulter and Winkelried disclaim beneficial ownership of the securities directly held by TPG Biotechnology Partners V, L.P. except to the extent of their pecuniary interest therein. The address of each of TPG GP A, LLC and Messrs. Bonderman, Coulter and Winkelried is 301 Commerce Street, Suite 3300, Fort Worth, Texas 76102.

(14) Consists of (i) 798,072 shares of Carisma common stock issuable upon conversion of the Carisma Series A preferred stock and (ii) 200,007 shares of Carisma common stock issuable upon conversion of the Carisma Series B preferred stock held by Wellington Life Sciences V GmbH & Co. KG. Wellington Life Sciences V GmbH & Co. KG holds voting and investment control over the shares. Regina Hodits is employed as a Managing Director at Wellington Partners Life Science Venture Capital Consulting GmH and Wellington Partners Life Science Venture Capital Management GmbH and is a member of the Carisma

board of directors. Dr. Hodits disclaims beneficial ownership of all shares held by Wellington Life Sciences V GmbH & Co. KG except to the extent of her pecuniary interest therein, if any. The business address of Wellington Life Sciences V GmbH & Co. KG is Tuerkenstrasse 5, 80333 Munich, Germany.

PRINCIPAL STOCKHOLDERS OF THE COMBINED COMPANY

Except where specifically noted, the following information and all of the information in this proxy statement/prospectus does not give effect to the proposed reverse stock split. The table below sets forth certain information with respect to the beneficial ownership of the common stock of the combined company upon consummation of the merger based on beneficial ownership of Sesen Bio common stock and Carisma common stock as of September 20, 2022 (assuming the closing of the merger occurred on September 20, 2022) by:

- each director of the combined company;
- each named executive officer of the combined company;
- all of the combined company's directors and executive officers as a group; and
- each person or entity expected by Carisma and Sesen Bio to become the beneficial owner of more than 5% of the common stock of the combined company upon the consummation of the merger.

The table assumes effectiveness of the Carisma pre-closing financing, an exchange ratio of 24.5844, that the closing of the merger occurred on September 20, 2022 and that the conversion of the Carisma convertible note occurred immediately after the effective time of the merger. Assuming a closing date of September 20, 2022, immediately prior to the merger and after the closing of the Carisma pre-closing financing and conversion of the Carisma convertible note, Carisma is expected to have 15,622,225 shares of common stock outstanding and Sesen Bio is expected to have 201,701,853 shares of common stock outstanding. Upon the closing of the merger on the assumed date of September 20, 2022, the 15,622,225 shares of Carisma common stock would be converted into the right to receive an aggregate of 384,063,025 shares of Sesen Bio common stock such that there would be a total of 585,764,878 shares of common stock of the combined company outstanding upon the closing of the merger.

Sesen Bio and Carisma have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include (a) shares of Sesen Bio common stock (i) subject to Sesen Bio options that are currently exercisable or exercisable within 60 days after September 20, 2022 and (ii) underlying Sesen Bio RSUs that are expected to vest and settle within 60 days after September, 20, 2022 and (b) shares of Carisma common stock issuable pursuant to the exercise of Carisma options that are either immediately exercisable or exercisable within 60 days of September 20, 2022. Such shares of Sesen Bio common stock or Carisma common stock are, in each case, deemed to be outstanding and beneficially owned by the person holding such Sesen Bio option, Sesen Bio RSU or Carisma option, as applicable, for the purpose of calculating the percentage ownership of that person, but they are not treated as outstanding for the purpose of calculating the percentage ownership of any other person. Except as otherwise set forth below, Sesen Bio and Carisma believe that the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise set forth below, the address of each person or entity listed in the table is c/o CARISMA Therapeutics Inc., 3675 Market Street, Suite 200, Philadelphia, Pennsylvania 19104.

	Shares Beneficially Owned	
Name of Beneficial Owner	**Number of Shares**	**Percentage**
Directors and Named Executive Officers:		
Thomas R. Cannell, D.V.M.(1)	4,159,375	*
Regina Hodits, Ph.D.	—	*
Steven Kelly(2)	10,810,523	1.81 %
Michael Klichinsky, Pharm.D., Ph.D.(3)	8,720,193	1.48 %
Richard Morris(4)	1,517,831	*
Briggs Morrison, M.D.(5)	841,299	*
Björn Odlander, M.D., Ph.D.	—	*
Chidozie Ugwumba	—	*
Sanford Zweifach(6)	597,401	*
All current executive officers and directors as a group (9 persons)(7)	26,646,621	4.50 %
Greater than 5% stockholders:		
AbbVie Biotechnology Ltd.(8)	35,592,065	6.08 %
HealthCap VII L.P.(9)	43,984,368	7.51 %
Entities affiliated with IPG(10)	37,474,148	6.40 %
ModernaTX, Inc.(11)	64,817,751	11.07 %
Wellington Life Sciences V GmbH & Co. KG(12)	29,737,708	5.08 %

* Represents less than 1% of the issued and outstanding shares of common stock of the combined company as of September 20, 2022.

(1) Consists of 4,159,375 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(2) Consists of 10,810,523 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(3) Consists of (i) 6,269,022 shares of common stock of the combined company and (ii) 2,451,171 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(4) Consists of 1,517,831 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(5) Consists of (i) 157,586 shares of common stock of the combined company and (ii) 683,713 shares of common stock issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(6) Consists of 597,401 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(7) Consists of (i) 6,426,608 shares of common stock of the combined company and (ii) 20,220,013 shares of common stock of the combined company issuable upon the exercise of options of the combined company exercisable within 60 days after September 20, 2022.

(8) Consists of 35,592,065 shares of common stock of the combined company held by AbbVie Biotechnology Ltd. AbbVie Biotechnology Ltd. holds voting and investment control over the shares. Margarita Chavez is employed as a Managing Director of AbbVie Ventures and is a member of the Carisma board of directors. Ms. Chavez disclaims beneficial ownership of all shares

held by AbbVie Biotechnology Ltd. except to the extent of her pecuniary interest therein, if any. The business address of AbbVie Biotechnology Ltd. is Thistle House, 4 Burnaby Street, Hamilton HM 11, Bermuda.

(9) Consists of 43,984,368 shares of common stock of the combined company held by HealthCap VII, L.P. HealthCap VII GP SA, a Swiss registered L.C.C. is the sole general partner of HealthCap VII, L.P. and has voting and investment control over the shares. HealthCap VII GP SA disclaims beneficial ownership of all shares held by HealthCap VI L.P., except to the extent of their pecuniary interest therein. Björn Odlander is a Managing Partner of HealthCap and is a member of the Carisma board of directors. Dr. Odlander disclaims beneficial ownership of all shares held by HealthCap VII L.P. except to the extent of his pecuniary interest therein, if any. The business address of HealthCap VII L.P. is c/o HealthCap VII GP SA, Avenue Villamont 23, CH 1005 Lausanne Switzerland.

(10) Consists of (i) 29,121,746 shares of common stock of the combined company held by IPG Cayman LP, (ii) 3,467,040 shares of common stock of the combined company held by IPG USA SCO LP and (iii) 4,885,363 shares of common stock of the combined company held by CT SPV Investment LP, or collectively, the IPG entities. IP Group, Inc. has voting and investment control over the shares held by the IPG entities. The business address of the IPG entities is c/o IP Group, Inc., 1 Righter Parkway, Suite 260, Wilmington, Delaware 19803.

(11) Consists of 64,817,751 shares of common stock of the combined company held by ModernaTX, Inc. ModernaTX, Inc. is wholly owned by Moderna , Inc., a publicly-traded company. The business address of ModernaTX, Inc. is 200 Technology Square, Cambridge, MA 02139.

(12) Consists of 29,737,708 shares of common stock of the combined company held by Wellington Life Sciences V GmbH & Co. KG. Wellington Life Sciences V GmbH & Co. KG holds voting and investment control over the shares. Regina Hodits is employed as a Managing Director at Wellington Partners Life Science Venture Capital Consulting GmH and Wellington Partners Life Science Venture Capital Management GmbH and is a member of the Carisma board of directors. Dr. Hodits disclaims beneficial ownership of all shares held by Wellington Life Sciences V GmbH & Co. KG except to the extent of her pecuniary interest therein, if any. The business address of Wellington Life Sciences V GmbH & Co. KG is Tuerkenstrasse 5, 80333 Munich, Germany.

LEGAL MATTERS

Hogan Lovells US LLP, Philadelphia, Pennsylvania, will pass on the validity of the Sesen Bio common stock offered by this proxy statement/prospectus.

EXPERTS

The consolidated financial statements of Sesen Bio, Inc. at December 31, 2021 and 2020, and for each of the three years in the period ended December 31, 2021, included in the Proxy Statement of Sesen Bio, Inc., which is referred to and made part of this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of CARISMA Therapeutics Inc. as of December 31, 2021 and 2020, and for the years then ended, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2021 consolidated financial statements contains an explanatory paragraph that states that CARISMA Therapeutics Inc.'s recurring losses and negative cash flows from operations raise substantial doubt about the entity's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

WHERE YOU CAN FIND MORE INFORMATION

Sesen Bio files annual, quarterly and current reports, proxy statements and other information with the SEC. Sesen Bio's SEC filings are available to the public electronically at the SEC's website at www.sec.gov.

Sesen Bio also makes available free of charge on or through its website at www.ir.sesenbio.com, its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after Sesen Bio electronically files such material with or otherwise furnishes it to the SEC. The website addresses for the SEC and Sesen Bio are inactive textual references, and information on those websites are not part of this proxy statement/prospectus.

As of the date of this proxy statement/prospectus, Sesen Bio has filed with the SEC a registration statement on Form S-4, of which this proxy statement/prospectus is a part, under the Securities Act to register the shares of Sesen Bio common stock that Sesen Bio will issue to Carisma stockholders in the merger. This proxy statement/prospectus is a part of that registration statement and constitutes a prospectus of Sesen Bio, as well as a proxy statement of Sesen Bio for its special meeting.

Sesen Bio has supplied all information contained in this proxy statement/prospectus relating to Sesen Bio, and Carisma has supplied all information contained in this proxy statement/prospectus relating to Carisma.

If you would like to request documents from Sesen Bio or Carisma, please send a request in writing or by telephone to either Sesen Bio or Carisma at the following addresses:

Sesen Bio, Inc.
245 First Street, Suite 1800
Cambridge, Massachusetts 02142
Telephone: (617) 444-8550
Attn: Corporate Secretary
Email: ir@sesenbio.com

CARISMA Therapeutics Inc.
3675 Market Street, Suite 200
Philadelphia, PA 19104
Telephone: (267) 491-6422
Attn: Corporate Secretary
Email: info@carismatx.com

If you are a Sesen Bio stockholder and would like additional copies, without charge, of this proxy statement/prospectus or if you have questions about the merger, including the procedures for voting your shares, you should contact Sesen Bio's proxy solicitor:

MacKenzie Partners, Inc.
1407 Broadway, 27th Floor
New York, New York 10018
(800) 322-2885
proxy@mackenziepartners.com

TRADEMARK NOTICE

This proxy statement/prospectus contains trademarks, service marks and trade names of Sesen Bio, Inc. and CARISMA Therapeutics Inc., including their respective names and logos. Other trademarks, service marks and trade names referred to in this proxy statement/prospectus are the property of their respective owners.

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires Sesen Bio's directors, certain officers and persons who own more than 10% of Sesen Bio common stock to file reports of ownership and reports of changes in ownership of Sesen Bio common stock and other equity securities of Sesen Bio with the SEC. Directors, certain officers and greater than 10% stockholders are required by SEC regulations to furnish Sesen Bio with copies of all Section 16(a) forms they file.

To Sesen Bio's knowledge, based solely on a review of the copies of reports furnished to Sesen Bio and the written representations of Sesen Bio's directors and officers, Sesen Bio believes that during the year ended December 31, 2021, Sesen Bio's officers, directors and greater than 10% stockholders complied with all Section 16(a) filing requirements, except for the following: a Form 3 for Elly Ryu reporting her beneficial ownership upon being named a Section 16 officer was filed late on May 10, 2021 and a Form 4 for Jane Henderson reporting one transaction was filed late on May 10, 2021.

Stockholder Proposals Pursuant to Rule 14a-8

Stockholders of Sesen Bio may submit proposals on matters appropriate for stockholder action at meetings of Sesen Bio stockholders in accordance with Rule 14a-8 promulgated under the Exchange Act. For such proposals to be included in Sesen Bio's proxy materials relating to the 2023 annual meeting of stockholders, all applicable requirements of Rule 14a-8 must be satisfied and such proposals must have been received at Sesen Bio's principal offices no later than December 29, 2022, the date that is 120 days prior to the first anniversary of the date of the proxy statement was released to stockholders in connection with the 2022 annual meeting of stockholders. If, however, the Sesen Bio 2023 annual meeting of stockholders is not held within 30 days from the anniversary of the 2022 annual meeting of stockholders, then the deadline will be a reasonable time prior to the time Sesen Bio begins to print and send its proxy materials. All such proposals must comply with all applicable requirements of Rule 14a-8 and, prior to consummation of the merger, should be sent to Sesen Bio's executive offices, 245 First Street, Suite 1800 Cambridge, MA 02142, Attention: Corporate Secretary by the close of business on the required deadline. After the consummation of the merger, such proposals should be sent to the combined company's Corporate Secretary at CARISMA Therapeutics Inc., 3675 Market Street, Suite 200, Philadelphia, PA 19104, Attention: Corporate Secretary, Email: legal@carismatx.com, by the close of business on the required deadline.

Nominations and Stockholder Proposals Under the Sesen Bio Bylaws

The Sesen Bio Bylaws also establish an advance notice procedure for nominations for election to the Sesen Bio board of directors and other matters that stockholders wish to present for action at an annual meeting of stockholders other than those to be included in the proxy statement. In general, notice must be received at Sesen Bio's principal offices at 245 First Street, Suite 1800 Cambridge, MA 02142, Attention: Corporate Secretary, not less than 90 calendar days before nor more than 120 calendar days before the one year anniversary of the previous year's annual meeting of stockholders. Therefore, to be presented at Sesen Bio's 2023 annual meeting, such a proposal must be received no earlier than February 22, 2023 and no later than March 24, 2023. However, if the date of the annual meeting of stockholders is more than 20 days earlier or more than 60 days later than such anniversary date, notice must be received no earlier than 120 calendar days prior to such annual meeting of stockholders and no later than the close of business on the later of (A) 90 days prior to such annual meeting of stockholders and (B) 10 days following the day on which notice of the date of such annual meeting of stockholders was mailed or public announcement of the date of such annual meeting of stockholders was first made, whichever first occurs. If the stockholder fails to give notice by these dates, then the persons named as proxies in the proxies solicited by the Sesen Bio board of directors for the 2023 annual meeting of stockholders may exercise discretionary voting power regarding any such proposal. Stockholders are advised to review the Sesen Bio Bylaws which also specify requirements as to the form and content of a stockholder's notice.

In addition to satisfying the foregoing advanced notice requirements under the Sesen Bio Bylaws, to comply with the universal proxy rules under the Exchange Act, shareholders who intend to solicit proxies in support of director nominees other than the Sesen Bio's nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than April 23, 2023. These requirements are separate from, and in addition to, the SEC's requirements that a stockholder must meet in order to have a stockholder proposal included in the proxy statement. A copy of the full text of these bylaw provisions may be

obtained from Sesen Bio's website at www.ir.sesenbio.com/corporate-governance. Proposals or nominations not meeting these requirements will not be entertained at the 2023 Annual Meeting of stockholders.

Communications with the Sesen Bio Board of Directors

Stockholders who wish to communicate with the Sesen Bio board of directors may do so by writing to Dr. Jay S. Duker, Chair of the Sesen Bio board of directors, Sesen Bio, Inc., 245 First Street, Suite 1800, Cambridge, MA 02142. Communications will be forwarded to other directors if they relate to substantive matters that the Chair of the Sesen Bio board of directors, in consultation with Sesen Bio's legal counsel, considers appropriate for attention by the other directors. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances or matters as to which Sesen Bio tends to receive repetitive or duplicative communications.

"Householding" — Stockholders Sharing the Same Address

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to implement a delivery procedure called "householding." Under this procedure, multiple stockholders who reside at the same address may receive a single copy of Sesen Bio's proxy materials unless the affected stockholder has provided other instructions. This procedure reduces printing costs and postage fees, and helps protect the environment as well.

Sesen Bio expects that a number of brokers with account holders who are Sesen Bio stockholders will be "householding" Sesen Bio's proxy materials. A single set of proxy materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from one or more of the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. Sesen Bio stockholders may revoke their consent at any time by contacting your broker.

Upon written or oral request, Sesen Bio will undertake to promptly deliver a separate copy of proxy materials to any stockholder at a shared address to which a single copy of any of those documents was delivered. To receive a separate copy of proxy materials now or in the future, you may write to Sesen Bio at Sesen Bio, Inc., 245 First Street, Suite 1800 Cambridge, MA 02142, Attention: Corporate Secretary, or by calling (617) 444-8550.

Any stockholders who share the same address and currently receive multiple copies of Sesen Bio's proxy materials who wish to receive only one copy in the future can contact their broker, bank or other holder of record to request information about "householding" or Sesen Bio's Corporate Secretary at the address or telephone number listed above.

INDEX TO SESEN BIO'S CONSOLIDATED FINANCIAL STATEMENTS

	Page
Audited Consolidated Financial Statements	
Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	F-2
Consolidated Balance Sheets	F-5
Consolidated Statements of Operations and Comprehensive Loss	F-6
Consolidated Statements of Changes in Stockholders' Equity (Deficit)	F-7
Consolidated Statements of Cash Flows	F-8
Notes to Consolidated Financial Statements	F-9
Unaudited Condensed Consolidated Financial Statements	
Condensed Consolidated Balance Sheets as of June 30, 2022 and December 31, 2021	F-41
Condensed Consolidated Statements of Operations for the Three and Six Months Ended June 30, 2022 and 2021	F-42
Condensed Consolidated Statements of Comprehensive Loss for the Three and Six Months Ended June 30, 2022 and 2021	F-43
Condensed Consolidated Statements of Changes in Stockholders' Equity for the Three and Six Months Ended June 30, 2022 and 2021	F-44
Condensed Consolidated Statements of Cash Flows for the Three and Six Months Ended June 30, 2022 and 2021	F-45
Notes to Condensed Consolidated Financial Statements	F-46

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Sesen Bio, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Sesen Bio, Inc. (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, stockholders' (deficit) equity, and cash flows for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 28, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

Fair Value of Contingent Consideration

Description of the Matter

As discussed in Notes 3 and 5 to the consolidated financial statements under the caption "Contingent Consideration," the Company uses a discounted cash flow model to estimate the fair value of the contingent consideration liability each reporting period, which represents the present value of projected future cash flows associated with regulatory approval milestones and royalties on net sales due to the selling shareholders of Viventia Bio Inc. Fluctuations in the fair value of the liability result in a charge to earnings (or loss) during the period. As of December 31, 2021, the Company estimated the fair value of the contingent consideration liability as $52.0 million and recorded the change in fair value of $56.8 million as operating income for the year ended December 31, 2021.

Auditing the fair value of the contingent consideration liability required significant auditor judgment due to the high degree of subjectivity in evaluating certain assumptions used to estimate the fair value. In particular, the fair value measurement was sensitive to the significant assumptions underlying the projected commercial sales of Vicineum and probabilities of success and timing of certain milestone events and achievements.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the development of the significant assumptions over the Company's process to estimate the fair value of the contingent consideration liability. This included testing controls over management's review of the significant estimation assumptions and methods used to develop the fair value estimate, the accuracy of the calculations included within the fair value model, and the underlying data used in the model.

To test the estimated fair value of the contingent consideration liability, our audit procedures included, among others, assessing the terms of the arrangement, evaluating the methodology used and testing the key inputs and significant assumptions discussed above. We evaluated the significant assumptions in light of observable industry and economic trends and standards, external data sources, probability of success benchmarks, and regulatory factors. Our procedures included evaluating the data sources used by management in determining its significant assumptions and included an evaluation of available information that either corroborated or contradicted management's conclusions. In addition, we involved our valuation professionals to assess the methodology used to determine the fair value of the contingent consideration liability, which included performing corroborative fair value calculations.

Impairment Evaluation of Goodwill and Indefinite-Lived Intangible Assets

Description of the Matter

As discussed in Notes 3 and 8 to the consolidated financial statements under the captions "Indefinite-Lived Intangible Assets" and "Goodwill," the Company's intangible assets consist of indefinite-lived, acquired in-process research and development (IPR&D) worldwide product rights to Vicineum as a result of the acquisition of Viventia in 2016. Goodwill on the Company's consolidated balance sheets is the result of the Company's acquisition of Viventia in September 2016 and represents the difference between the purchase price and the fair value of the identifiable tangible and intangible net assets acquired under the acquisition method of accounting. Indefinite-lived intangible assets are quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Goodwill is quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Impairment testing of IPR&D requires management to estimate the future discounted cash flows of the underlying asset. Impairment testing of goodwill requires management to estimate the future discounted cash flows of the Company's one reporting unit.

Auditing management's impairment assessments required significant auditor judgment due to the high degree of subjectivity in evaluating certain assumptions used to estimate the fair value of the reporting unit for and the IPR&D. In particular, the fair value estimates of goodwill and of IPR&D were sensitive to the significant assumptions underlying the projected commercial sales of Vicineum.

How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the development of the significant assumptions over the Company's goodwill and indefinite-lived intangible asset impairment review processes. This included testing controls over management's review of the quantitative impairment analyses of goodwill and IPR&D, including the significant estimation assumptions and methods used, the accuracy of the calculations included within the valuation models, and the underlying data used in those models. To test the impairment evaluations over goodwill and IPR&D assets, our audit procedures included, among others, evaluating the methodology and valuation models used and testing the key inputs and significant assumptions discussed above. We evaluated the significant assumptions in light of observable industry and economic trends and standards, external data sources, probability of success benchmarks, and regulatory factors. Our procedures included evaluating the data sources used by management in determining its significant assumptions and included an evaluation of available information that either corroborated or contradicted management's conclusions. In addition, we inspected the Company's reconciliation of the fair value of the reporting unit to the market capitalization of the Company and assessed the results. We involved our valuation professionals to assess the methodology and valuation of the discounted cash flow models, including evaluating the reasonableness of certain significant assumptions.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2010.
Boston, Massachusetts
February 28, 2022

SESEN BIO, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)

	December 31,	
	2021	**2020**
Assets		
Current assets:		
Cash and cash equivalents	$ 162,636	$ 52,389
Accounts receivables	21,011	—
Other receivables	3,482	—
Prepaid expenses and other current assets	18,476	7,478
Restricted Cash	—	3,000
Total current assets	205,605	62,867
Non-current assets:		
Restricted cash	20	20
Property and equipment, net	43	123
Intangible assets	14,700	46,400
Goodwill	13,064	13,064
Long term prepaid expenses	7,192	—
Other assets	123	349
Total non-current assets	**$ 35,142**	**$ 59,956**
Total Assets	**$ 240,747**	**$ 122,823**
Liabilities and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 2,853	$ 3,102
Accrued expenses	8,255	3,973
Deferred revenue	—	1,500
Contingent consideration	—	8,985
Other current liabilities	460	489
Total current liabilities	11,568	18,049
Non-current liabilities:		
Contingent consideration, net of current portion	52,000	99,855
Deferred tax liability	3,969	12,528
Deferred revenue, net of current portion	1,500	1,500
Other non-current liabilities	—	118
Total non-current liabilities	57,469	114,001
Total Liabilities	69,037	132,050
Stockholders' Equity (Deficit):		
Preferred stock, $0.001 par value per share; 5,000,000 shares authorized at December 31, 2021 and 2020; no shares issued and outstanding at December 31, 2021 and 2020	—	—
Common stock, $0.001 par value per share; 400,000,000 and 200,000,000 shares authorized at December 31, 2021 and 2020; 199,463,645 and 140,449,647 shares issued and outstanding at December 31, 2021 and 2020, respectively	199	140
Additional paid-in capital	487,768	306,554
Accumulated deficit	(316,257)	(315,921)
Total Stockholders' Equity (Deficit)	171,710	(9,227)
Total Liabilities and Stockholders' Equity	**$ 240,747**	**$ 122,823**

The accompanying notes are an integral part of these consolidated financial statements.

SESEN BIO, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share data)

	Year ended December 31,		
	2021	2020	2019
Revenue:			
License and related revenue	$ 26,544	$ 11,236	$ —
Total Revenue	26,544	11,236	—
Operating expenses:			
Research and development	25,312	29,191	24,663
General and administrative	29,393	14,302	12,208
Restructuring charge	5,528	—	—
Intangibles impairment charge	31,700	—	—
Change in fair value of contingent consideration	(56,840)	(11,180)	71,620
Total operating expenses	35,093	32,313	108,491
Loss from Operations	$ (8,549)	$ (21,077)	$ (108,491)
Other (expense) income, net	(60)	125	991
Loss Before Taxes	$ (8,609)	$ (20,952)	$ (107,500)
Benefit (provision) from income taxes	$ 8,273	$ (1,445)	$ —
Net Loss and Comprehensive Loss After Taxes	$ (336)	$ (22,397)	$ (107,500)
Deemed dividend on adjustment of exercise price of certain warrants	$ —	$ (147)	$ —
Net loss attributable to common stockholders - basic and diluted	$ (336)	$ (22,544)	$ (107,500)
Net loss per common share - basic and diluted	$ —	$ (0.19)	$ (1.18)
Weighted-average common shares outstanding - basic and diluted	$ 182,323	$ 118,221	$ 90,929

The accompanying notes are an integral part of these consolidated financial statements.

SESEN BIO, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Stockholders' Equity (Deficit)
	Shares	Amount			
Balance at December 31, 2018	77,456,180	$ 77	$ 230,154	$ (186,024)	$ 44,207
Net loss	—	—	—	(107,500)	(107,500)
Share-based compensation	—	—	1,237	—	1,237
Exercises of stock options and vesting of RSAs	89,812	—	98	—	98
Sales of common stock under 2014 ESPP	10,283	—	8	—	8
Issuance of common stock and common stock warrants, net of issuance costs of $2.2 million	20,410,000	21	27,812	—	27,833
Exercises of common stock warrants	6,772,928	7	5,474	—	5,481
Issuance of common stock under ATM Offering, net of issuance costs of $0.2 million	2,062,206	2	1,934	—	1,936
Balance at December 31, 2019	106,801,409	107	266,717	(293,524)	(26,700)
Net loss	—	—	—	(22,397)	(22,397)
Share-based compensation	—	—	1,757	—	1,757
Exercises of stock options	12,000	—	13	—	13
Sales of common stock under 2014 ESPP	28,186	—	11	—	11
Exercises of common stock warrants	238,110	—	131	—	131
Issuance of common stock under ATM Offering, net of issuance costs of $1.2 million	33,369,942	33	37,925		37,958
Balance at December 31, 2020	140,449,647	140	306,554	(315,921)	(9,227)
Net loss	—	—	—	$ (336)	(336)
Share-based compensation	—	—	5,143	—	5,143
Exercises of stock options	33,610	—	42	—	42
Exercises of common stock warrants	2,048,059	2	1,124	—	1,126
Issuance of common stock under ATM Offering, net of issuance costs of $5.4 million	56,932,329	57	174,905	—	174,962
Balance at December 31, 2021	**199,463,645**	**$ 199**	**$ 487,768**	**$ (316,257)**	**$ 171,710**

The accompanying notes are an integral part of these consolidated financial statements.

SESEN BIO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year ended December 31,		
	2021	2020	2019
Cash Flows from Operating Activities:			
Net loss	$ (336)	$ (22,397)	$ (107,500)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	85	122	219
Share-based compensation	5,143	1,757	1,237
Change in fair value of contingent consideration	(56,840)	(11,180)	71,620
Intangibles impairment charge	31,700	—	—
Changes in operating assets and liabilities:			
Accounts receivable (net)	(24,493)	—	—
Prepaid expenses and other assets	(17,964)	(1,304)	(5,188)
Accounts payable	(249)	1,200	535
Accrued expenses and other liabilities	(4,424)	(2,035)	1,556
Deferred revenue	(1,500)	3,000	—
Net cash used in operating activities	**(68,878)**	**(30,837)**	**(37,521)**
Cash Flows from Investing Activities:			
Purchases of equipment	(4)	(8)	(136)
Net cash used in investing activities	**(4)**	**(8)**	**(136)**
Cash Flows from Financing Activities:			
Proceeds from issuance of common stock and common stock warrants, net of issuance costs	—	—	27,833
Proceeds from exercises of common stock warrants	1,126	131	5,481
Proceeds from issuance of common stock under ATM Offering, net of issuance costs	174,962	37,958	1,936
Proceeds from exercises of stock options	42	13	98
Proceeds from sale of common stock pursuant to ESPP	—	11	8
Net cash provided by financing activities	**176,129**	**38,113**	**35,356**
Net increase (decrease) in cash, cash equivalents and restricted cash	107,247	7,268	(2,301)
Cash, cash equivalents and restricted cash - beginning of period	55,409	48,141	50,442
Cash, cash equivalents and restricted cash - end of period	**$ 162,656**	**$ 55,409**	**$ 48,141**
Reconciliation of cash, cash equivalents and restricted cash:			
Cash and cash equivalents	$ 162,636	$ 52,389	$ 48,121
Short term restricted cash	—	3,000	—
Long term restricted cash	20	20	20
Total cash, cash equivalents and restricted cash	**$ 162,656**	**$ 55,409**	**$ 48,141**
Supplemental cash flow disclosure:			
Cash paid for amounts included in the measurement of lease liabilities	$ 174	$ 154	$ 153
Supplemental disclosure of non-cash operating activities:			
Right-of-use assets related to the adoption of ASC 842	$ —	$ —	$ 236
Right-of-use assets obtained in exchange for lease obligations	$ —	$ 290	$ —
Supplemental disclosure of non-cash financing activities:			
Deemed Dividend on adjustment of exercise price on certain warrants	$ —	$ 147	$ —

The accompanying notes are an integral part of these consolidated financial statements.

SESEN BIO, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

Sesen Bio, Inc. ("Sesen" or the "Company"), a Delaware corporation formed in February 2008, is a late-stage clinical company advancing targeted fusion protein therapeutics ("TFPTs") for the treatment of patients with cancer. The Company's most advanced product candidate, Vicineum™, also known as VB4-845, is a locally-administered targeted fusion protein composed of an anti-epithelial cell adhesion molecule ("EpCAM") antibody fragment tethered to a truncated form of Pseudomonas exotoxin A for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with bacillus Calmette-Guérin ("BCG"). The Company has an ongoing single-arm, multi-center, open-label Phase 3 VISTA clinical trial of Vicineum as a monotherapy in patients with BCG-unresponsive NMIBC (the "VISTA Trial"). The VISTA Trial completed enrollment in April 2018 with a total of 133 patients. On December 18, 2020, the Company submitted its completed Biologics License Application (the "BLA") for Vicineum for the treatment of BCG-unresponsive NMIBC to the United States Food and Drug Administration ("FDA"). On February 12, 2021, the FDA notified the Company that it has accepted for filing the BLA. The FDA also granted Priority Review for the BLA and set a target Prescription Drug User Fee Act ("PDUFA") date for a decision on the BLA of August 18, 2021. On July 13, 2021, the Company participated in a productive Late-Cycle Meeting with the FDA regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. In the meeting, the FDA confirmed that there was no Advisory Committee meeting planned at that time, and that no post-marketing requirements, including a confirmatory trial, had been identified at that time. Also in the meeting, the Company and the FDA discussed remaining questions related to manufacturing facilities inspection, product quality information requests and additional information related to chemistry, manufacturing and controls ("CMC"), and a timeline to submit additional supporting information was agreed upon. On August 13, 2021, the Company received a complete response letter ("CRL") from the FDA indicating that the FDA had determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality.

The Company participated in Type A Meetings with the FDA on October 29, 2021 and December 8, 2021 to discuss questions related to CMC and clinical issues raised in the CRL. Both meetings helped the Company determine the appropriate path forward for Vicineum. Any changes in these assumptions and estimates or other information obtained, may have a significant impact on the remeasurement of the contingent consideration liability in the future. The Company believes it has a clear understanding of what additional information regarding CMC is required for resubmission of a BLA. Additionally, although not an issue raised in the CRL, the FDA confirmed that Vicineum manufactured using the proposed commercial process is comparable to Vicineum used in prior clinical trials. The FDA also confirmed that the Company can utilize Vicineum manufactured during process validation for any future clinical trials needed to address issues raised in the CRL, and that these potential trials can proceed while addressing CMC issues.

Viventia Acquisition

In September 2016, the Company entered into a Share Purchase Agreement with Viventia Bio, Inc., a corporation incorporated under the laws of the Province of Ontario, Canada ("Viventia"), the shareholders of Viventia named therein (the "Selling Shareholders") and, solely in its capacity as seller representative, Clairmark Investments Ltd., a corporation incorporated under the laws of the Province of Ontario, Canada ("Clairmark") (the "Share Purchase Agreement"), pursuant to which the Company agreed to and simultaneously completed the acquisition of all of the outstanding capital stock of Viventia from the Selling Shareholders (the "Viventia Acquisition"). In connection with the closing of the Viventia Acquisition, the Company issued 4.0 million shares of its common stock to the Selling Shareholders, which at that time represented approximately 19.9% of the voting power of the Company as of immediately prior to the issuance of such shares. Clairmark is an affiliate of Leslie L. Dan, a director of the Company until his retirement in July 2019.

In addition, under the Share Purchase Agreement, the Company is obligated to pay to the Selling Shareholders certain post-closing contingent cash payments upon the achievement of specified milestones and based upon net sales, in each case subject to the terms and conditions set forth in the Share Purchase Agreement, including: (i) a one-time milestone payment of $12.5 million payable upon the first sale of Vicineum (the "Purchased Product"), in the United States; (ii) a one-time milestone payment of $7.0 million payable upon the first sale of the Purchased Product in any one of certain specified European countries; (iii) a one-time milestone payment of $3.0 million payable upon the first sale of the Purchased Product in Japan; and (iv) quarterly earn-out payments equal to

2% of net sales of the Purchased Product during specified earn-out periods. Such earn-out payments are payable with respect to net sales in a country beginning on the date of the first sale in such country and ending on the earlier of (i) December 31, 2033, and (ii) fifteen years after the date of such sale, subject to early termination in certain circumstances if a biosimilar product is on the market in the applicable country. Under the Share Purchase Agreement, the Company, its affiliates, licensees and subcontractors are required to use commercially reasonable efforts, for the first seven years following the closing of the Viventia Acquisition, to achieve marketing authorizations throughout the world and, during the applicable earn-out period, to commercialize the Purchased Product in the United States, France, Germany, Italy, Spain, United Kingdom, Japan, China and Canada. Certain of these payments are payable to individuals or affiliates of individuals that became employees or members of the Company's board of directors. However, as of December 31, 2021, none of these individuals are active employees or members of the Company's board of directors.

Liquidity and Capital Resources

As of December 31, 2021, the Company had cash and cash equivalents of $162.6 million and an accumulated deficit of $316.3 million. The Company incurred negative cash flows from operating activities of $68.9 million, $30.8 million and $37.5 million for the years ended December 31, 2021, 2020 and 2019, respectively. Since the Company's inception, it has received no revenue from sales of its products, and the Company anticipates that operating losses will continue for the foreseeable future as it seeks to address the issues raised in the CRL it received for a BLA for Vicineum for the treatment of BCG unresponsive NMIBC and the concerns identified in the EMA Withdrawal Assessment Report, complete the follow-up stage of the ongoing Phase 3 VISTA Trial of Vicineum for the treatment of BCG-unresponsive NMIBC, complete any additional clinical trials for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, and seek marketing approval from the FDA and the European Commission and, if approved, commercialize Vicineum. The Company has financed its operations to date primarily through private placements of its common stock, preferred stock, common stock warrants and convertible bridge notes, venture debt borrowings, its initial public offering ("IPO"), follow-on public offerings, sales effected in "at-the-market" ("ATM") offerings, commercialization partnership and out-license agreements. See "Note 12. Stockholders' Equity" below for information regarding the Company's recently completed equity financings. Management believes that the Company's cash and cash equivalents as of December 31, 2021 will be sufficient to fund the Company's current operating plan for at least the next twelve months from the date these consolidated financial statements were issued.

Funding Requirements

The Company's future success is dependent on its ability to develop, and if approved, commercialize its product candidates, including Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, and ultimately upon its ability to attain profitable operations. In order to commercialize its product candidates, including Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, the Company needs to complete clinical development and comply with comprehensive regulatory requirements. The Company is subject to a number of risks similar to other late-stage clinical companies, including, but not limited to, successful discovery and development of its product candidates, raising additional capital, development and commercialization by its competitors of new technological innovations, protection of proprietary technology and market acceptance of its products. The successful discovery, development and, if approved, commercialization of product candidates, including Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, requires substantial working capital, and the Company expects to seek additional funds through equity or debt financings or through additional outside of United States ("OUS") business development partnerships, collaborations, licensing transactions or other sources. The Company may be unable to obtain equity or debt financings or enter into additional OUS business development partnerships, collaborations or licensing transactions at favorable terms, or at all, and, if necessary, may be required to implement cost reduction strategies.

The Company will incur substantial expenses if and as it:

- addresses the issues identified in the CRL it received from the FDA for its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC and the concerns identified in the European Medicines Agency's ("EMA") Withdrawal Assessment Report, which the Company expects will include the completion of an additional Phase 3 clinical trial;

- seeks marketing approvals for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG;

- establishes and implement sales, marketing and distribution capabilities and scale up and validate external manufacturing capabilities to commercialize Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, if approved;
- maintains, expands and protects its intellectual property portfolio;
- hires additional clinical, regulatory, quality control, scientific and management personnel;
- expands its operational, financial and management systems and personnel;
- conducts research and pre-clinical and clinical development of Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, and its other product candidates;
- seeks to discover and develop additional product candidates; and
- in-licenses or acquires the rights to other products, product candidates or technologies.

The Company's future capital requirements will depend on many factors, including:

- the scope, initiation, progress, timing, costs and results of laboratory testing and clinical trials for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG and its other product candidates;
- the ongoing COVID-19 pandemic and its impact on the Company's business;
- the Company's ability to establish additional OUS business development partnerships, collaborations or licensing arrangements on favorable terms, if at all, particularly manufacturing, marketing and distribution arrangements for its product candidates;
- the costs and timing of the implementation of commercial-scale manufacturing activities, including those associated with the manufacturing process and technology transfer to third-party manufacturers to facilitate such commercial-scale manufacturing of Vicineum;
- the costs and timing of establishing and implementing sales, marketing and distribution capabilities for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, if approved;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing its intellectual property rights and defending any intellectual property-related claims;
- the Company's obligation to make milestone, royalty and other payments to third-party licensors under its licensing agreements;
- the extent to which the Company in-licenses or acquires rights to other products, product candidates or technologies;
- the outcome, timing and cost of regulatory review by the FDA, EMA and comparable non-US regulatory authorities for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, including the potential for the FDA, EMA or comparable non-US regulatory authorities to require that the Company perform more studies or clinical trials than those that it currently expects to perform;
- the Company's ability to achieve certain future regulatory, development and commercialization milestones under its out-license and OUS business development partnership agreements

- the effect of competing technological and market developments; and

- the revenue, if any, received from commercial sales of Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, if approved.

Until such time, if ever, as the Company can generate substantial product revenues from commercial sales, the Company expects to finance its cash needs through a combination of equity offerings, debt financings, government or other third-party funding, strategic collaborations, OUS business development partnership agreements, partnerships, alliances, and licensing arrangements. The Company does not have any committed external source of funds other than the amounts payable under the license agreement with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (collectively, "Roche") and the license agreement with Qilu Pharmaceutical, Co., Ltd. ("Qilu"). To the extent the Company raises additional capital through the sale of equity or convertible debt securities, the ownership interests of existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of existing stockholders. Debt financing, if available, may involve agreements that include liens or other restrictive covenants limiting the Company's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If the Company raises additional funds through government or other third-party funding, strategic OUS business development partnerships, collaborations, alliances or licensing arrangements, the Company may have to relinquish valuable rights to its technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to the Company. If the Company is unable to raise additional funds when needed, the Company may be required to delay, limit, reduce or terminate its product development or future commercialization efforts or grant rights to develop and market products or product candidates that the Company would otherwise prefer to develop and market itself.

The COVID-19 pandemic has negatively impacted the global economy, disrupted business operations and created significant volatility and disruption to financial markets. Significant uncertainty remains as to the potential impact of the COVID-19 pandemic on the Company's operations, and on the global economy as a whole. The extent and duration of the pandemic could continue to disrupt global markets and may affect the Company's ability to raise additional capital in the future.

2. BASIS OF PRESENTATION

The accompanying financial statements have been prepared in accordance with United States generally accepted accounting principles ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the ASC and Accounting Standards Updates ("ASUs"), promulgated by the Financial Accounting Standards Board ("FASB").

Use of Estimates

The preparation of financial statements in accordance with GAAP and the rules and regulations of the SEC requires the use of estimates and assumptions, based on judgments considered reasonable, which affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates and assumptions on historical experience, known trends and events and various other factors that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Although management believes its estimates and assumptions are reasonable when made, they are based upon information available at the time they are made. Management evaluates the estimates and assumptions on an ongoing basis and, if necessary, makes adjustments. Due to the risks and uncertainties involved in the Company's business and evolving market conditions, and given the subjective element of the estimates and assumptions made, actual results may differ from estimated results. The most significant estimates and judgments impact the fair value of intangible assets, goodwill and contingent consideration; income taxes (including the valuation allowance for deferred tax assets); research and development expenses; and going concern considerations.

Principles of Consolidation

The Company's consolidated financial statements include the accounts of the Company, its wholly owned subsidiary Viventia and its indirect subsidiaries, Viventia Bio USA Inc. and Viventia Biotech (EU) Limited. All intercompany transactions and balances have been eliminated in consolidation.

Foreign Currency Translation

The functional currency of the Company and each of its subsidiaries is the US dollar.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Cash, Cash Equivalents, Restricted Cash and Concentration of Credit Risk

The Company's cash is held on deposit in demand accounts at a large financial institution in amounts in excess of the Federal Deposit Insurance Corporation ("FDIC") insurance coverage limit of $250,000 per depositor, per FDIC-insured bank, per ownership category. Restricted cash represents cash held by the Company's primary commercial bank to collateralize a letter of credit issued related to a license agreement and the credit limit on the Company's corporate credit card, and are classified as short term and long term, respectively. The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. Financial instruments that potentially subject the Company to credit risk principally consists of cash equivalents and accounts receivable. As of December 31, 2021 and 2020, the Company limited its credit risk associated with cash equivalents by placing investments in highly-rated money market funds.

Property and Equipment

Property and equipment are recorded at cost. Maintenance and repairs are charged to expense as incurred, and costs of improvements and renewals are capitalized. Depreciation is recognized using the straight-line method over the estimated useful lives of the relative assets. The Company uses an estimated useful life of five years for lab equipment, four years for furniture and fixtures, three years for computer equipment and software and the lesser of five years or the remaining lease term for leasehold improvements.

Indefinite-Lived Intangible Assets

The Company's intangible assets consist of indefinite-lived, acquired in-process research and development ("IPR&D") worldwide product rights to Vicineum as a result of the acquisition of Viventia in 2016. IPR&D assets acquired in a business combination are considered indefinite-lived until the completion or abandonment of the associated research and development efforts. Amortization over the estimated useful life will commence at the time of Vicineum's commercial launch in the respective markets, if approved. If regulatory approval to market Vicineum for the treatment of BCG-unresponsive NMIBC is not obtained, the Company will immediately expense the related capitalized cost.

Indefinite-lived intangible assets are quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Impairment testing of indefinite-lived intangible assets requires management to estimate the future discounted cash flows of an asset using assumptions believed to be reasonable, but which are unpredictable and inherently uncertain. Actual future cash flows may differ from the estimates used in impairment testing. The Company recognizes an impairment loss when and to the extent that the estimated fair value of an intangible asset is less than its carrying value. In addition, on a quarterly basis, the Company performs a qualitative review of its business operations to determine whether events or changes in circumstances have occurred which could indicate that the carrying value of its intangible assets was not recoverable. If an impairment indicator is identified, an interim impairment assessment is performed.

In August 2021, the Company received a CRL from the FDA regarding its BLA for Vicineum for the treatment of NMIBC, its lead product candidate. In the CRL, the FDA determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality. Given the inherent uncertainty in the development plans for Vicineum (and Vysyneum in the EMA) as a result of the CRL and the withdrawal of the Company's marketing authorization application ("MAA"), an interim impairment analysis was conducted in the third quarter of 2021, which concluded that the carrying value of the Company's intangible asset of Vicineum US rights was fully impaired as of September 30, 2021. The $31.7 million of impairment charges were due to delays in the expected start of commercialization and lower probabilities of success, combined with higher operating expenses expected to be incurred prior to commercialization, resulting in lower expected future cash flows estimated in the US market. However, while similar delays in timelines and reduced probabilities of success also affected the estimated fair value of the Company's intangible asset of Vicineum EU rights, this asset was not impaired as of September 30, 2021. At that time, management assessed that the carrying value of the Vicineum EU rights is not at significant risk of impairment in the future within the current

range of commercialization timelines and probability of clinical and regulatory success ("POS") assumptions. This is primarily due to the fact that the Company expects the Vicineum sales outside of the US to be two to three times the expected sales volume in the US, based on management's reassessment of the total addressable global market for high-risk NMIBC during the quarter ended June 30, 2019, wherein management determined that both the global market size and the estimated potential Vicineum commercial sales within the global market were likely higher than the Company's previous estimate. In addition, the EU asset is burdened with significantly less expense than the US asset, as the Company's strategic operating plan is to sublicense Vicineum to business development partners in all regions outside the US, including the EU, with it earning a potential combination of upfront, milestone, and royalty payments, and the business development partner bearing the majority of regulatory and commercialization costs. The Company participated in Type A Meetings with the FDA on October 29, 2021 and December 8, 2021 to discuss questions related to CMC and clinical issues raised in the CRL. Both meetings helped the Company determine the appropriate path forward for Vicineum. Based upon the outcome of these meetings, the Company plans to conduct an additional Phase 3 clinical trial. Also, during the Clinical Type A Meeting, the Company aligned with FDA to include patients with less than adequate BCG into its new clinical trial. The Company performed the annual impairment test, which incorporated the impact of the CRL and the subsequent Type A Meetings in the fourth quarter of 2021 and concluded that the carrying value of the Company's intangible asset of Vicineum EU rights was not impaired as of December 31, 2021.

The Company did not recognize any impairment charges during the year ended December 31, 2020.

Goodwill

Goodwill on the Company's consolidated balance sheets is the result of the Company's acquisition of Viventia in September 2016 and represents the difference between the purchase price and the fair value of the identifiable tangible and intangible net assets acquired under the acquisition method of accounting. Goodwill is not amortized; rather than recording periodic amortization, goodwill is quantitatively tested for impairment at least annually during the fourth quarter of the fiscal year, or more often if indicators of impairment are present. Impairment testing of goodwill requires management to estimate the future discounted cash flows of a reporting unit using assumptions believed to be reasonable, but which are unpredictable and inherently uncertain. Actual future cash flows may differ from the estimates used in impairment testing. If the fair value of the equity of a reporting unit exceeds the reporting unit's carrying value, including goodwill, then goodwill is considered not to be impaired. The Company recognizes a goodwill impairment when and to the extent that the fair value of the equity of a reporting unit is less than the reporting unit's carrying value, including goodwill. The Company has only one reporting unit. In addition, on a quarterly basis, the Company performs a qualitative review of its business operations to determine whether events or changes in circumstances have occurred which could have a material adverse effect on the estimated fair value of each reporting unit and thus indicate a potential impairment of the goodwill carrying value. If an impairment indicator is identified, an interim impairment assessment is performed. Given the inherent uncertainty in the development plans for Vicineum as a result of the CRL and the Company's withdrawal of its MAA, an impairment analysis was conducted in the third quarter of 2021. While an impairment was recognized in one of the Company's intangible assets, Vicineum US Rights, the Company concluded that the carrying value of its goodwill of $13.1 million was not impaired as of September 30, 2021.

In October and December 2021, we participated in a CMC Type A Meeting and a Clinical Type A Meeting, respectively, with the FDA to discuss issues raised in the CRL and to discuss design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed will be required for a potential resubmission of a BLA. Following these Type A Meetings, we believe we have greater clarity of the requirements for potential resubmission of a BLA. We have a Type C Meeting scheduled with the FDA for March 28, 2022, in which we expect to discuss the study protocol for the additional Phase 3 clinical trial that we plan to conduct for potential resubmission of our a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG. The Company performed the annual impairment test, which incorporated the impact of the CRL and the subsequent Type A Meetings in the fourth quarter of 2021 and concluded that there was no goodwill impairment as of December 31, 2021. Management believes the Company has sufficient future cash flows from additional geographic regions outside the US to support the value of its goodwill. The Company projects future cash flows based on various timeline assumptions and applies a probability to each outcome based on management's best estimate. In addition, probabilities of success in achieving certain clinical and regulatory success can also have a material effect on the estimated fair value of the equity of its reporting unit as of the impairment assessment date. The Company will continue to evaluate timelines for commercialization and probability of success of development of Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG.

Based on the annual testing and quarterly reviews performed, the Company concluded that there was no goodwill impairment during the year ended December 31, 2020.

Contingent Consideration

The Company uses a discounted cash flow model to estimate the fair value of the contingent consideration liability each reporting period, which represents the present value of projected future cash flows associated with regulatory approval milestones and royalties on net sales due to the selling shareholders of Viventia Bio Inc. as a result of the Viventia Acquisition in September 2016. See "Note 1. Description of Business" for additional information. Contingent consideration is measured at its estimated fair value on a recurring basis at each reporting period, with fluctuations in value resulting in a non-cash charge to earnings (or loss) during the period. The estimated fair value measurement is based on significant unobservable inputs (Level 3 within the fair value hierarchy), including internally developed financial forecasts, probabilities of success and timing of certain milestone events and achievements, which are inherently uncertain. Actual future cash flows may differ from the assumptions used to estimate the fair value of contingent consideration. The valuation of contingent consideration requires the use of significant assumptions and judgments, which management believes are consistent with those that would be made by a market participant. Management reviews its assumptions and judgments on an ongoing basis as additional market and other data is obtained, and any future changes in the assumptions and judgments utilized by management may cause the estimated fair value of contingent consideration to fluctuate materially, resulting in earnings volatility.

In October and December 2021, we participated in a CMC Type A Meeting and a Clinical Type A Meeting, respectively, with the FDA to discuss issues raised in the CRL and to discuss design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed will be required for a potential resubmission of a BLA. Following these Type A Meetings, we believe we have greater clarity of the requirements for potential resubmission of a BLA. We have a Type C Meeting scheduled with the FDA for March 28, 2022, in which we expect to discuss the study protocol for the additional Phase 3 clinical trial that we plan to conduct for potential resubmission of our a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG. The Company reassessed the underlying assumptions used to develop the revenue projections upon which the fair value of its contingent consideration is based. The most significant and impactful assumptions in the Company's revenue projection models are timing of product launch and probabilities of clinical and regulatory success ("POS"); the Company expects delays in the start of commercialization and estimates lower POS as a direct result of the CRL. The Company plans to conduct an additional clinical trial, which will lead to delays in the start of commercialization globally. The Company has assessed a range of commercialization timeline assumptions and applied a probability to each outcome based on management's best estimate. In addition, the Company now assumes a lower POS in achieving certain clinical and regulatory milestones in the range of approximately 45% to 55% globally. Any changes in these assumptions and estimates, or other information obtained, may have a significant impact on the remeasurement of the contingent consideration liability in the future. The fair value of the Company's contingent consideration is determined based on the present value of projected future cash flows associated with sales-based milestones and earnouts on net sales and is heavily dependent on discount rates to estimate the fair value at each reporting period. Earnouts are determined using an earnout rate of 2% on all commercial net sales of Vicineum through December 2033. The discount rate applied to the 2% earnout is derived from the Company's estimated weighted-average cost of capital ("WACC"), which has fluctuated from 8.8% as of December 31, 2020, to 7.8% as of March 31, 2021, 6.8% as of June 30, 2021, 8.6% as of September 30, 2021, and 9.3% as of December 31, 2021. Milestone payments constitute debt-like obligations, and therefore a high-yield debt index rate is applied to the milestones in order to determine the estimated fair value. This index rate changed from 8.4% as of December 31, 2020, to 7.4% as of March 31, 2021, 6.6% as of June 30, 2021, 7.5% as of September 30, 2021, and 8.0% as of December 31, 2021.

Leases

Effective January 1, 2019, the Company adopted ASC Topic 842, *Leases* ("ASC 842") using the optional transition method outlined in ASU No. 2018-11, *Leases (Topic 842), Targeted Improvements*. The adoption of ASC 842 represents a change in accounting principle that aims to increase transparency and comparability among organizations by requiring the recognition of right-of-use assets and lease liabilities on the balance sheet for both operating and finance leases. In addition, the standard requires enhanced disclosures that meet the objective of enabling financial statement users to assess the amount, timing and uncertainty of cash flows arising from leases. The reported results for the year ended December 31, 2021, 2020 and 2019 reflect the application of ASC 842 guidance, while the reported results for priors were prepared in accordance with the previous ASC Topic 840, *Leases* ("ASC 840") guidance. The adoption of ASC 842 resulted in the recognition of operating lease right-of-use assets and corresponding lease liabilities of $0.2 million on the Company's consolidated balance sheet as of January 1, 2019. The adoption of this guidance did not

have a material impact on the Company's financial condition, results of operations or cash flows; however, the adoption did result in significant changes to the Company's financial statement disclosures.

As part of the adoption of ASC 842, the Company utilized certain practical expedients outlined in the guidance. These practical expedients include:

- Accounting policy election to use the short-term lease exception by asset class;
- Election of the practical expedient package during transition, which includes:
  - An entity need not reassess whether any expired or existing contracts are or contain leases;
  - An entity need not reassess the classification for any expired or existing leases. As a result, all leases that were classified as operating leases in accordance with ASC 840 are classified as operating leases under ASC 842, and all leases that were classified as capital leases in accordance with ASC 840 are classified as finance leases under ASC 842; and
  - An entity need not reassess initial direct costs for any existing leases.

The Company's lease portfolio as of the adoption date and as of December 31, 2021 includes: a property lease for manufacturing, laboratory, warehouse and office space in Winnipeg, Manitoba, a property lease for its headquarters in Cambridge, MA, and a property lease for office space in Philadelphia, PA. The Company determines if an arrangement is a lease at the inception of the contract and has made a policy election to not separate out non-lease components from lease components, for all classes of underlying assets. The asset components of the Company's operating leases are recorded as operating lease right-of-use assets and reported within other assets on the Company's consolidated balance sheet. The short-term and long-term liability components are recorded in other current liabilities and other liabilities, respectively, on the Company's consolidated balance sheet. As of December 31, 2021, the Company did not have any finance leases.

Right-of-use assets and operating lease liabilities are recognized based on the present value of lease payments over the lease term at the commencement date. Existing leases in the Company's lease portfolio as of the adoption date were valued as of January 1, 2019. The Company uses an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments, if an implicit rate of return is not provided with the lease contract. Operating lease right-of-use assets are adjusted for incentives received.

Operating lease costs are recognized on a straight-line basis over the lease term, in accordance with ASC 842, and also include variable operating costs incurred during the period. Lease costs also include amounts related to short-term leases.

Research and Development Costs

Research and development activities are expensed in the period incurred. Research and development expenses consist of both internal and external costs associated with all basic research activities, clinical development activities and technical efforts required to develop a product candidate. Internal research and development consist primarily of personnel costs, including salaries, benefits and share-based compensation, facilities leases, research-related overhead, pre-approval regulatory and clinical trial costs, manufacturing and other contracted services, license fees and other external costs.

In certain circumstances, the Company is required to make advance payments to vendors for goods or services that will be received in the future for use in research and development activities. In such circumstances, the advance payments are recorded as prepaid assets and expensed when the activity has been performed or when the goods have been received.

Share-Based Compensation

The Company recognizes the grant-date fair value of share-based awards granted as compensation as expense on a straight-line basis over the requisite service period, which is generally the vesting period of the award. To date, the Company has not issued awards where vesting is subject to market conditions. From time to time, the Company has granted to its executives' stock option awards which contain both performance-based and service-based vesting criteria. Performance milestone events are specific to the Company's

corporate goals, including certain clinical development objectives related to the new clinical trial, regulatory and financial objectives. Share-based compensation expense associated with performance-based vesting criteria is recognized using the accelerated attribution method if the performance condition is considered probable of achievement in management's judgment. The fair value of stock options is estimated at the time of grant using the Black-Scholes option pricing model, which requires the use of inputs and assumptions such as the fair value of the underlying stock, exercise price of the option, expected term, risk-free interest rate, expected volatility and dividend yield.

The fair value of each grant of options during the years ended December 31, 2021, 2020 and 2019 was determined using the following methods and assumptions:

- *Expected Term.* Due to the lack of historical exercise data and given the plain vanilla nature of the options granted by the Company, the expected term is determined using the "simplified" method, as prescribed in SEC Staff Accounting Bulletin ("SAB") No. 107 ("SAB 107"), whereby the expected life equals the arithmetic average of the vesting term (generally four years) and the original contractual term (ten years) of the option, taking into consideration multiple vesting tranches.

- *Risk-Free Interest Rate.* The risk-free rate is based on the interest rate payable on United States Treasury securities in effect at the time of grant for a period that is commensurate with the assumed expected term.

- *Expected Volatility.* The expected volatility is based on historical volatilities of a representative group of publicly traded biopharmaceutical companies, including the Company's own volatility, which were commensurate with the assumed expected term, as prescribed in SAB 107.

- *Dividend Yield.* The dividend yield is 0% because the Company has never declared or paid, and for the foreseeable future does not expect to declare or pay, a dividend on its common stock.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and net operating loss ("NOL") and research and development credit ("R&D credit") carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. A valuation allowance is recorded to the extent it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Unrecognized income tax benefits represent income tax positions taken on income tax returns that have not been recognized in the financial statements. The Company recognizes the benefit of an income tax position only if it is more likely than not (greater than 50%) that the tax position will be sustained upon tax examination, based solely on the technical merits of the tax position. Otherwise, no benefit is recognized. The tax benefits recognized are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The Company recognizes accrued interest and penalties related to uncertain tax positions as income tax expense in its consolidated statements of operations. As of December 31, 2021 and 2020, the Company did not have any uncertain tax positions.

Revenue Recognition

The Company records revenue from out-license agreements and OUS business development partnership agreements, including the License Agreement with Roche and its OUS partnerships. Under each of these agreements, the Company granted the counterparty an exclusive license to develop and commercialize the underlying licensed product. These agreements contain up-front license fees, development and regulatory milestone payments, sales-based milestone payments, and sales-based royalty payments.

The Company determines whether the out-license agreements and OUS business development partnership agreements are in scope of ASC 606, which it adopted as of January 1, 2018. Under ASC 606, in determining the appropriate amount of revenue to be recognized as the Company fulfills its obligations under these agreements, management performs the following steps:

1) Identification of the contract;

2) Determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract;

3) Measurement of the transaction price, including the constraint on variable consideration;

4) Allocation of the transaction price to the performance obligations; and

5) Recognition of revenue when or as the Company satisfies each performance obligation.

Development and Regulatory Milestones and Other Payments

At the inception of an arrangement that includes development milestone payments, management evaluates whether the development milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated development milestone value is included in the transaction price. Development milestone payments that are not within the Company's control or the licensee's control, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. For payments pursuant to sales milestones and royalty payments, the Company will not recognize revenue until the subsequent sale of a licensed product occurs. For arrangements with one than one performance obligations, the milestones are generally allocated entirely to the license performance obligation, as (1) the terms of milestone and royalty payments relate specifically to the license and (2) allocating milestones and royalties to the license performance obligation is consistent with the overall allocation objective, because management's estimate of milestones and royalties approximates the standalone selling price of the license.

In December 2021, a $20 million milestone was achieved due to Roche initiating a Phase II clinical trial. The Company invoiced Roche $20 million with payment terms of 30 days following the achievement of the corresponding milestone event, pursuant to the Roche License Agreement. Management evaluated the transaction under ASC 606 and determined it is probable that a significant revenue reversal will not occur in future periods, which was not the case in the previous quarter. Accordingly, the Company recorded $20 million as license revenue and accounts receivables in the fourth quarter of 2021. In January 2022, the payment of $20 million was received.

The Company recognized $26.5 million of license revenue related to the Roche, Qilu and MENA License Agreements during the year ended December 31, 2021 and $11.2 million of license revenue related to the Qilu License Agreement during the year ended December 31, 2020.

4. RECENT ACCOUNTING PRONOUNCEMENTS

Adopted in 2021

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"). ASU 2019-12 simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments in ASU 2019-12 also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. ASU 2019-12 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted. The method with which the amendments in this ASU are to be applied varies depending on the nature of the tax item impacted by amendment. The Company adopted this guidance effective January 1, 2021, and it did not have a material impact on its financial position, results of operations or cash flows.

5. FAIR VALUE MEASUREMENT AND FINANCIAL INSTRUMENTS

The carrying values of cash and cash equivalents, restricted cash, prepaid expenses and other current assets, and accounts payable on the Company's consolidated balance sheets approximated their fair values as of December 31, 2021 and 2020 due to their short-term nature.

Certain of the Company's financial instruments are measured at fair value using a three-level hierarchy that prioritizes the inputs used to measure fair value. This fair value hierarchy prioritizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1: Inputs are quoted prices for identical instruments in active markets,

Level 2: Inputs are quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; or model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3: Inputs are unobservable and reflect the Company's own assumptions, based on the best information available, including the Company's own data.

The following tables set forth the carrying amounts and fair values of the Company's financial instruments measured at fair value on a recurring basis as of December 31, 2021 and 2020 (in thousands):

	December 31, 2021				
			Fair Value Measurement Based on		
	Carrying Amount	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Money market funds (cash equivalents)	$ 16,382	$ 16,382	$ 16,382	$ —	$ —
Liabilities:					
Contingent consideration - short term	—	$ —	$ —	$ —	$ —
Contingent consideration - long term	$ 52,000	$ 52,000	$ —	$ —	$ 52,000

	December 31, 2020				
			Fair Value Measurement Based on		
	Carrying Amount	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Money market funds (cash equivalents)	$ 16,374	$ 16,374	$ 16,374	$ —	$ —
Liabilities:					
Contingent consideration, current portion	8,985	$ 8,985	$ —	$ —	$ 8,985
Contingent consideration, net of current portion	$ 99,855	$ 99,855	$ —	$ —	$ 99,855

The Company evaluates transfers between fair value levels at the end of each reporting period. There were no transfers of assets or liabilities between fair value levels during the year ended December 31, 2021.

Contingent Consideration

The estimated fair value of the Company's contingent consideration was determined using probabilities of successful achievement of regulatory milestones and commercial sales, the period in which these milestones and sales are expected to be achieved ranging from 2025 to 2033, the level of commercial sales of Vicineum forecasted for the US, Europe, Japan, China and other potential markets

and discount rates ranging from 8.0% to 9.3% as of December 31, 2021 and 8.4% to 8.8% as of December 31, 2020. There have been no changes to the valuation methods utilized during the year ended December 31, 2021.

The following table sets forth a summary by quarter of the change in the fair value of the Company's contingent consideration liability, measured on a recurring basis at each reporting period, for the year ended December 31, 2021 (in thousands):

Balance at December 31, 2020	$	108,840
Change in fair value included in loss		48,160
Balance at March 31, 2021		157,000
Change in fair value included in loss		13,600
Balance at June 30, 2021		170,600
Change in fair value included in loss		(114,000)
Balance at September 30, 2021		56,600
Change in fair value included in loss		(4,600)
Balance at December 31, 2021	**$**	**52,000**
Balance at December 31, 2021, current portion	$	—
Balance at December 31, 2021, net of current portion	$	52,000

The following table sets forth a summary of the change in the fair value of the Company's total contingent consideration liability, measured on a recurring basis at each reporting period, for the year ended December 31, 2021.

Balance at December 31, 2020	$	108,840
Change in fair value of contingent consideration - short term		(8,985)
Change in fair value of contingent consideration - long term		(47,855)
Balance at December 31, 2021	**$**	**52,000**

The fair value of the Company's contingent consideration is determined based on the present value of projected future cash flows associated with sales-based milestones and earnouts on net sales and is heavily dependent on discount rates to estimate the fair value at each reporting period. Earnouts are determined using an earnout rate of 2% on all commercial net sales of Vicineum through December 2033. The discount rate applied to the 2% earnout is derived from the Company's WACC, which has fluctuated from 8.8% as of December 31, 2020, to 7.8% as of March 31, 2021, 6.8% as of June 30, 2021, 8.6% as of September 30, 2021, and 9.3% as of December 31, 2021. Milestone payments constitute debt-like obligations, and therefore a high-yield debt index rate is applied to the milestones in order to determine the estimated fair value. This index rate changed from 8.4% as of December 31, 2020, to 7.4% as of March 31, 2021, 6.6% as of June 30, 2021, 7.5% as of September 30, 2021, and 8.0% as of December 31, 2021. The decrease in the fair value of contingent consideration of $56.8 million for the year ended December 31, 2021 was driven by the receipt of the CRL from the FDA, in which the FDA determined that it could not approve the BLA for Vicineum in its present form, and the Company's withdrawal of its MAA with EMA. In October and December 2021, we participated in a CMC Type A Meeting and a Clinical Type A Meeting, respectively, with the FDA to discuss issues raised in the CRL and to discuss design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed will be required for a potential resubmission of a BLA. Following these Type A Meetings, we believe we have greater clarity of the requirements for potential resubmission of a BLA. We have a Type C Meeting scheduled with the FDA for March 28, 2022, in which we expect to discuss the study protocol for the additional Phase 3 clinical trial that we plan to conduct for potential resubmission of our a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG. Incorporating the impact of the CRL and the subsequent Type A Meetings in the fourth quarter of 2021, the Company reassessed the underlying assumptions used to develop the revenue projections upon which the fair value of its contingent consideration is based. The most significant and impactful assumptions in the Company's revenue projection models are timing of commercial product launch and probabilities of clinical and regulatory success; the Company expects delays in the start of commercialization and estimates lower POS as a direct result of the CRL and the Company's withdrawal of its MAA. The Company plans to conduct an additional Phase 3 clinical trial in order to resubmit a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG, which will lead to delays in the start of commercialization globally. The Company has assessed a commercialization timeline assumption and applied a probability to each outcome based on management's best estimate. In addition, the Company now assumes a lower POS in achieving certain clinical and regulatory milestones in the range of approximately 45% to 55% globally. Any

changes in these assumptions and estimates as a result of these meetings, or other information obtained, may have a significant impact on the remeasurement of the contingent consideration liability in the future.

6. RECEIVABLES

The accounts receivable balance as of December 31, 2021 is $21.0 million, comprised primarily of a $20 million milestone achieved in December 2021 due to Roche initiating a Phase II clinical trial. The Company invoiced Roche $20 million with payment terms of 30 days following the achievement of the corresponding milestone event, pursuant to the Roche License Agreement. In January 2022 the payment of $20 million was received. Additionally, in June 2021, the Qilu License Agreement was recognized by Shandong Province, Bureau of Science and Technology as a "Technology Transfer". As such, the Company recorded $0.9 million of revenue and accounts receivable for the additional purchase price resulting from Qilu's obligation to pay Sesen an amount equal to its recovery of VAT. The Company will not be subject to VAT on future potential milestone payments from Qilu.

The other receivable balance as of December 31, 2021 is $3.5 million. The Company recorded $3.4 million to other receivables in the fourth quarter of 2021 for German VAT recovery related to drug substance sent to Baxter. The Company received a payment for $1.8 million in January 2022 and expects to collect the remaining balance.

The accounts receivable and other receivable balances as of December 31, 2020 were de minims.

7. PROPERTY AND EQUIPMENT

The following table sets forth the composition of property and equipment, net as of December 31, 2021 and 2020 (in thousands):

	December 31,	
	2021	2020
Lab equipment	$ 569	$ 570
Furniture and fixtures	16	16
Computer equipment	99	97
Software	32	28
Leasehold improvements	293	293
Property and equipment, gross	1,009	1,004
Less: accumulated depreciation	(966)	(881)
Total Property and Equipment, Net	**$ 43**	**$ 123**

Depreciation expense was $0.1 million, $0.1 million and $0.2 million for the years ended December 31, 2021, 2020 and 2019, respectively.

8. INTANGIBLES AND GOODWILL

Intangibles

Intangible assets on the Company's consolidated balance sheet are the result of the Viventia Acquisition in September 2016. The following table sets forth the composition of intangible assets as of December 31, 2021 and 2020 (in thousands):

	December 31,	
	2021	2020
IPR&D intangible assets:		
Vicineum United States rights	$ —	$ 31,700
Vicineum European Union rights	14,700	14,700
Total Intangibles	**$ 14,700**	**$ 46,400**

The fair value of the acquired intangible assets for the US and EU rights of Vicineum is determined using a risk-adjusted discounted cash flow approach, which includes probability adjustments for projected revenues and operating expenses based on the success rates assigned to each stage of development for each geographical region; as well as discount rates applied to the projected

cash flows. In August 2021, the Company received a CRL from the FDA regarding its BLA for Vicineum for the treatment of NMIBC, the Company's lead product candidate. In the CRL, the FDA determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality. Given the inherent uncertainty in the development plans for Vicineum as a result of the CRL and the Company's withdrawal of its MAA, an impairment analysis was conducted in the third quarter of 2021, which concluded that the carrying value of the Company's intangible asset of Vicineum United States rights was fully impaired as of September 30, 2021. The $31.7 million of impairment charges as of September 30, 2021 are due to delays in the expected start of commercialization and lower probabilities of success, combined with higher operating expenses expected to be incurred prior to commercialization, resulting in lower expected future cash flows estimated in the US market. At this time, management has assessed that the carrying value of the Vicineum EU rights is not at significant risk of impairment in the future within the current range of commercialization timelines and POS assumptions. This is primarily due to the fact that the Company expects the Vicineum sales outside of the US to be two to three times the expected sales volume in the US, based on management's reassessment of the total addressable global market for high-risk NMIBC during the quarter ended June 30, 2019, wherein management determined that both the global market size and the estimated potential Vicineum commercial sales within the global market were likely higher than the Company's previous estimate. In addition, the EU asset is burdened with significantly less expense than the US asset, as the Company's strategic operating plan is to sublicense Vicineum to business development partners in all regions outside the US, including the EU, with it earning a potential combination of upfront, milestone, and royalty payments, and the business development partner bearing the majority of regulatory and commercialization costs.

In October and December 2021, we participated in a CMC Type A Meeting and a Clinical Type A Meeting, respectively, with the FDA to discuss issues raised in the CRL and to discuss design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed will be required for a potential resubmission of a BLA. Following these Type A Meetings, we believe we have greater clarity of the requirements for potential resubmission of a BLA. We have a Type C Meeting scheduled with the FDA for March 28, 2022, in which we expect to discuss the study protocol for the additional Phase 3 clinical trial that we plan to conduct for potential resubmission of our a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG.

The Company performed the annual impairment test, which incorporated the impact of the CRL and the subsequent Type A Meetings in the fourth quarter of 2021 and concluded that the carrying value of the Company's intangible asset of Vicineum EU rights was not impaired as of December 31, 2021.

The Company did not recognize any impairment charges during the year ended December 31, 2020.

Goodwill

Goodwill on the Company's consolidated balance sheet is the result of the Viventia Acquisition in September 2016. Goodwill had a carrying value of $13.1 million as of December 31, 2021 and 2020. Given the inherent uncertainty in the development plans for Vicineum as a result of the CRL and the Company's withdrawal of its MAA, a quantitative impairment analysis was conducted during the third quarter of 2021, in advance of the Company's typical annual assessment date of October 1. While an impairment was recognized in one of its intangible assets, Vicineum US Rights, the Company concluded that the carrying value of its goodwill of $13.1 million was not impaired as of September 30, 2021, with the fair value of equity of the reporting unit exceeding the estimated carrying value of the reporting unit by approximately 45%.

In October and December 2021, we participated in a CMC Type A Meeting and a Clinical Type A Meeting, respectively, with the FDA to discuss issues raised in the CRL and to discuss design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed will be required for a potential resubmission of a BLA. Following these Type A Meetings, we believe we have greater clarity of the requirements for potential resubmission of a BLA. We have a Type C Meeting scheduled with the FDA for March 28, 2022, in which we expect to discuss the study protocol for the additional Phase 3 clinical trial that we plan to conduct for potential resubmission of our a BLA for Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG. The Company performed the annual impairment test, which incorporated the impact of the CRL and the subsequent Type A Meetings in the fourth quarter of 2021 and concluded that there was no goodwill impairment as of December 31, 2021. The Company believes it has sufficient future cash flows from additional geographic regions outside the US to support the value of its goodwill. The Company projects future cash flows based on various timeline assumptions and applies a probability to each outcome based on management's best estimate. In addition, probabilities of success in achieving certain clinical

and regulatory success in the Company's current development profile (ranging from 45% to 55% globally) also have a material effect on the estimated fair value of its reporting unit as of the impairment assessment date. The Company will continue to evaluate its timelines for commercialization and probability of success of development of Vicineum for the treatment of non-muscle invasive CIS of the bladder in patients previously treated with adequate or less than adequate BCG.

Based on the annual testing and quarterly reviews performed, the Company concluded that there was no goodwill impairment during the year ended December 31, 2020.

9. ACCRUED EXPENSES

The following table sets forth the composition of accrued expenses as of December 31, 2021 and 2020 (in thousands):

	December 31,	
	2021	2020
Research and development	$ 1,841	$ 1,372
Payroll-related expenses	2,967	1,892
Restructuring charge related	1,497	—
Professional fees	1,941	684
Other	9	25
Total Accrued Expenses	**$ 8,255**	**$ 3,973**

10. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

From time to time, the Company may become subject to legal proceedings, claims, and litigation arising in the ordinary course of business. When the Company becomes aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. In accordance with authoritative guidance, the Company records loss contingencies in its financial statements only for matters in which losses are probable and can be reasonably estimated. Where a range of loss can be reasonably estimated with no best estimate in the range, the Company records the minimum estimated liability. If the loss is not probable or the amount of the loss cannot be reasonably estimated, the Company discloses the nature of the specific claim if the likelihood of a potential loss is reasonably possible, and the amount involved is material. The Company continuously assesses the potential liability related to the Company's pending litigation and revises its estimates when additional information becomes available. The Company is not currently a party to any material legal proceedings, other than as described below.

On August 19, 2021, August 31, 2021, and October 7, 2021, three substantially identical securities class action lawsuits captioned Bibb v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-07025, Cizek v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-07309, and Markman v. Sesen Bio, Inc. et al., Case No. 1:21-cv-08308 were filed against the Company and certain of its officers in the US District Court for the Southern District of New York. The three complaints allege violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder based on statements made by the Company concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The three complaints seek compensatory damages and costs and expenses, including attorneys' fees. On October 29, 2021, the court consolidated the three cases under the caption In re Sesen Bio, Inc. Securities Litigation, Master File No. 1:21-cv-07025-AKH (the "Securities Litigation"), and appointed Ryan Bibb, Rodney Samaan, Lionel Dreshaj and Benjamin Dreshaj ("Lead Plaintiffs") collectively as the lead plaintiffs under the Private Securities Litigation Reform Act. On November 1, 2021, two stockholders filed motions to reconsider asking the court to appoint a different lead plaintiff. The court has not ruled on those motions at this time. On November 24, 2021, defendants filed a motion to transfer venue to the US District Court for the District of Massachusetts. That motion was fully briefed as of December 13, 2021, but the court has not yet ruled on that motion. On December 6, 2021, the Lead Plaintiffs filed an amended class action complaint (the "Amended Complaint"). The Amended Complaint alleges the same violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder on the same theory as the prior complaints. Defendants' response to the Amended Complaint is due to be filed on March 7, 2022.

On September 20, 2021 and September 24, 2021, two substantially similar derivative lawsuits captioned Myers v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-11538 and D'Arcy v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-11577 were filed against the Company's board of directors and certain of its officers in the US District Court for the District of Massachusetts, with the Company named as a

nominal defendant. On January 12, 2022, a third derivative complaint captioned Tang v. Sesen Bio, Inc., et al., was filed in Superior Court in Massachusetts against the Company's board of directors and certain of its officers in the US District Court for the District of Massachusetts, with the Company named as nominal defendant, but no defendant has yet been served. The three derivative complaints allege breach of fiduciary duties, waste of corporate assets, and violations of federal securities laws based on statements made by the Company concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The D'Arcy complaint further alleges unjust enrichment, abuse of control, gross mismanagement and aiding and abetting thereof. The three derivative complaints seek unspecified damages, restitution and disgorgement of profits, benefits and compensation obtained by the defendants and costs and expenses, including attorneys' fees. On October 18, 2021, the court consolidated the two federal cases under the caption In re Sesen Bio, Inc. Derivative Litigation, Lead Case No. 1:21-cv-11538 (the "Federal Derivative Litigation"). On December 22, 2021, the court entered a joint stipulation among the parties to stay the Federal Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. Defendants intend to seek a similar stay of the state court derivative litigation in the event any defendant is served.

The Company believes that these lawsuits are without merit and intends to vigorously defend against them. The lawsuits are in the early stages and, at this time, no assessment can be made as to the likely outcome or whether the outcome will be material to the Company.

Executive Employment Agreements

The Company has entered into employment agreements and offer letters with certain of its key executives, providing for separation payments and benefits in certain circumstances, as defined in the agreements.

11. LEASES

The Company accounts for operating leases under ASC Topic 842, *Leases*. The Company's lease portfolio includes an operating lease for its 31,100 square foot facility in Winnipeg, Manitoba which consists of manufacturing, laboratory, warehouse and office space. In September 2020, the Company entered into an extension of this lease for an additional two years, through September 2022, with a right to extend the lease for one subsequent three-year term. The minimum monthly rent under this lease is CAD $18,100 (approximately $14,300 at exchange rates in effect on December 31, 2021). In addition to rent expense, the Company expects to incur CAD $18,200 per month related to operating expenses (approximately $14,300 at exchange rates in effect on December 31, 2021). Operating lease cost under this lease, including the related operating costs, were $0.3 million and $0.3 million for the year ended December 31, 2021 and $0.3 million and $0.3 million for the year ended December 31, 2020, respectively.

The asset component of the Company's operating leases is recorded as operating lease right-of-use assets and reported within other assets on the Company's consolidated balance sheets. The short-term lease liability is recorded in other current liabilities and the long-term lease liability is recorded in other liabilities on the Company's consolidated balance sheets. Operating lease cost is recognized on a straight-line basis over the term of the lease.

In addition, the Company has short-term property leases for modular office space for 1) its corporate headquarters in Cambridge, MA and 2) office space in Philadelphia, PA. The short-term leases renew every three months to six months and currently extend through June 2022 and May 2022, respectively. The minimum monthly rent for these office spaces is $2,100 and $18,400, respectively, which is subject to change if and as the Company adds space to or deducts space from the leases.

The components of lease cost for the years ended December 31, 2021 and 2020 is as follows (in thousands):

	Year Ended December 31, 2021	Year Ended December 31, 2020
Lease Cost:		
Operating lease (including related operating costs)	$ 327	$ 301
Short term property leases	262	261
Total lease costs	**$ 589**	**$ 562**

	Year Ended December 31, 2021	Year Ended December 31, 2020
Supplemental Information:		
Weighted-average remaining lease term (years)	0.75	1.75
Weighted-average discount rate - operating leases	12 %	12 %

The following table sets forth the Company's future minimum lease payments under non-cancelable leases as of December 31, 2021 (in thousands):

	Year Ended December 31, 2021
Minimum Lease Payments:	
Total future minimum lease payments (2022)	$ 129
Less: Amounts representing present value adjustment	(5)
Operating lease liabilities, net of current portion	**$ 124**

12. STOCKHOLDERS' EQUITY DEFICIT

Equity Financings

ATM Offering

In November 2019, the Company entered into an Open Market Sale Agreement SM (the "Sale Agreement") with Jefferies LLC ("Jefferies"), under which the Company may issue and sell shares of its common stock, par value $0.001 per share, from time to time (the "ATM Offering") for an aggregate sales price of up to $35 million through Jefferies. In October 2020 and February 2021, the Company entered into Amendments No. 1 and No. 2 to the Sale Agreement, respectively. Amendments No. 1 and No. 2 modified the Sale Agreement to reflect that the Company may issue and sell shares of its common stock from time to time for an aggregate sales price of up to an additional $50.0 million and $34.5 million, respectively. In June 2021, the Company entered into Amendment No. 3 to the Sale Agreement, which modified the Sale Agreement to remove the maximum dollar amount of shares of common stock that may be sold pursuant to the Sale Agreement. In June and July 2021, the Company filed prospectus supplements with the SEC in connection with the offer and sale of up to an aggregate of $200 million of common stock pursuant to the Sale Agreement. Sales are made by any method that is deemed to be an ATM offering as defined in Rule 415(a)(4) of the Securities Act of 1933, as amended, including but not limited to sales made directly on or through the Nasdaq Global Market or any other existing trading market for the Company's common stock. The Company may sell shares of its common stock efficiently from time to time but has no obligation to sell any of its common stock and may at any time suspend offers under the Sale Agreement or terminate the Sale Agreement. Subject to the terms and conditions of the Sale Agreement, Jefferies will use its commercially reasonable efforts to sell common stock from time to time, as the sales agent, based upon the Company's instructions, which include a prohibition on sales below a minimum price set by the Company from time to time. The Company has provided Jefferies with customary indemnification rights, and Jefferies is entitled to a commission at a fixed rate equal to 3.0% of the gross proceeds for each sale of common stock under the Sale Agreement. The Company raised $175.0 million of net proceeds from the sale of 56.9 million shares of common stock at a weighted-average price of $3.17 per share during the year ended December 31, 2021, compared to $38.0 million of net proceeds from the sale of 33.4 million shares of common stock at a weighted-average price of $1.17 per share during the year ended December 31, 2020. Share issuance costs, including sales agent commissions, related to the ATM Offering totaled $5.4 million and $1.2 million during the year ended December 31, 2021 and 2020, respectively.

June 2019 Financing

In June 2019, the Company raised $27.8 million of net proceeds from the sale of 20.4 million shares of common stock and accompanying warrants to purchase an additional 20.4 million shares of common stock in an underwritten public offering (the "June 2019 Financing"). The combined purchase price for each share of common stock and accompanying warrant was $1.47. Subject to certain ownership limitations, the warrants issued in the June 2019 Financing were exercisable immediately upon issuance at an exercise price of $1.47 per share, subject to adjustments as provided under the terms of such warrants, and had a one-year term that expired on June 21, 2020.

Preferred Stock

Pursuant to its Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Company is authorized to issue 5.0 million shares of "blank check" preferred stock, $0.001 par value per share, which enables its board of directors, from time to time, to create one or more series of preferred stock. Each series of preferred stock issued shall have the rights, preferences, privileges and restrictions as designated by the board of directors. The issuance of any series of preferred stock could affect, among other things, the dividend, voting and liquidation rights of the Company's common stock. The Company had no preferred stock issued and outstanding as of December 31, 2021 and 2020.

Common Stock

Following approval by the Company's stockholders on May 3, 2021, an amendment became effective to the Certificate of Incorporation that increased the number of authorized shares of common stock from 200 million to 400 million, of which 199 million and 140 million shares were issued and outstanding as of December 31, 2021 and 2020, respectively. In addition, the Company had reserved for issuance the following amounts of shares of its common stock for the purposes described below as of December 31, 2021 and 2020 (in thousands):

	December 31,	
	2021	2020
Shares of common stock issued	199,464	140,450
Shares of common stock reserved for issuance for:		
Warrants	199	2,247
Stock options	15,703	10,147
RSUs	3,041	—
Shares available for grant under 2014 Stock Incentive Plan	8,933	4,863
Shares available for sale under 2014 Employee Stock Purchase Plan	2,300	—
Total shares of common stock issued and reserved for issuance	**229,640**	**157,707**

The voting, dividend and liquidation rights of holders of shares of common stock are subject to and qualified by the rights, powers and preferences of holders of shares of preferred stock. Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders; provided, however, that, except as otherwise required by law, holders of common stock shall not be entitled to vote on any amendment to the Company's Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more such series, to vote thereon. There shall be no cumulative voting.

Dividends may be declared and paid on the common stock from funds lawfully available thereof as and when determined by the board of directors and subject to any preferential dividend or other rights of any then-outstanding preferred stock. The Company has never declared or paid, and for the foreseeable future does not expect to declare or pay, dividends on its common stock.

Upon the dissolution or liquidation of the Company, whether voluntary or involuntary, holders of common stock will be entitled to receive all assets of the Company available for distribution to its stockholders, subject to any preferential or other rights of any then-outstanding preferred stock.

Warrants

All of the Company's outstanding warrants are non-tradeable and equity-classified because they meet the derivative scope exception under ASC Topic 815-40, *Derivatives and Hedging - Contracts in Entity's Own Equity* ("ASC 815-40"). The following table sets forth the Company's warrant activity for the year ended December 31, 2021 (in thousands):

Issued	Exercise Price	Expiration	December 31, 2020	Issued	(Exercised)	(Cancelled)	December 31, 2021
Jun-2019	$ 1.47	Jun-2020	—	—	—	—	—
Mar-2018	$ 0.55 *	Mar-2023	1,705	—	(1,573)	—	132
Nov-2017	$ 0.55 *	Nov-2022	487	—	(475)	—	12
May-2015	$ 11.83	Nov-2024	28	—	—	—	28
Nov-2014	$ 11.04	Nov-2024	27	—	—	—	27
			2,247	**—**	**(2,048)**	**—**	**199**

* Exercise price shown (i) reflects modification described below and (ii) subject to further adjustment based on down round provision added by amendment described below.

During the year ended December 31, 2021, the Company received proceeds of $1.1 million from the exercises of 1.6 million 2018 Warrants and 0.5 million 2017 Warrants.

Warrant Modifications

In October 2019, the Company entered into transactions with holders of its outstanding 2018 Warrants and 2017 Warrants to purchase the Company's common stock. At such time, the 2018 Warrants and 2017 Warrants utilized the same form of warrant, which contained a prohibition on variable rate transactions (as defined therein). Warrant holders agreed to waive such prohibition in exchange for certain concessions from the Company. Management evaluated the warrants after modifications and determined that they continued to be equity-classified under the derivative scope exception of ASC 815-40. The warrants were revalued immediately before and immediately after the modifications to calculate the $1.1 million incremental value of the modified warrants. The Company considers this incremental value to be akin to an offering cost since the modifications were directly related to enabling the ATM Offering and would not have otherwise been incurred. Therefore, in the fourth quarter of 2019, management initially capitalized the $1.1 million to deferred financing cost asset, with an offsetting credit to additional paid-in capital, and then reclassified the deferred financing cost asset to reduce the ATM Offering proceeds within equity as proceeds were received from sales of common stock under the ATM Offering.

2018 Warrants

In October 2019, the Company entered into transactions with the holders of its outstanding 2018 Warrants pursuant to which such holders either (i) exercised their warrants pursuant to a Warrant Exercise Agreement (the "2018 Warrant Exercise Agreements") or (ii) amended their warrants pursuant to a Warrant Amendment Agreement (the "2018 Warrant Amendment Agreements"). As consideration for those holders executing the 2018 Warrant Exercise Agreements, the Company reduced the exercise price of the warrants from $1.20 to $0.60 per share of the Company's common stock, resulting in proceeds of $2.0 million from the exercise of 3.4 million warrants. Pursuant to the 2018 Warrant Amendment Agreements, the prohibition on certain variable rate transactions included in the 2018 Warrants was amended to exclude ATM offerings and the exercise price of the warrants was reduced from $1.20 to the lesser of (a) $0.95 per share of common stock and (b) the exercise price as determined from time to time pursuant to the anti-dilution provisions in the 2018 Warrant Amendment Agreements. During the second quarter of 2020, the anti-dilution provision was triggered to lower the exercise price of the warrants to $0.55; as such, the Company recognized a deemed dividend of approximately $0.1 million which reduced the income available to common stockholders. As the Company has an accumulated deficit balance, there is no overall impact to additional paid-in capital, as the deemed dividend is recorded as offsetting debit and credit entries to additional paid-in capital. Therefore, the amounts were not presented on the Statement of Stockholders' (Deficit) Equity.

In connection with the 2018 Warrant Exercise Agreements and 2018 Warrant Amendment Agreements, the Company entered into an amendment to the Securities Purchase Agreement dated March 21, 2018 related to the March 2018 Financing, by and among the Company and each purchaser identified on the signature pages thereto, with certain holders representing greater than 50.1% of the

securities issued based on initial subscription amounts, pursuant to which the prohibition on variable rate transactions, including ATM offerings, was deleted in its entirety.

2017 Warrants

In October 2019, the Company entered into transactions with the holders of its outstanding 2017 Warrants pursuant to which such holders either (i) exercised their warrants pursuant to a Warrant Exercise Agreement (the "2017 Warrant Exercise Agreements") or (ii) amended their warrants pursuant to a Warrant Amendment Agreement (the "2017 Warrant Amendment Agreements"). As consideration for those holders executing the 2017 Warrant Exercise Agreements, the Company reduced the exercise price of the warrants from $0.80 to $0.55 per share of the Company's common stock. Pursuant to the 2017 Warrant Amendment Agreements, the prohibition on certain variable rate transactions, including ATM offerings, included in the 2017 Warrants was deleted in its entirety and the exercise price of the warrants was reduced from $0.80 to the lesser of (a) $0.55 per share of common stock and (b) the exercise price as determined from time to time pursuant to the anti-dilution provisions in the 2017 Warrant Amendment Agreements. As of December 31, 2021, there has been no adjustment to the exercise price of these warrants.

13. EARNINGS (LOSS) PER SHARE

A net loss cannot be diluted. Therefore, when the Company is in a net loss position, basic and diluted loss per common share are the same. If the Company achieves profitability, the denominator of a diluted earnings per common share calculation includes both the weighted-average number of shares outstanding and the number of common stock equivalents, if the inclusion of such common stock equivalents would be dilutive. Dilutive common stock equivalents potentially include warrants, stock options and non-vested restricted stock awards and units using the treasury stock method, along with the effect, if any, from outstanding convertible securities. The majority of the Company's outstanding warrants to purchase common stock have participation rights to any dividends that may be declared in the future and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods of loss, no loss is allocated to the participating securities since the holders have no contractual obligation to share in the losses of the Company.

Additionally, an entity that presents earnings per share shall recognize the value of the effect of an anti-dilution provision in an equity-classified freestanding financial instrument in the period the anti-dilution provision is triggered. That effect shall be treated as a deemed dividend and as a reduction of income available to common stockholders in basic earnings per share. The deemed dividend is added back to income available to common stockholders when applying the treasury stock method for diluted earnings per share.

For periods with net income, diluted net earnings per share is calculated by either (i) adjusting the weighted-average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period as determined using the treasury stock method or (ii) the two-class method considering common stock equivalents, whichever is more dilutive. The two-class method is an earnings allocation formula that treats a participating security as having rights to earnings that otherwise would have been available to common stockholders.

The two-class method was not applied for the twelve months ended December 31, 2021, 2020 and 2019 as the Company's participating securities do not have any obligation to absorb net losses.

For purposes of the diluted net loss per share calculation, common stock equivalents are excluded from the calculation if their effect would be anti-dilutive.

The following potentially dilutive securities outstanding as of December 31, 2021, 2020 and 2019 have been excluded from the denominator of the diluted loss per share of common stock outstanding calculation (in thousands):

	December 31,		
	2021	2020	2019
Warrants	199	2,247	22,895
Stock options	15,703	10,147	6,236
Total	**15,902**	**12,394**	**29,131**

14. SHARE-BASED COMPENSATION

The following table sets forth the amount of share-based compensation expense recognized by the Company by line item on its Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2021, 2020 and 2019 (in thousands):

	Year ended December 31,		
	2021	2020	2019
Research and development	$ 973	$ 350	$ 188
General and administrative	4,170	1,407	1,049
Total Share Based Compensation	**$ 5,143**	**$ 1,757**	**$ 1,237**

2014 Stock Incentive Plan

The Company's 2014 Stock Incentive Plan, as amended (the "2014 Plan"), was adopted by its board of directors in December 2013 and subsequently approved by its stockholders in January 2014. The 2014 Plan became effective immediately prior to the closing of the Company's IPO in February 2014 and provides for the grant of incentive and non-qualified stock options, restricted stock awards and restricted stock units, stock appreciation rights and other stock-based awards, with amounts and terms of grants determined by the Company's board of directors at the time of grant, to the Company's employees, officers, directors, consultants and advisors.

At the Annual Meeting of the Company's stockholders in June 2019, the Company's stockholders approved an amendment to the 2014 Plan that (i) increased by 7.9 million the number of shares of common stock reserved for issuance under the 2014 Plan and (ii) eliminated the "evergreen" or automatic replenishment provision of the 2014 Plan, pursuant to which the number of shares of common stock authorized for issuance under the 2014 Plan was automatically increased on an annual basis. At the Annual Meeting of the Company's stockholders in May 2021, the Company's stockholders approved an amendment to the 2014 Plan that increased by 12 million the number of shares of common stock reserved for issuance under the 2014 Plan. There were approximately 8.9 million shares of common stock available for issuance under the 2014 Plan as of December 31, 2021.

Stock options outstanding under the 2014 Plan generally vest over a four-year period at the rate of 25% of the grant vesting on the first anniversary of the date of grant and 6.25% of the grant vesting at the end of each successive three-month period thereafter. Stock options granted under the 2014 Plan are exercisable for a period of ten years from the date of grant. There were approximately 12.8 million stock options outstanding under the 2014 Plan as of December 31, 2021.

On September 9, 2021, the Board of Directors and the Compensation Committee of the Company approved a retention program for all current employees, except for the Chief Executive Officer, pursuant to which the Company will provide certain incentives designed to retain such employees (the "Retention Program"). Pursuant to the Retention Program and effective as of October 1, 2021, the Company's non-executive employees received a combination of a cash bonus award and a one-time restricted stock unit ("RSU") award which vests in full on September 30, 2022, subject to continued employment through September 30, 2022. Each RSU represents a contingent right to receive one share of the Company's common stock. The Company recorded an expense of $0.5 million for retention-related RSUs for the year ended December 31, 2021. Additionally, the Company expensed $0.6 million in relation to the cash bonus portion of the retention program.

Also pursuant to the Retention Program and effective as of October 1, 2021, the Company's executive officers, except for the Chief Executive Officer, were granted a one-time performance-based restricted stock unit ("PSU") award equal to the value of approximately fifty percent of current base salary. Each PSU represents a contingent right to receive one share of the Company's common stock upon the satisfaction of pre-determined performance criteria. Subject to continued employment, such awards vest on September 30, 2023 upon the determination by the Compensation Committee of the level of achievement of certain key milestones consisting of a clinical trial milestone, an employee retention milestone and cash management milestones. As none of the retention milestones were met in the year ended December 31, 2021 and achievement was deemed not probable, the Company did not record expenses for retention-related PSUs. As of December 31, 2021, the unrecognized compensation expense for the retention-related PSUs, granted on October 1, 2021, was $0.4 million.

A summary of the status of restricted stock units is presented below:

	Restricted Stock Units (in thousands)
Unvested at December 31, 2020	—
Granted RSU	2,482
Granted PSU	559
Unvested at December 31, 2021	**3,041**

The weighted average remaining contractual life of unvested RSUs and PSUs as of December 31, 2021 is 9.75 years. The Company did not grant restricted stock units during the years ended December 31, 2020 and 2019.

2009 Stock Incentive Plan

The Company maintains a 2009 Stock Incentive Plan, as amended and restated (the "2009 Plan"), which provided for the grant of incentive and non-qualified stock options and restricted stock awards and restricted stock units, with amounts and terms of grants determined by the Company's board of directors at the time of grant, to its employees, officers, directors, consultants and advisors. Upon the closing of its IPO in February 2014, the Company ceased granting awards under the 2009 Plan and all shares (i) available for issuance under the 2009 Plan at such time and (ii) subject to outstanding awards under the 2009 Plan that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased without having been fully exercised or resulting in any common stock being issued were carried over to the 2014 Plan. Stock options granted under the 2009 Plan are exercisable for a period of ten years from the date of grant. There were approximately 0.1 million fully vested stock options outstanding under the 2009 Plan as of December 31, 2021.

Out-of-Plan Inducement Grants

From time to time, the Company has granted equity awards to its newly hired employees, including executives, in accordance with the Nasdaq Stock Market LLC ("Nasdaq") employment inducement grant exemption (Nasdaq Listing Rule 5635(c)(4)). Such grants are made outside of the 2014 Plan and act as an inducement material to the employee's acceptance of employment with the Company. There were approximately 2.8 million stock options outstanding which were granted as employment inducement awards outside of the 2014 Plan as of December 31, 2021.

Stock Options

The following table sets forth a summary of the Company's total stock option activity, including awards granted under the 2014 Plan and 2009 Plan and inducement grants made outside of stockholder approved plans, for the years ended December 31, 2021, 2020 and 2019:

	Number of Shares under Option (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2018	3,942	$ 2.12	9.14	$ 57
Granted	3,986	$ 1.02		
Exercised	(90)	$ 1.10		
Canceled or forfeited	(1,602)	$ 1.78		
Outstanding at December 31, 2019	6,236	$ 1.52	8.83	$ 358
Granted	4,044	$ 0.87		
Exercised	(12)	$ 1.13		
Canceled or forfeited	(121)	$ 1.04		
Outstanding at December 31, 2020	10,147	$ 1.26	8.50	$ 3,160
Granted	8,273	$ 3.32		
Exercised	(34)	$ 1.23		
Canceled or forfeited	(2,683)	$ 3.70		
Outstanding at December 31, 2021	15,703	$ 1.93	8.03	$ 82
Exercisable at December 31, 2021	7,562	$ 1.65	7.41	$ 59

The Company recognized share-based compensation expense of $5.1 million for the year ended 2021. The stock option related expenses were $4.6 million, $1.8 million and $1.2 million for the years ended December 31, 2021, 2020 and 2019, respectively. The RSU related expense was $0.5 million for the year ended December 31, 2021. The Company did not record RSU related expenses for the years ended December 31, 2020 and 2019. As of December 31, 2021, there was $10.4 million of total unrecognized compensation cost related to non-vested stock options which the Company expects to recognize over a weighted-average period of 2.7 years. The weighted-average grant-date fair value of stock options granted during the year ended December 31, 2021, 2020 and 2019 were $2.16, $0.56 and $1.02, respectively. The total intrinsic value of stock options exercised for the years ended December 31, 2021, 2020 and 2019 was de minimis.

For the years ended December 31, 2021, 2020 and 2019, the grant-date fair value of stock options was determined using the following weighted-average inputs and assumptions in the Black-Scholes option pricing model:

	Year ended December 31,		
	2021	2020	2019
Fair market value	$ 3.32	$ 0.87	$ 1.02
Grant exercise price	$ 3.32	$ 0.87	$ 1.02
Expected term (in years)	6.0	6.1	6.0
Risk-free interest rate	0.9 %	1.3 %	2.1 %
Expected volatility	74.6 %	71.5 %	78.1 %
Dividend yield	— %	— %	— %

15. EMPLOYEE BENEFIT PLANS

2014 Employee Stock Purchase Plan

The Company's 2014 Employee Stock Purchase Plan ("2014 ESPP") was adopted by its board of directors in December 2013 and subsequently approved by its stockholders in January 2014. The 2014 ESPP became effective immediately prior to the closing of the

Company's IPO in February 2014 and established an initial reserve of 0.2 million shares of the Company's common stock for issuance to participating employees. At the Annual Meeting of the Company's stockholders in May 2021, the Company's stockholders approved an amendment to the 2014 ESPP that increased by 2.3 million the number of shares of common stock reserved for issuance under the 2014 ESPP. The purpose of the 2014 ESPP is to enhance employee interest in the success and progress of the Company by encouraging employee ownership of common stock of the Company. The 2014 ESPP provides employees with the opportunity to purchase shares of common stock at a 15% discount to the market price through payroll deductions or lump sum cash investments. The Company estimates the number of shares to be issued at the end of an offering period and recognizes expense over the requisite service period. Shares of the common stock issued and sold pursuant to the 2014 ESPP are shown on the consolidated statements of changes in stockholders' equity (deficit). As of December 31, 2021, there were 2.3 million shares of common stock available for sale under the 2014 ESPP. The Company sold a de minimis number of shares under the ESPP for the years ended December 31, 2021, 2020 and 2019, respectively.

Defined Contribution Plans

United States — 401(k) Plan

The Company maintains a 401(k) defined contribution retirement plan which covers all of its US employees. Employees are eligible to participate on the first of the month following their date of hire. Under the 401(k) plan, participating employees may defer up to 100% of their pre-tax salary, subject to certain statutory limitations. Employee contributions vest immediately. The plan allows for a discretionary match per participating employee up to a maximum of $4,000 per year. The Company contributed a de minimis amount for each of the three years ended December 31, 2021, 2020 and 2019, respectively.

Canada — Defined Contribution Plan

The Company maintains a defined contribution plan for its Canadian employees. Participants may contribute a percentage of their annual compensation to this plan, subject to statutory limitations. The Company contributes up to the first 4% of eligible compensation for its Canadian-based employees to the retirement plan. The Company contributed a de minimis amount for each of the three years ended December 31, 2021, 2020 and 2019, respectively.

16. INCOME TAXES

The following table sets forth the components of the Company's loss before income taxes by country (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Country			
United States	$ (32,757)	$ (35,529)	$ (27,468)
Canada	24,148	14,577	(80,032)
Total Loss Before Income Taxes	**$ (8,609)**	**$ (20,952)**	**$ (107,500)**

The Company's tax benefit (provision) is comprised of the following components (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Current Tax Provision			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	(286)	(1,445)	—
Total current (provision)	$ (286)	$ (1,445)	$ —
Deferred tax provision			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	8,559	—	—
Total deferred benefit (provision)	$ 8,559	$ —	$ —
Total Tax Benefit (Provision)	**$ 8,273**	**$ (1,445)**	**$ —**

The Company did not record current or deferred income tax or benefit for the year ended December 31, 2019.

The following table sets forth a reconciliation of the statutory United States federal income tax rate to the Company's effective income tax rate:

	Year ended December 31,		
	2021	2020	2019
United States federal statutory income tax rate	21.0 %	21.0 %	21.0 %
Impact of foreign rate differential	(15.9)	(4.2)	4.4
State taxes, net of federal benefit	2.3	2.0	0.6
Stock option cancellations	(1.1)	(0.2)	—
Contingent consideration	178.2	14.4	(18.0)
General business credits and other credits	2.4	6.6	0.4
Permanent differences	(1.4)	0.2	—
Other	(13.8)	(2.1)	(0.5)
Foreign taxes	(3.3)	(6.9)	—
Change in valuation allowance	(72.3)	(37.7)	(7.9)
Effective Income Tax Rate	**96.1 %**	**(6.9)%**	**— %**

The following table sets forth the tax effects of temporary differences that gave rise to significant portions of the Company's deferred tax assets and liabilities (in thousands):

	December 31,		
	2021	2020	2019
Deferred tax assets:			
NOL carryforwards	$ 63,381	$ 57,935	$ 50,727
R&D credit carryforwards	4,316	3,787	4,385
Accruals and other	4,058	3,811	2,464
Capitalized start-up costs	53	70	91
Other	41	28	57
Gross deferred tax assets	71,849	65,631	57,724
Deferred tax liabilities:			
IPR&D	(3,969)	(12,528)	(12,528)
Gross deferred tax liabilities	(3,969)	(12,528)	(12,528)
Valuation allowance	(71,849)	(65,631)	(57,724)
Net Deferred Tax Liability	**$ (3,969)**	**$ (12,528)**	**$ (12,528)**

In assessing the realizability of the Company's deferred tax assets, management considers all relevant positive and negative evidence in determining whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets is dependent on several factors, including the generation of sufficient taxable income prior to the expiration of the NOL and R&D credit carryforwards. The Company has generated NOLs since its inception, and management believes that it is more likely than not that the Company's deferred tax assets will not be realized. As a result, valuation allowances of $71.8 million, $65.6 million and $57.7 million have been established as of December 31, 2021, 2020 and 2019, respectively. The $6.2 million increase in the valuation allowance was attributable to the NOL for the year ended December 31, 2021.

The net deferred tax liability of $4.0 million primarily relates to the potential future impairments or amortization associated with IPR&D intangible assets, which is not deductible for tax purposes and cannot be considered as a source of income to realize deferred tax assets. As a result, the Company recorded the deferred tax liability with an offset to goodwill.

The following table summarizes the Company's NOL and R&D and other credit carryforwards in the United States and Canada as of December 31, 2021 (in millions):

	Amount	Expiration Beginning in	Through
United States:			
Federal NOL carryforwards - indefinite	$ 101.1	None	None
Federal NOL carryforwards	$ 118.9	2030	2038
State NOL carryforwards	$ 138.4	2030	2040
Federal R&D credit carryforwards	$ 2.5	2027	2040
State R&D credit carryforwards	$ 0.8	2027	2040
Canada:			
Federal non-capital loss carryforwards	$ 31.2	2035	2040
Federal scientific research and experimental development expense carryforwards	$ 5.1	2032	2040
Federal and provincial investment tax credit carryforwards	$ 1.2	2032	2040

Under the Tax Reform Act of 1986 (the "Act'), NOL and R&D credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service, and there are similar provisions in certain state and non-US tax laws. NOL and R&D credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interests of significant shareholders over a three-year period in excess of 50 percent, as defined in Sections 382 and 383 of the Internal Revenue Code, respectively. This could limit the amount of tax attributes that can be utilized to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. Management completed a Section 382 study through March 31, 2016 and determined that it is more likely than not that the Company's NOL carryforwards are subject to a material limitation. Accordingly, the Company reduced its NOL carryforward by $0.8 million. The Company has continued to raise additional equity capital since March 2016 but has not done any additional analysis to determine whether or not ownership changes, as defined in the Act, have occurred, which would result in additional limitations. There could be additional ownership changes in the future that could further limit the amount of NOL carryforwards that the Company can utilize. The Company has not yet conducted a study of its R&D credit carryforwards. Such a study may result in an adjustment to the Company's R&D credit carryforwards; however, until a study is completed and any adjustment is known, no amount is being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's R&D credit carryforwards, and, if an adjustment is required, it would be offset by an adjustment to the valuation allowance.

We assess the impact of various tax reform proposals and modifications to existing tax treaties in all jurisdictions where we have operations to determine the potential effect on our business and any assumptions we have made about our future taxable income. We cannot predict whether any specific proposals will be enacted, the terms of any such proposals or what effect, if any, such proposals would have on our business if they were to be enacted. Beginning in 2022, the Tax Cuts and Jobs Act of 2017 eliminates the currently available option to deduct research and development expenditures and requires taxpayers to amortize them over five years. The U.S. Congress is considering legislation that would defer the amortization requirement to future periods, however, we have no assurance that the provision will be repealed or otherwise modified.

As of December 31, 2021, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in the Company's consolidated statements of operations. Due to NOL and R&D credit carryforwards that remain unutilized, income tax returns filed in the United States, certain states within the United States and Canadian tax jurisdictions from the Company's inception through 2020 remain subject to examination by the taxing jurisdictions. There are currently no audits in process in any of the Company's tax filing jurisdictions.

17. LICENSE AGREEMENTS

In-License Agreements

License Agreement with Zurich

The Company has a license agreement with the University of Zurich ("Zurich") which grants the Company exclusive license rights, with the right to sublicense, to make, have made, use and sell under certain patents primarily directed to the Company's targeting agent, including an EpCAM chimera and related immunoconjugates and methods of use and manufacture of the same (the "Zurich License Agreement"). These patents cover some key aspects of Vicineum. Upon the Company's receipt of the CRL regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC, the Company became obligated to pay $0.5 million in a milestone payment to Zurich. The Company is also obligated to pay up to a 4% royalty on the net product sales for products covered by or manufactured using a method covered by a valid claim in the Zurich patent rights. Royalties owed to Zurich will be reduced if the total royalty rate owed by the Company to Zurich and any other third party is 10% or greater, provided that the royalty rate to Zurich may not be less than 2% of net sales. The obligation to pay royalties in a particular country expires upon the expiration or termination of the last of the Zurich patent rights that covers the manufacture, use or sale of a product. There is no obligation to pay royalties in a country if there is no valid claim that covers the product or a method of manufacturing the product. The Company recorded an expense of $0.5 million and $0.3 million related to achievement of a development milestone, (the submission of the Company's BLA with the FDA in December 2020), in the year ended December 31, 2021 and 2020, respectively, and a regulatory milestone, (the Company's receipt of the CRL from the FDA in August 2021), in the twelve months ended December 31, 2021, respectively.

License Agreement with Micromet

The Company has a License Agreement with Micromet AG ("Micromet"), now part of Amgen, Inc., which grants it nonexclusive rights, with certain sublicense rights, for know-how and patents allowing exploitation of certain single chain antibody products (the "Micromet License Agreement"). These patents cover some key aspects of Vicineum. Under the terms of the Micromet License Agreement, as of December 31, 2021, the Company may be obligated to pay up to €2.4 million in milestone payments for the first product candidate that achieves applicable regulatory and sales-based development milestones (approximately $2.7 million at exchange rates in effect on December 31, 2021). The Company is also required to pay up to a 3.5% royalty on the net sales for products covered by the agreement, which includes Vicineum. The royalty rate owed to Micromet in a particular country will be reduced to 1.5% if there are no valid claims covering the product in that country. The obligation to pay royalties in a particular country expires upon the later of the expiration date of the last valid claim covering the product and the tenth anniversary of the first commercial sale of the product in such country. Finally, the Company is required to pay to Micromet an annual license maintenance fee of €50,000 (approximately $56,625 at exchange rates in effect as of December 31, 2021), which can be credited towards any royalty payment the Company owes to Micromet. The Company recorded an expense of €0.7 million ($0.9 million) related to achievement of a development milestone in the three months ended December 31, 2020, due to the submission of the Company's BLA for Vicineum with the FDA in December 2020. The Company recorded an expense of €0.5 million ($0.6 million) related to the submission of the MAA to the EMA for Vysyneum™ in the first quarter of 2021. Vysyneum is the proprietary brand name that was conditionally approved by the EMA for oportuzumab monatox in the European Union.

License Agreement with XOMA

The Company has a license agreement with XOMA Ireland Limited ("XOMA") which grants it non-exclusive rights to certain XOMA patent rights and know-how related to certain expression technology, including plasmids, expression strains, plasmid maps and production systems (the "XOMA License Agreement"). These patents and related know-how cover some key aspects of Vicineum. Under the terms of the XOMA License Agreement, the Company is required to pay up to $0.25 million in milestone payments for a product candidate that incorporates know-how under the license and achieves applicable clinical development

milestones. Based on current clinical status, the Company anticipates that these milestones may be triggered by Vicineum's clinical development pathway. The Company is also required to pay a 2.5% royalty on the net sales for products incorporating XOMA's technology, which includes Vicineum. The Company has the right to reduce the amount of royalties owed to XOMA on a country-by-country basis by the amount of royalties paid to other third parties, provided that the royalty rate to XOMA may not be less than 1.75% of net sales. In addition, the foregoing royalty rates are reduced by 50% with respect to products that are not covered by a valid patent claim in the country of sale. The obligation to pay royalties in a particular country expires upon the later of the expiration date of the last valid claim covering the product and the tenth anniversary of the first commercial sale of the product in such country.

Out-License Agreements

Roche License Agreement

In June 2016, the Company entered into the license agreement with Roche (the "Roche License Agreement"), pursuant to which the Company granted Roche an exclusive, worldwide license, including the right to sublicense, to its patent rights and know-how related to the Company's monoclonal antibody EBI-031 and all other IL-6 anti-IL-6 antagonist monoclonal antibody technology owned by the Company (collectively, the "Roche Licensed Intellectual Property"). Under the Roche License Agreement, Roche is required to continue developing, at its cost, EBI-031 and any other product made from the Roche Licensed Intellectual Property that contains an IL-6 antagonist anti-IL monoclonal antibody ("Roche Licensed Product") and pursue ongoing patent prosecution, at its cost.

Financial Terms

The Company received from Roche an upfront license fee of $7.5 million in August 2016 upon the effectiveness of the Roche License Agreement following approval by the Company's stockholders, and Roche agreed to pay up to an additional $262.5 million upon the achievement of specified regulatory, development and commercialization milestones with respect to up to two unrelated indications. Specifically, an aggregate amount of up to $197.5 million is payable to the Company for the achievement of specified milestones with respect to the first indication, consisting of (i) $72.5 million in development milestones, the next of which is $30 million for initiation of the first Phase III clinical trial, (ii) $50 million in regulatory milestones and (iii) $75 million in commercialization milestones. Additional amounts of up to $65 million are payable upon the achievement of specified development and regulatory milestones in a second indication.

In September 2016, Roche paid the Company the first development milestone of $22.5 million as a result of the Investigational New Drug application for EBI-031 becoming effective on or before September 15, 2016. In December 2021, a $20 million milestone was achieved due to Roche initiating a Phase II clinical trial. Management evaluated the milestone under ASC 606 and determined it is probable that a significant revenue reversal will not occur in future periods, which was not the case in the previous quarter. Accordingly, the Company invoiced Roche $20 million with payment terms of 30 days following the achievement of the corresponding milestone event, pursuant to the Roche License Agreement and $20 million was recorded as license revenue and accounts receivables in the fourth quarter of 2021. In January 2022, the payment of $20 million was received.

In addition, the Company is entitled to receive royalty payments in accordance with a tiered royalty rate scale, with rates ranging from 7.5% to 15% of net sales of potential future products containing EBI-031 and up to 50% of these rates for net sales of potential future products containing other IL-6 compounds, with each of the royalties subject to reduction under certain circumstances and to the buy-out options of Roche.

Buy-Out Options

The Roche License Agreement provides for two "option periods" during which Roche may elect to make a one-time payment to the Company and, in turn, terminate its diligence, milestone and royalty payment obligations under the Roche License Agreement. Specifically, (i) Roche may exercise a buy-out option following the first dosing ("Initiation") in the first Phase 2 study for a Roche Licensed Product until the day before Initiation of the first Phase 3 study for a Roche Licensed Product, in which case Roche is required to pay the Company $135 million within 30 days after Roche's exercise of such buy-out option and receipt of an invoice from the Company, or (ii) Roche may exercise a buy-out option following the day after Initiation of the first Phase 3 study for a Roche Licensed Product until the day before the acceptance for review by the FDA or other regulatory authority of a BLA or similar application for marketing approval for a Roche Licensed Product in either the United States or in the EU, in which case Roche is

required to pay the Company, within 30 days after Roche's exercise of such buy-out option and receipt of an invoice from the Company, $265 million, which amount would be reduced to $220 million if none of the Company's patent rights containing a composition of matter claim covering any compound or Roche Licensed Product has issued in the EU.

Termination

Either the Company or Roche may each terminate the Roche License Agreement if the other party breaches any of its material obligations under the agreement and does not cure such breach within a specified cure period. Roche may terminate the Roche License Agreement following effectiveness by providing advance written notice to the Company or by providing written notice if the Company is debarred, disqualified, suspended, excluded, or otherwise declared ineligible from certain federal or state agencies or programs. The Company may terminate the Roche License Agreement if, prior to the first filing of a BLA for a Roche Licensed Product, there is a period of twelve months where Roche is not conducting sufficient development activities with respect to the products made from the Roche Licensed Intellectual Property.

OUS Business Development Partnership Agreements

Qilu License Agreement

On July 30, 2020, the Company and its a wholly-owned subsidiary, Viventia Bio, Inc., entered into an exclusive license agreement with Qilu (the "Qilu License Agreement") pursuant to which the Company granted Qilu an exclusive, sublicensable, royalty-bearing license, under certain intellectual property owned or exclusively licensed by the Company, to develop, manufacture and commercialize Vicineum (the "Qilu Licensed Product") for the treatment of NMIBC and other types of cancer (the "Field") in China, Hong Kong, Macau and Taiwan ("Greater China"). The Company also granted Qilu a non-exclusive, sublicensable, royalty-bearing sublicense, under certain other intellectual property licensed by the Company to develop, manufacture and commercialize the Qilu Licensed Product in Greater China. The Company retains (i) development, and commercialization rights in the rest of the world excluding Greater China, the Middle East and North Africa region ("MENA") and Turkey and (ii) manufacturing rights with respect to Vicineum in the rest of the world excluding China.

In consideration for the rights granted by the Company, Qilu agreed to pay to the Company a one-time upfront cash payment of $12 million, and milestone payments totaling up to $23 million upon the achievement of certain technology transfer, development and regulatory milestones. All payments were to be inclusive of value-added tax ("VAT"), which can be withheld by Qilu upon payment, and for which future recovery of such taxes may be available.

Qilu also agreed to pay the Company a 12% royalty based upon annual net sales of Qilu Licensed Products in Greater China. The royalties are payable on a Qilu Licensed Product-by-Licensed Product and region-by-region basis commencing on the first commercial sale of a Licensed Product in a region and continuing until the latest of (i) twelve years after the first commercial sale of such Qilu Licensed Product in such region, (ii) the expiration of the last valid patent claim covering or claiming the composition of matter, method of treatment, or method of manufacture of such Qilu Licensed Product in such region, and (iii) the expiration of regulatory or data exclusivity for such Qilu Licensed Product in such region (collectively, the "Royalty Terms"). The royalty rate is subject to reduction under certain circumstances, including when there is no valid claim of a licensed patent that covers a Qilu Licensed Product in a particular region or no data or regulatory exclusivity of a Qilu Licensed Product in a particular region.

Qilu is responsible for all costs related to developing, obtaining regulatory approval of and commercializing the Qilu Licensed Products in the Field in Greater China. Qilu is required to use commercially reasonable efforts to develop, seek regulatory approval for, and commercialize at least one Qilu Licensed Product in the Field in Greater China. A joint development committee was established between the Company and Qilu to coordinate and review the development, manufacturing and commercialization plans with respect to the Qilu Licensed Products in Greater China. The Company and Qilu also executed the terms and conditions of a supply agreement and related quality agreement pursuant to which the Company will manufacture or have manufactured and supply Qilu with all quantities of the Qilu Licensed Product necessary for Qilu to develop and commercialize the Qilu Licensed Product in the Field in Greater China until the Company has completed manufacturing technology transfer to Qilu and approval of a Qilu manufactured product by the National Medical Products Administration in China ("NMPA") for the Qilu Licensed Product has been obtained.

The Qilu License Agreement will expire on a Qilu Licensed Product-by-Licensed Product and region-by-region basis on the date of the expiration of all applicable Royalty Terms. Either party may terminate the Qilu License Agreement for the other party's material breach following a cure period or upon certain insolvency events. Qilu has the right to receive a refund of all amounts paid to the Company in the event the Qilu License Agreement is terminated under certain circumstances. The Qilu License Agreement includes customary representations and warranties, covenants and indemnification obligations for a transaction of this nature.

The Qilu License Agreement is subject to the provisions of Accounting Standards Codification 606, Revenue from Contracts with Customers ("ASC 606"), which was adopted effective January 1, 2018. In 2020, the initial transaction price was estimated to be $11.2 million and was based on the up-front fixed consideration of $12 million less amounts withheld for VAT. The Company concluded that its agreements under the Qilu License Agreement represented one bundled performance obligation that had been achieved as of September 30, 2020. As such, $11.2 million of the total $11.2 million transaction price was considered earned and the Company recorded $11.2 million of revenue during the three-month period ended September 30, 2020.

The Investigational New Drug application for Vicineum submitted by Qilu to the Center for Drug Evaluation of the NMPA was accepted for review in January 2021 and approved in March 2021, resulting in a $3 million milestone payment from Qilu, the first milestone payment out of the $23 million in potential milestone payments. The Company recorded $2.8 million (net of VAT) as license revenue during the three-month period ended March 31, 2021. The Company received the payment in 2021.

In June 2021, the Qilu License Agreement was recognized by Shandong Province, Bureau of Science and Technology as a "Technology Transfer". An agreement that is designated as a Technology Transfer shall be entitled to a tax incentive of VAT recovery. As such, the Company recorded $0.9 million of revenue during the three months ended June 30, 2021 for additional purchase price resulting from Qilu's obligation to pay Sesen an amount equal to its recovery of VAT. The Company will not be subject to VAT on future potential milestone payments from Qilu.

MENA License Agreement

On November 30, 2020, the Company entered into a license agreement with a third party pursuant to which the Company granted an exclusive, sublicensable, royalty-bearing license, under certain intellectual property owned or exclusively licensed by the Company, to commercialize Vicineum in the MENA region, ("MENA License Agreement"). The Company retains development and commercialization rights in the rest of the world excluding Greater China, Turkey and MENA. In consideration for the rights granted by the Company, the counterparty to the MENA License Agreement agreed to pay to the Company an upfront payment of $3 million, which would be subject to certain tax withholdings. In addition, the counterparty agreed to pay to the Company milestone payments upon the achievement of certain sales-based milestones as well as a royalty based upon annual net sales in the MENA region for the term of the MENA License Agreement.

The MENA License Agreement is subject to the provisions of ASC 606. The initial transaction price was estimated by management as $1.5 million as of December 31, 2020 and was based on 50% of the upfront payment, or the amount not subject to a refund if certain regulatory approvals in MENA are not obtained. The remaining upfront payment ($1.5 million) is subject to a refund if certain regulatory approvals in MENA are not obtained and recorded as long-term deferred revenue as of December 31, 2021. The Company also concluded that its agreements under the MENA License Agreement represented two distinct performance obligations, the first of which is a bundled performance obligation related to the delivery of the license, associated know-how and certain documentation. The second performance obligation relates to the delivery of manufactured product. The first performance obligation (delivery of the license, associated know-how and certain documentation) was achieved during the quarter ended March 31, 2021; as such, revenue of $1.5 million has been recognized. Additional variable consideration, determined to be allocated entirely to the bundled license performance obligation, to be paid to the Company based upon future sales levels will be recognized as revenue when the underlying sales of the licensed product occurs. In addition, variable consideration related to any future delivery of product will be recognized in future periods as the product is delivered. As of December 31, 2021, none of these additional amounts were reasonably certain to be achieved due to the nature and timing of the underlying activities.

EIP License Agreement

On August 5, 2021, the Company entered into an exclusive license agreement with EİP Eczacıbaşı İlaç Pazarlama A.Ş., ("EIP") pursuant to which it granted EIP an exclusive license to register and commercialize Vicineum for the treatment of BCG-unresponsive NMIBC in Turkey and Northern Cyprus (the "EIP License Agreement). Under the terms of the License Agreement, the Company is

entitled to receive an upfront payment of $1.5 million. The Company is in the process of amending the license agreement to defer payment of the upfront payment to coincide with the potential FDA approval of Vicineum. The Company is eligible to receive additional regulatory and commercial milestone payments of $2.0 million and is also entitled to receive a 30% royalty on net sales in Turkey and Northern Cyprus. The EIP License Agreement is subject to the provisions of ASC 606 and as of December 31, 2021, none of these amounts have been received by the Company. No initial transaction price was estimated by management as of December 31, 2021, as the upfront payment is subject to a refund if certain regulatory approvals in the US are not obtained. The Company also concluded that its promises under the EIP License Agreement represented two distinct performance obligations, the first of which is a bundled performance obligation related to the delivery of the license and associated know-how. The second performance obligation relates to the delivery of manufactured product. Additional variable consideration, determined to be allocated entirely to the bundled license performance obligation, to be paid to the Company based upon future regulatory milestones will be recognized as achievement of those milestones. In addition, variable consideration related to any future delivery of product will be recognized in future periods as the product is delivered. As of December 31, 2021, none of these additional amounts were reasonably certain to be achieved due to the nature and timing of the underlying activities.

18. RELATED-PARTY TRANSACTIONS

The Company leases its facility in Winnipeg, Manitoba from an affiliate of Leslie L. Dan, a director of the Company until his retirement in July 2019. For each of the years ended December 31, 2021, 2020 and 2019, the Company paid $0.3 million of rent, which includes the related operating expenses.

The Company pays fees under an intellectual property license agreement to Protoden Technologies Inc. (“Protoden”), a company owned by Clairmark, an affiliate of Mr. Dan. Pursuant to the agreement, the Company has an exclusive, perpetual, irrevocable and non-royalty bearing license, with the right to sublicense, to certain patents and technology to make, use and sell products that utilize such patents and technology. The annual fee is $0.1 million. Upon expiration of the term on December 31, 2024, the licenses granted to the Company will require no further payments to Protoden. For each of the years ended December 31, 2021, 2020 and 2019, the Company paid $0.1 million under this license agreement.

Due to his retirement in July 2019, Mr. Dan was not deemed a related party during the twelve-month period ended December 31, 2020 and 2021; as such, only payments made through the nine month period ended September 30, 2019 are considered payments to a related party.

19. RESTRUCTURING AND RELATED ACTIVITIES

On August 30, 2021, the Company approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following receipt of the CRL from the FDA regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC (the “Restructuring Plan”).

The Restructuring Plan included a reduction in the Company’s workforce by 18 positions (or approximately 35% of the Company’s workforce as of the date of the Restructuring Plan), as well as additional cost-saving initiatives intended to preserve capital while the Company continues development of Vicineum. The following is a summary of accrued restructuring costs related to the Restructuring Plan:

	December 31, 2021 (in thousands)
Severance and benefits costs	$ 2,792
Contract termination costs	2,736
Other restructuring costs	—
Total restructuring costs	$ 5,528
Cash payments	(4,031)
Balance at December 31, 2021	$ 1,497

Restructuring costs related to the Restructuring Plan were recorded in operating expenses in the Company's Consolidated Statements of Operations and Comprehensive Loss in the year ended December 31, 2021. The Company expects that substantially all of the accrued restructuring costs as of December 31, 2021 will be paid in cash by the end of September 2022.

20. SUBSEQUENT EVENTS

On January 7, 2022, the FDA granted the Company's request for a Type C Meeting ("Type C Meeting") to discuss the study protocol for an additional Phase 3 clinical trial that the Company plans to conduct for potential resubmission of a BLA for Vicineum™ for the treatment of BCG-unresponsive NMIBC. The Type C Meeting has been scheduled for March 28, 2022.

On January 24, 2022, the Company received written notice (the "Notice") from Nasdaq indicating that the Company is not in compliance with the $1.00 minimum bid price requirement for continued listing on The Nasdaq Global Market, as set forth in Nasdaq Listing Rule 5450(a)(1). The Notice has no effect at this time on the listing of the Company's common stock (the "Common Stock"), which continues to trade on The Nasdaq Global Market under the symbol "SESN". In accordance with Nasdaq Listing Rule 5810(c)(3)(A), the Company has a period of 180 calendar days, or until July 25, 2022, to regain compliance with the minimum bid price requirement. To regain compliance, the closing bid price of the Company's Common Stock must meet or exceed $1.00 per share for a minimum of ten consecutive business days during this 180-day period.

If the Company is not in compliance by July 25, 2022, the Company may qualify for a second 180 calendar day compliance period. If the Company does not qualify for, or fail to regain, compliance during the second compliance period, then Nasdaq will notify the Company of its determination to delist the Company's common stock, at which point the Company would have an opportunity to appeal the delisting determination to a Nasdaq hearings panel.

The Company intends to actively monitor the closing bid price of the Company's common stock and may, if appropriate, consider implementing available options to regain compliance with the minimum bid price requirement under the Nasdaq Listing Rules.

As previously announced, the Company's Board of Directors (the "Board") initiated an independent internal review conducted by outside counsel with the assistance of subject matter experts focusing on the conduct of, and data generated from, the clinical trials of Vicineum for the treatment of BCG-unresponsive NMIBC, and the overall safety of Vicineum (the "Review"). The Review took place over the course of five months, involved full cooperation from the Company's management team, a review of more than 600,000 documents, and 39 interviews of current and former employees and consultants. It is now complete. As a result of the Review, the Board continues to fully support the Company's current management team and believes no changes or amendments relating to the Company's prior disclosures to the SEC or the FDA relating to Vicineum, the Phase 3 VISTA trial for Vicineum for the treatment of BCG-unresponsive NMIBC, or the BLA for Vicineum are warranted. The Company intends to work cooperatively with the FDA in preparing for an additional Phase 3 clinical trial for Vicineum.

SESEN BIO, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited; In thousands, except share and per share data)

	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 72,090	$ 162,636
Short term marketable securities	69,454	—
Accounts receivables	73	21,011
Other receivables	14,046	3,482
Prepaid expenses and other current assets	757	18,476
Total current assets	156,420	205,605
Non-current assets:		
Restricted cash	30	20
Marketable securities	19,641	—
Property and equipment, net	30	43
Intangible assets	—	14,700
Goodwill	—	13,064
Long term prepaid expenses	—	7,192
Other assets	42	123
Total non-current assets	**$ 19,743**	**$ 35,142**
Total Assets	**$ 176,163**	**$ 240,747**
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 1,667	$ 2,853
Accrued expenses	29,851	8,255
Other current liabilities	487	460
Total current liabilities	32,005	11,568
Non-current liabilities:		
Contingent consideration	1,800	52,000
Deferred tax liability	—	3,969
Deferred revenue	—	1,500
Total non-current liabilities	1,800	57,469
Total Liabilities	33,805	69,037
Stockholders' Equity:		
Preferred stock, $0.001 par value per share; 5,000,000 shares authorized at June 30, 2022 and December 31, 2021; no shares issued and outstanding at June 30, 2022 and December 31, 2021	—	—
Common stock, $0.001 par value per share; 400,000,000 shares authorized at June 30, 2022 and December 31, 2021; 199,463,645 shares issued and outstanding at June 30, 2022 and December 31, 2021	199	199
Additional paid-in capital	491,464	487,768
Other comprehensive loss	(281)	—
Accumulated deficit	(349,024)	(316,257)
Total Stockholders' Equity	142,358	171,710
Total Liabilities and Stockholders' Equity	**$ 176,163**	**$ 240,747**

The accompanying notes are an integral part of these condensed consolidated financial statements.

SESEN BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited; In thousands, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Revenue:				
License and related revenue	$ —	$ 2,234	$ —	$ 6,544
Total revenue	—	2,234	—	6,544
Operating expenses:				
Research and development	29,944	7,228	34,705	13,306
General and administrative	15,589	6,805	24,564	12,098
Intangibles impairment charge	27,764	—	27,764	—
Change in fair value of contingent consideration	(37,300)	13,600	(50,200)	61,760
Total operating expenses	35,997	27,633	36,833	87,164
Loss from Operations	$ (35,997)	$ (25,399)	$ (36,833)	$ (80,620)
Other income (expense), net	162	(43)	191	(46)
Loss Before Taxes	$ (35,835)	$ (25,442)	$ (36,642)	$ (80,666)
Benefit (provision) from income taxes	3,875	—	3,875	(288)
Net Loss After Taxes	$ (31,960)	$ (25,442)	$ (32,767)	$ (80,954)
Net loss attributable to common stockholders - basic and diluted	$ (31,960)	$ (25,442)	$ (32,767)	$ (80,954)
Net loss per common share - basic and diluted	$ (0.16)	$ (0.15)	$ (0.16)	$ (0.49)
Weighted-average common shares outstanding - basic and diluted	$ 199,464	$ 175,393	$ 199,464	$ 166,264

The accompanying notes are an integral part of these condensed consolidated financial statements.

SESEN BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited; In thousands, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net loss	$ 31,960	$ 25,442	$ 32,767	$ 80,954
Unrealized loss on marketable securities	(281)	—	(281)	—
Total comprehensive loss	$ 32,241	$ 25,442	$ 33,048	$ 80,954

The accompanying notes are an integral part of these condensed consolidated financial statements.

SESEN BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(Unaudited; In thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss Investments	Accumulated Deficit	Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2021	199,463,645	$ 199	$ 487,768	$ —	$ (316,257)	$ 171,710
Net loss	—	—	—	—	(807)	(807)
Share-based compensation	—	—	1,894	—	—	1,894
Balance at March 31, 2022	199,463,645	$ 199	$ 489,662	$ —	$ (317,064)	$ 172,797
Net loss	—	—	—	—	(31,960)	(31,960)
Share-based compensation	—	—	1,802	—	—	1,802
Unrealized loss of investments	—	—	—	(281)	—	(281)
Balance at June 30, 2022	**199,463,645**	**$ 199**	**$ 491,464**	**$ (281)**	**$ (349,024)**	**$ 142,358**

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss Investments	Accumulated Deficit	Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2020	140,449,647	$ 140	$ 306,554	$ —	$ (315,921)	$ (9,227)
Net loss	—	—	—	—	(55,512)	(55,512)
Share-based compensation	—	—	958	—	—	958
Exercises of stock options	30,610	—	39	—	—	39
Exercises of common stock warrants	852,840	1	468	—	—	469
Issuance of common stock under ATM Offering, net of issuance costs of $2.2 million	30,645,702	31	72,512	—	—	72,543
Balance at March 31, 2021	171,978,799	$ 172	$ 380,531	$ —	$ (371,433)	$ 9,270
Net loss	—	—	—	—	(25,442)	(25,442)
Share-based compensation	—	—	1,260	—	—	1,260
Issuance of common stock under ATM Offering, net of issuance costs of $2.0 million	16,482,152	16	64,245	—	—	64,261
Balance at June 30, 2021	**188,460,951**	**$ 188**	**$ 446,036**	**$ —**	**$ (396,875)**	**$ 49,349**

The accompanying notes are an integral part of these condensed consolidated financial statements.

SESEN BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited; In thousands)

	Six Months Ended June 30,	
	2022	2021
Cash Flows from Operating Activities:		
Net loss	$ (32,767)	$ (80,954)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	13	64
Share-based compensation	3,696	2,217
Change in fair value of contingent consideration	(50,200)	61,760
Intangibles impairment charge	27,764	—
Changes in operating assets and liabilities:		
Accounts receivable (net)	20,939	(2,303)
Other receivables	(10,565)	—
Prepaid expenses and other current assets	17,719	(20,287)
Long term prepaid expenses	7,192	—
Unrealized loss on marketable securities	(281)	—
Other assets	81	—
Accounts payable	(1,186)	(1,875)
Accrued expenses and other liabilities	17,654	1,262
Deferred revenue	(1,500)	(1,500)
Net cash used in operating activities	**(1,441)**	**(41,616)**
Cash Flows from Investing Activities:		
Purchase of marketable securities	(89,095)	—
Purchases of equipment	—	(49)
Net cash used in investing activities	**(89,095)**	**(49)**
Cash Flows from Financing Activities:		
Proceeds from issuance of common stock under ATM Offering, net of issuance costs	—	136,804
Proceeds from exercises of stock options	—	39
Proceeds from exercises of common stock warrants	—	469
Net cash provided by financing activities	—	**137,312**
Net (decrease) increase in cash, cash equivalents and restricted cash	(90,536)	95,647
Cash, cash equivalents and restricted cash - beginning of period	162,656	55,409
Cash, cash equivalents and restricted cash - end of period	**$ 72,120**	**$ 151,056**
Supplemental cash flow disclosure:		
Cash paid for amounts included in the measurement of lease liabilities	$ 86	$ 87
Supplemental disclosure of non-cash investing activities:		
Purchase of equipment included in accrued expenses	$ —	$ 27

The accompanying notes are an integral part of these condensed consolidated financial statements.

SESEN BIO, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. DESCRIPTION OF BUSINESS

Sesen Bio, Inc. ("Sesen" or the "Company"), a Delaware corporation formed in February 2008, is a late-stage clinical company focused on advancing targeted fusion protein therapeutics for the treatment of patients with cancer. The Company's most advanced product candidate, Vicineum™, also known as VB4-845, is a locally-administered targeted fusion protein composed of an anti-epithelial cell adhesion molecule ("EpCAM") antibody fragment tethered to a truncated form of Pseudomonas exotoxin A for the treatment of non-muscle invasive bladder cancer ("NMIBC"). On July 15, 2022, the Company made the strategic decision to voluntarily pause further development of Vicineum in the United States. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial, following its discussions with the FDA, which are further described below. The Company has turned its primary focus to the careful assessment of potential strategic alternatives with the goal of maximizing shareholder value, which it believes will be complete by the end of 2022. Additionally, the Company intends to seek a partner for the further development of Vicineum.

The Company has completed the follow-up stage of its single-arm, multi-center, open-label Phase 3 clinical trial of Vicineum as a monotherapy in patients with bacillus Calmette-Guérin ("BCG")-unresponsive NMIBC (the "VISTA Trial"). The VISTA Trial completed enrollment in April 2018 with a total of 133 patients. On December 18, 2020, the Company submitted its completed Biologics License Application (the "BLA") for Vicineum for the treatment of BCG-unresponsive NMIBC to the United States Food and Drug Administration ("FDA"). On February 12, 2021, the FDA notified the Company that it had accepted the BLA file. The FDA also granted Priority Review for the BLA and set a target Prescription Drug User Fee Act ("PDUFA") date for a decision on the BLA of August 18, 2021. On August 13, 2021, the Company received a complete response letter ("CRL") from the FDA indicating that the FDA had determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to chemistry, manufacturing and controls ("CMC") issues pertaining to a recent pre-approval inspection and product quality.

In October 2021 and December 2021, the Company participated in a CMC Type A meeting and a Clinical Type A meeting, respectively, with the FDA to discuss issues raised in the CRL and design elements of an additional Phase 3 clinical trial for Vicineum, which the FDA confirmed would be required for a potential resubmission of a BLA. In March 2022, the Company participated in a Type C meeting with the FDA. During the Type C meeting, the FDA agreed to a majority of the Company's proposed protocol and statistical analysis plan design elements for an additional Phase 3 clinical trial. On July 11, 2022, the Company participated in a Type B meeting with the FDA to discuss outstanding items related to the Company's proposed protocol and statistical analysis plan design elements for an additional Phase 3 clinical trial.

Viventia Acquisition

In September 2016, the Company entered into a Share Purchase Agreement with Viventia Bio, Inc., a corporation incorporated under the laws of the Province of Ontario, Canada ("Viventia"), the shareholders of Viventia named therein (the "Selling Shareholders") and, solely in its capacity as seller representative, Clairmark Investments Ltd., a corporation incorporated under the laws of the Province of Ontario, Canada ("Clairmark") (the "Share Purchase Agreement"), pursuant to which the Company agreed to and simultaneously completed the acquisition of all of the outstanding capital stock of Viventia from the Selling Shareholders (the "Viventia Acquisition"). In connection with the closing of the Viventia Acquisition, the Company issued 4.0 million shares of its common stock to the Selling Shareholders, which at that time represented approximately 19.9% of the voting power of the Company as of immediately prior to the issuance of such shares.

In addition, under the Share Purchase Agreement, the Company is obligated to pay to the Selling Shareholders certain post-closing contingent cash payments upon the achievement of specified milestones and based upon net sales, in each case subject to the terms and conditions set forth in the Share Purchase Agreement, including: (i) a one-time milestone payment of $12.5 million payable upon the first sale of Vicineum (the "Purchased Product"), in the United States; (ii) a one-time milestone payment of $7.0 million payable upon the first sale of the Purchased Product in any one of certain specified European countries; (iii) a one-time milestone payment of $3.0 million payable upon the first sale of the Purchased Product in Japan; and (iv) quarterly earn-out payments equal to 2% of net sales of the Purchased Product during specified earn-out periods. Such earn-out payments are payable with respect to net sales in a country beginning on the date of the first sale in such country and ending on the earlier of (i) December 31, 2033, and

(ii) fifteen years after the date of such sale, subject to early termination in certain circumstances if a biosimilar product is on the market in the applicable country. Under the Share Purchase Agreement, the Company, its affiliates, licensees and subcontractors are required to use commercially reasonable efforts, for the first seven years following the closing of the Viventia Acquisition, to achieve marketing authorizations throughout the world and, during the applicable earn-out period, to commercialize the Purchased Product in the United States, France, Germany, Italy, Spain, United Kingdom, Japan, China and Canada. Certain of these payments are payable to individuals or affiliates of individuals that became employees or members of the Company's board of directors. However, as of June 30, 2022, none of these individuals are active employees of the Company or members of the Company's board of directors.

2. BASIS OF PRESENTATION

The accompanying financial statements have been prepared in accordance with United States generally accepted accounting principles ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASUs"), promulgated by the Financial Accounting Standards Board ("FASB").

Interim Financial Statements

The accompanying unaudited interim condensed consolidated financial statements have been prepared from the books and records of the Company in accordance with GAAP for interim financial information and Rule 10-01 of Regulation S-X promulgated by the United States Securities and Exchange Commission ("SEC"), which permit reduced disclosures for interim periods. All adjustments, consisting only of normal recurring adjustments, which are, in the opinion of management, necessary for a fair presentation of the accompanying condensed consolidated balance sheets and statements of operations and comprehensive (loss) income, stockholders' equity (deficit) and cash flows have been made. Although these interim financial statements do not include all of the information and footnotes required for complete annual financial statements, management believes the disclosures are adequate to make the information presented not misleading. These unaudited interim results of operations and cash flows for the six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the full year. These unaudited interim condensed consolidated financial statements and footnotes should be read in conjunction with the Company's audited annual consolidated financial statements and footnotes included in its Annual Report on Form 10-K, as filed with the SEC on February 28, 2022, wherein a more complete discussion of significant accounting policies and certain other information can be found.

Use of Estimates

The preparation of financial statements in accordance with GAAP and the rules and regulations of the SEC requires the use of estimates and assumptions, based on judgments considered reasonable, which affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates and assumptions on historical experience, known trends and events and various other factors that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Although management believes its estimates and assumptions are reasonable when made, they are based upon information available at the time they are made. Management evaluates the estimates and assumptions on an ongoing basis and, if necessary, makes adjustments. Due to the risks and uncertainties involved in the Company's business and evolving market conditions, and given the subjective element of the estimates and assumptions made, actual results may differ from estimated results. The most significant estimates and judgments impact the fair value of intangible assets; goodwill and contingent consideration; income taxes (including the valuation allowance for deferred tax assets); and research and development expenses.

Principles of Consolidation

The Company's condensed consolidated financial statements include the accounts of the Company, its wholly owned subsidiary Viventia and its indirect subsidiary, Viventia Bio USA Inc. All intercompany transactions and balances have been eliminated in consolidation.

Foreign Currency Translation

The functional currency of the Company and each of its subsidiaries is the US dollar.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company's complete summary of significant accounting policies can be found in "Item 15. Exhibits and Financial Statement Schedules — Note 3. Summary of Significant Accounting Policies" in the audited annual consolidated financial statements included in its Annual Report on Form 10-K for the year ended December 31, 2021.

4. RECENT ACCOUNTING PRONOUNCEMENTS

Adopted in 2022

In August 2020, the FASB issued ASU No. 2020-06, *Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* ("ASU 2020-06"). ASU 2020-06 simplifies the complexity associated with applying US GAAP for certain financial instruments with characteristics of both liability and equity. More specifically, the amendments focus on the guidance for convertible instruments and derivative scope exception for contracts in an entity's own equity. The ASU also amends the diluted earnings per share (EPS) guidance, including the requirement to use the if-converted method for all convertible instruments. ASU 2020-06 is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2021, and should be applied on a full or modified retrospective basis. The Company adopted this guidance on a modified retrospective basis effective January 1, 2022 and it did not have an impact on the Company's financial position, results of operations including per-share amounts, or cash flows.

In May 2021, the FASB issued ASU No. 2021-04, *Earnings Per Share (Topic 260), Debt — Modifications and Extinguishments (Subtopic 470-50), Compensation — Stock Compensation (Topic 718), and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options* ("ASU 2021-04"). ASU 2021-04 clarifies and reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (for example, warrants) that remain equity classified after modification or exchange. ASU 2021-04 is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2021, and should be applied on a prospective basis. The Company adopted this guidance effective January 1, 2022 and it did not have an impact on the Company's financial position, results of operations including per-share amounts, or cash flows.

Other recent accounting pronouncements issued, but not yet effective, are not expected to be applicable to the Company or have a material effect on the consolidated financial statements upon future adoption.

5. FAIR VALUE MEASUREMENT AND FINANCIAL INSTRUMENTS

The carrying values of cash and cash equivalents, restricted cash, prepaid expenses and other current assets, and accounts payable on the Company's condensed consolidated balance sheets approximated their fair values as of June 30, 2022 and December 31, 2021 due to their short-term nature.

Certain of the Company's financial instruments are measured at fair value using a three-level hierarchy that prioritizes the inputs used to measure fair value. This fair value hierarchy prioritizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1: Inputs are quoted prices for identical instruments in active markets,

Level 2: Inputs are quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; or model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3: Inputs are unobservable and reflect the Company's own assumptions, based on the best information available, including the Company's own data.

The following tables set forth the carrying amounts and fair values of the Company's financial instruments measured at fair value on a recurring basis as of June 30, 2022 and December 31, 2021 (in thousands):

	June 30, 2022				
			Fair Value Measurement Based on		
	Carrying Amount	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Marketable securities:					
Money market funds (cash equivalents)	$ 40,765	$ 40,765	$ 40,765	$ —	$ —
Marketable securities	$ 89,095	$ 89,095	$ —	$ 89,095	$ —
Liabilities:					
Contingent consideration	$ 1,800	$ 1,800	$ —	$ —	$ 1,800

	December 31, 2021				
			Fair Value Measurement Based on		
	Carrying Amount	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Money market funds (cash equivalents)	$ 16,382	$ 16,382	$ 16,382	$ —	$ —
Liabilities:					
Contingent consideration	$ 52,000	$ 52,000	$ —	$ —	$ 52,000

The Company evaluates transfers between fair value levels at the end of each reporting period. There were no transfers of assets or liabilities between fair value levels during the six months ended June 30, 2022.

Contingent Consideration

On September 20, 2016, the Company acquired Viventia through the issuance of shares of common stock plus contingent consideration, pursuant to the terms of a Share Purchase Agreement. The Company recorded the acquired assets and liabilities based on their estimated fair values as of the acquisition date and finalized its purchase accounting for the Viventia Acquisition during the third quarter of 2017. The contingent consideration relates to amounts potentially payable to the former shareholders of Viventia under the Share Purchase Agreement. Contingent consideration is measured at its estimated fair value at each reporting period, with fluctuations in value resulting in a non-cash charge to earnings (or loss) during the period. The estimated fair value measurement is based on significant inputs, including internally developed financial forecasts, probabilities of success, and the timing of certain milestone events and achievements, which are not observable in the market, representing a Level 3 measurement within the fair value hierarchy. The valuation of contingent consideration requires the use of significant assumptions and judgments, which management believes are consistent with those that would be made by a market participant. Management reviews its assumptions and judgments on an ongoing basis as additional market and other data is obtained, and any future changes in the assumptions and judgments utilized by management may cause the estimated fair value of contingent consideration to fluctuate materially, resulting in earnings volatility.

The estimated fair value of the Company's contingent consideration was determined using probabilities of successful achievement of regulatory milestones and commercial sales, the period in which these milestones and sales are expected to be achieved through 2033, the level of commercial sales of Vicineum forecasted for the US, Europe, Japan, China and other potential markets and discount rates ranging from 10.2% as of June 30, 2022 to 8.0% and 9.3% as of December 31, 2021. There have been no changes to the valuation methods utilized during the six months ended June 30, 2022.

On July 15, 2022, the Company made the strategic decision to voluntarily pause further development in the US of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Additionally, the Company intends to seek a partner for the further development of Vicineum. The Company expects that any partner who acquires Vicineum from the Company will be obligated to make any payments that become payable to the former shareholders of Viventia under the Share Purchase Agreement.

Accordingly, as of June 30, 2022, the Company no longer expects to pay related milestone and earnout payments to the former shareholders of Viventia, with the exception of the potential 2% earnout payment related to the Greater China region since those territory rights have already been out-licensed.

Therefore, the balance as of June 30, 2022 relates to contingent consideration for projected net sales in the Greater China region as compared to the balance as of December 31, 2021 which was based upon projected world-wide net sales.

The following table sets forth a summary of the change in the fair value of the Company's contingent consideration liability, measured on a recurring basis at each reporting period (in thousands).

Balance at December 31, 2021	$	52,000
Change in fair value of contingent consideration		(50,200)
Balance at June 30, 2022	**$**	**1,800**

The fair value of the Company's contingent consideration was determined based on the present value of projected future cash flows associated with sales-based milestones and earnouts on net sales and is heavily dependent on discount rates to estimate the fair value at each reporting period. Earnouts were determined using an earnout rate of 2% on all commercial net sales of Vicineum through December 2033. The discount rate applied to the 2% earnout was derived from the Company's weighted-average cost of capital, which has fluctuated from 9.3% as of December 31, 2021 to 10.2% as of June 30, 2022. As of December 31, 2021, the balance also reflected potential milestone payments which constitute debt-like obligations, and therefore a high-yield debt index rate was applied to the milestones in order to determine the estimated fair value. This index rate was 8.0% as of December 31, 2021. The decrease in the fair value of contingent consideration of $50.2 million for the six months ended June 30, 2022 was driven by the Company's decision to voluntarily pause further development of Vicineum.

6. RECEIVABLES

The accounts receivable balance as of June 30, 2022 is $0.1 million compared to $21.0 million as of December 31, 2021. The decrease is driven by the receipt of the $20.0 million milestone from F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (collectively, "Roche") for the initiation of a Phase II clinical trial in the fourth quarter of 2021.

The other receivable balance as of June 30, 2022 is $14.0 million compared to $3.5 million as of December 31, 2021. The increase is driven by expected insurance recovery of $13.0 million related to the preliminary settlements of the securities and derivative litigation. This was partially offset by the receipt of $2.4 million for German value-added tax ("VAT") recovery in the first half of 2022, related to drug substance sent to Baxter in 2020 and 2019.

7. PREPAID EXPENSES

The prepaid expenses balance as of June 30, 2022 is $0.8 million compared to $25.7 million as of December 31, 2021. In light of the Company's decision to voluntarily pause further development of Vicineum, the Company evaluated prepaid balances and determined that the prepayments for the manufacturing of Vicineum, including consumables, had no future economic benefit or value. Pursuant to ASC Topic 730, Certain Nonrefundable Advance Payment, the Company expensed $25.2 million of prepaids during the three months ended June 30, 2022.

8. INTANGIBLE ASSETS AND GOODWILL

Intangibles

Intangible assets on the Company's condensed consolidated balance sheets are the result of the Viventia Acquisition in September 2016. The following table sets forth the composition of intangible assets as of June 30, 2022 and December 31, 2021 (in thousands):

	June 30, 2022	December 31, 2021
IPR&D intangible assets:		
Vicineum European Union rights	$ —	$ 14,700
Total Intangibles	**$ —**	**$ 14,700**

The fair value of the acquired intangible assets for the European Union ("EU") rights of Vicineum is determined using a risk-adjusted discounted cash flow approach, which includes probability adjustments for projected revenues and operating expenses based on the success rates assigned to each stage of development for each geographical region; as well as discount rates applied to the projected cash flows. In August 2021, the Company received a CRL from the FDA regarding its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC, the Company's former lead product candidate. In the CRL, the FDA determined that it could not approve the BLA for Vicineum in its present form and provided recommendations specific to additional clinical/statistical data and analyses in addition to CMC issues pertaining to a recent pre-approval inspection and product quality. Also in August 2021, the Company withdrew its marketing authorization application ("MAA") to the European Medicines Agency (the "EMA") for Vysyneum™ for the treatment of BCG-unresponsive NMIBC in order to pause its plans to pursue regulatory approval of Vysyneum in the EU until there was more clarity from the FDA on next steps for Vicineum in the United States. Vysyneum is the proprietary brand name that was conditionally approved by the EMA for oportuzumab monatox in the EU. Given the inherent uncertainty in the development plans for Vicineum as a result of the CRL and the Company's withdrawal of its MAA, an impairment analysis was conducted in the third quarter of 2021, which concluded that the carrying value of the Company's intangible asset of Vicineum US rights was fully impaired as of September 30, 2021. The $31.7 million of impairment charges as of September 30, 2021 were due to delays in the expected start of commercialization and lower probabilities of success, combined with higher operating expenses expected to be incurred prior to commercialization, resulting in lower expected future cash flows estimated in the US market. At that time, management assessed that the carrying value of the Vicineum EU rights was not at significant risk of impairment in the future within the current range of commercialization timelines and probability of success assumptions. This was primarily due to the fact that the EU asset was burdened with significantly less expense than the US asset, as the Company's strategic operating plan was to sublicense Vicineum to business development partners in all regions outside the US, including the EU, with it earning a potential combination of upfront, milestone, and royalty payments, and the business development partner bearing the majority of regulatory and commercialization costs.

During the second quarter of 2022, the Company observed an evolution of the current market treatment paradigm in NMIBC, with substantial uptake of intravesical chemotherapy (monotherapy and combination therapy) during the ongoing BCG shortage. The Company has also experienced a sustained decline in its share price and a resulting decrease in our market capitalization. On July 15, 2022 the Company made the strategic decision to voluntarily pause further development in the US of Vicineum and intends to seek a partner for the further development of Vicineum. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated costs for an additional Phase 3 clinical trial for the treatment of NMIBC, following recent discussions with the FDA and the updated market data obtained through market research during the ongoing BCG shortage. Management updated the discounted cash flow model using the market participant approach and considered preliminary terms of a potential partnering deal to conclude the fair value of EU asset. The Company concluded that the carrying value of the Company's intangible asset of Vicineum EU rights of $14.7 million was fully impaired and written off as of June 30, 2022. The weighted average cost of capital used in the Company's most recent impairment test, which was 24.5%, was risk-adjusted to reflect the specific risk profile of the reporting unit. Management used considerable judgment to determine key assumptions, including projected revenue and appropriate discount rates, which are classified as level 3 in fair value measurement.

Goodwill

Goodwill on the Company's condensed consolidated balance sheets is the result of the Viventia Acquisition in September 2016. During the second quarter of 2022 the Company observed continued trends in the Company's market capitalization as compared to the carrying value of its single reporting unit as well as changes in certain assumptions in the fair value of the business including market share, length and cost of a clinical study, and time to potential market launch. The Company identified these changes as potential impairment indicators and performed a quantitative impairment analysis, in advance of the Company's typical annual assessment date of October 1. The Company reassessed the underlying assumptions used to develop its revenue projections, which were then used as significant inputs to determine the fair value of equity. Management updated its revenue forecast models based on further launch delays in both the US and outside the US ("OUS") regions. The Company also recently observed an evolution of the current treatment paradigm in NMIBC, with substantial uptake of intravesical chemotherapy (monotherapy and combination therapy) during the ongoing BCG shortage resulting in lower projected peak market share for Vicineum. Management also considered other factors including the preliminary valuations of strategic alternatives during the fair value assessment. As a result of the interim impairment test, the Company concluded that the carrying value of its goodwill of $13.1 million was fully impaired as of June 30, 2022. The weighted average cost of capital used in the Company's most recent impairment test, which was 24.5%, was risk-adjusted to reflect the specific risk profile of the reporting unit. Management used considerable judgment to determine key assumptions, including projected revenue and appropriate discount rates, which are classified as level 3 in fair value measurement.

The following table sets forth a summary of the change in goodwill as of June 30, 2022 and December 31, 2021 (in thousands).

Balance at December 31, 2021	$ 13,064
Impairment loss	(13,064)
Balance at June 30, 2022	**$ —**

9. ACCRUED EXPENSES

The following table sets forth the composition of accrued expenses as of June 30, 2022 and December 31, 2021 (in thousands):

	June 30, 2022	December 31, 2021
Research and development	$ 1,847	$ 1,841
Payroll-related expenses	3,099	2,967
Restructuring charge related	394	1,497
Professional fees	507	597
Legal expenses, including preliminary litigation settlement	22,477	1,344
Other	1,527	9
Total Accrued Expenses	**$ 29,851**	**$ 8,255**

10. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

From time to time, the Company may become subject to legal proceedings, claims, and litigation arising in the ordinary course of business. When the Company becomes aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. In accordance with authoritative guidance, the Company records loss contingencies in its financial statements only for matters in which losses are probable and can be reasonably estimated. Where a range of loss can be reasonably estimated with no best estimate in the range, the Company records the minimum estimated liability. If the loss is not probable or the amount of the loss cannot be reasonably estimated, the Company discloses the nature of the specific claim if the likelihood of a potential loss is reasonably possible, and the amount involved is material. The Company continuously assesses the potential liability related to the Company's pending litigation and revises its estimates when additional information becomes available. The Company is not currently a party to any material legal proceedings, other than as described below.

On August 19, 2021, August 31, 2021, and October 7, 2021, three substantially identical securities class action lawsuits captioned Bibb v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-07025, Cizek v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-07309, and Markman v. Sesen Bio, Inc. et al., Case No. 1:21-cv-08308 were filed against the Company and certain of its officers in the US District Court for the Southern District of New York. The three complaints alleged violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder based on statements made by the Company concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The three complaints sought compensatory damages and costs and expenses, including attorneys' fees. On October 29, 2021, the court consolidated the three cases under the caption In re Sesen Bio, Inc. Securities Litigation, Master File No. 1:21-cv-07025-AKH (the "Securities Litigation"), and appointed Ryan Bibb, Rodney Samaan, Lionel Dreshaj and Benjamin Dreshaj ("Lead Plaintiffs") collectively as the lead plaintiffs under the Private Securities Litigation Reform Act. On November 1, 2021, two stockholders filed motions to reconsider asking the court to appoint a different lead plaintiff. The court has not ruled on those motions at this time. On November 24, 2021, defendants filed a motion to transfer venue to the US District Court for the District of Massachusetts. That motion was fully briefed as of December 13, 2021, but the court has not yet ruled on that motion. On December 6, 2021, the Lead Plaintiffs filed an amended class action complaint (the "Amended Complaint"). The Amended Complaint alleges the same violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder on the same theory as the prior complaints. The defendants moved to dismiss the Amended Complaint on March 7, 2022. The plaintiffs filed their opposition to that motion on April 6, 2022 and Defendants filed their reply in further support of the motion to dismiss on May 6, 2022. After the motion was fully briefed and before the court ruled on the motion, on June 3, 2022, the parties requested that the court hold any decision on the motion to dismiss in abeyance to provide the parties with an opportunity to engage in mediation. The parties engaged in mediation on June 30, 2022.

On September 20, 2021 and September 24, 2021, two substantially similar derivative lawsuits captioned Myers v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-11538 and D'Arcy v. Sesen Bio, Inc., et. al., Case No. 1:21-cv-11577 were filed against the Company's

board of directors and certain of its officers in the US District Court for the District of Massachusetts, with the Company named as a nominal defendant. On January 12, 2022, a third derivative complaint captioned Tang v. Sesen Bio, Inc., et al., was filed in Superior Court in Massachusetts against the Company's board of directors and certain of its officers (the "State Derivative Litigation"). The three derivative complaints allege breach of fiduciary duties, waste of corporate assets, and violations of federal securities laws based on statements made by the Company concerning its BLA for Vicineum for the treatment of BCG-unresponsive NMIBC. The D'Arcy complaint further alleges unjust enrichment, abuse of control, gross mismanagement and aiding and abetting thereof. The three derivative complaints seek unspecified damages, restitution and disgorgement of profits, benefits and compensation obtained by the defendants and costs and expenses, including attorneys' fees. On October 18, 2021, the court consolidated the two federal court cases under the caption In re Sesen Bio, Inc. Derivative Litigation, Lead Case No. 1:21-cv-11538 (the "Federal Derivative Litigation"). On December 22, 2021, the court entered a joint stipulation among the parties to stay the Federal Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation. On May 1, 2022, the plaintiffs filed a verified consolidated shareholder derivative complaint in the Federal Derivative Litigation. On May 18, 2022, the court entered a joint stipulation among the parties to stay the State Derivative Litigation until after a ruling on any motion to dismiss filed by defendants in the Securities Litigation.

The Company deemed the settlements of the Securities Litigation, the State Derivative Litigation, the Federal Derivative Litigation, and other potential related derivative claims, probable and amounts reasonably estimable as of June 30, 2022 and accrued $21.6 million to litigation related liability.

The Company, its board of directors and the individual defendants continue to deny all allegations of any wrongdoing, but are seeking to settle the Securities Litigation, the State Derivative Litigation and the Federal Derivative Litigation to avoid the uncertainty, risk, expense and distraction of protracted litigation.

Executive Employment Agreements

The Company has entered into employment agreements or offer letters with certain of its key executives, providing for separation payments and benefits in certain circumstances, as defined in the agreements.

11. LEASES

The Company's lease portfolio includes an operating lease for its 31,100 square foot facility in Winnipeg, Manitoba which consists of manufacturing, laboratory, warehouse and office space. In September 2020, the Company entered into an extension of this lease for an additional two years, through September 2022. The minimum monthly rent under this lease is CAD $18,100 (approximately $14,000 at exchange rates in effect on June 30, 2022). In addition to rent expense, the Company expects to incur CAD $18,200 per month related to operating expenses (approximately $14,100 at exchange rates in effect on June 30, 2022). Operating lease cost under this lease, including the related operating costs, were $83,000 and $165,000 for the three and six months ended June 30, 2022, respectively, and $84,000 and $166,000 for the three and six months ended June 30, 2021, respectively.

The asset component of the Company's operating leases is recorded as operating lease right-of-use assets and reported within other assets on the Company's condensed consolidated balance sheets. The right of use asset total was $41,700 as of June 30, 2022 and $123,300 as of December 31, 2021. The short-term lease liability is recorded in other current liabilities and the long-term lease liability is recorded in other liabilities on the Company's condensed consolidated balance sheets. The short-term lease liability was $41,700 as of June 30, 2022 and $123,300 as of December 31, 2021. There was no long-term operating lease liability as of June 30, 2022 or December 31, 2021. Operating lease cost is recognized on a straight-line basis over the term of the lease.

In addition, the Company has short-term property leases for modular office space for 1) its corporate headquarters in Cambridge, MA and 2) office space in Philadelphia, PA. The short-term leases are renewed on a month-to-month basis. The minimum monthly rent for these office spaces is $2,200 and $21,000, respectively, which is subject to change if and as the Company adds space to or deducts space from the leases.

12. STOCKHOLDERS' EQUITY

Equity Financings

ATM Offering

The Company has entered into an Open Market Sale Agreement SM with Jefferies LLC ("Jefferies"), dated November 29, 2019, as amended by Amendment No. 1 dated October 30, 2020, Amendment No. 2 dated February 17, 2021 and Amendment No. 3, dated June 1, 2021 (as amended, the "Sale Agreement"), under which the Company may issue and sell shares of its common stock, par value $0.001 per share, from time to time through Jefferies (the "ATM Offering"). In June and July 2021, the Company filed prospectus supplements with the SEC in connection with the offer and sale of up to an aggregate of $200 million of common stock pursuant to the Sale Agreement of which $97.8 million of common stock remain available for future issuance as of June 30, 2022. Sales of common stock under the Sale Agreement are made by any method that is deemed to be an ATM offering as defined in Rule 415(a)(4) of the Securities Act of 1933, as amended, including but not limited to sales made directly on or through the Nasdaq Stock Market or any other existing trading market for the Company's common stock. The Company may sell shares of its common stock efficiently from time to time but has no obligation to sell any of its common stock and may at any time suspend offers under the Sale Agreement or terminate the Sale Agreement. Subject to the terms and conditions of the Sale Agreement, Jefferies will use its commercially reasonable efforts to sell common stock from time to time, as the sales agent, based upon the Company's instructions, which include a prohibition on sales below a minimum price set by the Company from time to time. The Company has provided Jefferies with customary indemnification rights, and Jefferies is entitled to a commission at a fixed rate equal to 3.0% of the gross proceeds for each sale of common stock under the Sale Agreement. The Company did not sell any shares of common stock pursuant to the Sale Agreement during the three and six months ended June 30, 2022. The Company raised $136.8 million of net proceeds from the sale of 47.1 million shares of common stock at a weighted-average price of $2.99 per share during the six months ended June 30, 2021. The Company raised $64.3 million of net proceeds from the sale of 16.5 million shares of common stock at a weighted-average price of $4.02 per share during the three months ended June 30, 2021. Share issuance costs, including sales agent commissions, related to the ATM Offering totaled $2.0 million and $4.2 million during the three and six months ended June 30, 2021, respectively.

Preferred Stock

Pursuant to its Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Company is authorized to issue 5.0 million shares of "blank check" preferred stock, $0.001 par value per share, which enables its board of directors, from time to time, to create one or more series of preferred stock. Each series of preferred stock issued shall have the rights, preferences, privileges and restrictions as designated by the board of directors. The issuance of any series of preferred stock could affect, among other things, the dividend, voting and liquidation rights of the Company's common stock. The Company had no preferred stock issued and outstanding as of June 30, 2022 and 2021.

Common Stock

Following approval by the Company's stockholders on May 3, 2021, an amendment became effective to the Certificate of Incorporation that increased the number of authorized shares of common stock from 200 million to 400 million, of which approximately 199 million shares were issued and outstanding as of June 30, 2022 and December 31, 2021. In addition, the Company had reserved for issuance the following amounts of shares of its common stock for the purposes described below as of June 30, 2022 and December 31, 2021 (in thousands):

	June 30, 2022	December 31, 2021
Shares of common stock issued	199,464	199,464
Shares of common stock reserved for issuance for:		
Warrants	199	199
Stock options	17,161	15,703
Restricted stock units	8,063	3,041
Shares available for grant under 2014 Stock Incentive Plan	3,076	8,933
Shares available for sale under 2014 Employee Stock Purchase Plan	2,300	2,300
Total shares of common stock issued and reserved for issuance	**230,263**	**229,640**

The voting, dividend and liquidation rights of holders of shares of common stock are subject to and qualified by the rights, powers and preferences of holders of shares of preferred stock. Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders; provided, however, that, except as otherwise required by law, holders of common stock shall not be entitled to vote on any amendment to the Company's Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more such series, to vote thereon. There shall be no cumulative voting.

Dividends may be declared and paid on the common stock from funds lawfully available thereof as and when determined by the board of directors and subject to any preferential dividend or other rights of any then-outstanding preferred stock. The Company has never declared or paid, and for the foreseeable future does not expect to declare or pay, dividends on its common stock.

Upon the dissolution or liquidation of the Company, whether voluntary or involuntary, holders of common stock will be entitled to receive all assets of the Company available for distribution to its stockholders, subject to any preferential or other rights of any then-outstanding preferred stock.

Warrants

All of the Company's outstanding warrants are non-tradeable and equity-classified because they meet the derivative scope exception under ASC Topic 815-40, Derivatives and Hedging — Contracts in Entity's Own Equity. The following table sets forth the Company's warrant activity for the three months ended June 30, 2022 (in thousands):

Issued	Exercise Price	Expiration	December 31, 2021	Issued	(Exercised)	(Cancelled)	June 30, 2022
Mar-2018	$ 0.55 *	Mar-2023	132	—	—	—	132
Nov-2017	$ 0.55 *	Nov-2022	12	—	—	—	12
May-2015	$ 11.83	Nov-2024	28	—	—	—	28
Nov-2014	$ 11.04	Nov-2024	27	—	—	—	27
			199	**—**	**—**	**—**	**199**

* Exercise price shown (i) reflects modification and (ii) is subject to further adjustment based on down round provision added by amendment described in "Item 15. Exhibits and Financial Statement Schedules — Note 12. Stockholders' Equity (Deficit)" in the audited annual consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2021.

13. EARNINGS (LOSS) PER SHARE

A net loss cannot be diluted. Therefore, when the Company is in a net loss position, basic and diluted loss per common share are the same. If the Company achieves profitability, the denominator of a diluted earnings per common share calculation includes both the weighted-average number of shares outstanding and the number of common stock equivalents, if the inclusion of such common stock equivalents would be dilutive. Dilutive common stock equivalents potentially include warrants, stock options and unvested restricted stock awards and units using the treasury stock method, along with the effect, if any, from outstanding convertible securities. The majority of the Company's outstanding warrants to purchase common stock have participation rights to any dividends that may be declared in the future and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods of loss, no loss is allocated to the participating securities since the holders have no contractual obligation to share in the losses of the Company.

The following potentially dilutive securities outstanding as of June 30, 2022 and 2021 have been excluded from the denominator of the diluted loss per share of common stock outstanding calculation (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Warrants	199	1,394	199	1,394
Stock options	17,161	17,349	17,161	17,349
RSUs and PSUs	8,063	—	8,063	—
Total	**25,423**	**18,743**	**25,423**	**18,743**

14. SHARE-BASED COMPENSATION

The following table sets forth the amount of share-based compensation expense recognized by the Company by line item on its Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2022 and 2021 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Research and development	$ 473	$ 207	$ 975	$ 386
General and administrative	1,329	1,052	2,721	1,831
Total Share Based Compensation	**$ 1,802**	**$ 1,259**	**$ 3,696**	**$ 2,217**

2014 Stock Incentive Plan

The Company's 2014 Stock Incentive Plan, as amended (the "2014 Plan"), was adopted by its board of directors in December 2013 and subsequently approved by its stockholders in January 2014. The 2014 Plan became effective immediately prior to the closing of the Company's IPO in February 2014 and provides for the grant of incentive and non-qualified stock options, restricted stock awards, restricted stock units ("RSU"), stock appreciation rights and other stock-based awards, with amounts and terms of grants determined by the Company's board of directors at the time of grant, to the Company's employees, officers, directors, consultants and advisors.

At the Annual Meeting of the Company's stockholders in June 2019, the Company's stockholders approved an amendment to the 2014 Plan that (i) increased by 7.9 million the number of shares of common stock reserved for issuance under the 2014 Plan and (ii) eliminated the "evergreen" or automatic replenishment provision of the 2014 Plan, pursuant to which the number of shares of common stock authorized for issuance under the 2014 Plan was automatically increased on an annual basis. At the Annual Meeting of the Company's stockholders in May 2021, the Company's stockholders approved an amendment to the 2014 Plan that increased by 12 million the number of shares of common stock reserved for issuance under the 2014 Plan. There were approximately 3.1 million shares of common stock available for issuance under the 2014 Plan as of June 30, 2022.

Stock options outstanding under the 2014 Plan generally vest over a four-year period at the rate of 25% of the grant vesting on the first anniversary of the date of grant and 6.25% of the grant vesting at the end of each successive three-month period thereafter. Stock options granted under the 2014 Plan are exercisable for a period of ten years from the date of grant. There were approximately 13.6 million stock options outstanding under the 2014 Plan as of June 30, 2022.

On September 9, 2021, the Board of Directors and the Compensation Committee of the Company approved a retention program for all current employees, except for the Chief Executive Officer, pursuant to which the Company will provide certain incentives designed to retain such employees (the "Retention Program"). Pursuant to the Retention Program and effective as of October 1, 2021, the Company's non-executive employees received a combination of a cash bonus award and a one-time RSU award which will vest in full on September 30, 2022, subject to continued employment through September 30, 2022. Each RSU represents a contingent right to receive one share of the Company's common stock.

Also pursuant to the Retention Program and effective as of October 1, 2021, the Company's executive officers, except for the Chief Executive Officer, were granted a one-time performance-based restricted stock unit ("PSU") award equal to the value of approximately fifty percent of then-current base salary. The fair value of PSUs at the grant date was $0.4 million. Each PSU represents a contingent right to receive one share of the Company's common stock upon the satisfaction of pre-determined performance criteria. Subject to continued employment, such awards vest on September 30, 2023 upon the determination by the Compensation Committee of the level of achievement of certain key milestones consisting of a clinical trial milestone, an employee retention milestone and cash management milestones. As of June 30, 2022 achievement was deemed probable for only the cash management milestone, representing $87,000, 20% of the PSU awards. Therefore, $11,000 and $33,000 have been expensed during the three and six months ended June 30, 2022, respectively and $54,000 remains measured but unrecognized.

2009 Stock Incentive Plan

The Company maintains a 2009 Stock Incentive Plan, as amended and restated (the "2009 Plan"), which provided for the grant of incentive and non-qualified stock options and restricted stock awards and restricted stock units, with amounts and terms of grants determined by the Company's board of directors at the time of grant, to its employees, officers, directors, consultants and advisors.

Upon the closing of its IPO in February 2014, the Company ceased granting awards under the 2009 Plan and all shares (i) available for issuance under the 2009 Plan at such time and (ii) subject to outstanding awards under the 2009 Plan that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased without having been fully exercised or resulting in any common stock being issued were carried over to the 2014 Plan. Stock options granted under the 2009 Plan are exercisable for a period of ten years from the date of grant. There were approximately 0.1 million fully vested stock options outstanding under the 2009 Plan as of June 30, 2022.

Out-of-Plan Inducement Grants

From time to time, the Company has granted equity awards to its newly hired employees, including executives, in accordance with the Nasdaq Stock Market LLC ("Nasdaq") employment inducement grant exemption (Nasdaq Listing Rule 5635(c)(4)). Such grants are made outside of the 2014 Plan and act as an inducement material to the employee's acceptance of employment with the Company. There were approximately 3.5 million stock options outstanding which were granted as employment inducement awards outside of the 2014 Plan as of June 30, 2022.

Stock Options

The following table sets forth a summary of the Company's total stock option activity, including awards granted under the 2014 Plan and the 2009 Plan and inducement grants made outside of stockholder approved plans, for the six months ended June 30, 2022:

	Number of Shares under Option (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2021	15,703	$ 1.93	8.03	$ 82
Granted	1,511	$ 0.72		
Exercised	—	—		
Canceled or forfeited	(53)	1.20		
Outstanding at June 30, 2022	17,161	$ 1.83	7.72	$ 218
Exercisable at June 30, 2022	9,555	$ 1.72	7.11	$ 64

The Company recognized share-based compensation expense, related to stock options, of $1.2 million and $2.5 million for the three and six months ended June 30, 2022, respectively and $1.3 million and $2.2 million for the three and six months ended June 30, 2021, respectively. As of June 30, 2022, there was $8.6 million of total unrecognized compensation cost related to unvested stock options which the Company expects to recognize over a weighted-average period of 2.36 years. The weighted-average grant-date fair value of stock options granted during the six months ended June 30, 2022 and 2021 were $0.46 and $2.17, respectively. No stock options were exercised during the six months ended June 30, 2022.

For the six months ended June 30, 2022 and 2021, the grant-date fair value of stock options was determined using the following weighted-average inputs and assumptions in the Black-Scholes option pricing model:

	June 30, 2022	June 30, 2021
Fair market value	$ 0.72	$ 3.34
Grant exercise price	$ 0.72	$ 3.34
Expected term (in years)	6.0	6.04
Risk-free interest rate	2.1 %	0.9 %
Expected volatility	71.8 %	74.7 %
Dividend yield	— %	— %

Restricted Stock Units and Performance Stock Units

The following table sets forth a summary of the Company's RSU and PSU activity for the six months ended June 30, 2022:

	Restricted Stock Units (in thousands)		Weighted Average Grant Date Fair Value
Unvested at December 31, 2021	3,041	$	0.80
Granted RSU	4,161	$	0.68
Cancelled RSU	(143)	$	0.75
Granted PSU	1,004	$	0.67
Unvested at June 30, 2022	**8,063**	$	0.72

The Company did not grant any RSUs or PSUs during the six months ended June 30, 2021.

The share-based compensation expense related to RSUs and PSUs for the three and six months ended June 30, 2022 was $0.6 million and $1.2 million, respectively. There was no shared-based compensation expense related to RSUs and PSUs for the three and six months ended June 30, 2021. As of June 30, 2022, there was $3.0 million of total unrecognized compensation cost related to unvested RSUs and PSUs.

15. EMPLOYEE BENEFIT PLANS

2014 Employee Stock Purchase Plan

The Company's 2014 Employee Stock Purchase Plan ("2014 ESPP") was adopted by its board of directors in December 2013 and subsequently approved by its stockholders in January 2014. The 2014 ESPP became effective immediately prior to the closing of the Company's IPO in February 2014 and established an initial reserve of 0.2 million shares of the Company's common stock for issuance to participating employees. At the Annual Meeting of the Company's stockholders in May 2021, the Company's stockholders approved an amendment to the 2014 ESPP that increased by 2.3 million the number of shares of common stock reserved for issuance under the 2014 ESPP. The purpose of the 2014 ESPP is to enhance employee interest in the success and progress of the Company by encouraging employee ownership of common stock of the Company. The 2014 ESPP provides employees with the opportunity to purchase shares of common stock at a 15% discount to the market price through payroll deductions or lump sum cash investments. The Company estimates the number of shares to be issued at the end of an offering period and recognizes expense over the requisite service period. Shares of the common stock issued and sold pursuant to the 2014 ESPP are shown on the condensed consolidated statements of changes in stockholders' equity (deficit). As of June 30, 2022, there were 2.3 million shares of common stock available for sale under the 2014 ESPP. The Company did not sell any shares under the ESPP during the six months ended June 30, 2022 and 2021.

Defined Contribution Plans

United States — 401(k) Plan

The Company maintains a 401(k) defined contribution retirement plan which covers all of its US employees. Employees are eligible to participate on the first of the month following their date of hire. Under the 401(k) plan, participating employees may defer up to 100% of their pre-tax salary, subject to certain statutory limitations. Employee contributions vest immediately. The plan allows for a discretionary match per participating employee up to a maximum of $4,000 per year. The expenses incurred for the periods presented were de minimis amount for each of the six months ended June 30, 2022 and 2021, respectively.

Canada — Defined Contribution Plan

The Company maintains a defined contribution plan for its Canadian employees. Participants may contribute a percentage of their annual compensation to this plan, subject to statutory limitations. The Company contributes up to the first 4% of eligible compensation for its Canadian-based employees to the retirement plan. The expenses incurred for the periods presented were de minimis amount for each of the six months ended June 30, 2022 and 2021, respectively.

16. INCOME TAXES

The following table sets forth the components of the Company's loss before income taxes by country (in thousands):

	Six Months Ended June 30,	
	2022	2021
Country:		
United States	$ (55,939)	$ (21,210)
Canada	19,297	(59,456)
Total Loss before Income Taxes	**$ (36,642)**	**$ (80,666)**

The Company's tax benefit (provision) is comprised of the following components (in thousands):

	Six Months Ended June 30,	
	2022	2021
Current tax benefit (provision)		
Foreign	$ 3,875	$ (288)
Total current benefit (provision)	**$ 3,875**	**$ (288)**

The Company's deferred tax liability is comprised of the following:

	June 30, 2022	December 31, 2021
Deferred tax liabilities		
IPR&D	$ —	$ 3,969
Total deferred tax liabilities	**$ —**	**$ 3,969**

For the six months ended June 30, 2022, the Company recorded a benefit from income taxes of $3.9 million. In the second quarter of 2022, the Company determined that the fair value of the Vicineum EU rights was zero, which resulted in an impairment charge of $14.7 million. In connection with this impairment charge, the Company reversed the associated deferred tax liability by $4.0 million as an income tax benefit, partially offset by $0.1 million income tax paid to foreign jurisdictions pursuant to the exclusive license agreement with Qilu Pharmaceutical Co., Ltd. ("Qilu") (the "Qilu License Agreement"). Please refer to Note 8, "Intangible Assets and Goodwill," for further information regarding the impairment charge. For the six months ended June 30, 2021, the Company recorded a provision for income taxes of $0.3 million. This provision consisted of income taxes paid to foreign jurisdictions pursuant to the Qilu License Agreement.

17. LICENSE AGREEMENTS

In-License Agreements

License Agreement with Zurich

The Company has a license agreement with the University of Zurich ("Zurich") which grants the Company exclusive license rights, with the right to sublicense, to make, have made, use and sell under certain patents primarily directed to the Company's targeting agent, including an EpCAM chimera and related immunoconjugates and methods of use and manufacture of the same (the "Zurich License Agreement"). These patents cover some key aspects of Vicineum. The Company's receipt of the CRL regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC triggered a $0.5 million milestone payment to Zurich. Under the Zurich License Agreement, the Company is also obligated to pay up to a 4% royalty on the net product sales for products covered by or manufactured using a method covered by a valid claim in the Zurich patent rights, which includes Vicineum. Royalties owed to Zurich will be reduced if the total royalty rate owed by the Company to Zurich and any other third party is 10% or greater, provided that the royalty rate to Zurich may not be less than 2% of net sales. The obligation to pay royalties in a particular country expires upon the expiration or termination of the last of the Zurich patent rights that covers the manufacture, use or sale of a product. There is no obligation to pay royalties in a country if there is no valid claim that covers the product or a method of manufacturing the product. The Company recorded an expense of $0.3 million and $0.5 million related to meeting a development milestone, (the submission of the Company's BLA with the FDA in December 2020), in the fourth quarter of 2020, and a regulatory milestone, (the Company's receipt of the CRL from the FDA in August 2021), in the third quarter of 2021, respectively.

License Agreement with Micromet

The Company has a License Agreement with Micromet AG ("Micromet"), now part of Amgen, Inc., which grants it nonexclusive rights, with certain sublicense rights, for know-how and patents allowing exploitation of certain single chain antibody products (the "Micromet License Agreement"). These patents cover some key aspects of Vicineum. Under the terms of the Micromet License Agreement, as of June 30, 2022, the Company may be obligated to pay up to €2.4 million in milestone payments for the first product candidate that achieves applicable regulatory and sales-based development milestones (approximately $2.5 million at exchange rates in effect on June 30, 2022). The Company is also required to pay up to a 3.5% royalty on the net sales for products covered by the agreement, which includes Vicineum. The royalty rate owed to Micromet in a particular country will be reduced to 1.5% if there are no valid claims covering the product in that country. The obligation to pay royalties in a particular country expires upon the later of the expiration date of the last valid claim covering the product and the tenth anniversary of the first commercial sale of the product in such country. Finally, the Company is required to pay to Micromet an annual license maintenance fee of €50,000 (approximately $52,148 at exchange rates in effect as of June 30, 2022), that can be credited towards any royalty payment the Company owes to Micromet. The Company recorded an expense of €0.7 million ($0.9 million) related to achievement of a development milestone in the three months ended December 31, 2020, due to the submission of the Company's BLA for Vicineum with the FDA in December 2020. The Company recorded an expense of €0.5 million ($0.6 million) related to the submission of the MAA to the EMA for Vysyneum™ in the first quarter of 2021.

License Agreement with XOMA

The Company has a license agreement with XOMA Ireland Limited ("XOMA") which grants it non-exclusive rights to certain XOMA patent rights and know-how related to certain expression technology, including plasmids, expression strains, plasmid maps and production systems (the "XOMA License Agreement"). These patents and related know-how cover some key aspects of Vicineum. Under the terms of the XOMA License Agreement, the Company is required to pay up to $0.25 million in milestone payments for a product candidate that incorporates know-how under the license and achieves applicable clinical development milestones. The Company is also required to pay a 2.5% royalty on the net sales for products incorporating XOMA's technology, which includes Vicineum. The Company has the right to reduce the amount of royalties owed to XOMA on a country-by-country basis by the amount of royalties paid to other third parties, provided that the royalty rate to XOMA may not be less than 1.75% of net sales. In addition, the foregoing royalty rates are reduced by 50% with respect to products that are not covered by a valid patent claim in the country of sale. The obligation to pay royalties in a particular country expires upon the later of the expiration date of the last valid claim covering the product and the tenth anniversary of the first commercial sale of the product in such country.

Out-License Agreements

Roche License Agreement

In June 2016, the Company entered into the license agreement with Roche (the "Roche License Agreement"), pursuant to which the Company granted Roche an exclusive, worldwide license, including the right to sublicense, to its patent rights and know-how related to the Company's monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by the Company (collectively, the "Roche Licensed Intellectual Property"). Under the Roche License Agreement, Roche is required to continue developing, at its cost, EBI-031 and any other product made from the Roche Licensed Intellectual Property that contains an IL-6 antagonist anti-IL monoclonal antibody ("Roche Licensed Product") and pursue ongoing patent prosecution, at its cost.

Financial Terms

The Company received from Roche an upfront license fee of $7.5 million in August 2016 upon the effectiveness of the Roche License Agreement following approval by the Company's stockholders, and Roche agreed to pay up to an additional $262.5 million upon the achievement of specified regulatory, development and commercialization milestones with respect to up to two unrelated indications. Specifically, an aggregate amount of up to $197.5 million is payable to the Company for the achievement of specified milestones with respect to the first indication, consisting of (i) $72.5 million in development milestones, the next of which is $30 million for initiation of the first Phase III clinical trial, (ii) $50 million in regulatory milestones and (iii) $75 million in commercialization milestones. Additional amounts of up to $65 million are payable upon the achievement of specified development and regulatory milestones in a second indication.

In September 2016, Roche paid the Company the first development milestone of $22.5 million as a result of the Investigational New Drug application for EBI-031 becoming effective on or before September 15, 2016. In December 2021, a $20 million milestone was achieved due to Roche initiating a Phase II clinical trial. Management evaluated the milestone under the provisions of Accounting Standards Codification 606, Revenue from Contracts with Customers ("ASC 606"), and determined it is probable that a significant revenue reversal will not occur in future periods, which was not the case in previous periods. Accordingly, the Company invoiced Roche $20 million with payment terms of 30 days following the achievement of the corresponding milestone event, pursuant to the Roche License Agreement and $20 million was recorded as license revenue and accounts receivables in the fourth quarter of 2021. In January 2022, the payment of $20 million was received.

In addition, the Company is entitled to receive royalty payments in accordance with a tiered royalty rate scale, with rates ranging from 7.5% to 15% of net sales of potential future products containing EBI-031 and up to 50% of these rates for net sales of potential future products containing other IL-6 compounds, with each of the royalties subject to reduction under certain circumstances and to the buy-out options of Roche.

Buy-Out Options

The Roche License Agreement provides for two "option periods" during which Roche may elect to make a one-time payment to the Company and, in turn, terminate its diligence, milestone and royalty payment obligations under the Roche License Agreement. Specifically, (i) Roche may exercise a buy-out option following the first dosing ("Initiation") in the first Phase 2 study for a Roche Licensed Product until the day before Initiation of the first Phase 3 study for a Roche Licensed Product, in which case Roche is

required to pay the Company $135 million within 30 days after Roche's exercise of such buy-out option and receipt of an invoice from the Company, or (ii) Roche may exercise a buy-out option following the day after Initiation of the first Phase 3 study for a Roche Licensed Product until the day before the acceptance for review by the FDA or other regulatory authority of a BLA or similar application for marketing approval for a Roche Licensed Product in either the United States or in the EU, in which case Roche is required to pay the Company, within 30 days after Roche's exercise of such buy-out option and receipt of an invoice from the Company, $265 million, which amount would be reduced to $220 million if none of the Company's patent rights containing a composition of matter claim covering any compound or Roche Licensed Product has issued in the EU.

Termination

Either the Company or Roche may each terminate the Roche License Agreement if the other party breaches any of its material obligations under the Roche License Agreement and does not cure such breach within a specified cure period. Roche may terminate the Roche License Agreement following effectiveness by providing advance written notice to the Company or by providing written notice if the Company is debarred, disqualified, suspended, excluded, or otherwise declared ineligible from certain federal or state agencies or programs. The Company may terminate the Roche License Agreement if, prior to the first filing of a BLA for a Roche Licensed Product, there is a period of twelve months where Roche is not conducting sufficient development activities with respect to the products made from the Roche Licensed Intellectual Property.

Subsequent to June 30, 2022, the Company executed an asset purchase agreement with Roche pursuant to which Roche purchased all patent rights and know-how related to the monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by the Company for up to $70 million. See further discussion in Note 19. "Subsequent Events".

OUS Business Development Partnership Agreements

Qilu License Agreement

On July 30, 2020, the Company and its wholly-owned subsidiary, Viventia Bio, Inc., entered into the Qilu License Agreement pursuant to which the Company granted Qilu an exclusive, sublicensable, royalty-bearing license, under certain intellectual property owned or exclusively licensed by the Company, to develop, manufacture and commercialize Vicineum (the "Qilu Licensed Product") for the treatment of NMIBC and other types of cancer (the "Field") in China, Hong Kong, Macau and Taiwan ("Greater China"). The Company also granted Qilu a non-exclusive, sublicensable, royalty-bearing sublicense, under certain other intellectual property licensed by the Company to develop, manufacture and commercialize the Qilu Licensed Product in Greater China. The Company retains (i) development, and commercialization rights in the rest of the world excluding Greater China, the Middle East and North Africa region ("MENA") and Turkey and (ii) manufacturing rights with respect to Vicineum in the rest of the world excluding China.

In consideration for the rights granted by the Company, Qilu agreed to pay to the Company a one-time upfront cash payment of $12 million, and milestone payments totaling up to $23 million upon the achievement of certain technology transfer, development and regulatory milestones. All payments were to be inclusive of VAT, which can be withheld by Qilu upon payment, and for which future recovery of such taxes may be available.

Qilu also agreed to pay the Company a 12% royalty based upon annual net sales of Qilu Licensed Products in Greater China. The royalties are payable on a Qilu Licensed Product-by-Licensed Product and region-by-region basis commencing on the first commercial sale of a Qilu Licensed Product in a region and continuing until the latest of (i) twelve years after the first commercial sale of such Qilu Licensed Product in such region, (ii) the expiration of the last valid patent claim covering or claiming the composition of matter, method of treatment, or method of manufacture of such Qilu Licensed Product in such region, and (iii) the expiration of regulatory or data exclusivity for such Qilu Licensed Product in such region (collectively, the "Royalty Terms"). The royalty rate is subject to reduction under certain circumstances, including when there is no valid claim of a licensed patent that covers a Qilu Licensed Product in a particular region or no data or regulatory exclusivity of a Qilu Licensed Product in a particular region.

Qilu is responsible for all costs related to developing, obtaining regulatory approval of and commercializing the Qilu Licensed Products in the Field in Greater China. Qilu is required to use commercially reasonable efforts to develop, seek regulatory approval for, and commercialize at least one Qilu Licensed Product in the Field in Greater China. A joint development committee was established between the Company and Qilu to coordinate and review the development, manufacturing and commercialization plans with respect to the Qilu Licensed Products in Greater China. The Company and Qilu also executed the terms and conditions of a supply agreement and related quality agreement pursuant to which the Company will manufacture or have manufactured and supply Qilu with all quantities of the Qilu Licensed Product necessary for Qilu to develop and commercialize the Qilu Licensed Product in

the Field in Greater China until the Company has completed manufacturing technology transfer to Qilu and approval of a Qilu manufactured product by the National Medical Products Administration in China ("NMPA") for the Qilu Licensed Product has been obtained.

The Qilu License Agreement will expire on a Qilu Licensed Product-by-Licensed Product and region-by-region basis on the date of the expiration of all applicable Royalty Terms. Either party may terminate the Qilu License Agreement for the other party's material breach following a cure period or upon certain insolvency events. Qilu has the right to receive a refund of all amounts paid to the Company in the event the Qilu License Agreement is terminated under certain circumstances. The Qilu License Agreement includes customary representations and warranties, covenants and indemnification obligations for a transaction of this nature.

The Qilu License Agreement is subject to the provisions of ASC 606. In 2020, the initial transaction price was estimated to be $11.2 million and was based on the up-front fixed consideration of $12 million less amounts withheld for VAT. The Company concluded that its agreements under the Qilu License Agreement represented one bundled performance obligation that had been achieved as of September 30, 2020. As such, $11.2 million of the total $11.2 million transaction price was considered earned and the Company recorded $11.2 million of revenue during the three-month period ended September 30, 2020.

The Investigational New Drug application for Vicineum submitted by Qilu to the Center for Drug Evaluation of the NMPA was accepted for review in January 2021 and approved in March 2021, resulting in a $3 million milestone payment from Qilu, the first milestone payment out of the $23 million in potential milestone payments. The Company recorded $2.8 million (net of VAT) as license revenue during the three-month period ended March 31, 2021. The Company received the payment in 2021.

In June 2021, the Qilu License Agreement was recognized by Shandong Province, Bureau of Science and Technology as a "Technology Transfer". An agreement that is designated as a Technology Transfer shall be entitled to a tax incentive of VAT recovery. As such, the Company recorded $0.9 million of revenue during the three months ended June 30, 2021 for additional purchase price resulting from Qilu's obligation to pay Sesen an amount equal to its recovery of VAT. The Company will not be subject to VAT on future potential milestone payments from Qilu.

MENA License Agreement

On November 30, 2020, the Company entered into a license agreement with a third party pursuant to which the Company granted an exclusive, sublicensable, royalty-bearing license, under certain intellectual property owned or exclusively licensed by the Company, to commercialize Vicineum in the MENA region, ("MENA License Agreement"). The Company retains development and commercialization rights in the rest of the world excluding Greater China, Turkey and MENA. In consideration for the rights granted by the Company, the counterparty to the MENA License Agreement agreed to pay to the Company an upfront payment of $3 million, which would be subject to certain tax withholdings. In addition, the counterparty agreed to pay to the Company milestone payments upon the achievement of certain sales-based milestones as well as a royalty based upon annual net sales in the MENA region for the term of the MENA License Agreement.

The MENA License Agreement is subject to the provisions of ASC 606. The initial transaction price was estimated by management as $1.5 million as of December 31, 2020 and was based on 50% of the upfront payment, or the amount not subject to a refund if certain regulatory approvals in MENA are not obtained. The remaining upfront payment ($1.5 million) is subject to a refund if certain regulatory approvals in MENA are not obtained within the stated timeline and was initially recorded as deferred revenue. During the second quarter of 2022, the Company changed assumptions in the clinical study design which resulted in longer clinical trial and further delay in regulatory approval in the MENA region. Therefore, the Company reclassed $1.5 million of deferred revenue to short-term accrued liability as of June 30, 2022. The Company also concluded that its agreements under the MENA License Agreement represented two distinct performance obligations, the first of which is a bundled performance obligation related to the delivery of the license, associated know-how and certain documentation. The second performance obligation relates to the delivery of manufactured product. The first performance obligation (delivery of the license, associated know-how and certain documentation) was achieved during the quarter ended March 31, 2021; as such, revenue of $1.5 million was recognized in the first quarter of 2021. Additional variable consideration, determined to be allocated entirely to the bundled license performance obligation, to be paid to the Company based upon future sales levels will be recognized as revenue when the underlying sales of the licensed product occurs. In addition, variable consideration related to any future delivery of product will be recognized in future periods as the product is delivered. As of June 30, 2022, none of these additional amounts were reasonably certain to be achieved due to the nature and timing of the underlying activities.

Subsequent to June 30, 2022, the Company terminated the MENA License Agreement as a result of the Company's strategic decision to voluntarily pause further development of Vicineum in the US. See further discussion in Note 19. "Subsequent Events."

EIP License Agreement

On August 5, 2021, the Company entered into an exclusive license agreement with EİP Eczacıbaşı İlaç Pazarlama A.Ş., ("EIP") pursuant to which it granted EIP an exclusive license to register and commercialize Vicineum for the treatment of BCG-unresponsive NMIBC in Turkey and Northern Cyprus (the "EIP License Agreement"). Under the terms of the EIP License Agreement, the Company is entitled to receive an upfront payment of $1.5 million. The Company and EIP have amended the license agreement to defer EIP's payment of the upfront payment to coincide with the potential FDA approval of Vicineum. The Company is eligible to receive additional regulatory and commercial milestone payments of $2.0 million and is also entitled to receive a 30% royalty on net sales in Turkey and Northern Cyprus. The EIP License Agreement is subject to the provisions of ASC 606 and as of June 30, 2022, none of these amounts have been received by the Company. No initial transaction price was estimated by management; therefore, no revenue was recorded as of June 30, 2022. The Company also concluded that its promises under the EIP License Agreement represented two distinct performance obligations, the first of which is a bundled performance obligation related to the delivery of the license and associated know-how. The second performance obligation relates to the delivery of manufactured product. Additional variable consideration, determined to be allocated entirely to the bundled license performance obligation, to be paid to the Company based upon future regulatory milestones will be recognized as achievement of those milestones. In addition, variable consideration related to any future delivery of product will be recognized in future periods as the product is delivered. As of June 30, 2022, none of these additional amounts were reasonably certain to be achieved due to the nature and timing of the underlying activities.

Subsequent to June 30, 2022, the Company terminated the EIP License Agreement as a result of the Company's strategic decision to voluntarily pause further development of Vicineum in the US. See further discussion in Note 19. "Subsequent Events."

18. RESTRUCTURING AND RELATED ACTIVITIES

On August 30, 2021, the Company approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following receipt of the CRL from the FDA regarding the BLA for Vicineum for the treatment of BCG-unresponsive NMIBC (the "2021 Restructuring Plan").

The 2021 Restructuring Plan included a reduction in the Company's workforce by 18 positions (or approximately 35% of the Company's workforce as of the date of the 2021 Restructuring Plan), as well as additional cost-saving initiatives intended to preserve capital while the Company continues development of Vicineum. The following is a summary of accrued restructuring costs related to the 2021 Restructuring Plan, (in thousands):

Balance as of December 31, 2021	$	1,497
Cash payments		(1,103)
Balance at June 30, 2022	$	394

The Company expects that substantially all of the accrued restructuring costs as of June 30, 2022 will be paid in cash by the end of September 2022.

Subsequent to June 30, 2022, the Company approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following the decision to voluntarily pause further development of Vicineum in the US. See further discussion in Note 19. "Subsequent Events."

19. SUBSEQUENT EVENTS

Vicineum

On July 11, 2022, the Company participated in a Type B meeting with the FDA to discuss outstanding items related to the Company's proposed protocol and statistical analysis plan design elements for an additional Phase 3 clinical trial for Vicineum for the treatment of NMIBC.

On July 15, 2022, the Company made the strategic decision to voluntarily pause further development of Vicineum in the US. The decision was based on a thorough reassessment of Vicineum, which included the incremental development timeline and associated

costs for an additional Phase 3 clinical trial, following its discussions with the FDA. The Company has turned its primary focus to assessing potential strategic alternatives with the goal of maximizing shareholder value. Additionally, the Company intends to seek a partner for the further development of Vicineum.

In connection with our decision to voluntarily pause further development of Vicineum, we have commenced the process to wind down our manufacturing operations by terminating the Master Bioprocessing Services Agreement with Fujifilm Diosynth Biotechnologies U.S.A. and the Commercial Manufacturing and Supply Agreement with Baxter on July 17, 2022 and July 20, 2022, respectively. We requested that Fujifilm and Baxter cease all work under the respective agreements and refrain from incurring any additional costs or expenses. As a result of the termination, and in accordance with the terms of the Fujifilm MSA, we have the responsibility to pay Fujifilm for certain non-manufacturing stage services and current Good Manufacturing Practice batches of drug substance of Vicineum. The Company is in the process of assessing the estimated impact of the termination of the Fujifilm MSA and the Baxter CMSA.

On July 21, 2022, the Company terminated its Cooperative Research and Development Agreement with the National Cancer Institute for the development of Vicineum in combination with AstraZeneca's immune checkpoint inhibitor durvalumab for the treatment of BCG-unresponsive NMIBC.

OUS Business Development Partnerships

In connection with the Company's decision to voluntarily pause further development of Vicineum in the US, the Company has commenced the process to wind down its OUS business development partnerships in MENA and Turkey by providing notice of termination for the MENA License Agreement and EIP License Agreement on July 20, 2022.

2022 Restructuring Plan

On July 15, 2022, the Company approved a restructuring plan to reduce operating expenses and better align its workforce with the needs of its business following the decision to pause further development of Vicineum in the US (the "2022 Restructuring Plan"). Execution of the 2022 Restructuring Plan is expected to be substantially complete by the end of the fourth quarter of 2022. The 2022 Restructuring Plan includes an incremental reduction in the Company's workforce as well as additional cost-saving initiatives intended to preserve capital while the Company continues to assess potential strategic alternatives with the goal of maximizing shareholder value and seek a potential partner for the further development of Vicineum. As of the filing of this Quarterly Report on Form 10-Q, the Company estimates that it will incur in the third and fourth quarters of 2022 severance and other employee-related costs of approximately $8 million.

The Company also expects to incur one-time cash costs associated with the termination of certain contracts and all other activities under the 2022 Restructuring Plan, and is in the process of assessing the estimated impact.

Sale of Legacy Technology to Roche

On July 15, 2022, the Company executed an asset purchase agreement (the "Roche Asset Purchase Agreement") with Roche pursuant to which Roche purchased all patent rights and know-how related to the monoclonal antibody EBI-031 and all other IL-6 antagonist monoclonal antibody technology owned by the Company for up to $70 million. As a result of the Roche Asset Purchase Agreement, the Roche License Agreement was terminated resulting in no further diligence, milestone or royalty payment obligations under the Roche License Agreement. Pursuant to the Roche Asset Purchase Agreement, Roche made a $40 million payment to the Company upon execution of the Roche Asset Purchase Agreement. The Roche Asset Purchase Agreement also provides that Roche will make an additional $30 million payment to the Company upon Roche's initiation of a Phase 3 clinical trial with EBI-031 for a defined indication if initiated prior to December 31, 2026.

Securities and Derivative Litigation

On June 30, 2022 and July 6, 2022, the Company and the plaintiffs in the Securities Litigation engaged in in-person mediation sessions in an attempt to resolve the litigation and continued to discuss a potential settlement over the following weeks. On July 19, 2022, the parties reached an agreement in principle to settle the Securities Litigation. Pursuant to that agreement, the Company and the individual defendants will pay or cause to be paid to members of the class who submit timely and valid proofs of claims. In exchange, the Lead Plaintiffs will dismiss the action and all class members who do not timely and validly opt-out of the settlement will provide

broad customary releases to the Company and the individual defendants. On August 3, 2022, the parties entered into a Stipulation and Agreement of Settlement to settle the Securities Litigation, which is subject to court approval.

On July 6, 2022, the Company and the plaintiffs to the Federal Derivative Litigation and the State Derivative Litigation engaged in an in-person mediation session in an attempt to resolve the litigation, with settlement discussions continuing over the following days. On July 19, 2022, the parties reached an agreement in principle to settle the Federal Derivative Litigation, the State Derivative Litigation and other potential related derivative claims. Pursuant to that agreement, the individual defendants will cause the Company to adopt certain enhancements to the Company's corporate governance policies and procedures. In exchange, the plaintiffs will dismiss the complaints and, on behalf of the Company, provide broad customary releases to the individual defendants. The agreement is subject to the execution of a definitive stipulation of settlement and, after notice to the Company's stockholders, court approval.

Transfer to Nasdaq Capital Market

On July 26, 2022, the Company received approval from the Listing Qualifications Department of The Nasdaq Stock Market LLC ("Nasdaq") to transfer the listing of the Company's common stock from the Nasdaq Global Market to the Nasdaq Capital Market (the "Approval"). As a result of the Approval, the Company has been granted a second 180-day grace period, or until January 23, 2023, to regain compliance with the minimum bid price requirement.

As previously disclosed, on January 24, 2022, the Company received written notice from Nasdaq indicating that the Company was not in compliance with the $1.00 minimum bid price requirement for continued listing on the Nasdaq Global Market, as set forth in Nasdaq Listing Rule 5450(a)(1). The Company was given until July 25, 2022, to regain compliance with the minimum bid price requirement. In response, the Company submitted an application to transfer the listing of its common stock from the Nasdaq Global Market to the Nasdaq Capital Market.

The Company's common stock was transferred to the Nasdaq Capital Market effective at the opening of business on July 28, 2022 and will continue to trade under the symbol "SESN". The Nasdaq Capital Market operates in substantially the same manner as the Nasdaq Global Market and requires that listed companies meet certain financial and liquidity requirements and comply with Nasdaq's corporate governance requirements.

To regain compliance with the minimum bid price requirement and qualify for continued listing on the Nasdaq Capital Market, the minimum bid price per share of the Company's common stock must be at least $1.00 for at least ten consecutive business days during the second 180-day grace period. If the Company does not regain compliance during this second grace period, its common stock would be subject to delisting by Nasdaq. As part of its transfer application, the Company notified Nasdaq that if its stock price does not recover sufficiently during the second grace period, it would implement a reverse stock split, if necessary.

INDEX TO CARISMA'S CONSOLIDATED FINANCIAL STATEMENTS

	Page
Audited Consolidated Financial Statements	
Report of Independent Registered Public Accounting Firm	F-68
Consolidated Balance Sheets, December 31, 2021 and 2020	F-69
Consolidated Statements of Operations, Years Ended December 31, 2021 and 2020	F-70
Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit, Years ended December 31, 2021 and 2020	F-71
Consolidated Statements of Cash Flows, Years ended December 31, 2021 and 2020	F-72
Notes to Consolidated Financial Statements	F-73
Unaudited Interim Consolidated Financial Statements	
Consolidated Balance Sheets, June 30, 2022 and December 31, 2021	F-85
Consolidated Statements of Operations and Comprehensive Loss, Six Months Ended June 30, 2022 and 2021	F-86
Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit, Six Months Ended June 30, 2022 and 2021	F-87
Consolidated Statements of Cash Flows, Six Months Ended June 30, 2022 and 2021	F-88
Notes to Interim Consolidated Financial Statements	F-89

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
CARISMA Therapeutics Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of CARISMA Therapeutics Inc. and subsidiary (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations, convertible preferred stock and stockholders' deficit, and cash flows for the years then ended, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has incurred losses and negative cash flows from operations since inception that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ KPMG LLP

We have served as the Company's auditor since 2018.

Philadelphia, Pennsylvania
October 14, 2022

CARISMA THERAPEUTICS INC.

Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 28,551	$ 51,788
Prepaid expenses and other assets	1,235	1,277
Total current assets	29,786	53,065
Property and equipment, net	3,084	1,774
Right of use assets – operating leases	2,579	3,413
Other assets	—	211
Total assets	$ 35,449	$ 58,463
Liabilities, Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 2,322	$ 3,293
Accrued expenses	4,471	1,573
Operating lease liabilities	898	813
Total current liabilities	7,691	5,679
Operating lease liabilities	1,734	2,632
Total liabilities	9,425	8,311
Commitments and Contingencies (Note 6)		
Convertible preferred stock, $0.0001 par value:		
Series A convertible preferred stock, 6,138,518 shares authorized; 5,201,017 shares issued and outstanding (liquidation value of $54,091 at December 31, 2021)	53,577	53,577
Special voting preferred stock, 1 share authorized, issued and outstanding	—	—
Series B convertible preferred stock, 4,807,541 shares authorized, 3,499,866 and 2,453,170 shares issued and outstanding as of December 31, 2021 and 2020, respectively (liquidation value of $54,598 at December 31, 2021)	54,231	38,054
Series B special voting preferred stock, 1 share authorized, issued and outstanding	—	—
Total convertible preferred stock	107,808	91,631
Stockholders' deficit:		
Common stock $0.0001 par value, 14,230,158 shares authorized, 1,084,082 shares issued and outstanding	—	—
Additional paid-in capital	818	339
Accumulated deficit	(96,997)	(56,213)
Total CARISMA Therapeutics Inc. stockholders' deficit	(96,179)	(55,874)
Noncontrolling interests	14,395	14,395
Total stockholders' deficit	(81,784)	(41,479)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 35,449	$ 58,463

See accompanying notes to consolidated financial statements

CARISMA THERAPEUTICS INC.

Consolidated Statements of Operations
(in thousands, except share and per share data)

	Year Ended December 31,	
	2021	2020
Operating expenses:		
Research and development	$ 34,387	$ 23,292
General and administrative	6,407	5,086
Total operating expenses	40,794	28,378
Operating loss	(40,794)	(28,378)
Interest income	10	29
Net loss	$ (40,784)	$ (28,349)
Share information:		
Net loss per share of common stock, basic and diluted	$ (37.62)	$ (26.66)
Weighted-average shares of common stock outstanding, basic and diluted	1,084,082	1,063,309

See accompanying notes to consolidated financial statements

CARISMA THERAPEUTICS INC.

Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share and per share data)

	Convertible preferred stock								Stockholders' deficit					
	Series A convertible preferred stock		Special voting preferred stock		Series B convertible preferred stock		Series B special voting preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Noncontrolling interests	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance, January 1, 2020	2,910,151	$ 29,752	1	$ —	—	$ —	—	$ —	1,042,187	$ —	$ 157	$ (27,864)	$ 4,250	$ (23,457)
Issuance of Series A convertible preferred stock at $10.40 per share	2,290,866	23,825	—	—	—	—	—	—	—	—	—	—	5,500	5,500
Issuance of Series B convertible preferred stock at $15.60 per share, net of issuance costs of $215	—	—	—	—	2,453,170	38,054	1	—	—	—	—	—	4,645	4,645
Exercise of stock options	—	—	—	—	—	—	—	—	41,895	—	19	—	—	19
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	163	—	—	163
Net loss	—	—	—	—	—	—	—	—	—	—	—	(28,349)	—	(28,349)
Balance, December 31, 2020	5,201,017	53,577	1	—	2,453,170	38,054	1	—	1,084,082	—	339	(56,213)	14,395	(41,479)
Issuance of Series B convertible preferred stock at $15.60 per share, net of issuance costs of $151	—	—	—	—	1,046,696	16,177	—	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	479	—	—	479
Net loss	—	—	—	—	—	—	—	—	—	—	—	(40,784)	—	(40,784)
Balance, December 31, 2021	5,201,017	$ 53,577	1	$ —	3,499,866	$ 54,231	1	$ —	1,084,082	$ —	$ 818	$ (96,997)	$ 14,395	$ (81,784)

See accompanying notes to consolidated financial statements

CARISMA THERAPEUTICS INC.

Consolidated Statement of Cash Flows
(in thousands)

	Year Ended December 31,	
	2021	2020
Cash flows from operating activities:		
Net loss	$ (40,784)	$ (28,349)
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	682	448
Stock-based compensation expense	479	163
Reduction in the operating right of use assets	834	1,179
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	253	(936)
Accounts payable	(974)	1,282
Accrued expenses	2,995	353
Operating lease liabilities	(813)	(1,152)
Net cash used in operating activities	(37,328)	(27,012)
Cash flows from investing activities:		
Purchases of property and equipment	(1,871)	(440)
Net cash used in investing activities	(1,871)	(440)
Cash flows from financing activities:		
Proceeds from the sale of Series A convertible preferred stock and noncontrolling interests	—	29,325
Proceeds from the sale of Series B convertible preferred stock and noncontrolling interests	16,328	42,914
Proceeds from the exercise of stock options	—	19
Payment of Series B offering costs	(366)	—
Net cash provided by financing activities	15,962	72,258
Net (decrease) increase in cash and cash equivalents	(23,237)	44,806
Cash and cash equivalents at beginning of the year	51,788	6,982
Cash and cash equivalents at end of the year	$ 28,551	$ 51,788
Supplemental disclosures of non-cash financing and investing activities:		
Series B issuance costs in accounts payable	$ —	$ 118
Series B issuance costs in accrued expenses	$ —	$ 97
Property and equipment in accounts payable	$ 121	$ —

See accompanying notes to the consolidated financial statements

CARISMA THERAPEUTICS INC.

Notes to the Consolidated Financial Statements

(1) Background

CARISMA Therapeutics Inc., a Delaware Corporation (the Company), is a clinical-stage biopharmaceutical company focused on utilizing the Company's proprietary macrophage and monocyte cell engineering platform to develop transformative therapies to treat cancer and other serious disorders. Cell therapy enables the utilization of reprogrammed living cells to perform complex functions such as clearance of tumor cells or resolution of inflammation. The Company's initial focus is its proprietary Chimeric Antigen Receptor Macrophage (CAR-M) platform, which redirects macrophages against specific tumor associate antigens and enables targeted anti-tumor immunity by utilizing genetically modifying myeloid cells (macrophages and monocytes) to express chimeric antigen receptors, or CARs, enabling the innate immune cells to recognize specific tumor associated antigens on the surface of tumor cells. The Company's clinical lead product candidate CT-0508 is an ex vivo gene-modified autologous CAR-M cell therapy product intended to treat solid tumors that overexpress HER2.

The Company received an investigational new drug application, or IND, clearance for CT-0508 for the treatment of HER2-overexpressing solid tumors in July 2020 and dosed the first patient in March 2021. The Food and Drug Administration, or FDA, granted CT-0508 Fast Track Status in September 2021. As of September 1, 2022, enrollment in group 1 of the first in human study has been completed with 9 patients successfully dosed with CT-0508, and group 2 is currently open for enrollment with an additional 9 patients to be dosed in the study.

(2) Development-Stage Risks and Liquidity

The Company has incurred losses and negative cash flows from operations since inception and has an accumulated deficit of $97.0 million as of December 31, 2021. The Company anticipates incurring additional losses until such time, if ever, that it can generate significant sales from its product candidates currently in development. Management believes that cash and cash equivalents of $28.6 million as of December 31, 2021 and the $80.0 million of cash proceeds received in January 2022 from ModernaTX, Inc. (Moderna) related to the Collaboration and License Agreement and the Convertible Promissory Note (Note 11) are sufficient to sustain planned operations into the second quarter of 2023. As a result, the Company has concluded that there is substantial doubt about its ability to continue as a going concern within one year after the date that the financial statements are issued. The accompanying consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liability that might result from the outcome of this uncertainty.

Management is currently evaluating different strategies to obtain the required funding for future operations. These strategies may include but are not limited to private placements of equity and/or debt, licensing and/or marketing arrangements, and public offerings of equity and/or debt securities. There is no assurance that such financing will be available when needed.

The Company is subject to those risks associated with any specialty biotechnology company that has substantial expenditures for research and development. There can be no assurance that the Company's research and development projects will be successful, that products developed will obtain necessary regulatory approval, or that any approved product will be commercially viable. In addition, the Company operates in an environment of rapid technological change and is largely dependent on the services of its employees and consultants.

(3) Summary of Significant Accounting Policies

Principles of Consolidation

The Company has a majority owned subsidiary in Luxembourg. The functional currency of the majority owned subsidiary is the US dollar. The consolidated financial statements include the accounts of the Company and its majority owned subsidiary. All intercompany transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from such estimates. Estimates and assumptions are periodically reviewed, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary.

Significant areas that require management's estimates include the fair value of the Company's common stock and stock-based compensation assumptions, the estimated useful lives of property and equipment and accrued research and development expenses.

Fair Value of Financial Instruments

Management believes that the carrying amounts of the Company's financial instruments, including cash equivalents and accounts payable, approximate fair value due to the short-term nature of those instruments.

Fair Value Measurements

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.
- Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

Cash equivalents of $5.2 million and $0.2 million are classified as Level 1 assets as of December 31, 2021 and 2020, respectively.

Concentration of credit risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to significant risk on its cash and cash equivalents.

Segment information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one segment.

Cash and Cash Equivalents

The Company considers all highly-liquid investments that have maturities of three months or less when acquired to be cash equivalents. As of December 31, 2021 and 2020, cash equivalents consisted of investments in a money market account.

Property and Equipment

Property and equipment are carried at cost less accumulated depreciation and amortization. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets ranging from two to five years. Leasehold improvements are amortized over the shorter of the life of the lease or the estimated useful life of the assets.

Long-lived Assets

Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When events indicate a triggering event occurred, the recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future cash flows, then an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. Considerable management judgment is necessary to estimate discounted future cash flows. Accordingly, actual results could vary significantly from such estimates.

The Company did not recognize any impairment of long-lived assets during the years ended December 31, 2021, or 2020.

Leases

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-02, *Leases (ASC 842)*, which requires lessees to recognize most leases on-balance sheet and disclose key information about leasing arrangements. The Company adopted ASC 842 effective as of January 1, 2019 using the modified retrospective approach. The Company determines whether an arrangement is or contains a lease, its classification, and its term at the lease commencement date. Leases with a term greater than one year will be recognized on the balance sheet as right-of-use (ROU) assets, current lease liabilities, and if applicable, long-term lease liabilities. The Company includes renewal options to extend the lease term where it is reasonably certain that it will exercise these options. Lease liabilities and the corresponding ROU assets are recorded based on the present values of lease payments over the lease term. The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company utilizes the appropriate incremental borrowing rates, which are the rates that would be incurred to borrow on a collateralized basis, over similar terms, amounts equal to the lease payments in a similar economic environment. Payments for non-lease components or that are variable in nature that do not depend on a rate or index are not included in the lease liability and are typically expensed as incurred. If significant events, changes in circumstances, or other events indicate that the lease term or other inputs have changed, the Company would reassess lease classification, remeasure the lease liability using revised inputs as of the reassessment date, and adjust the ROU assets. Lease expense is recognized on a straight-line basis over the expected lease term for operating classified leases.

The Company has elected the “package of 3” practical expedients permitted under the transition guidance, which eliminated the requirements to reassess prior conclusions about lease identification, lease classification, and initial direct costs. In addition, the Company elected the practical expedient of hindsight in determining the lease term upon adoption of ASC 842. The Company also adopted an accounting policy which provides that leases with an initial term of 12 months or less and without a purchase option that the Company is reasonably certain of exercising will not be included within the lease right-of-use assets and lease liabilities on its consolidated balance sheet.

Noncontrolling Interest

To the extent that ownership interests in the Company’s subsidiary are held by entities other than the Company, management reports these as noncontrolling interests on the consolidated balance sheet. At December 31, 2021 and 2020, an investor had outstanding Class B and Class B-1 shares in the Company’s Luxembourg subsidiary related to the sale of the Company’s Series A and Series B convertible preferred stock. The shares are nonvoting shares at the subsidiary entity level and presented as noncontrolling interests in the accompanying consolidated balance sheet.

Earnings or losses are attributed to noncontrolling interests under the hypothetical liquidation at book value (HLBV) method. The HLBV method is a point in time calculation that utilizes inputs to determine the amount that the Company and noncontrolling interest holders would receive upon a hypothetical liquidation at each balance sheet date based on the liquidation provisions of the respective

articles of incorporation. Holders of the noncontrolling interests do not share in earnings or losses of the Luxembourg subsidiary. In addition and upon a liquidation event, as described in the Company's articles of incorporation, holders of noncontrolling interests will automatically convert into the Company's preferred securities for purposes of liquidation. As a result, no earnings or losses at the Company's subsidiaries are allocated to noncontrolling interests.

Research and Development Costs

Research and development costs are charged to expense as incurred. Up-front and milestone payments made to third parties who perform research and development services on the Company's behalf are expensed as services are rendered.

Stock-Based Compensation

The Company measures stock-based awards, including stock options, at their grant-date fair value and records compensation expense over the requisite service period, which is the vesting period of the awards. The Company accounts for forfeitures as they occur.

Estimating the fair value of stock options requires the use of subjective assumptions, including the fair value of the Company's common stock, the expected term of the option and expected stock price volatility. The Company uses the Black-Scholes option-pricing model to value its stock option awards. The assumptions used in calculating the fair value of stock options represent management's best estimates and involve inherent uncertainties and the application of management's judgment. As a result, if factors change and management uses different assumptions, stock-based compensation expense could be materially different for future awards.

The expected term of stock options for employees is estimated using the "simplified method," as the Company has limited historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior for its stock option grants. The simplified method is the midpoint between the vesting date and the contractual term of the option. The contractual term is used as the expected term for stock options granted to nonemployees. For stock price volatility, the Company uses comparable public companies as a basis for the expected volatility to calculate the fair value of option grants. The risk-free rate is based on the U.S. Treasury yield curve commensurate with the expected term of the option.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per share of common stock is computed by dividing net loss by the weighted-average number of shares of common stock outstanding during each period. Diluted net loss per share of common stock includes the effect, if any, from the potential exercise or conversion of securities, such as convertible preferred stock and stock options, which would result in the issuance of incremental shares of common stock. For diluted net loss per share, the weighted-average number of shares of common stock is the same for basic net loss per share due to the fact that when a net loss exists, potentially dilutive securities are not included in the calculation as their impact is anti-dilutive. The Company's convertible preferred stock entitles the holder to participate in dividends and earnings of the Company, and, if the Company were to recognize net income, it would have to use the two-class method to calculate earnings per share. The two-class method is not applicable during periods with a net loss, as the holders of the convertible preferred stock have no obligation to fund losses.

The following potentially dilutive securities have been excluded from the computation of diluted weighted-average shares of common stock outstanding, as they would be anti-dilutive:

	December 31,	
	2021	2020
Series A Convertible Preferred Stock	5,201,017	5,201,017
Series B Convertible Preferred Stock	3,499,866	2,453,170
Class B exchangeable shares	937,501	937,501
Class B-1 exchangeable shares	297,764	297,764
Stock options	1,869,438	965,912
	11,805,586	9,855,364

Accounting guidance not yet adopted

In August 2020, the FASB issued ASU No. 2020-06, *Debt–Debt with Conversion and Other Options* (Subtopic 470-20) *and Derivatives and Hedging–Contracts in Entity's Own Equity* (Subtopic 815-40)*: Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* (ASU 2020-06), which simplifies the accounting for convertible instruments by reducing the number of accounting models available for convertible debt instruments. This guidance also eliminates the treasury stock method to calculate diluted earnings per share for convertible instruments and requires the use of the if converted method. This standard is effective for the Company on January 1, 2022, including interim periods within those fiscal years. Adoption is either a modified retrospective method or a fully retrospective method of transition. The Company does not expect the adoption of this standard to have a material impact on the consolidated financial statements.

(4) Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2021	2020
Computer software	$ 214	$ 108
Lab equipment	3,694	1,821
Office furniture	267	267
Leasehold improvements	317	317
Construction in progress	13	—
	4,505	2,513
Less: accumulated depreciation and amortization	(1,421)	(739)
	$ 3,084	$ 1,774

Depreciation and amortization expense was $0.7 million and $0.4 million for the years ended December 31, 2021, and 2020, respectively.

(5) Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	December 31,	
	2021	2020
Compensation and related expenses	$ 1,563	$ 985
Research and development	2,352	361
Professional fees	323	191
Other	233	36
	$ 4,471	$ 1,573

(6) Commitments and Contingencies

Leases

The Company has operating leases for its lab and office space. In April 2019, the Company entered into a lease agreement for its headquarters in Philadelphia, Pennsylvania, which commenced in October 2019 and has a termination date of September 2029.

In October 2018, the Company entered into a lease agreement for lab and office space in Philadelphia, Pennsylvania. This lease agreement commenced the same month and initially had a month-to-month lease term. As of January 2019, upon adoption of ASC 842, the Company was reasonably certain the lease would be renewed for approximately five years based on certain economic factors at that time.

The Company's operating lease ROU assets and the related lease liabilities are initially measured at the present value of future lease payments over the lease term. The Company is responsible for payment of certain real estate taxes, insurance and other expenses on certain of its leases. These amounts are generally considered to be variable and are not included in the measurement of the ROU assets and lease liability. The Company accounts for non-lease components, such as maintenance, separately from lease components.

The elements of the lease costs were as follows (in thousands):

	Year Ended December 31,	
	2021	2020
Operating lease cost	$ 1,129	$ 1,129

Lease term and discount rate information related to leases was as follows:

	December 31,	
	2021	2020
Weighted-average remaining lease term (in years)		
Operating leases	4.4	4.9
Weighted-average discount rate		
Operating leases	9.8 %	9.6 %

Supplemental cash flow information (in thousands):

	Year Ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash used in operating leases	$ 1,108	$ 1,103

Future maturities of lease liabilities were as follows as of December 31, 2021 (in thousands):

	Operating Leases
Fiscal year ending:	
2022	$ 1,114
2023	892
2024	213
2025	219
2026	226
Thereafter	657
Total future minimum payments	3,321
Less imputed interest	(689)
Present value of lease liabilities	$ 2,632

Licensing and Sponsored Research Agreements

In November 2017, the Company entered into a license agreement (Penn License Agreement) with The Trustees of the University of Pennsylvania (Penn) for certain intellectual property licenses. The Penn License Agreement specifies the Company will provide $5.5 million of sponsored research as part of the research and development plan within the first three years of the agreement. The Company is required to make annual payments of $10,000 through 2021 and $25,000 in annual payments thereafter. Penn is eligible to receive up to $10.9 million per product in development upon the achievement of certain clinical, regulatory and commercial milestone events. There are additional milestone payments required to be paid of up to $30.0 million per product in commercial milestones, and up to an additional $1.7 million in development and regulatory milestone payments for the first CAR-M product directed to mesothelin. Additionally, the Company is obligated to pay Penn single-digit royalties based on its net sales.

Contingencies

Liabilities for loss contingencies, arising from claims, assessments, litigation, fines, penalties, and other sources are recorded when it is probable that a liability has been incurred and the amount of the assessment and/or remediation can be reasonably estimated.

(7) Convertible Preferred Stock, Noncontrolling Interests and Common Stock

In March 2020, the Company sold 2,290,866 shares of its Series A convertible preferred stock (Series A) and 528,847 shares of Class B exchangeable shares issued by the Luxembourg subsidiary at an original issuance price of $10.40 per share. One special voting preferred stock share was also issued to the investor in the Luxembourg subsidiary. In December 2020, the Company sold 2,453,170 shares of its Series B convertible preferred stock (Series B) and 297,764 shares of Class B-1 exchangeable shares issued by the Luxembourg subsidiary at an original issuance price of $15.60 per share. One Series B special voting preferred stock share was also issued to the investor in the Luxembourg subsidiary. The proceeds received associated with Luxembourg subsidiary securities are presented as noncontrolling interests in the Company's consolidated financial statements. As of December 31, 2021 and 2020, there were 937,501 and 297,764 Class B and Class B-1 exchangeable shares outstanding, respectively.

In February 2021, the Company sold an additional 1,046,696 shares of Series B at an original issuance price of $15.60 per share.

The Class B and Class B-1 exchangeable shares (the Exchangeable Shares) are exchangeable into shares of Series A and Series B, respectively, on a one for one basis, at the option of the holder, or automatically upon an initial public offering or liquidation event. The Class B and Class B-1 exchangeable shares participate as Series A and Series B preferred shareholders, respectively, as it pertains to all rights and preferences held by the Company's preferred shareholders. In addition, the Class B and Class B-1 exchangeable share investor holds a share of special voting preferred stock and Series B special voting preferred stock that provides the investor with additional control relating voting matters for the Series A and Series B preferred shareholders, respectively. The following is a summary of the rights, preferences, and terms of the Series A and Series B (collectively, Convertible Preferred Stock):

Dividends

The holders of the Convertible Preferred Stock are entitled to receive dividends payable when, as and if declared by the Board of Directors of the Company, with the holders of common stock, paid out of any assets or on the common stock of the Company, on an as-converted or as exchangeable to common stock basis. No dividends on common stock were declared or paid from inception through December 31, 2021.

Voting

The holders of Convertible Preferred Stock, Special voting preferred stock and Series B special voting preferred stock are entitled to vote on any matter presented to the stockholders of the Company. Each holder of outstanding shares of Convertible Preferred Stock is entitled to the number of votes equal to the number of shares of common stock into which the shares of Convertible Preferred Stock are convertible or exchangeable. Holders of Series A and the holder of Special voting preferred stock, exclusively and together as a single class, are entitled to elect three directors of the corporation and Series B holders and the holder of Series B special voting preferred stock, exclusively and as a separate class, are entitled to elect one director of the corporation. The holders of record of common stock and Convertible Preferred Stock, together as a separate class, are entitled to elect the balance of the total directors of the corporation and on an as converted or exchangeable basis. As of December 31, 2021, the Company had 7 directors.

Liquidation Preference

In the event of any voluntary or involuntary liquidations, dissolution or winding up of the Company, the holders of Series B shall be entitled to be paid out of the consideration payable to stockholders before any payment shall be made to the holders of Series A or common stock, an amount equal to the greater of (i) Series B original issue price, plus any dividend declared but unpaid, or (ii) such amount per share as would have been payable had all shares of Series B been converted into common stock immediately prior to liquidation, dissolution or winding up. The holders of Series A shall be entitled to be paid out of the consideration payable to stockholders after any payment to the Series B but before any payment shall be made to the holders common stock, an amount equal to the greater of (i) Series A original issue price, plus any dividend declared but unpaid, or (ii) such amount per share as would have been payable had all shares of Series A been converted into common stock immediately prior to liquidation, dissolution or winding up.

If exchanged as of December 31, 2021, the Class B and Class B-1 exchangeable shares have a liquidation value of $9.8 million and $4.6 million, respectively.

Conversion

The Convertible Preferred Stock is convertible into common stock based on the original issuance price of the security. The Convertible Preferred Stock automatically converts to common stock upon (1) an initial public offering totaling at least $50.0 million in proceeds, or (2) the date and time, or the occurrence of an event, specified by vote or written consent of (i) the holders of a majority of the voting power represented by the outstanding shares of Series A, voting together as a single class and (ii) the holders of at least two-thirds (2/3) of the voting power represented by the outstanding shares of Series B, voting together as a single class (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent).

Redemption

The Convertible Preferred Stock is subject to redemption under certain deemed liquidation events not solely within the control of the Company, as defined, and as such is considered contingently redeemable for accounting purposes. Accordingly, the Convertible Preferred Stock is classified outside of permanent stockholders' deficit. An adjustment of the carrying amount of the Convertible Preferred Stock is not necessary until it is probable that the securities will become redeemable. At December 31, 2021, the Company has determined that redemption of the Convertible Preferred Stock is not probable.

Common Stock

The holders of the common stock are entitled to one vote for each share of common stock held at all meetings of stockholders. Unless required by law, there shall be no cumulative voting. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, after the payment of all preferential amounts required to be paid to the holders of shares of Convertible Preferred Stock, the remaining funds and assets available for distribution to the stockholders of the Company will be distributed among the holders of shares of common stock, pro rata based on the number of shares of common stock held by each such holder.

(8) Stock-based Compensation

In August 2017, the Company adopted the 2017 Stock Incentive Plan (the Plan) as amended that authorized the Company to grant up to 1,739,936 shares of common stock. In 2021, the Company amended the Plan and increased the total number of shares authorized under the Plan to 1,984,018. As of December 31, 2021, there were 24,242 shares available to be granted. The Company's stock options vest based on the terms in the awards agreements and generally vest over four years. The Company recorded stock-based compensation expense in the following expense categories in its accompanying consolidated statements of operations:

	Year Ended December 31,	
	2021	2020
Research and development	$ 185	$ 67
General and administrative	294	96
	$ 479	$ 163

The following is a summary of stock option activity under the Plan:

	Options	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 1, 2020	912,321	$ 1.06		
Granted	134,997	1.28		
Exercised	(41,895)	0.47		$ 34
Forfeited	(16,386)	1.23		
Expired	(23,125)	1.18		
Outstanding as of December 31, 2020	965,912	1.11		
Granted	903,526	2.63		
Outstanding as of December 31, 2021	1,869,438	$ 1.85	8.2	$ 1,693
Exercisable as of December 31, 2021	828,821	$ 1.24	7.2	$ 1,270
Vested and expected to vest	1,869,438	$ 1.85	8.2	$ 1,693

The weighted-average grant-date per share fair values of options granted in 2021 and 2020 were $1.43 and $0.66, respectively. The fair values in 2021 and 2020 were estimated using the Black-Scholes option-pricing model based on the following assumptions:

	Year Ended December 31,	
	2021	2020
Risk-free interest rate	0.89% - 1.26 %	0.4% - 1.8 %
Expected term	6 years	6 years
Expected volatility	53.3% - 54.2 %	54.1% - 55.5 %
Expected dividend yield	—	—
Estimated fair value of the Company's common stock per share	$ 2.77	$ 1.28

The Company recorded stock-based compensation expense of $0.5 million and $0.2 million for the years ended December 31, 2021, and 2020, respectively.

Future compensation cost for awards not vested as of December 31, 2021, was $1.2 million and will be expensed over a weighted-average period of 3 years.

(9) Income Taxes

The Company has incurred losses since inception and has not recorded current or deferred income taxes.

A reconciliation of income tax benefit at the statutory federal income tax rate and income taxes as reflected in the consolidated financial statements is as follows:

	Year Ended December 31,	
	2021	2020
Federal tax benefit at statutory rate	(21.0)%	(21.0)%
State tax, net of federal benefit	(12.6)	(12.6)
Permanent differences	0.2	0.1
Research and development	(4.3)	(4.3)
Change in valuation allowance	37.1	40.3
Return to provision	0.6	(2.5)
Total provision	— %	— %

Deferred tax assets and liabilities are determined based on the differences between the financial statement carrying amounts and tax bases of assets and liabilities using enacted tax rates in effect for years in which differences are expected to reverse.

Significant components of the Company's deferred tax assets for federal income taxes consisted of the following (in thousands):

	December 31,	
	2021	2020
Deferred tax assets		
Net operating losses	$ 25,507	$ 14,474
Research and development credits	3,862	2,166
Start-up costs	6,133	3,732
Equity compensation	65	34
Change in valuation allowance	(35,374)	(20,299)
Deferred tax assets, net of valuation allowance	193	107
Deferred tax liabilities		
Depreciation	(193)	(107)
Net deferred tax assets and liabilities	$ —	$ —

As of December 31, 2021, the Company has net operating loss (NOL) carryforwards for federal income tax purposes of $76.4 million, which are available to offset future federal taxable income. The pre-2018 federal NOL carryforwards of $1.1 million will begin to expire in 2037, if not utilized. The post-2017 federal NOL carryforwards of $75.3 million carry forward indefinitely. The Company also has NOLs for state and local income tax purposes of $76.4 million and $71.2 million, respectively that are available to offset future taxable income. The state NOL carryforwards will begin to expire in 2037 while the local NOLs expire after three years with $4.1 million expiring in 2021. As of December 31, 2021, the Company also had federal research and development tax credit carryforwards of $3.9 million that will begin to expire in 2038, unless previously utilized.

In assessing the need for a valuation allowance, management must determine that there will be sufficient taxable income to allow for the realization of deferred tax assets. Based upon the historical and anticipated future losses, management has determined that the deferred tax assets do not meet the more-likely-than-not threshold for realizability. Accordingly, a full valuation allowance has been recorded against all of the Company's net deferred tax assets as of December 31, 2021. The valuation allowance increased by $15.1 million and $11.4 million during the years ended December 31, 2021 and December 31, 2020, respectively.

The NOL and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. NOL and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50 percent, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has not done an analysis to determine whether or not ownership changes have occurred since inception. Certain state NOLs may also be limited, including Pennsylvania, which limits NOL utilization as a percentage of apportioned taxable income.

The Company will recognize interest and penalties related to uncertain tax positions as a component of income tax expense/(benefit). As of December 31, 2021, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in the Company's consolidated financial statements. Tax years from 2018 and after remain subject to examination by all of the taxing jurisdictions. The NOL and credit carryforwards remain subject to review until utilized.

(10) Related Party Transactions

The Company has outstanding licensing and scientific research agreements with Penn, a significant shareholder (Note 6). The Company recognized $0.8 million of research and development expense for each of the years ended December 31, 2021 and 2020 related to the Penn License Agreement.

(11) Subsequent Events

The Company has evaluated subsequent events from the balance sheet date through October 14, 2022, the issuance date of these consolidated financial statements and has not identified any requiring disclosure except as noted below.

Moderna Collaboration and License Agreement

In January 2022, the Company entered into a Collaboration and License Agreement with ModernaTX, Inc. (Moderna License Agreement), to develop and commercialize *in vivo* engineered chimeric antigen receptor monocyte (CAR-M) therapeutics for different forms of cancer. The Moderna License Agreement allows Moderna to develop and commercialize product candidates for up to twelve research targets. The Company will be responsible for discovering and optimizing development candidates, and Moderna will be responsible for the clinical development thereafter. Pursuant to the Moderna License Agreement, the Company and Moderna will form a joint steering committee, or JSC, that will be responsible for the coordination and oversight of all research activities to which the Company is responsible for providing. The JSC will be comprised of three representatives each from the Company and Moderna and with Moderna having final decision-making authority, subject to customary exclusions.

During the research term of the Moderna License Agreement, the Company has granted Moderna an exclusive worldwide royalty free license to the Company's intellectual property associated with the product candidates that permits Moderna to conduct its research and development activities. Upon Moderna's election of a development target (and payment of a related development target designation milestone) for commencement of pre-clinical development of a product candidate, the Company will grant Moderna an exclusive worldwide, sublicensable royalty bearing license to develop, manufacture and commercialize the product candidate.

Upon execution of the Moderna License Agreement, Moderna made an upfront non-refundable payment of $45.0 million to the Company. Moderna also will reimburse the Company for all costs incurred by the Company in connection with its research and development activities under the Moderna License Agreement plus a reasonable margin for the respective services performed (with a minimum commitment to reimburse $10.0 million in research and development costs over the first three years from execution of the Moderna License Agreement). In addition, assuming Moderna develops and commercializes 12 products, each directed to a different development target, the Company is eligible to receive up to between $247.0 million and $253.0 million per product in development target designation, development, regulatory and commercial milestone payments. The Company is also eligible to receive tiered mid-to-high single digit royalties of net product sales, subject to adjustment. In addition, Moderna will repay the Company for certain development, regulatory and commercial milestone payments and certain royalty payments pursuant to the Company's license agreement with the University of Pennsylvania. The Moderna License Agreement terminates on a product-by-product basis upon the latest of expiration of the applicable product patents, expiration of regulatory exclusivity and the tenth anniversary of first commercial sale, unless terminated earlier by the Company or Moderna.

Moderna Convertible Promissory Note

Concurrent with entering into the Moderna License Agreement, the Company issued and sold to Moderna a convertible promissory note in the aggregate principal amount of $35.0 million (the Note). If not earlier converted or repaid, the Note is payable on demand beginning in July 2023. The Note accrues interest at an annual rate beginning at 0.33% through March 2022 and then increasing by 0.767% each month thereafter capping at an annual rate of 8.0% in January 2023. Upon the completion of a qualified financing event, the outstanding principal and accrued interest under the Note will automatically convert into shares of the Company issued in connection with the qualified financing at a conversion price equal to the lesser of (a) 90% of the purchase price paid by other investors in such qualified financing and (b) $21.06 per share on an as converted to common stock basis.

Office and Laboratory Space

In January 2022, the Company amended its October 2018 lease to add additional lab and office spaces. The lease for the additional spaces commenced in April 2022 and has a term of 18 months. The total future minimum lease payments for these spaces are $3.6 million.

In February 2022, the Company entered into another agreement to lease additional office and laboratory space in Philadelphia, Pennsylvania. This lease commenced in March 2022 and has a term of 18 months with an option for the Company to renew the lease for two additional terms of six months each at the end of lease term. The total future minimum lease payments for the lease are $3.3 million.

Merger with Seahawk Merger Sub, Inc.

On September 20, 2022, the Company entered into an Agreement and Plan of Merger and Reorganization (the Merger Agreement) with Seahawk Merger Sub, Inc. (Merger Sub), a Delaware corporation and wholly-owned subsidiary of Sesen Bio, Inc. (Sesen Bio). The Merger Agreement provides for the merger of the Company with Merger Sub, with the Company as the surviving entity and the Company continuing as a wholly-owned subsidiary of Sesen Bio (the Merger). Subject to the terms and conditions of the Merger Agreement, at the closing of the Merger, (a) each then outstanding share of the Company's common stock and preferred stock (collectively, the Company's capital stock) (including shares of the Company's common stock issued in connection with the pre-closing financing transaction described below) will be converted into the right to receive a number of shares of Sesen Bio common stock, and (b) each then outstanding stock option to purchase the Company's common stock will be assumed by Sesen Bio, subject to adjustment as set forth in the Merger Agreement.

Following the Merger, the shareholders of the Company are expected to hold 58.3% of the combined company, and the shareholders of Sesen Bio are expected to hold 41.7% of the combined company.

Concurrently with the execution and delivery of the Merger Agreement, certain parties entered into agreements with the Company to purchase prior to the consummation of the Merger shares of the Company's common stock for an aggregate purchase price of $30.6 million (Pre-Closing Financing). Shares of the Company's common stock issued pursuant to the Pre-Closing Financing transaction will be converted into shares of Sesen Bio common stock in the Merger. Upon completion of the merger, the outstanding principal and unpaid interest associated with the Notes will automatically convert into the shares of Sesen Bio common stock.

CARISMA THERAPEUTICS INC.

Unaudited Consolidated Balance Sheets
(in thousands, except share and per share data)

	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 39,698	$ 28,551
Marketable securities	41,906	—
Prepaid expenses and other assets	2,559	1,235
Total current assets	84,163	29,786
Property and equipment, net	5,799	3,084
Right of use assets – operating leases	7,396	2,579
Total assets	$ 97,358	$ 35,449
Liabilities, Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 3,868	$ 2,322
Accrued expenses	3,987	4,471
Deferred revenue	447	—
Operating lease liabilities	4,774	898
Finance lease liabilities	83	—
Total current liabilities	13,159	7,691
Convertible promissory note	32,485	—
Deferred revenues	45,000	—
Derivative liability	4,521	—
Operating lease liabilities	2,207	1,734
Finance lease liabilities	172	—
Total liabilities	97,544	9,425
Commitments (Note 6)		
Convertible preferred stock, $0.0001 par value:		
Series A convertible preferred stock, 6,138,518 shares authorized; 5,201,017 shares issued and outstanding (liquidation value of $54,091 at June 30, 2022)	53,577	53,577
Special voting preferred stock, 1 share authorized, issued and outstanding	—	—
Series B convertible preferred stock, 4,807,541 shares authorized, 3,499,866 shares issued and outstanding (liquidation value of $54,598 at June 30, 2022)	54,231	54,231
Series B special voting preferred stock, 1 share authorized, issued and outstanding	—	—
Total convertible preferred stock	107,808	107,808
Stockholders' deficit:		
Common stock $0.0001 par value, 14,230,158 shares authorized, 1,085,436 and 1,084,082 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	—	—
Additional paid-in capital	965	818
Accumulated other comprehensive loss	(197)	—
Accumulated deficit	(123,157)	(96,997)
Total CARISMA Therapeutics Inc. stockholders' deficit	(122,389)	(96,179)
Noncontrolling interests	14,395	14,395
Total stockholders' deficit	(107,994)	(81,784)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 97,358	$ 35,449

See accompanying notes to the unaudited interim consolidated financial statements

CARISMA THERAPEUTICS INC.

Unaudited Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)

	Six Months Ended June 30,	
	2022	2021
Collaboration revenues	$ 3,525	$ —
Operating expenses:		
Research and development	22,979	16,022
General and administrative	4,635	2,176
Total operating expenses	27,614	18,198
Operating loss	(24,089)	(18,198)
Change in fair value of derivative liability	(701)	—
Interest (expense) income, net	(1,370)	7
Net loss	$ (26,160)	$ (18,191)
Share information:		
Net loss per share of common stock, basic and diluted	$ (24.11)	$ (16.78)
Weighted-average shares of common stock outstanding, basic and diluted	1,085,002	1,084,082
Comprehensive loss		
Net loss	$ (26,160)	$ (18,191)
Unrealized loss on marketable securities	(197)	—
Comprehensive loss	$ (26,357)	$ (18,191)

See accompanying notes to the unaudited interim consolidated financial statements

CARISMA THERAPEUTICS INC.

Unaudited Consolidated Statements of Convertible Preferred Equity and Stockholders' Deficit
(in thousands, except per share and share data)

	Convertible preferred stock								Stockholders' deficit						
	Series A convertible preferred stock		Special voting preferred stock		Series B convertible preferred stock		Series B special voting preferred stock		Common stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Noncontrolling interests	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance, January 1, 2022	5,201,017	$ 53,577	1	$ —	3,499,866	$ 54,231	1	$ —	1,084,082	$ —	$ 818	$ —	$ (96,997)	$ 14,395	$ (81,784)
Exercise of stock options	—	—	—	—	—	—	—	—	1,354	—	2	—	—	—	2
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	145	—	—	—	145
Unrealized loss on marketable securities	—	—	—	—	—	—	—	—	—	—	—	(197)	—	—	(197)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(26,160)	—	(26,160)
Balance at June 30, 2022	5,201,017	$ 53,577	1	$ —	3,499,866	$ 54,231	1	$ —	1,085,436	$ —	$ 965	$ (197)	$ (123,157)	$ 14,395	$(107,994)
Balance, January 1, 2021	5,201,017	$ 53,577	1	$ —	2,453,170	$ 38,054	1	$ —	1,084,082	$ —	$ 339	$ —	$ (56,213)	$ 14,395	$ (41,479)
Sale of Series B convertible preferred stock at $15.60 per share, net of issuance costs of $151	—	—	—	—	1,046,696	16,177	—	—	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	259	—	—	—	259
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(18,191)	—	(18,191)
Balance at June 30, 2021	5,201,017	$ 53,577	1	$ —	3,499,866	$ 54,231	1	$ —	1,084,082	$ —	$ 598	$ —	$ (74,404)	$ 14,395	$ (59,411)

See accompanying notes to the unaudited interim consolidated financial statements

CARISMA THERAPEUTICS INC.

Unaudited Consolidated Statements of Cash Flows
(in thousands)

	Six Months Ended June 30,	
	2022	2021
Cash flows from operating activities:		
Net loss	$ (26,160)	$ (18,191)
Adjustment to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization expense	463	292
Stock-based compensation expense	145	259
Reduction in the operating right of use assets	1,620	408
Amortization of debt discount	1,305	—
Change in fair value of derivative liability	701	—
Non-cash interest expense	4	—
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(1,324)	(527)
Accounts payable	674	(579)
Accrued expenses	(484)	171
Deferred revenues	45,447	—
Operating lease liabilities	(2,088)	(396)
Net cash provided by (used in) operating activities	20,303	(18,563)
Cash flows from investing activities:		
Purchase of marketable securities	(42,103)	—
Purchases of property and equipment	(2,038)	(1,001)
Net cash used in investing activities	(44,141)	(1,001)
Cash flows from financing activities:		
Proceeds from the exercise of stock options	2	—
Payment of principal related to the finance leases	(17)	—
Proceeds from the sale of Series B convertible preferred stock	—	16,328
Payment of Series B issuance costs	—	(366)
Proceeds from issuance of convertible promissory note	35,000	—
Net cash provided by financing activities	34,985	15,962
Net increase (decrease) in cash and cash equivalents	11,147	(3,602)
Cash and cash equivalents at beginning of the period	28,551	51,788
Cash and cash equivalents at end of the period	$ 39,698	$ 48,186
Supplemental disclosures of non-cash financing and investing activities:		
Property and equipment in accounts payable	$ 993	$ 40
Unrealized loss on marketable securities	$ (197)	$ —
Allocation of debt proceeds to derivative liability	$ 3,820	—
Operating lease right of use assets obtained in exchange for operating lease liabilities	$ 6,437	$ —
Operating lease right of use assets obtained in exchange for finance lease liabilities	$ 268	$ —

See accompanying notes to the unaudited interim consolidated financial statements

CARISMA THERAPEUTICS INC.

Notes to the Interim Consolidated Financial Statements

(1) Background

CARISMA Therapeutics Inc., a Delaware Corporation (the Company), is a clinical-stage biopharmaceutical company focused on utilizing the Company's proprietary macrophage and monocyte cell engineering platform to develop transformative therapies to treat cancer and other serious disorders. Cell therapy enables the utilization of reprogrammed living cells to perform complex functions such as clearance of tumor cells or resolution of inflammation. The Company's initial focus is its proprietary Chimeric Antigen Receptor Macrophage (CAR-M) platform, which redirects macrophages against specific tumor associate antigens and enables targeted anti-tumor immunity by utilizing genetically modifying myeloid cells (macrophages and monocytes) to express chimeric antigen receptors, or CARs, enabling the innate immune cells to recognize specific tumor associated antigens on the surface of tumor cells. The Company's clinical lead product candidate CT-0508 is an ex vivo gene-modified autologous CAR-M cell therapy product intended to treat solid tumors that overexpress HER2.

The Company received an investigational new drug application, or IND, clearance for CT-0508 for the treatment of HER2-overexpressing solid tumors in July 2020 and dosed the first patient in March 2021. The Food and Drug Administration, or FDA, granted CT-0508 Fast Track Status in September 2021. As of September 1, 2022, enrollment in group 1 of the first in human study has been completed with 9 patients successfully dosed with CT-0508, and group 2 is currently open for enrollment with an additional 9 patients to be dosed in the study.

(2) Development-Stage Risks and Liquidity

The Company has incurred losses since inception and has an accumulated deficit of $123.2 million as of June 30, 2022. The Company anticipates incurring additional losses until such time, if ever, that it can generate significant sales from its product candidates currently in development. Management believes that cash, cash equivalents and marketable securities of $81.6 million as of June 30, 2022 are sufficient to sustain planned operations into the second quarter of 2023. As a result, the Company has concluded that there is substantial doubt about its ability to continue as a going concern within one year after the date that the unaudited interim consolidated financial statements are issued. The accompanying unaudited interim consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The unaudited interim consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liability that might result from the outcome of this uncertainty.

Management is currently evaluating different strategies to obtain the required funding for future operations. These strategies may include but are not limited to private placements of equity and/or debt, licensing and/or marketing arrangements, and public offerings of equity and/or debt securities. There is no assurance that such financing will be available when needed.

The Company is subject to those risks associated with any specialty biotechnology company that has substantial expenditures for research and development. There can be no assurance that the Company's research and development projects will be successful, that products developed will obtain necessary regulatory approval, or that any approved product will be commercially viable. In addition, the Company operates in an environment of rapid technological change and is largely dependent on the services of its employees and consultants.

(3) Summary of Significant Accounting Policies

The summary of significant accounting policies included in the Company's annual consolidated financial statements that can be found elsewhere in this registration statement, have not materially changed, except as set forth below.

Interim Financial Statements

The accompanying unaudited interim consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (U.S. GAAP) for interim financial information. Any reference in these notes to applicable guidance is meant to refer to U.S. GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) of the Financial Accounting Standards Board (FASB).

In the opinion of management, the accompanying interim consolidated financial statements include all normal and recurring adjustments (which consist primarily of accruals, estimates and assumptions that impact the consolidated financial statements) considered necessary to present fairly the Company's financial position as of June 30, 2022 and its results of operations for the six months ended June 30, 2022 and 2021. Operating results for the six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the year ending December 31, 2022. The interim consolidated financial statements, presented herein, do not contain the required disclosures under U.S. GAAP for annual financial statements. The accompanying unaudited interim consolidated financial statements should be read in conjunction with the annual audited consolidated financial statements and related notes as of and for the year ended December 31, 2021.

Use of Estimates

The preparation of unaudited interim consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the unaudited interim consolidated financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates. Estimates and assumptions are periodically reviewed and the effects of revisions are reflected in the unaudited interim consolidated financial statements in the period they are determined to be necessary.

Significant areas that require management's estimates include the fair value of the Company's common stock, the derivative liability, stock-based compensation assumptions, the estimated useful lives of property and equipment and accrued research and development expenses.

Fair Value of Financial Instruments

Management believes that the carrying amounts of the Company's financial instruments, including cash equivalents, and accounts payable approximate fair value due to the short-term nature of those instruments. Due to the related-party relationship of the Convertible Promissory Notes (Note 5), it is impractical to determine the fair value of the debt. The derivative liability is recorded at its estimated fair value.

Marketable Securities

The Company's marketable securities consist of investments in U.S. Treasuries that are classified as available-for-sale. The securities are carried at fair value with the unrealized gains and losses included in accumulated other comprehensive loss, a component of stockholders' deficit. Realized gains and losses and declines in value determined to be other than temporary are included in the Company's statements of operations.

Fair Value Measurements

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.
- Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The following fair value hierarchy table presents information about the Company's assets and liabilities measured at fair value on a recurring basis:

(in thousands)	Fair value measurement at reporting date using (Level 1)	(Level 2)	(Level 3)
June 30, 2022:			
Assets:			
Cash equivalents – money markets accounts	$ 14,280	$ —	$ —
Marketable securities - U.S. Treasuries	$ 41,906	$ —	$ —
Liabilities:			
Derivative liability – redemption feature on convertible promissory note	$ —	$ —	$ 4,521
December 31, 2021:			
Assets:			
Cash equivalents – money markets accounts	$ 5,182	$ —	$ —

The following is a summary of the Company's marketable securities as of June 30, 2022.

	Amortized costs	Gross unrealized loss	Fair Value
Available-for-sale marketable securities			
U.S. Treasury securities	$ 42,103	$ (197)	$ 41,906

The Company evaluated a redemption feature within the convertible promissory note issued in January 2022 and determined bifurcation of the redemption feature was required. The redemption feature is classified as a liability on the accompanying consolidated balance sheet and is marked-to-market each reporting period with the changes in fair value recorded in the accompanying statements of operations until it is triggered, terminated, reclassified or otherwise settled. The fair value of the derivative was determined based on an income approach that identified the cash flows using a "with-and-without" valuation methodology. The inputs used to determine the estimated fair value of the derivative instrument were based primarily on the probability of an underlying event triggering the embedded derivative occurring and the timing of such event.

During the six months ended June 30, 2022, the discount factor used was 12% and a 90% probability of completing a qualified financing prior to the maturity date of the convertible promissory note was assumed. The estimated time of conversion ranged from six to twelve months.

The table presented below is a summary of the changes in fair value of the Company's derivative liability (Level 3 measurement):

(in thousands)	Fair value of derivative liability
Balance at January 1, 2022	$ —
Balance at issuance	3,820
Change in fair value	701
Balance at June 30, 2022	$ 4,521

During the six months ended June 30, 2022 and 2021, there were no transfers between Level 1, Level 2 and Level 3.

Revenue Recognition

The Company recognizes revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers* (ASC 606). This standard applies to all contracts with customers, except for contracts that are within the scope of other standards. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services.

The Company enters into collaboration and licensing agreements with strategic partners, which are within the scope of ASC 606, under which it may exclusively license rights to research, develop, manufacture, and commercialize its product candidates to third parties. The terms of these arrangements typically include payment to the Company of one or more of the following: (1) non-

refundable, upfront license fees; (2) reimbursement of certain costs; (3) customer option fees for additional goods or services; (4) development milestone payments, (5) regulatory and commercial milestone payments; and (6) royalties on net sales of licensed products.

In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under each of its agreements, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. As part of the accounting for these arrangements, the Company must use its judgment to determine: (a) the number of performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; (c) the stand-alone selling price for each performance obligation identified in the contract for the allocation of transaction price in step (iv) above; and (d) the contract term and pattern of satisfaction of the performance obligations under step (v) above. The Company uses judgment to determine whether milestones or other variable consideration, except for royalties, should be included in the transaction price as described further below. The transaction price is allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied.

Amounts due to the Company for satisfying the revenue recognition criteria or that are contractually due based upon the terms of the collaboration agreements are recorded as accounts receivable in the Company's consolidated balance sheet. Contract liabilities consist of amounts received prior to satisfying the revenue recognition criteria, which are recorded as deferred revenue in the Company's consolidated balance sheet.

The following table summarizes the changes in deferred revenue (in thousands):

	Six months ended June 30, 2022
Balance at the beginning of the period	$ —
Deferral of revenue	48,972
Recognition of unearned revenue	(3,525)
Balance at the end of the period	$ 45,447

There was no deferred revenue as of December 31, 2021.

The current portion of deferred revenue represents advanced payments received from ModernaTX, Inc. (Moderna) for costs expected to be incurred by the Company within the next twelve months. The noncurrent portion of deferred revenue represents the $45.0 million upfront, non-refundable and non-creditable payment allocated to customer option right which is not expected to be recognized within the next 12 months.

Upfront license fees

If the license to the Company's intellectual property is determined to be distinct from the other promises or performance obligations identified in the arrangement, the Company recognizes revenue from non-refundable, upfront fees allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the license. In assessing whether a promise or performance obligation is distinct from the other promises, the Company considers factors such as the research, manufacturing, and commercialization capabilities of the customer; the retention of any key rights by the Company; and the availability of the associated expertise in the general marketplace. In addition, the Company considers whether the customer can benefit from a promise for its intended purpose without the receipt of the remaining promises, whether the value of the promise is dependent on the unsatisfied promise, whether there are other vendors that could provide the remaining promise and whether it is separately identifiable from the remaining promise. For licenses that are combined with other promises, the Company exercises judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Customer options

The Company evaluates the customer options for material rights or options to acquire additional goods or services for free or at a discount. If the customer options are determined to represent a material right, the material right is recognized as a separate performance obligation at the outset of the arrangement. The Company allocates the transaction price to material rights based on the relative standalone selling price, which is determined based on the identified discount and the probability that the customer will exercise the option. Amounts allocated to a material right are not recognized as revenue until, at the earliest, the option is exercised. If an option is not exercised and the research and development target is terminated, the Company will accelerate and recognize all remaining revenue related to the material right performance obligation.

Research and development services

The promises under the Company's collaboration agreements may include research and development services to be performed by the Company for or on behalf of the customer. Payments or reimbursements resulting from the Company's research and development efforts are recognized as the services are performed and presented on a gross basis because the Company is the principal for such efforts. Reimbursements from and payments to the customer that are the result of a collaborative relationship with the customer, instead of a customer relationship, such as co-development activities, are recorded as a reduction to research and development expense.

Milestone payments

At the inception of each arrangement that includes development milestone payments, the Company evaluates whether the milestones are considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The Company evaluates factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the particular milestone in making this assessment. There is considerable judgment involved in determining whether it is probable that a significant revenue reversal would not occur. At the end of each subsequent reporting period, the Company reevaluates the probability of achievement of all milestones subject to constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment.

Net Loss per Share Attributable to Common Shareholders

The following potentially dilutive securities have been excluded from the computation of diluted weighted-average shares of common stock outstanding, as they would be anti-dilutive:

	June 30, 2022	December 31, 2021
Series A convertible preferred stock	5,201,017	5,201,017
Series B convertible preferred stock	3,499,866	3,499,866
Class B exchangeable shares	937,501	937,501
Class B-1 exchangeable shares	297,764	297,764
Stock options to purchase common stock	1,900,829	1,869,438
Conversion of convertible promissory note	1,670,889	—
	13,507,866	11,805,586

The above table assumes outstanding principal and interest converted into shares of the Company's common stock at $21.06 per share. Conversion of the promissory note and related interest may vary depending on the terms and conditions to upon conversion of the promissory note.

Recent Accounting Pronouncements

In August 2020, the FASB issued ASU No. 2020-06, *Debt — Debt with Conversion and Other Options* (Subtopic 470-20) *and Derivatives and Hedging — Contracts in Entity's Own Equity* (Subtopic 815-40)*: Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* (ASU 2020-06), which simplifies the accounting for convertible instruments by reducing the number of accounting models available for convertible debt instruments. This guidance also eliminates the treasury stock method to

calculate diluted earnings per share for convertible instruments and requires the use of the if converted method. The Company adopted the ASU effective January 1, 2022 using the modified retrospective method of adoption. The Company applied this ASU to the convertible promissory note entered into in January 2022 (see Note 5).

(4) Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	June 30, 2022	December 31, 2021
Computer software	$ 742	$ 214
Lab equipment[1]	6,372	3,694
Office furniture	267	267
Leasehold improvements	317	317
Construction in progress	—	13
	7,698	4,505
Less: accumulated depreciation and amortization	(1,899)	(1,421)
	$ 5,799	$ 3,084

(1) Lab equipment includes finance lease assets of $0.3 million and are recorded net of accumulated depreciation of $15,000 as of June 30, 2022. There were no financial lease assets as of December 31, 2021.

Depreciation and amortization expense was $0.5 million and $0.3 million for the six months ended June 30, 2022 and 2021, respectively.

(5) Convertible Promissory Note

In January 2022, concurrent with entering into the Moderna Collaboration and License Agreement (Note 8), the Company issued and sold to Moderna a convertible promissory note in the aggregate principal amount of $35.0 million (the Note). If not earlier converted or repaid, the Note is payable on demand beginning in July 2023. The Note accrues interest at an annual rate beginning at 0.33% through March 2022 and then increasing by 0.767% each month thereafter capping at an annual rate of 8.0% in January 2023. Upon the completion of a qualified financing event, the outstanding principal and accrued interest under the Note will automatically convert into shares of the Company issued in connection with the qualified financing at a conversion price equal to the lesser of (a) 90% of the purchase price paid by other investors in such qualified financing and (b) $21.06 per share on an as converted to common stock basis.

Since the Note is convertible into either (i) a variable number of shares of stock or (ii) a fixed conversion price, the Company evaluated the conversion provisions as a redemption feature and as a conversion feature, with the redemption feature evaluated as an embedded derivative and bifurcated from the proceeds of the Note due to the substantial premium paid upon redemption. Upon bifurcating the redemption feature, the Company recorded a debt discount of $3.8 million which represents the initial fair value of the derivative liability that will be recognized as interest expense over the term of the Note. For the six months ended June 30, 2022, the Company recognized a change in fair value related to the redemption feature of $0.7 million, which was included in the change in fair value of derivative liability on the consolidated statement of operations. For the six months ended June 30, 2022, the Company recognized interest expense of $1.5 million of which $1.3 million was related to the amortization of the debt discount.

The following table summarizes the carrying value of the Note at June 30, 2022 (in thousands):

	Six months ended June 30, 2022
Principal amount of the Note	$ 35,000
Unamortized debt discount	(2,515)
Carrying value of the Note	$ 32,485

(6) Commitments

Leases

In January 2022, the Company amended its October 2018 lease to add additional lab and office spaces. The lease for the additional spaces commenced in April 2022 and has a term of 18 months.

In February 2022, the Company entered into another agreement to lease additional office and laboratory space in Philadelphia, Pennsylvania. This lease commenced in March 2022 and has a term of 18 months with an option for the Company to renew the lease for two additional terms of six months each at the end of lease term.

The Company also has obligations under an arrangement for the use of certain lab equipment that are classified as finance leases that commenced in May 2022 and have an end date of April 2025.

The elements of the lease costs were as follows (in thousands):

	Six months ended June 30,	
	2022	2021
Operating lease cost	$ 1,898	$ 564
Finance lease cost:		
Amortization of lease assets	15	—
Interest on lease liabilities	4	—
Total finance lease cost	19	—
Total lease cost	$ 1,917	$ 564

Lease term and discount rate information related to leases was as follows:

	June 30, 2022
Weighted-average remaining lease term (in years)	
Operating leases	2.2
Finance leases	2.8
Weighted-average discount rate	
Operating leases	9.3 %
Finance leases	9.0 %

Supplemental cash flow information (in thousands):

	Six months ended June 30,	
	2022	2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash used in operating leases	$ 2,367	$ 554
Operating cash used for finance leases	$ 4	$ —
Finance cash used in finance leases	$ 17	$ —

Future maturities of lease liabilities were as follows as of June 30, 2022 (in thousands):

	Finance leases	Operating leases
Fiscal year ending:		
2022 (remaining six months)	$ 51	$ 2,383
2023	102	4,161
2024	102	213
2025	34	219
2026	—	226
2027	—	233
Thereafter	—	425
Total future minimum payments	289	7,860
Less imputed interest	(34)	(879)
Present value of lease liabilities	$ 255	$ 6,981

(7) Stock-based Compensation

In August 2017, the Company adopted the 2017 Stock Incentive Plan (the Plan) as amended that authorized the Company to grant up to 1,739,936 shares of common stock. In 2022, the Company amended the Plan and increased the total number of shares authorized under the Plan to 2,664,018. As of June 30, 2022, there were 670,143 shares available to be granted. The Company's stock options vest based on the terms in the awards agreements and generally vest over four years. The Company recorded stock-based compensation expense in the following expense categories in its accompanying statements of operations:

	Six Months Ended June 30,	
	2022	2021
Research and development	$ 77	$ 122
General and administrative	68	137
	$ 145	$ 259

The following is a summary of stock option activity under the Plan:

	Options	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 1, 2022	1,869,438	$ 1.85		
Granted	105,000	2.68		
Exercised	(1,354)	1.28		$ 2
Forfeited	(71,419)	1.37		
Expired	(836)	2.01		
Outstanding as of June 30, 2022	1,900,829	$ 1.91	7.9	$ 1,535
Exercisable as of June 30, 2022	1,051,317	$ 1.47	7.1	$ 1,294
Vested and expected to vest at June 30, 2022	1,900,100	$ 1.91	7.9	$ 1,535

The weighted-average grant-date per share fair values of options granted during the six months ended June 30, 2022 and 2021 were $1.46 and $1.43, respectively. The fair values during the six months ended June 30, 2022 and 2021 were estimated using the Black-Scholes option-pricing model based on the following assumptions:

	Six Months Ended June 30,	
	2022	2021
Risk-free interest rate	2.40% - 3.05 %	0.98%-1.11 %
Expected term	6 years	6 years
Expected volatility	54.54% - 56.50 %	53.27% - 53.99 %
Expected dividend yield	—	—
Estimated fair value of the Company's common stock per share	$ 2.68	$ 2.77

Future compensation cost for awards not vested as of June 30, 2022 was $1.1 million and will be expensed over a weighted-average period of 3 years.

(8) Moderna Collaboration and License Agreement

In January 2022, the Company entered into a Collaboration and License Agreement with Moderna (Moderna License Agreement), to develop and commercialize *in vivo* engineered chimeric antigen receptor monocyte (CAR-M) therapeutics for different forms of cancer. The Moderna License Agreement allows Moderna to develop and commercialize product candidates for up to twelve research targets. The Company is responsible for discovering and optimizing development candidates, and Moderna is responsible for the clinical development thereafter. Pursuant to the Moderna License Agreement, the Company and Moderna formed a joint steering committee, or JSC, that is responsible for the coordination and oversight of all research activities to which the Company is responsible for providing. The JSC is comprised of three representatives each from the Company and Moderna and with Moderna having final decision-making authority, subject to customary exclusions.

During the research term of the Moderna License Agreement, the Company has granted Moderna an exclusive worldwide royalty free license to the Company's intellectual property associated with the product candidates that permits Moderna to conduct its research and development activities. Upon Moderna's election of a development target (and payment of a related development target designation milestone) for commencement of pre-clinical development of a product candidate, the Company will grant Moderna an exclusive worldwide, sublicensable royalty bearing license to develop, manufacture and commercialize the product candidate.

Upon execution of the Moderna License Agreement, Moderna made an upfront non-refundable payment of $45.0 million to the Company. Moderna also will reimburse the Company for all costs incurred by the Company in connection with its research and development activities under the Moderna License Agreement plus a reasonable margin for the respective services performed (with a minimum commitment to reimburse $10.0 million in research and development costs over the first three years from execution of the Moderna License Agreement). In addition, assuming Moderna develops and commercializes 12 products, each directed to a different development target, the Company is eligible to receive up to between $247.0 million and $253.0 million per product in development target designation, development, regulatory and commercial milestone payments. The Company is also eligible to receive tiered mid-to-high single digit royalties of net product sales, subject to adjustment. In addition, Moderna will repay the Company for certain development, regulatory and commercial milestone payments and certain royalty payments pursuant to the Company's license agreement with the University of Pennsylvania. The Moderna License Agreement terminates on a product-by-product basis upon the latest of expiration of the applicable product patents, expiration of regulatory exclusivity and the tenth anniversary of first commercial sale, unless terminated earlier by the Company or Moderna.

At commencement, the Company identified several potential performance obligations within the Moderna License Agreement, including research and development services on research targets, option rights held by Moderna, a non-exclusive royalty-free license to use the Company's intellectual property to conduct research and development activities and participation on the JSC. The Company determined that there were two performance obligations comprised of (1) research and development services and (2) option rights.

For the research and development services, the stand-alone selling price was determined considering the expected passthrough costs and cost of the research and development services and a reasonable margin for the respective services. The material rights from the option rights were valued based on the estimated discount at which the option is priced and the Company's estimated probability of the options' exercise as of the time of the amendment. The transaction price allocated to research and development services is recognized as collaboration revenues as the research and development services are provided, using an input method, in proportion to costs incurred to date for each research development target as compared to total costs incurred and expected to be incurred in the future to satisfy the underlying obligation related to the research and development target. The transfer of control occurs over this period and, in management's judgment, is the best measure of progress towards satisfying the performance obligation.

The transaction price allocated to the options rights, which are considered material rights, will be recognized in the period that Moderna elects to exercise or elects to not exercise its option right to license and commercialize the underlying research and development target.

The Company included the $45.0 million upfront payment and $73.9 million of variable consideration for expected research and development services to be performed during the five year contract term, inclusive of passthrough costs, in the transaction price as of the outset of the arrangement. During the six months ended June 30, 2022, the Company recognized $3.5 million of research and development services as collaboration revenues as the Company is the principal in providing such services. The following table

summarizes the allocation of the total transaction price to the identified performance obligations under the arrangement, and the amount of the transaction price unsatisfied as of June 30, 2022 (in thousands):

	Transaction price allocated	Transaction price unsatisfied
Performance obligations:		
Research and development services	$ 73,937	$ 70,412
Option rights	45,000	45,000
Total performance obligations	$ 118,937	$ 115,412

Amounts allocated to the option rights are not recognized as revenue until, at the earliest, an option is exercised. If an option is not exercised and the research and development target is terminated, the Company will accelerate and recognize all remaining revenue related to the option right performance obligation.

(9) Related Party Transactions

The Company has outstanding licensing and scientific research agreements with the University of Pennsylvania, a significant shareholder. The Company recognized $0.4 million and $0.5 million of research and development expense for the six months ended June 30, 2022 and 2021, respectively, related to the license agreement.

(10) Subsequent Events

The Company has evaluated subsequent events from the balance sheet date through October 14, 2022, the issuance date of these unaudited interim consolidated financial statements and has not identified any requiring disclosure except as noted below.

On September 20, 2022, the Company entered into an Agreement and Plan of Merger and Reorganization (the Merger Agreement) with Seahawk Merger Sub, Inc. (Merger Sub), a Delaware corporation and wholly-owned subsidiary of Sesen Bio, Inc. (Sesen Bio). The Merger Agreement provides for the merger of the Company with Merger Sub, with the Company as the surviving entity and the Company continuing as a wholly-owned subsidiary of Sesen Bio (the Merger). Subject to the terms and conditions of the Merger Agreement, at the closing of the Merger, (a) each then outstanding share of the Company's common stock and preferred stock (collectively, the Company's capital stock) (including shares of the Company's common stock issued in connection with the pre-closing financing transaction described below) will be converted into the right to receive a number of shares of Sesen Bio common stock, and (b) each then outstanding stock option to purchase the Company's common stock will be assumed by Sesen Bio, subject to adjustment as set forth in the Merger Agreement.

Following the Merger, the shareholders of the Company are expected to hold 58.3% of the combined company, and the shareholders of Sesen Bio are expected to hold 41.7% of the combined company.

Concurrently with the execution and delivery of the Merger Agreement, certain parties entered into agreements with the Company to purchase prior to the consummation of the Merger shares of the Company's common stock for an aggregate purchase price of $30.6 million (Pre-Closing Financing). Shares of the Company's common stock issued pursuant to the Pre-Closing Financing transaction will be converted into shares of Sesen Bio common stock in the Merger. Upon completion of the merger, the outstanding principal and unpaid interest associated with the Notes will automatically convert into the shares of Sesen Bio common stock.

ANNEX A

AGREEMENT AND PLAN OF MERGER AND REORGANIZATION

among:

SESEN BIO, INC.,
a Delaware corporation;

SEAHAWK MERGER SUB, INC.,
a Delaware corporation; and

CARISMA THERAPEUTICS INC.,
a Delaware corporation

Dated as of September 20, 2022

TABLE OF CONTENTS

			Page
Section 1.	DESCRIPTION OF TRANSACTION		A-2
	1.1	The Merger	A-2
	1.2	Effects of the Merger	A-2
	1.3	Closing; Effective Time	A-2
	1.4	Certificate of Incorporation and Bylaws; Directors and Officers	A-2
	1.5	Conversion of Shares	A-3
	1.6	Closing of the Company's Transfer Books	A-4
	1.7	Surrender of Certificates	A-4
	1.8	Appraisal Rights	A-5
	1.9	Further Action	A-5
	1.10	Withholding	A-5
	1.11	Calculation of Net Cash	A-5
Section 2.	REPRESENTATIONS AND WARRANTIES OF THE COMPANY		A-7
	2.1	Due Organization; Subsidiaries	A-7
	2.2	Organizational Documents	A-7
	2.3	Authority; Binding Nature of Agreement	A-7
	2.4	Vote Required	A-7
	2.5	Non-Contravention; Consents	A-8
	2.6	Capitalization	A-8
	2.7	Financial Statements	A-10
	2.8	Absence of Changes	A-10
	2.9	Absence of Undisclosed Liabilities	A-10
	2.10	Title to Assets	A-11
	2.11	Real Property; Leasehold	A-11
	2.12	Intellectual Property	A-11
	2.13	Agreements, Contracts and Commitments	A-13
	2.14	Compliance; Permits; Restrictions	A-14
	2.15	Legal Proceedings; Orders	A-16
	2.16	Tax Matters	A-16
	2.17	Employee and Labor Matters; Benefit Plans	A-18
	2.18	Environmental Matters	A-20
	2.19	Insurance	A-20
	2.20	No Financial Advisors	A-21
	2.21	Transactions with Affiliates	A-21
	2.22	Anti-Bribery	A-21
	2.23	Disclaimer of Other Representations or Warranties	A-21
Section 3.	REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB		A-21
	3.1	Due Organization; Subsidiaries	A-21
	3.2	Organizational Documents	A-22
	3.3	Authority; Binding Nature of Agreement	A-22
	3.4	Vote Required	A-23
	3.5	Non-Contravention; Consents	A-23
	3.6	Capitalization	A-24
	3.7	SEC Filings; Financial Statements	A-25
	3.8	Absence of Changes	A-26
	3.9	Absence of Undisclosed Liabilities	A-26
	3.10	Title to Assets	A-26
	3.11	Real Property; Leasehold	A-27
	3.12	Intellectual Property	A-27
	3.13	Agreements, Contracts and Commitments	A-28
	3.14	Compliance; Permits	A-30

			Page
	3.15	Legal Proceedings; Orders	A-31
	3.16	Tax Matters	A-32
	3.17	Employee and Labor Matters; Benefit Plans	A-33
	3.18	Environmental Matters	A-36
	3.19	Insurance	A-36
	3.20	No Financial Advisors	A-36
	3.21	Transactions with Affiliates	A-36
	3.22	Anti-Bribery	A-36
	3.23	Valid Issuance	A-36
	3.24	Opinion of Financial Advisor	A-36
	3.25	Disclaimer of Other Representations or Warranties	A-37
Section 4.		CERTAIN COVENANTS OF THE PARTIES	A-37
	4.1	Operation of Parent's Business	A-37
	4.2	Operation of the Company's Business	A-39
	4.3	Access and Investigation	A-40
	4.4	Parent Non-Solicitation	A-41
	4.5	Company Non-Solicitation	A-42
	4.6	Notification of Certain Matters	A-43
	4.7	Potentially Transferable Assets.	A-43
Section 5.		ADDITIONAL AGREEMENTS OF THE PARTIES.	A-44
	5.1	Registration Statement; Proxy Statement/Prospectus	A-44
	5.2	Regulatory Matters.	A-44
	5.3	Company Stockholder Matters	A-45
	5.4	Parent Stockholders' Meeting	A-47
	5.5	Company Options, Company Convertible Note, Parent Warrants, and Parent Equity Awards	A-48
	5.6	Indemnification of Officers and Directors	A-49
	5.7	Additional Agreements	A-50
	5.8	Disclosure	A-50
	5.9	Listing	A-51
	5.10	Tax Matters	A-51
	5.11	Legends	A-52
	5.12	Directors and Officers	A-52
	5.13	Termination of Certain Agreements and Rights	A-52
	5.14	Section 16 Matters	A-52
	5.15	Cooperation	A-52
	5.16	Allocation Certificates	A-52
	5.17	Company Financial Statements	A-53
	5.18	Takeover Statutes	A-53
	5.19	Stockholder Litigation	A-53
	5.20	Employee Benefits	A-53
	5.21	Pre-Closing Dividend	A-53
	5.22	Nasdaq Reverse Split	A-54
	5.23	Parent SEC Documents	A-54
	5.24	Obligations of Merger Sub	A-54
Section 6.		CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY	A-54
	6.1	No Restraints	A-54
	6.2	Stockholder Approval	A-54
	6.3	Listing	A-54
	6.4	Effectiveness of Registration Statement	A-54
Section 7.		ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF PARENT AND MERGER SUB	A-54
	7.1	Accuracy of Representations	A-54
	7.2	Performance of Covenants	A-55
	7.3	Closing Certificate	A-55

			Page
	7.4	FIRPTA Certificate	A-55
	7.5	Termination of Investor Agreements	A-55
	7.6	Company Lock-Up Agreements	A-55
Section 8.		ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATION OF THE COMPANY	A-55
	8.1	Accuracy of Representations	A-55
	8.2	Performance of Covenants	A-56
	8.3	Documents	A-56
	8.4	Parent Lock-Up Agreements	A-56
	8.5	Minimum Parent Final Net Cash	A-56
Section 9.		TERMINATION	A-56
	9.1	Termination	A-56
	9.2	Effect of Termination	A-57
	9.3	Expenses; Termination Fees	A-58
Section 10.		MISCELLANEOUS PROVISIONS	A-59
	10.1	Non-Survival of Representations and Warranties	A-59
	10.2	Amendment	A-59
	10.3	Waiver	A-59
	10.4	Entire Agreement; Counterparts; Exchanges by Electronic Transmission	A-59
	10.5	Applicable Law; Jurisdiction; Waiver of Jury Trial	A-60
	10.6	Assignability	A-60
	10.7	Notices	A-60
	10.8	Severability	A-61
	10.9	Other Remedies; Specific Performance	A-61
	10.10	No Third Party Beneficiaries	A-61
	10.11	Construction	A-61

Schedules:
Company Disclosure Schedule
Parent Disclosure Schedule
Schedule 5.7 – Additional Agreements
Schedule 5.12 – Post-Closing Directors and Officers of Parent and the Surviving Corporation
Schedule N

Exhibits:
Exhibit A Definitions
Exhibit B-1 Form of Company Stockholder Support Agreement
Exhibit B-2 Form of Parent Stockholder Support Agreement
Exhibit C-1 Form of Company Lock-Up Agreement
Exhibit C-2 Form of Parent Lock-Up Agreement
Exhibit D Form of Contingent Value Right Agreement
Exhibit E Net Cash Illustrative Calculations
Exhibit F Form of Certificate of Merger
Exhibit G Form of Company Stockholder Written Consent
Exhibit H Exchange Ratio Calculation

AGREEMENT AND PLAN OF MERGER AND REORGANIZATION

THIS AGREEMENT AND PLAN OF MERGER AND REORGANIZATION (this "***Agreement***") is made and entered into as of September 20, 2022, by and among **SESEN BIO, INC.**, a Delaware corporation ("***Parent***"), **SEAHAWK MERGER SUB, INC.**, a Delaware corporation and wholly-owned subsidiary of Parent ("***Merger Sub***"), and **CARISMA THERAPEUTICS INC.**, a Delaware corporation (the "***Company***"). Certain capitalized terms used in this Agreement are defined in **Exhibit A**.

RECITALS

A. Parent and the Company intend to effect a merger of Merger Sub with and into the Company (the "***Merger***") in accordance with this Agreement and the DGCL. Upon consummation of the Merger, Merger Sub will cease to exist and the Company will become a wholly-owned subsidiary of Parent.

B. The Parties intend that the Merger qualify as a "reorganization" within the meaning of Section 368(a) of the Code, and by executing this Agreement, the Parties intend to adopt this Agreement as a plan of reorganization within the meaning of Treasury Regulations Sections 1.368-2(g) and 1.368-3.

C. The Parent Board has (i) determined that the Contemplated Transactions, including the Merger, are fair to, advisable and in the best interests of Parent and its stockholders, (ii) approved and declared advisable this Agreement and the Contemplated Transactions, including the issuance of shares of Parent Common Stock to the stockholders of the Company pursuant to the terms of this Agreement, and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of Parent vote to approve the Parent Stockholder Matters.

D. The Merger Sub Board has (i) determined that the Contemplated Transactions are fair to, advisable, and in the best interests of Merger Sub and its sole stockholder, (ii) approved and declared advisable this Agreement and the Contemplated Transactions and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholder of Merger Sub votes to adopt this Agreement and thereby approve the Contemplated Transactions.

E. Parent, as the sole stockholder of Merger Sub, has adopted this Agreement and thereby approved the Contemplated Transactions.

F. The Company Board has (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of the Company and its stockholders, (ii) approved and declared advisable this Agreement and the Contemplated Transactions and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of the Company vote to approve the Company Stockholder Matters.

G. Concurrently with the execution and delivery of this Agreement and as a condition and inducement to Parent's willingness to enter into this Agreement, the officers, directors and stockholders of the Company listed in Section A of the Company Disclosure Schedule (solely in their capacity as stockholders of the Company) (the "***Company Signatories***") are executing (a) support agreements in favor of Parent in substantially the form attached hereto as **Exhibit B-1** (the "***Company Stockholder Support Agreement***"), pursuant to which the Company Signatories have, subject to the terms and conditions set forth therein, agreed to vote all of their shares of Company Common Stock in favor of the Company Stockholder Matters and against any proposals that compete with the Contemplated Transactions, and (b) lock-up agreements in substantially the form attached hereto as **Exhibit C-1** (the "***Company Lock-Up Agreement***").

H. Concurrently with the execution and delivery of this Agreement and as a condition and inducement to the Company's willingness to enter into this Agreement, the officers and directors of Parent listed in Section A of the Parent Disclosure Schedule (solely in their capacity as stockholders of Parent) (the "***Parent Signatories***") are executing (a) support agreements in favor of the Company in substantially the form attached hereto as **Exhibit B-2** (the "***Parent Stockholder Support Agreement***"), pursuant to which the Parent Signatories have, subject to the terms and conditions set forth therein, agreed to vote all of their shares of capital stock of Parent in favor of the Parent Stockholder Matters and against any proposals that compete with the Contemplated Transactions, and (b) lock-up agreements in substantially the form attached hereto as **Exhibit C-2** (the "***Parent Lock-Up Agreement***").

I. It is expected that promptly after the Registration Statement is declared effective under the Securities Act (and in any event no later than five Business Days), the holders of shares of Company Capital Stock sufficient to adopt and approve the Company Stockholder Matters as required under the DGCL and the Company's certificate of incorporation and bylaws will execute and deliver the Company Stockholder Written Consent evidencing the Required Company Stockholder Vote.

J. In connection with the execution and delivery of this Agreement, the Company has entered into one or more Subscription Agreements with certain investors, pursuant to which such investors have agreed to purchase immediately prior to the Effective Time certain shares of the Company in connection with the Pre-Closing Financing.

AGREEMENT

The Parties, intending to be legally bound, agree as follows:

Section 1. DESCRIPTION OF TRANSACTION

1.1 **The Merger**. Upon the terms and subject to the conditions set forth in this Agreement and in accordance with the DGCL, at the Effective Time, Merger Sub shall be merged with and into the Company, and the separate existence of Merger Sub shall cease. Following the Effective Time, the Company will continue as the surviving corporation in the Merger (the "***Surviving Corporation***").

1.2 **Effects of the Merger**. The Merger shall have the effects set forth in this Agreement, the Certificate of Merger and the applicable provisions of the DGCL. As a result of the Merger, the Company will become a wholly-owned subsidiary of Parent.

1.3 **Closing; Effective Time**. Unless this Agreement is earlier terminated pursuant to the provisions of Section 9.1, and subject to the satisfaction or waiver of the conditions set forth in Section 6, Section 7 and Section 8, the consummation of the Merger (the "***Closing***") shall take place remotely as promptly as practicable (but in no event later than the second Business Day following the satisfaction or waiver (to the extent permitted by applicable Law) of the last to be satisfied or waived of the conditions set forth in Section 6, Section 7 and Section 8, other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of each of such conditions), or at such other time, date and place as Parent and the Company may mutually agree in writing. The date on which the Closing actually takes place is referred to as the "***Closing Date***". At the Closing, the Parties shall cause the Merger to be consummated by executing and filing with the Secretary of State of the State of Delaware a certificate of merger with respect to the Merger, in the form attached hereto as **Exhibit F** (the "***Certificate of Merger***"). The Merger shall become effective at the time of such filing of the Certificate of Merger with the Secretary of State of the State of Delaware or at such later time as may be specified in the Certificate of Merger with the consent of Parent and the Company (the time as of which the Merger becomes effective being referred to as the "***Effective Time***").

1.4 **Certificate of Incorporation and Bylaws; Directors and Officers**. At the Effective Time:

(a) the certificate of incorporation of the Surviving Corporation shall be amended and restated in the Merger to read as set forth on Exhibit A to the Certificate of Merger, until thereafter amended as provided by the DGCL and such certificate of incorporation;

(b) the certificate of incorporation of Parent shall be identical to the certificate of incorporation of Parent immediately prior to the Effective Time (which shall reflect the Nasdaq Reverse Split, if approved), until thereafter amended as provided by the DGCL and such certificate of incorporation; *provided*, *however*, that at the Effective Time Parent shall file an amendment to its certificate of incorporation, to change the name of Parent to "CARISMA Therapeutics Inc.";

(c) the bylaws of the Surviving Corporation shall be amended and restated in their entirety to read identically to the bylaws of Merger Sub as in effect immediately prior to the Effective Time (except that the name of the Surviving Corporation in such bylaws shall reflect the name identified on Exhibit A to the Certificate of Merger), until thereafter amended as provided by the DGCL and such bylaws;

(d) the directors and officers of Parent, each to hold office in accordance with the certificate of incorporation and bylaws of Parent, shall be as set forth in Section 5.12; and

(e) the directors and officers of the Surviving Corporation, each to hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation, shall be the directors and officers of Parent as set forth in Section 5.12 or such other persons as shall be mutually agreed upon by Parent and the Company.

1.5 **Conversion of Shares**.

(a) At the Effective Time, by virtue of the Merger and without any further action on the part of Parent, Merger Sub, the Company or any stockholder of the Company or Parent:

(i) any shares of Company Capital Stock held as treasury stock or held or owned by the Company, Merger Sub or any Subsidiary of the Company immediately prior to the Effective Time shall be canceled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor; and

(ii) subject to Section 1.5(c) and Section 1.8, each share of Company Capital Stock outstanding immediately prior to the Effective Time (including any shares of Company Capital Stock issued pursuant to the Pre-Closing Financing, and excluding shares to be canceled pursuant to Section 1.5(a)(i) and Dissenting Shares) shall be automatically converted solely into the right to receive a number of shares of Parent Common Stock equal to the Exchange Ratio (the "***Merger Consideration***").

(b) If any shares of Company Capital Stock outstanding immediately prior to the Effective Time are unvested or are subject to a repurchase option or a risk of forfeiture under any applicable restricted stock purchase agreement or other similar agreement with the Company, then the shares of Parent Common Stock issued in exchange for such shares of Company Capital Stock will to the same extent be unvested and subject to the same repurchase option or risk of forfeiture, and such shares of Parent Common Stock shall accordingly be marked with appropriate legends. The Company shall take all actions that may be necessary to ensure that, from and after the Effective Time, Parent is entitled to exercise any such repurchase option or other right set forth in any such restricted stock purchase agreement or other agreement in accordance with its terms.

(c) No fractional shares of Parent Common Stock shall be issued in connection with the Merger or the Conversion, and no certificates or scrip for any such fractional shares shall be issued. Notwithstanding any other provision of this Agreement, any holder of Company Capital Stock or the Company Convertible Note, as applicable, converted in connection with the Merger or the Conversion, as applicable, who would otherwise have been entitled to receive a fraction of a share of Parent Common Stock (after taking into account all Company Stock Certificates delivered or Book-Entry Shares transferred by such holder and the aggregate number of shares of Company Capital Stock represented thereby, as applicable) shall receive, in lieu thereof, cash (without interest and subject to applicable Tax withholding) in an amount equal to such fractional part of a share of Parent Common Stock multiplied by the last reported sale price of Parent Common Stock at the 4:00 p.m., Eastern Time, end of regular trading hours on Nasdaq on the last trading day prior to the Effective Time.

(d) All Company Options outstanding immediately prior to the Effective Time under the Company Plan shall be treated in accordance with Section 5.5(a).

(e) The Company Convertible Note shall be treated in accordance with Section 5.5(c).

(f) All Parent Warrants outstanding immediately prior to the Effective Time shall be treated in accordance with Section 5.5(e) and Parent RSUs and Parent Options outstanding immediately prior to the Effective Time shall be treated in accordance with Section 5.5(f).

(g) Each share of common stock, $0.0001 par value per share, of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one validly issued, fully paid and nonassessable share of common stock, $0.0001 par value per share, of the Surviving Corporation. Each stock certificate of Merger Sub, if any, evidencing ownership of any such shares shall, as of the Effective Time, evidence ownership of such shares of common stock of the Surviving Corporation.

(h) If, between the date of this Agreement and the Effective Time, any outstanding shares of Company Capital Stock or Parent Common Stock shall have been changed into, or exchanged for, a different number of shares or a different class, by reason of any stock dividend, subdivision, reclassification, recapitalization, split (including the Nasdaq Reverse Split), combination or

exchange of shares or other like change, the Exchange Ratio shall, to the extent necessary, be equitably adjusted to reflect such change to provide the holders of Company Capital Stock, Company Options, Parent Common Stock, Parent Options, Parent RSUs and Parent Warrants with the same economic effect as contemplated by this Agreement prior to such stock dividend, subdivision, reclassification, recapitalization, split (including the Nasdaq Reverse Split), combination or exchange of shares or other like change; *provided, however*, that nothing herein will be construed to permit the Company or Parent to take any action with respect to Company Capital Stock or Parent Common Stock, respectively, that is prohibited by the terms of this Agreement.

1.6 **Closing of the Company's Transfer Books**. At the Effective Time: (a) all shares of Company Capital Stock outstanding immediately prior to the Effective Time (including any shares of Company Capital Stock issued pursuant to the Pre-Closing Financing) shall be treated in accordance with Section 1.5(a), and all holders of (i) certificates representing shares of Company Capital Stock and (ii) book-entry shares representing shares of Company Capital Stock ("***Book-Entry Shares***"), in each case, that were outstanding immediately prior to the Effective Time shall cease to have any rights as stockholders of the Company; and (b) the stock transfer books of the Company shall be closed with respect to all shares of Company Capital Stock outstanding immediately prior to the Effective Time. No further transfer of any such shares of Company Capital Stock shall be made on such stock transfer books after the Effective Time. If, after the Effective Time, a valid certificate previously representing any shares of Company Capital Stock outstanding immediately prior to the Effective Time (a "***Company Stock Certificate***") is presented to the Exchange Agent or to the Surviving Corporation, such Company Stock Certificate shall be canceled and shall be exchanged as provided in Sections 1.5 and 1.7.

1.7 **Surrender of Certificates**.

(a) Prior to the Closing Date, Parent and the Company shall agree upon and select a reputable bank, transfer agent or trust company to act as exchange agent in the Merger (the "***Exchange Agent***"). At the Effective Time, Parent shall deposit with the Exchange Agent: (i) evidence of book-entry shares representing the Parent Common Stock issuable pursuant to Section 1.5(a) in exchange for shares of Company Capital Stock and conversion of the Company Convertible Note; and (ii) cash sufficient to make payments in lieu of fractional shares in accordance with Section 1.5(c). The Parent Common Stock and cash amounts so deposited with the Exchange Agent, together with any dividends or distributions received by the Exchange Agent with respect to such shares, are referred to collectively as the "***Exchange Fund.***"

(b) Promptly after the Effective Time, the Parties shall cause the Exchange Agent to mail to the Persons who were record holders of shares of Company Capital Stock that were converted into the right to receive the Merger Consideration: (i) a letter of transmittal in customary form and containing such provisions as Parent may reasonably specify (the "***LoT***") (including a provision confirming that delivery of Company Stock Certificates or transfer of Book-Entry Shares to the Exchange Agent shall be effected, and risk of loss and title thereto shall pass, only upon proper delivery of such Company Stock Certificates or transfer of the Book-Entry Shares to the Exchange Agent); and (ii) instructions for effecting the surrender of Company Stock Certificates or transfer of Book-Entry Shares in exchange for shares of Parent Common Stock. Upon surrender of a Company Stock Certificate or transfer of Book-Entry Share to the Exchange Agent for exchange, together with a duly executed LoT and such other documents as may be reasonably required by the Exchange Agent or Parent: (A) the holder of such Company Stock Certificate or Book-Entry Share shall be entitled to receive in exchange therefor book-entry shares representing the Merger Consideration (in a number of whole shares of Parent Common Stock) that such holder has the right to receive pursuant to the provisions of Section 1.5(a) (and cash in lieu of any fractional share of Parent Common Stock pursuant to the provisions of Section 1.5(c)); and (B) the Company Stock Certificate or Book-Entry Share so surrendered or transferred, as the case may be, shall be canceled. Until surrendered or transferred as contemplated by this Section 1.7(b), each Company Stock Certificate or Book-Entry Share shall be deemed, from and after the Effective Time, to represent only the right to receive book-entry shares of Parent Common Stock representing the Merger Consideration (and cash in lieu of any fractional share of Parent Common Stock). If any Company Stock Certificate shall have been lost, stolen or destroyed, Parent may, in its discretion and as a condition precedent to the delivery of any shares of Parent Common Stock, require the owner of such lost, stolen or destroyed Company Stock Certificate to provide an applicable affidavit with respect to such Company Stock Certificate.

(c) No dividends or other distributions declared or made with respect to Parent Common Stock with a record date on or after the Effective Time shall be paid to the holder of any unsurrendered Company Stock Certificate or Book-Entry Shares with respect to the shares of Parent Common Stock that such holder has the right to receive in the Merger until such holder surrenders such Company Stock Certificate or transfers such Book-Entry Share or provides an affidavit of loss or destruction in lieu thereof in accordance with this Section 1.7 (at which time (or, if later, on the applicable payment date) such holder shall be entitled, subject

to the effect of applicable abandoned property, escheat or similar Laws, to receive all such dividends and distributions, without interest).

(d) Any portion of the Exchange Fund that remains unclaimed by holders of shares of Company Common Stock as of the first anniversary of the Closing Date shall be delivered to Parent upon demand, and any holders of Company Stock Certificates or Book-Entry Shares who have not theretofore surrendered their Company Stock Certificates or transferred their Book-Entry Shares in accordance with this Section 1.7 shall thereafter look only to Parent for satisfaction of their claims for Parent Common Stock, cash in lieu of fractional shares of Parent Common Stock and any dividends or distributions with respect to shares of Parent Common Stock.

(e) No Party shall be liable to any holder of shares of any Company Capital Stock or to any other Person with respect to any shares of Parent Common Stock (or dividends or distributions with respect thereto) or for any cash amounts delivered to any public official pursuant to any applicable abandoned property Law, escheat Law or similar Law.

1.8 **Appraisal Rights**.

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who have exercised and perfected appraisal rights for such shares of Company Capital Stock in accordance with the DGCL (collectively, the "***Dissenting Shares***") shall not be converted into or represent the right to receive the Merger Consideration described in Section 1.5 attributable to such Dissenting Shares. Such stockholders shall be entitled to receive payment of the appraised value of such shares of Company Capital Stock held by them in accordance with the DGCL, unless and until such stockholders fail to perfect or effectively withdraw or otherwise lose their appraisal rights under the DGCL. All Dissenting Shares held by stockholders who shall have failed to perfect or who effectively shall have withdrawn or lost their right to appraisal of such shares of Company Capital Stock under the DGCL (whether occurring before, at or after the Effective Time) shall thereupon be deemed to be converted into and to have become exchangeable for, as of the Effective Time, the right to receive the Merger Consideration, without interest, attributable to such Dissenting Shares upon their surrender in the manner provided in Sections 1.5 and 1.7.

(b) The Company shall give Parent prompt written notice of any demands by dissenting stockholders received by the Company, withdrawals of such demands and any other instruments served on the Company and any material correspondence received by the Company in connection with such demands.

1.9 **Further Action**. If, at any time after the Effective Time, any further action is determined by the Surviving Corporation to be necessary or desirable to carry out the purposes of this Agreement or to vest the Surviving Corporation with full right, title and possession of and to all rights and property of the Company, then the officers and directors of the Surviving Corporation shall be fully authorized, and shall use their and its commercially reasonable efforts (in the name of the Company, in the name of Merger Sub, in the name of the Surviving Corporation and otherwise) to take such action.

1.10 **Withholding**. The Parties and the Exchange Agent and their respective agents shall be entitled to deduct and withhold from any amounts otherwise payable pursuant to this Agreement such amounts as such Party or the Exchange Agent is required to deduct and withhold under the Code or any other Tax Law with respect to the making of such payment and shall be entitled to request any reasonably appropriate Tax forms, including an IRS Form W-9 or the appropriate IRS Form W-8, as applicable, from any recipient of payments hereunder. The payor shall provide commercially reasonable notice to the payee upon becoming aware of any such withholding obligation (other than any withholding on amounts treated as compensation), and the Parties shall cooperate with each other and with such payee to the extent reasonable to obtain reduction of or relief from such withholding. To the extent that amounts are so deducted and withheld and paid to the appropriate taxing authority, such deducted and withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of whom such deduction and withholding was made.

1.11 **Calculation of Net Cash**.

(a) Not more than ten nor less than five calendar days prior to the anticipated date for Closing (as mutually agreed in good faith by Parent and the Company) (the "***Anticipated Closing Date***"), Parent will deliver to the Company a schedule (the "***Net Cash Schedule***") setting forth, in reasonable detail, Parent's good faith estimated calculation of Net Cash (the "***Net Cash Calculation***" and the date of delivery of such schedule, the "***Delivery Date***") as of 8:00 p.m. Eastern Time on the last Business

Day prior to the Anticipated Closing Date (the "***Cash Determination Time***"), prepared and certified by Parent's chief executive officer and chief financial officer (or if there is no chief financial officer at such time, the principal financial and accounting officer of Parent). Subject to the terms of the Confidentiality Agreement, Parent shall make available to the Company, its accountants and/or counsel, the work papers and back-up materials used or useful in preparing the Net Cash Schedule, as reasonably requested by the Company.

(b) Within three Business Days following the Delivery Date (the last day of such period, the "***Response Date***"), the Company will have the right to dispute all or any part or parts of the Net Cash Calculation by delivering a written notice to that effect (a "***Dispute Notice***") to Parent. Any Dispute Notice shall identify in reasonable detail to the extent then known the nature and amounts of any proposed revisions to the Net Cash Calculation.

(c) If (i) the Company notifies Parent in writing on or prior to the Response Date that it has no objections to the Net Cash Calculation or (ii) the Company has failed to deliver a Dispute Notice as provided in Section 1.11(b) prior to 8:00 p.m. Eastern Time on the Response Date, then the Net Cash Calculation as set forth in the Net Cash Schedule shall be deemed to have been finally determined for purposes of this Agreement and to represent the Net Cash at the Cash Determination Time (the "***Final Net Cash***") for purposes of this Agreement.

(d) If the Company delivers a Dispute Notice prior to 8:00 p.m. Eastern Time on the Response Date, then Representatives of Parent and the Company shall promptly, and in no event later than one calendar day after the Response Date, meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of the Net Cash, which agreed-upon Net Cash shall be deemed to have been finally determined for purposes of this Agreement and to represent the Final Net Cash for purposes of this Agreement.

(e) If Representatives of Parent and the Company are unable to negotiate an agreed-upon determination of Final Net Cash pursuant to Section 1.11(d) within two calendar days after delivery of the Dispute Notice (or such other period as Parent and the Company may mutually agree upon in writing), then any remaining disagreements as to the calculation of Net Cash shall be referred to Deloitte & Touche LLP or another independent auditor of recognized national standing mutually agreed upon by Parent and the Company (the "***Accounting Firm***"). Parent shall promptly deliver to the Accounting Firm all work papers and back-up materials used in preparing the Net Cash Schedule, and Parent and the Company shall use commercially reasonable efforts to cause the Accounting Firm to make its determination within five calendar days of accepting its selection. The Company and Parent shall be afforded the opportunity to present to the Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Accounting Firm; *provided*, *however*, that no such presentation or discussion shall occur without the presence of a Representative of each of the Company and Parent. The determination of the Accounting Firm shall be limited to the disagreements submitted to the Accounting Firm. The determination of the amount of Net Cash made by the Accounting Firm shall be made in writing delivered to each of the Company and Parent, shall be final and binding on the Company and Parent and shall be deemed to have been finally determined for purposes of this Agreement and to represent the Final Net Cash for purposes of this Agreement, absent fraud or manifest error. The Parties shall delay the Closing until the resolution of the matters described in this Section 1.11(e). The fees and expenses of the Accounting Firm shall be allocated between Parent and the Company in the same proportion that the disputed amount of the Net Cash that was unsuccessfully disputed by such Party (as finally determined by the Accounting Firm) bears to the total disputed amount of the Net Cash and such portion of the costs and expenses of the Accounting Firm borne by Parent and any other fees, costs or expenses incurred by Parent following the Delivery Date in connection with the procedures set forth in this Section 1.11(e) shall be deducted from the final determination of the amount of Net Cash. If this Section 1.11(e) applies as to the determination of the Final Net Cash described in Section 1.11(e), upon resolution of the matter in accordance with this Section 1.11(e), the Parties shall not be required to determine the Net Cash again even though the Closing Date may occur later than the Anticipated Closing Date, except that either Party may require a re-determination of Final Net Cash if the Closing Date is more than ten calendar days after the Anticipated Closing Date.

Section 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Subject to Section 10.11(m), except as set forth in the written disclosure schedule delivered by the Company to Parent (the "***Company Disclosure Schedule***"), the Company represents and warrants to Parent and Merger Sub as follows:

2.1 **Due Organization; Subsidiaries**.

(a) The Company is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware and has all necessary corporate power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used; and (iii) to perform its obligations under all material Contracts by which it is bound.

(b) The Company is duly licensed and qualified to do business, and is in good standing (to the extent applicable in such jurisdiction), under the Laws of all jurisdictions where the nature of its business requires such licensing or qualification other than in jurisdictions where the failure to be so qualified would not have a Company Material Adverse Effect.

(c) The Company has no Subsidiaries, except for the Entities identified in Section 2.1(c) of the Company Disclosure Schedule; and neither the Company nor any of the Company's Subsidiaries owns any capital stock of, or any equity, ownership or profit sharing interest of any nature in, or controls, directly or indirectly, any other Entity other than the Entities identified in Section 2.1(c) of the Company Disclosure Schedule. Each of the Company's Subsidiaries is a corporation or other legal Entity duly incorporated or otherwise organized, validly existing and, if applicable, in good standing under the Laws of the jurisdiction of its incorporation or organization, as applicable, and has all necessary corporate or similar power and authority to conduct its business in the manner in which its business is currently being conducted and to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used, except where the failure to have such power or authority would not have a Company Material Adverse Effect.

(d) Neither the Company nor any of its Subsidiaries is or has otherwise been a party to, or a member of, any partnership, joint venture or similar business Entity. Neither the Company nor any of its Subsidiaries has agreed or is obligated to make, or is bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity. Neither the Company nor any of its Subsidiaries has, at any time, been a general partner of, or has otherwise been liable for, any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

2.2 **Organizational Documents**. The Company has made available to Parent accurate and complete copies of the Organizational Documents of the Company and each of its Subsidiaries' in effect as of the date of this Agreement. Neither the Company nor any of its Subsidiaries is in material breach or violation of its respective Organizational Documents.

2.3 **Authority; Binding Nature of Agreement**.

(a) The Company has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement and, subject to receipt of the Required Company Stockholder Vote, to consummate the Contemplated Transactions. The Company Board (at a meeting or meetings duly called and held and at which all members were present) has unanimously (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of, the Company and its stockholders, (ii) authorized, approved and declared advisable this Agreement and the Contemplated Transactions and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of the Company vote to approve the Company Stockholder Matters.

(b) This Agreement has been duly executed and delivered by the Company and, assuming the due authorization, execution and delivery by Parent and Merger Sub, constitutes the valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, subject to the Enforceability Exceptions.

2.4 **Vote Required**. The affirmative vote (or written consent) of (i) the holders of a majority of the Company Capital Stock, voting together as a single class, (ii) the holders of at least two-thirds of the Company Series A Preferred Stock, Company Special Voting Preferred Stock, Company Series B Preferred Stock and Company Series B Special Voting Preferred Stock, voting together as a single class, (iii) the holders of a majority of the Company Series A Preferred Stock and Company Special Voting Preferred Stock,

voting together as a single class, and (iv) the holders of at least two-thirds of the Company Series B Preferred Stock and Company Series B Special Voting Preferred Stock, voting together as a single class, in the form attached hereto as **Exhibit G** (collectively, the "***Company Stockholder Written Consent***" and such vote thereon, the "***Required Company Stockholder Vote***"), is the only vote (or written consent) of the holders of any class or series of Company Capital Stock necessary to adopt and approve the Company Stockholder Matters.

2.5 **Non-Contravention; Consents**. Subject to obtaining the Required Company Stockholder Vote, the filing of the Certificate of Merger with the Secretary of State of the State of Delaware required by the DGCL and clearance of the Merger under any applicable Antitrust Laws, neither (x) the execution, delivery or performance of this Agreement by the Company, nor (y) the consummation by the Company of the Contemplated Transactions, will directly or indirectly (with or without notice or lapse of time):

(a) contravene, conflict with or result in a violation of any of the provisions of the Company's Organizational Documents;

(b) contravene, conflict with or result in a material violation of, or, to the Knowledge of the Company, give any Governmental Body or other Person the right to successfully challenge the Contemplated Transactions or to successfully exercise any material remedy or obtain any material relief under, any Law or any order, writ, injunction, judgment or decree to which the Company or its Subsidiaries, or any of the assets owned or used by the Company or its Subsidiaries, is subject, except as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole;

(c) contravene, conflict with or result in a material violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by the Company or its Subsidiaries, except as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole;

(d) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Company Material Contract, or give any Person the right to: (i) declare a default or exercise any remedy under any Company Material Contract; (ii) any material payment, rebate, chargeback, penalty or change in delivery schedule under any Company Material Contract; (iii) accelerate the maturity or performance of any Company Material Contract; or (iv) cancel, terminate or modify any term of any Company Material Contract, except in each case under this clause (d), as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole; or

(e) result in the imposition or creation of any material Encumbrance upon or with respect to any material asset owned or used by the Company or its Subsidiaries (except for Permitted Encumbrances).

Except for (i) any Consent set forth in Section 2.5 of the Company Disclosure Schedule, (ii) the Required Company Stockholder Vote, (iii) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware pursuant to the DGCL and the clearance of the Merger under any applicable Antitrust Laws, and (iv) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal and state securities Laws or, if not given or obtained, as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole, or would not reasonably be expected to prevent or materially delay beyond the End Date the ability of the Company to consummate the Contemplated Transactions, neither the Company nor any of its Subsidiaries is or will be required to make any filing with or give any notice to, or to obtain any Consent from, any Person in connection with (A) the execution, delivery or performance by the Company of this Agreement, or (B) the consummation by the Company of the Contemplated Transactions. None of the Company nor any of its "affiliates" or "associates" directly or indirectly "owns," beneficially or otherwise, and at all times during the three-year period prior to the date of this Agreement, none of its "affiliates" or "associates" directly or indirectly has "owned," beneficially or otherwise, any of the outstanding Parent Common Stock, as those terms are defined in Section 203 of the DGCL.

2.6 **Capitalization**.

(a) The authorized Company Capital Stock as of the date of this Agreement consists of (i) 14,910,158 shares of Company Common Stock, par value $0.0001 per share, of which 1,085,436 shares have been issued and are outstanding as of the date of this Agreement, and (ii) 10,946,061 shares of Company Preferred Stock, par value $0.0001 per share, of which (a) 6,138,518 shares have been designated as Company Series A Preferred Stock, of which 5,201,017 shares are issued and outstanding as of the

date of this Agreement, (b) 1 share has been designated as Company Special Voting Preferred Stock, of which 1 share is issued and outstanding as of the date of this Agreement, (c) 4,807,541 shares have been designated as Company Series B Preferred Stock, of which 3,499,866 shares are issued and outstanding as of the date of this Agreement and (d) 1 share has been designated as Company Series B Special Voting Preferred Stock, of which 1 share is issued and outstanding as of the date of this Agreement. As of the date of this Agreement, the Company does not hold any shares of its capital stock in treasury. Section 2.6(a) of the Company Disclosure Schedule lists, as of the date of this Agreement (x) each record holder of issued and outstanding Company Capital Stock and the number and type of shares of Company Capital Stock held by such holder and (y)(A) the holder of the issued and outstanding convertible promissory note into Company Capital Stock (the "***Company Convertible Note***"), (B) the date the Company Convertible Note was issued, (C) the type of securities subject to the Company Convertible Note, (D) the underlying principal amount and accrued interest of the Company Convertible Note, and (E) the maturity date of the Company Convertible Note.

(b) All of the outstanding shares of Company Capital Stock have been duly authorized and validly issued, and are fully paid and nonassessable. None of the outstanding shares of Company Capital Stock are entitled or subject to any preemptive right, right of participation, right of maintenance or any similar right and none of the outstanding shares of Company Capital Stock are subject to any right of first refusal in favor of the Company, in each case under any Company Contract. Except as contemplated herein, there is no Company Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or granting any option or similar right with respect to), any shares of Company Capital Stock. The Company is not under any obligation, nor is it bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding shares of Company Capital Stock or other securities. None of the outstanding shares of Company Capital Stock held by current or former Company employees or other service providers are subject to any repurchase or forfeiture rights held by the Company.

(c) Except for the Company Plan (and awards granted thereunder), the Company does not have any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person. As of the date of this Agreement, the Company has reserved 2,664,018 shares of Company Common Stock for issuance under the Company Plan, of which 45,436 shares have been issued and are currently outstanding, 1,900,829 shares have been reserved for issuance upon the exercise of Company Options previously granted and are currently outstanding under the Company Plan, and 717,753 shares of Company Common Stock remain available for future issuance pursuant to the Company Plan. Only shares of Company Common Stock are subject to Company Options. Section 2.6(c) of the Company Disclosure Schedule sets forth the following information with respect to each Company Option outstanding as of the date of this Agreement: (i) the name of the optionee; (ii) the number of shares of Company Common Stock subject to such Company Option at the time of grant; (iii) the number of shares of Company Common Stock subject to such Company Option as of the date of this Agreement; (iv) the exercise price of such Company Option; (v) the date on which such Company Option was granted; (vi) the applicable vesting schedule, including the number of vested and unvested shares as of the date of this Agreement and any acceleration provisions; (vii) the date on which such Company Option expires; and (viii) whether such Company Option is intended to constitute an "incentive stock option" (as defined in the Code) or a non-qualified stock option. The Company has made available to Parent accurate and complete copies of the Company Plan and all forms of stock option and other award agreements evidencing outstanding options granted thereunder.

(d) Except for the Company Convertible Note and the Company Options set forth in Section 2.6(c) of the Company Disclosure Schedule, there is no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of the Company or any of its Subsidiaries; or (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of the Company or any of its Subsidiaries. There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar rights with respect to the Company or any of its Subsidiaries.

(e) All outstanding shares of Company Capital Stock, Company Options, the Company Convertible Note, and other securities of the Company have been issued and granted in material compliance with (i) the Organizational Documents of the Company in effect as of the relevant time and all applicable securities Laws and other applicable Law, and (ii) all requirements set forth in applicable Contracts.

2.7 **Financial Statements**.

(a) The Company has made available to Parent true and complete copies of (i) the Company's audited consolidated balance sheets at December 31, 2021 and 2020, together with related audited consolidated statements of income, stockholders' equity and cash flows, and notes thereto, for the fiscal years then ended and (ii) the Company Unaudited Interim Balance Sheet, together with the unaudited consolidated statements of income, stockholders' equity and cash flows of the Company for the six-month period ended on the date of the Company Unaudited Interim Balance Sheet (collectively, the "***Company Financial Statements***"). The Company Financial Statements were prepared in accordance with GAAP (except that the unaudited financial statements may not contain footnotes and are subject to normal and recurring year-end adjustments that are not reasonably expected to be material) and fairly present, in all material respects, the financial position and operating results of the Company and its consolidated Subsidiaries as of the dates and for the periods indicated therein.

(b) Each of the Company and its Subsidiaries maintains a system of internal accounting controls designed to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of the financial statements of the Company and its Subsidiaries in accordance with GAAP and to maintain accountability of the Company's and its Subsidiaries' assets; (iii) access to the Company's and its Subsidiaries' assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for the Company's and its Subsidiaries' assets is compared with the existing assets at regular intervals and appropriate action is taken with respect to any differences; and (v) accounts, notes and other receivables are recorded accurately, and proper and adequate procedures are implemented to effect the collection thereof on a current and timely basis. The Company and each of its Subsidiaries maintains internal control over financial reporting that provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

(c) Section 2.7(c) of the Company Disclosure Schedule lists, and the Company has made available to Parent accurate and complete copies of the documentation creating or governing, all securitization transactions and "off-balance sheet arrangements" (as discussed in Item 303 of Regulation S-K under the Exchange Act) effected by the Company or any of its Subsidiaries since January 1, 2019.

(d) As of the date of this Agreement, there have been no formal internal investigations regarding financial reporting or accounting policies and practices discussed with, reviewed by or initiated at the direction of the chief executive officer, chief financial officer or general counsel of the Company, the Company Board or any committee thereof. As of the date of this Agreement, the Company nor its independent auditors have identified (i) any significant deficiency or material weakness in the design or operation of the system of internal accounting controls utilized by the Company and its Subsidiaries, (ii) any fraud, whether or not material, that involves the Company, any of its Subsidiaries, the Company's management or other employees who have a role in the preparation of financial statements or the internal accounting controls utilized by the Company and its Subsidiaries or (iii) any claim or allegation regarding any of the foregoing.

(e) The Company Financial Statements will be suitable for inclusion in the Registration Statement and prepared in accordance with GAAP as applied on a consistent basis during the periods involved (except in each case as described in the notes thereto) and on that basis will present fairly, in all material respects, the financial position and the results of operations, changes in stockholders' equity, and cash flows of the Company as of the dates of and for the periods referred to in the Company Financial Statements.

2.8 **Absence of Changes**. (a) Between the date of the Company Unaudited Interim Balance Sheet and the date of this Agreement, (i) the Company has conducted its business only in the Ordinary Course of Business (except for the execution and performance of this Agreement and the discussions, negotiations and transactions related thereto) and (ii) the Company has not taken any action that would have required the consent of Parent pursuant to Section 4.2(b) had such action taken place after the execution and delivery of this Agreement; and (b) since the date of the Company Unaudited Interim Balance Sheet, there has not been any Company Material Adverse Effect.

2.9 **Absence of Undisclosed Liabilities**. Neither the Company nor any of its Subsidiaries has any liability, indebtedness, obligation or expense of any kind, whether accrued, absolute, contingent, matured or unmatured (whether or not required to be reflected in the financial statements in accordance with GAAP) (each a "***Liability***"), except for: (a) Liabilities disclosed, reflected or

reserved against in the Company Unaudited Interim Balance Sheet; (b) Liabilities that have been incurred by the Company or its Subsidiaries since the date of the Company Unaudited Interim Balance Sheet in the Ordinary Course of Business; (c) Liabilities for performance of obligations of the Company or any of its Subsidiaries under Company Contracts (other than those arising as a result of a breach or default thereunder or as a result of failure to comply with applicable Law); (d) Liabilities for payment of fees and expenses incurred in connection with the Contemplated Transactions; (e) Liabilities which would not, individually or in the aggregate, reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole; and (f) Liabilities described in Section 2.9 of the Company Disclosure Schedule.

2.10 **Title to Assets**. Each of the Company and its Subsidiaries owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or tangible assets and equipment used or held for use in its business or operations or purported to be owned by it, in each case that are material to the Company and its Subsidiaries, taken as a whole, including: (a) all such tangible assets reflected on the Company Unaudited Interim Balance Sheet; and (b) all other such tangible assets reflected in the books and records of the Company or any of its Subsidiaries as being owned by the Company or such Subsidiary. All of such assets are owned or, in the case of leased assets, leased by the Company or any of its Subsidiaries free and clear of any Encumbrances, other than Permitted Encumbrances.

2.11 **Real Property; Leasehold**. Neither the Company nor any of its Subsidiaries owns or has ever owned any real property. The Company has made available to Parent (a) an accurate and complete list of all real properties with respect to which the Company directly or indirectly holds a valid leasehold interest as well as any other real estate that is in the possession of, or occupied or leased by the Company or any of its Subsidiaries, and (b) copies of all leases under which any such real property is possessed, occupied or leased (the "***Company Real Estate Leases***"), each of which is in full force and effect, with no existing material default by the Company or any Subsidiary thereunder.

2.12 **Intellectual Property**.

(a) Section 2.12(a)(1) of the Company Disclosure Schedule identifies, as of the date of this Agreement, each item of material Company IP that is owned or purported to be owned by or assigned to the Company or its Subsidiaries and that is the subject of a registration or application in any jurisdiction ("***Company Registered IP***"), including, with respect to each such patent and patent application: (i) the name of the applicant/registrant; (ii) the jurisdiction of application/registration; (iii) the application or registration number; and (iv) any other co-owners. Section 2.12(a)(2) of the Company Disclosure Schedule identifies, as of the date of this Agreement, each license agreement under which the Company or its Subsidiaries exclusively license material Company IP from a third party. To the Knowledge of the Company, each of the patents and patent applications included in Section 2.12(a)(1) of the Company Disclosure Schedule properly identifies by name each and every inventor of the inventions claimed therein as determined in accordance with applicable Laws of the United States. To the Knowledge of the Company, as of the date of this Agreement, no cancellation, interference, opposition, reissue, reexamination or other proceeding of any nature (other than office actions or similar communications issued by any Governmental Body in the ordinary course of prosecution of any pending applications for registration) is pending or threatened in writing, in which the scope, validity, enforceability or ownership of any Company IP, other than such items with pending applications, is being or has been contested or challenged. To the Knowledge of the Company, each item of issued Company Registered IP is valid, enforceable and subsisting.

(b) Except as would not have a Company Material Adverse Effect, the Company and its Subsidiaries collectively exclusively own, are the sole assignees of, or have exclusively licensed all material Company IP, free and clear of all Encumbrances other than Permitted Encumbrances (other than as disclosed in Section 2.12(b) of the Company Disclosure Schedule). The Company IP and the Intellectual Property Rights licensed to the Company pursuant to a valid, enforceable written agreement constitute all Intellectual Property Rights used in, material to and otherwise necessary for the operation of the Company's business as currently conducted. Each Company Associate involved in the creation or development of any material Company IP, pursuant to such Company Associate's activities on behalf of the Company or its Subsidiaries, has signed a valid and enforceable written agreement containing an assignment of such Company Associate's rights in such Company IP to the Company or its applicable Subsidiary. Each Company Associate who has or has had access to the Company's trade secrets or confidential information has signed a valid and enforceable written agreement containing confidentiality provisions protecting the Company IP, trade secrets and confidential information. The Company and its Subsidiaries have taken commercially reasonable steps to protect and preserve the confidentiality of its trade secrets and confidential information.

(c) To the Knowledge of the Company, no funding, facilities or personnel of any Governmental Body or any university, college, research institute or other educational institution has been used to create material Company IP that is owned or purported to be owned by or assigned to the Company or its Subsidiaries, except for any such funding or use of facilities or personnel that does not result in such Governmental Body or institution obtaining ownership rights or a license to such Company IP (excluding confirmatory licenses to inventions made with government funding and for which the Company, its Subsidiaries or either of their licensors has duly retained title under the Bayh-Dole Act) or the right to receive royalties for the practice of such Company IP.

(d) Section 2.12(d) of the Company Disclosure Schedule sets forth, as of the date of this Agreement, each license agreement pursuant to which the Company (i) is granted a license under any material Intellectual Property Right owned by any third party that is used by the Company or its Subsidiaries in its business as currently conducted (each a "***Company In-bound License***") or (ii) grants to any third party a license under any material Company IP or material Intellectual Property Right licensed to the Company or its Subsidiaries under a Company In-bound License (each a "***Company Out-bound License***") (*provided*, that, Company In-bound Licenses shall not include, when entered into in the Ordinary Course of Business, material transfer agreements, clinical trial agreements, agreements with Company Associates, services agreements, commercially available Software-as-a-Service offerings or off-the-shelf software licenses; and Company Out-bound Licenses shall not include, when entered into in the Ordinary Course of Business, material transfer agreements, clinical trial agreements, services agreements, or non-exclusive outbound licenses). All Company In-bound Licenses and Company Out-bound Licenses are in full force and effect and are valid, enforceable and binding obligations of the Company or the applicable Subsidiary and, to the Knowledge of Company, each other party to such Company In-bound Licenses or Company Out-bound Licenses. Neither the Company or any of its Subsidiaries, nor to the Knowledge of the Company, any other party to such Company In-bound Licenses or Company Out-bound Licenses, is in material breach under any Company In-bound Licenses or Company Out-bound Licenses.

(e) To the Knowledge of the Company: (i) the operation of the businesses of the Company and its Subsidiaries as currently conducted does not infringe, misappropriate or otherwise violate any Intellectual Property Rights of any other Person; and (ii) no other Person is infringing, misappropriating or otherwise violating any Company IP. As of the date of this Agreement, no Legal Proceeding is pending (or, to the Knowledge of the Company, is threatened in writing) (A) against the Company or its Subsidiaries alleging that the operation of the businesses of the Company or its Subsidiaries infringes or constitutes the misappropriation or other violation of any Intellectual Property Rights of another Person or (B) by the Company or its Subsidiaries alleging that another Person has infringed, misappropriated or otherwise violated any of the Company IP or any Intellectual Property Rights exclusively licensed to the Company or its Subsidiaries. Between January 1, 2019 and the date of this Agreement, neither the Company nor its Subsidiaries has received any written notice or other written communication alleging that the operation of the business of the Company or its Subsidiaries infringes or constitutes the misappropriation or other violation of any Intellectual Property Right of another Person.

(f) None of the Company IP that is owned or purported to be owned by or assigned to the Company or its Subsidiaries and, to the Knowledge of the Company, no material Intellectual Property Rights exclusively licensed to the Company or its Subsidiaries is subject to any pending or outstanding injunction, directive, order, judgment or other disposition of dispute that adversely and materially restricts the use, transfer, registration or licensing by the Company or its Subsidiaries of any such Company IP that is owned or purported to be owned by or assigned to the Company or its Subsidiaries or material Intellectual Property Rights exclusively licensed to the Company or its Subsidiaries.

(g) To the Knowledge of the Company, the Company, its Subsidiaries and the operation of the Company's and its Subsidiaries' business are in substantial compliance with all Laws pertaining to data privacy and data security of any personally identifiable information or sensitive business information (collectively, "***Sensitive Data***"). Between January 1, 2019 and the date of this Agreement, there have been (i) no losses or thefts of data or security breaches relating to Sensitive Data used in the business of the Company or its Subsidiaries, (ii) no material violations of any security policy of the Company regarding any such Sensitive Data used in the business of the Company or its Subsidiaries and (iii) no unauthorized access, unauthorized use or unintended or improper disclosure of any Sensitive Data used in the business of the Company or its Subsidiaries, except in each case as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole. The Company has taken commercially reasonable steps and implemented reasonable disaster recovery and security plans and procedures to protect the information technology systems used in, material to and necessary for operation of the Company's business as currently conducted from unauthorized use or access. To the Knowledge of the Company, as of the date of this Agreement, there have been no material malfunctions or unauthorized intrusions or breaches of the information technology systems used in, material to and necessary for the operation of the Company's business as currently conducted.

2.13 **Agreements, Contracts and Commitments**.

(a) Section 2.13(a) of the Company Disclosure Schedule lists the following Company Contracts in effect as of the date of this Agreement and under which the Company or any of its Subsidiaries has any remaining material rights or obligations (each, a "***Company Material Contract***" and collectively, the "***Company Material Contracts***"):

(i) each Company Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(ii) each Company Contract containing (A) any covenant limiting the freedom of the Company, its Subsidiaries or the Surviving Corporation to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision, in each case, except for restrictions that would not materially affect the ability of the Company and its Subsidiaries to conduct its business;

(iii) each Company Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $250,000 pursuant to its express terms and not cancelable without penalty;

(iv) each Company Contract relating to the disposition or acquisition of material assets or any ownership interest in any Entity, in each case, involving payments in excess of $250,000, other than Company Contracts in which the applicable acquisition or disposition has been consummated and there are no material ongoing liabilities or obligations;

(v) each Company Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit in excess of $250,000 or creating any material Encumbrances with respect to any assets of the Company or any of its Subsidiaries or any loans or debt obligations with officers or directors of the Company;

(vi) each Company Contract requiring payment by or to the Company or its Subsidiaries after the date of this Agreement in excess of $250,000 pursuant to its express terms and constituting: (A) an exclusive distribution agreement; (B) an agreement involving provision of material services or products with respect to any pre-clinical or clinical development activities of the Company or its Subsidiaries; (C) a dealer, distributor, joint marketing, alliance, joint venture, cooperation, development or similar agreement currently in force under which the Company or its Subsidiaries has continuing obligations to develop or market any product, technology or service, or an agreement pursuant to which the Company or its Subsidiaries has continuing obligations to develop any Intellectual Property Rights that will not be owned, in whole or in part, by the Company or its Subsidiaries; or (D) a Contract to license any patent, trademark registration, service mark registration, trade name or copyright registration to or from any third party relating to the manufacture or production of any product, service or technology of the Company or its Subsidiaries or any Contract to sell, distribute or commercialize any products or service of the Company or its Subsidiaries, in each case under clauses (A) through (D), except for Company Contracts that are entered into in the Ordinary Course of Business;

(vii) each Company Contract with any financial advisor, broker, finder, investment banker or other similar Person, providing advisory services to the Company in connection with the Contemplated Transactions;

(viii) each Company Real Estate Lease;

(ix) each Company Contract that would be a material contract as defined in Item 601(b)(10) of Regulation S-K as promulgated under the Securities Act if the Company were subject to such regulation;

(x) each Company Out-bound License and Company In-bound License, and each Company Contract containing a covenant not to sue or otherwise enforce any Intellectual Property Rights;

(xi) each Company Contract containing any royalty, dividend or similar arrangement based on the revenues or profits of the Company or any of its Subsidiaries;

(xii) each (A) Company Contract, offer letter, employment agreement or other agreement with any employee that requires payment of base salary and target annual cash bonus in excess of $150,000 in any calendar year that (1) provides for employment by the Company or any of its Subsidiaries and is not immediately terminable at will by the Company without advance notice, severance, or other similar cost or liability (other than for accrued compensation, vacation or other amounts due upon any termination) or (2) provides for retention payments, change of control payments, severance, accelerated vesting or any payment or benefit that may or will become due as a result of the Merger (whether alone or in connection with any other event) and (B) each Company Contract, independent contractor agreement, or other agreement with any individual consultant or service provider requiring payment of fees in excess of $150,000 in any calendar year that (1) is not immediately terminable at will by the Company without more than 30 days' prior notice, severance, or other cost or liability or (2) provides for retention payments, change of control payments, severance, accelerated vesting or any payment or benefit that may or will become due as a result of the Merger (whether alone or in connection with any other event);

(xiii) each Company Contract under which a third party would be entitled to receive a license or have any other rights in, any material Company IP;

(xiv) each Company Contract entered into in settlement of any Legal Proceeding or other dispute; and

(xv) any other Company Contract that is not terminable at will (with no penalty or payment) by the Company or its Subsidiaries, as applicable, and (A) which involves payment or receipt by the Company or its Subsidiaries after the date of this Agreement under any such agreement, Contract or commitment of more than $250,000 in the aggregate, or obligations after the date of this Agreement in excess of $250,000 in the aggregate, or (B) that is material to the business or operations of the Company and its Subsidiaries, taken as a whole.

(b) The Company has made available to Parent accurate and complete copies of all Company Material Contracts, including all amendments thereto, in each case in effect on the date of this Agreement. There are no Company Material Contracts that are not in written form. Neither the Company nor any of its Subsidiaries has, nor to the Company's Knowledge, as of the date of this Agreement, has any other party to a Company Material Contract, breached, violated or defaulted under, or as of the date of this Agreement received notice that it breached, violated or defaulted under, any of the terms or conditions of any Company Material Contract in such manner as would permit any other party to cancel or terminate any such Company Material Contract, or would permit any other party to seek damages which would have a Company Material Adverse Effect. As to the Company and its Subsidiaries, as of the date of this Agreement, each Company Material Contract is valid, binding, enforceable and in full force and effect, subject to the Enforceability Exceptions. As of the date of this Agreement, no Person is renegotiating, or has a right pursuant to the terms of any Company Material Contract to change, any material amount paid or payable to the Company under any Company Material Contract or any other material term or provision of any Company Material Contract, and, as of the date of the Agreement, no Person has indicated in writing to the Company that it desires to renegotiate, modify, not renew or cancel any Company Material Contract.

2.14 **Compliance; Permits; Restrictions**.

(a) The Company and each of its Subsidiaries is, and since January 1, 2019 has been, in compliance in all material respects with all applicable Laws, including the Federal Food, Drug and Cosmetic Act and regulations issued thereunder by the United States Food and Drug Administration ("***FDA***") (collectively, the "***FDCA***"), the Public Health Service Act and its implementing regulations ("***PHSA***") and any other similar Law administered or promulgated by the FDA or other comparable Governmental Body responsible for regulation of the research, development, pre-clinical and clinical testing, manufacturing, storage, supply, approval, sale, marketing, distribution and importation or exportation of drug and biological products (each, a "***Drug Regulatory Agency***"), except for any noncompliance, either individually or in the aggregate, which would not be material to the Company and its Subsidiaries, taken as a whole.

(b) As of the date of this Agreement, no investigation, claim, suit, proceeding, audit or other action by any Governmental Body is pending or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries. There is no judgment, injunction, order or decree binding upon the Company or any of its Subsidiaries which (i) has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of the Company or any of its Subsidiaries, any acquisition of material property by the Company or any of its Subsidiaries or the conduct of business by the Company or any of its Subsidiaries as currently conducted, (ii) is reasonably likely to have an adverse effect on the Company's ability to comply

with or perform any covenant or obligation under this Agreement, or (iii) is reasonably likely to have the effect of preventing, delaying, making illegal or otherwise interfering with the Contemplated Transactions.

(c) The Company and its Subsidiaries hold all required Governmental Authorizations to develop, test manufacture, store, label, package, distribute, import and export the respective current products or product candidates that are material to the operation of the business of the Company and its Subsidiaries as currently conducted (the "***Company Permits***"). Section 2.14(c) of the Company Disclosure Schedule identifies each Company Permit. Each such Company Permit is valid and in full force and effect, and each of the Company and its Subsidiaries is in material compliance with the terms of the Company Permits. As of the date of this Agreement, no Legal Proceeding is pending or, to the Knowledge of the Company, threatened, which seeks to revoke, limit, suspend, or materially modify any Company Permit. The rights and benefits of each Company Permit will be available to the Surviving Corporation or its Subsidiaries, as applicable, immediately after the Effective Time on terms substantially identical to those enjoyed by the Company and its Subsidiaries as of the date of this Agreement and immediately prior to the Effective Time.

(d) As of the date of this Agreement, there has not been and is not now any Form FDA-483 observation, civil, criminal or administrative action, suit, demand, claim, complaint, hearing, investigation, demand letter, warning letter, untitled letter, or proceeding pending or in effect against the Company or its Subsidiaries or any of their respective officers and employees, and the Company has no liability for failure to comply with the FDCA, PHSA, or other similar Laws. There is no act, omission, event, or circumstance of which the Company has Knowledge that would reasonably be expected to give rise to or form the basis for any civil, criminal or administrative action, suit, demand, claim, complaint, hearing, investigation, demand letter, warning letter, untitled letter, proceeding or request for information or any liability (whether actual or contingent) for failure to comply with the FDCA, PHSA or other similar Laws.

(e) All clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, the Company or its Subsidiaries, or of their respective current products or product candidates, were and, if still pending, are being conducted in all material respects with applicable regulations of any applicable Drug Regulatory Agency and other applicable Law, including the Good Clinical Practice ("***GCP***") regulations under 21 C.F.R. Parts 50, 54, 56 and 312 and Good Laboratory Practice ("***GLP***") regulations under 21 C.F.R. Part 58. No preclinical study or clinical trial conducted by or on behalf of the Company or any of its Subsidiaries has been terminated or suspended prior to completion for safety or non-compliance reasons. Between January 1, 2019 and the date of this Agreement, neither the Company nor any of its Subsidiaries has received any written notices, correspondence, or other written communications from any Drug Regulatory Agency requiring, or to the Knowledge of the Company, threatening to initiate, the termination or suspension of any clinical studies conducted by or on behalf of, or sponsored by, the Company or any of its Subsidiaries or of their respective current products or product candidates.

(f) As of the date of this Agreement, neither the Company nor any of its Subsidiaries is the subject of any pending or, to the Knowledge of the Company, threatened investigation in respect of its business or products or product candidates pursuant to the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy set forth in 56 Fed. Reg. 46191 (September 10, 1991). To the Knowledge of the Company, neither the Company nor any of its Subsidiaries has committed any acts, made any statement, or failed to make any statement, in each case in respect of its business or products that would violate the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy.

(g) Neither the Company nor its Subsidiaries, nor any of their respective officers, directors, employees or, to the Knowledge of the Company, agents has been, is, or is in anticipation of being (based on a conviction by the courts or a finding of fault by a regulatory authority): (a) debarred pursuant to the Generic Drug Enforcement Act of 1992 (21 U.S.C. § 335a), as amended from time to time; (b) disqualified from participating in clinical trials pursuant to 21 C.F.R. §312.70, as amended from time to time; (c) disqualified as a testing facility under 21 C.F.R. Part 58, Subpart K, as amended from time to time; (d) excluded, debarred or suspended from or otherwise ineligible to participate in a "Federal Health Care Program" as that term is defined in 42 U.S.C. 1320a-7b(f), including under 42 U.S.C. § 1320a-7 or relevant regulations in 42 C.F.R. Part 1001; (e) assessed or threatened with assessment of civil money penalties pursuant to 42 C.F.R. Part 1003; or (f) included on the HHS/OIG List of Excluded Individuals/Entities, the General Services Administration's System for Award Management, or the FDA Debarment List or the FDA Disqualified/Restricted List. Neither the Company nor its Subsidiaries, nor any of their respective officers, directors, employees or, to the Knowledge of the Company, agents has engaged in any activities that are prohibited, or are cause for civil penalties, or grounds for mandatory or permissive exclusion, debarment, or suspension pursuant to any of these authorities. Neither the Company nor its Subsidiaries are using, or have ever used, in any capacity any Person that has ever been, or to the

Knowledge of Company, is the subject of a proceeding that could lead to the Persons becoming debarred, excluded, disqualified, restricted or suspended pursuant to any of these authorities.

(h) The Company and its Subsidiaries have materially complied with all applicable Laws relating to patient, medical or individual health information, including the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations promulgated thereunder, all as amended from time to time (collectively "***HIPAA***"), including the standards for the privacy of Individually Identifiable Health Information at 45 C.F.R. Parts 160 and 164, Subparts A and E, the standards for the protection of Electronic Protected Health Information set forth at 45 C.F.R. Part 160 and 45 C.F.R. Part 164, Subpart A and Subpart C, the standards for transactions and code sets used in electronic transactions at 45 C.F.R. Part 160, Subpart A and Part 162, and the standards for Breach Notification for Unsecured Protected Health Information at 45 C.F.R. Part 164, Subpart D, all as amended from time to time. The Company and its Subsidiaries have entered into, where required, and are in compliance in all material respects with the terms of all Business Associate (as defined in HIPAA) agreements ("***Business Associate Agreements***") to which the Company or any Subsidiary is a party or otherwise bound. The Company and its Subsidiaries where required, have (i) created and maintained written policies and procedures to protect the privacy of Protected Health Information in its possession or control, (ii) provided training to all employees and agents, and (iii) implemented security procedures, including physical, technical and administrative safeguards, to protect all Protected Health Information stored or transmitted in electronic form. As of the date of this Agreement, neither the Company nor any of its Subsidiaries has received written notice from the Office for Civil Rights for the U.S. Department of Health and Human Services or any other Governmental Body alleging a failure to comply with HIPAA or any other federal or state law or regulation applicable to the protection of individually identifiable health information or personally identifiable information. To the Knowledge of the Company, as of the date of this Agreement, there has been no Breach of Unsecured Protected Health Information, unpermitted disclosure of Personal Health Information, or breach of personally identifiable information with respect to information maintained or transmitted to the Company or any of its Subsidiaries that would require notice to a Governmental Body. All capitalized terms in this Section 2.14(h) not otherwise defined in this Agreement shall have the meanings set forth under HIPAA.

2.15**Legal Proceedings; Orders**.

(a) As of the date of this Agreement, there is no material pending Legal Proceeding and, to the Knowledge of the Company, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves (A) the Company, (B) any of its Subsidiaries, (C) any Company Associate (in his or her capacity as such) or (D) any of the material assets owned or used by the Company or any of its Subsidiaries; or (ii) that challenges, or that would have the effect of preventing, delaying beyond the End Date, or making illegal, the Contemplated Transactions.

(b) There is no order, writ, injunction, judgment or decree to which the Company or any of its Subsidiaries is a party or any of the material assets owned or used by the Company or any of its Subsidiaries is subject. To the Knowledge of the Company, no officer or other Key Employee of the Company or any of its Subsidiaries is subject to any order, writ, injunction, judgment or decree that prohibits such officer or employee from engaging in or continuing any conduct, activity or practice relating to the business of the Company or any of its Subsidiaries or to any material assets owned or used by the Company or any of its Subsidiaries.

2.16**Tax Matters**.

(a) The Company and each of its Subsidiaries has timely filed all income Tax Returns and other material Tax Returns that they were required to file under applicable Law. All such Tax Returns are correct and complete in all material respects and have been prepared in material compliance with all applicable Law. No written claim has ever been made by any Governmental Body in any jurisdiction where the Company or any of its Subsidiaries does not file a particular Tax Return or pay a particular Tax that the Company or such Subsidiary is subject to taxation by that jurisdiction.

(b) All income and other material Taxes due and owing by the Company or any of its Subsidiaries (whether or not shown on any Tax Return) have been fully paid. The unpaid Taxes of the Company and its Subsidiaries did not, as of the date of the Company Unaudited Interim Balance Sheet, materially exceed the reserve for Tax liability (excluding any reserve for deferred Taxes established to reflect timing differences between book and Tax items) set forth on the face of the Company Unaudited Interim Balance Sheet. Since the date of the Company Unaudited Interim Balance Sheet, neither the Company nor any of its Subsidiaries has incurred any material Liability for Taxes outside the Ordinary Course of Business.

(c) All Taxes that the Company or any of its Subsidiaries are or were required by Law to withhold or collect from payments to employees, independent contractors, stockholders, lenders, customers or other third parties have been duly and timely withheld or collected in all material respects and, have been timely paid to the proper Governmental Body or properly set aside in accounts for this purpose.

(d) There are no Encumbrances for material Taxes (other than Permitted Encumbrances) upon any of the assets of the Company or any of its Subsidiaries.

(e) No deficiencies for income or other material Taxes with respect to the Company or any of its Subsidiaries have been claimed, proposed or assessed by any Governmental Body in writing other than any deficiency that has been resolved. There are no pending or ongoing, and to the Knowledge of the Company, threatened audits, assessments or other actions for or relating to any liability in respect of a material amount of Taxes of the Company or any of its Subsidiaries. Neither the Company nor any of its Subsidiaries (or any of their predecessors) has waived any statute of limitations in respect of any income or other material Taxes or agreed to any extension of time with respect to any income or other material Tax assessment or deficiency, which waiver is still in effect.

(f) Neither the Company nor any of its Subsidiaries has, since January 1, 2019, distributed stock of another Person, or had its stock distributed by another Person, in a transaction that was purported or intended to be governed in whole or in part by Section 355 of the Code or Section 361 of the Code (or any similar provisions of state, local or foreign Law).

(g) Neither the Company nor any of its Subsidiaries has participated in or been a party to a transaction that, as of the date of this Agreement, constitutes a "listed transaction" that is required to be reported to the IRS pursuant to Section 6011 of the Code and applicable Treasury Regulations thereunder.

(h) Neither the Company nor any of its Subsidiaries has taken or agreed to take any action or knows of any fact or circumstance that would reasonably be expected to prevent the Merger from qualifying for the Intended Tax Treatment.

(i) Neither the Company nor any of its Subsidiaries is a party to any Tax allocation agreement, Tax sharing agreement, Tax indemnity agreement, or similar agreement or arrangement, other than customary commercial Contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes.

(j) Neither the Company nor any of its Subsidiaries will be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for Tax purposes filed on or prior to the Closing Date; (ii) use of an improper method of accounting for a Tax period ending on or prior to the Closing Date; (iii) "closing agreement" as described in Section 7121 of the Code (or any similar provision of state, local or foreign Law) executed on or prior to the Closing Date; (iv) intercompany transaction or excess loss account described in Treasury Regulations under Section 1502 of the Code (or any similar provision of state, local or foreign Law) as a result of a transaction on or prior to the Closing Date; (v) installment sale or open transaction disposition made on or prior to the Closing Date; or (vi) prepaid amount received outside of the Ordinary Course of Business on or prior to the Closing Date. The Company has not made any election under Section 965(h) of the Code.

(k) Neither the Company nor any of its Subsidiaries has ever been (i) a member of a consolidated, combined or unitary Tax group (other than such a group the common parent of which is the Company) or (ii) a party to any joint venture, partnership, or other arrangement that is treated as a partnership for U.S. federal income Tax purposes. Neither the Company nor any of its Subsidiaries has any Liability for any Taxes of any Person (other than the Company and any of its Subsidiaries) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local, or foreign Law), or as a transferee or successor.

(l) Neither the Company nor any of its Subsidiaries (i) is a "controlled foreign corporation" as defined in Section 957 of the Code; (ii) is a "passive foreign investment company" within the meaning of Section 1297 of the Code; (iii) has ever had a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise had an office or fixed place of business in a country other than the country in which it is organized; or (iv) is or was a "surrogate foreign corporation" within the meaning of Section 7874(a)(2)(B) or is treated as a U.S. corporation under Section 7874(b) of the Code.

2.17 **Employee and Labor Matters; Benefit Plans**.

(a) Section 2.17(a) of the Company Disclosure Schedule is a list as of the date of this Agreement of all Company Benefit Plans, including each Company Benefit Plan that provides for retirement, change in control, stay or retention, deferred compensation, incentive compensation, severance or retiree medical or life insurance benefits. "***Company Benefit Plan***" means each (i) "employee benefit plan" as defined in Section 3(3) of ERISA (whether or not ERISA governs such plan) and (ii) other pension, retirement, deferred compensation, excess benefit, profit sharing, bonus, incentive, equity or equity-based (other than individual Company Options made pursuant to the Company's standard forms, in which case only representative standard forms of such stock option agreements shall be scheduled), phantom equity, employment (other than individual employment agreements made pursuant to the Company's standard forms, in which case only representative standard forms of such employment agreements shall be scheduled), offer letter (other than individual offer letters made pursuant to the Company's standard forms, in which case only representative standard forms of such offers shall be scheduled), consulting, severance, change-of-control, retention, health, life, disability, group insurance, paid-time off, holiday, welfare and fringe benefit plan, program, agreement, Contract, or arrangement (whether written or unwritten, qualified or nonqualified, funded or unfunded and including any that have been frozen or terminated but only if the Company has continuing liabilities with respect thereto), in any case, maintained, contributed to, or required to be contributed to, by the Company or any of its Subsidiaries or Company ERISA Affiliates for the benefit of any current or former employee, director, officer or independent contractor of the Company or any of its Subsidiaries or under which the Company or any of its Subsidiaries has any Liability (including as the result of its being treated as a single employer under Code Section 414 with any other person).

(b) As applicable with respect to each Company Benefit Plan, the Company has made available to Parent, true and complete copies of (i) each Company Benefit Plan, including all amendments thereto, and in the case of an unwritten Company Benefit Plan, a written description thereof, (ii) all current trust documents, investment management Contracts, custodial agreements, administrative services agreements and insurance and annuity Contracts relating thereto, (iii) the current summary plan description and each summary of material modifications thereto, (iv) the most recently filed annual reports with any Governmental Body (e.g., Form 5500 and all schedules thereto), (v) the most recent IRS determination, opinion or advisory letter, (vi) the most recent summary annual reports, nondiscrimination testing reports, actuarial reports, financial statements and trustee reports, (vii) all material records, notices and filings concerning IRS or Department of Labor or other Governmental Body audits or investigations, and (viii) any written reports constituting a valuation of the Company Common Stock for purposes of Section 409A of the Code, whether prepared internally by the Company or by an outside, third-party valuation firm.

(c) Each Company Benefit Plan has been maintained, operated and administered in compliance in all material respects with its terms and any related documents or agreements and the applicable provisions of ERISA, the Code and all other Laws.

(d) The Company Benefit Plans that are "employee pension benefit plans" within the meaning of Section 3(2) of ERISA and which are intended to meet the qualification requirements of Section 401(a) of the Code have received determination, opinion, or advisory letters from the IRS to the effect that such plans are qualified under Section 401(a) of the Code and the related trusts are exempt from federal income Taxes under Section 501(a) of the Code, respectively, and to the Knowledge of the Company, nothing has occurred that would reasonably be expected to adversely affect the qualification of such Company Benefit Plan or the tax exempt status of the related trust.

(e) Since January 1, 2016, neither the Company nor any of its Subsidiaries maintained, contributed to, been required to contribute to, or had any liability with respect to, (i) any "employee pension benefit plan" (within the meaning of Section 3(2) of ERISA) that is subject to Title IV or Section 302 of ERISA or Section 412 of the Code, (ii) any "multiemployer plan" (within the meaning of Section 3(37) of ERISA), (iii) any "multiple employer plan" (within the meaning of Section 413 of the Code) or (iv) any "multiple employer welfare arrangement" (within the meaning of Section 3(40) of ERISA). No Company Benefit Plan is sponsored by a professional employer organization.

(f) As of the date of this Agreement, there are no (i) pending audits or investigations by any Governmental Body involving any Company Benefit Plan, and (ii) pending or, to the Knowledge of the Company, threatened claims (except for individual claims for benefits payable in the normal operation of the Company Benefit Plans), suits or proceedings involving any Company Benefit Plan, any fiduciary thereof or service provider thereto. All contributions and premium payments required to have been made under any of the Company Benefit Plans or by applicable Law (without regard to any waivers granted under Section 412 of

the Code), have been timely made in all material respects and neither the Company nor any Company ERISA Affiliate has any material liability for any unpaid contributions with respect to any Company Benefit Plan.

(g) Neither the Company, any of its Subsidiaries nor any Company ERISA Affiliates, nor to the Knowledge of the Company, any fiduciary, trustee or administrator of any Company Benefit Plan, has engaged in, or in connection with the Contemplated Transactions will engage in, any transaction with respect to any Company Benefit Plan which would subject any such Company Benefit Plan, the Company or any of its Subsidiaries or Parent to a material Tax, material penalty or material liability for a "prohibited transaction" under Section 406 of ERISA or Section 4975 of the Code.

(h) No Company Benefit Plan provides death, medical, dental, vision, life insurance or other welfare benefits beyond termination of service or retirement other than coverage mandated by Law and fully paid by the participant (except in connection with severance), and neither the Company nor any of its Subsidiaries or Company ERISA Affiliates has made a written or oral representation promising the same.

(i) Neither the execution of this Agreement nor the consummation of the Contemplated Transactions will either alone or in connection with any other event(s) (i) result in any payment becoming due to any current or former employee, director, officer, or independent contractor of the Company or any of its Subsidiaries, (ii) increase any amount of compensation or benefits otherwise payable under any Company Benefit Plan, (iii) result in the acceleration of the time of payment, funding or vesting of any benefits under any Company Benefit Plan, (iv) require any contribution or payment to fund any obligation under any Company Benefit Plan or (v) limit the right to merge, amend or terminate any Company Benefit Plan that is subject to ERISA.

(j) Neither the execution of this Agreement nor the consummation of the Contemplated Transactions (either alone or when combined with the occurrence of any other event, including without limitation, a termination of employment) will result in the receipt or retention by any Person who is a "disqualified individual" (within the meaning of Code Section 280G) with respect to the Company and its Subsidiaries of any payment or benefit under any Company Benefit Plan that is or could reasonably be expected to be characterized as a "parachute payment" (within the meaning of Code Section 280G).

(k) The exercise price of each Company Option granted to a U.S. taxpayer is not and never has been less than the fair market value of one share of Company Common Stock, as determined by the Company Board, as of the grant date of such Company Option.

(l) Each Company Benefit Plan providing for deferred compensation that constitutes a "nonqualified deferred compensation plan" (as defined in Section 409A(d)(1) of the Code and the regulations promulgated thereunder) is, and has been, established, administered and maintained in material compliance with the requirements of Section 409A of the Code and the regulations promulgated thereunder in all material respects.

(m) No current or former employee, officer, director or independent contractor of the Company or any of its Subsidiaries has any "gross up" agreements with the Company or any of its Subsidiaries or other assurance of reimbursement by the Company or any of its Subsidiaries for any Taxes imposed under Code Section 409A or Code Section 4999.

(n) No Company Benefit Plan is maintained outside of the United States.

(o) Neither the Company nor any of its Subsidiaries has ever been a party to, bound by, or has a duty to bargain under, any collective bargaining agreement or other Contract with a labor union, labor organization, or similar Person representing any of its employees, and there is no labor union, labor organization, or similar Person representing or, to the Knowledge of the Company, purporting to represent or seeking to represent any employees of the Company or its Subsidiaries, including through the filing of a petition for representation election. There is not and has not been in the past three years, nor is there or has there been in the past three years any threat of, any strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, or any similar activity or dispute, or, to the Knowledge of the Company, any union organizing activity, against the Company or any of its Subsidiaries. No event has occurred, and no condition or circumstance exists, that might directly or indirectly be likely to give rise to or provide a basis for the commencement of any such strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, any similar activity or dispute, or, to the Knowledge of the Company, any union organizing activity.

(p) The Company and each of its Subsidiaries is, and since January 1, 2019 has been, in material compliance with all applicable Laws respecting labor, employment, employment practices, and terms and conditions of employment, including worker classification, discrimination, harassment and retaliation, equal employment opportunities, fair employment practices, meal and rest periods, immigration, employee safety and health, payment of wages (including overtime wages), unemployment and workers' compensation, leaves of absence, and hours of work. Except as would not be reasonably likely to result in a material liability to the Company or any of its Subsidiaries, with respect to employees of the Company and its Subsidiaries, each of the Company and its Subsidiaries, since January 1, 2019: (i) has withheld and reported all amounts required by Law or by agreement to be withheld and reported with respect to wages, salaries and other payments, benefits, or compensation to employees; (ii) is not liable for any arrears of wages (including overtime wages), severance pay or any Taxes or any penalty for failure to comply with any of the foregoing; and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, disability, social security or other benefits or obligations for employees (other than routine payments to be made in the Ordinary Course of Business). As of the date of this Agreement, there are no Legal Proceedings, claims, or charges pending or, to the Knowledge of the Company, threatened or reasonably anticipated against the Company or its Subsidiaries relating to any employee, applicant for employment, consultant or employment agreement or otherwise relating to labor, employment, employment practices, or terms and conditions of employment.

(q) Except as would not be reasonably likely to result in a material liability to the Company or any of its Subsidiaries, the Company and each of its Subsidiaries has accurately classified each individual service provider as an employee, independent contractor, or otherwise under all applicable Laws and, for each individual classified as an employee, the Company and each of its Subsidiaries has accurately classified him or her as exempt or non-exempt under all applicable Laws. Neither the Company nor any of its Subsidiaries has any material liability with respect to any misclassification of: (a) any Person as an independent contractor rather than as an employee; (b) any employee leased from another employer; or (c) any employee currently or formerly classified as exempt under all applicable Laws.

(r) Within the preceding five years, the Company has not implemented any "plant closing" or "mass layoff" of employees that would reasonably be expected to require notification under the WARN Act or any similar state, local or foreign Law, and no such "plant closing" or "mass layoff" will be implemented before the Closing Date without advance notification to and approval of Parent.

2.18 **Environmental Matters**. Since January 1, 2019, the Company and each of its Subsidiaries have complied with all applicable Environmental Laws, which compliance includes the possession by the Company of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof, except for any failure to be in such compliance that would not have a Company Material Adverse Effect. Neither the Company nor any of its Subsidiaries has received between January 1, 2019 and the date of this Agreement any written notice, whether from a Governmental Body or other Person, that alleges that the Company or any of its Subsidiaries is not in compliance with any Environmental Law and, to the Knowledge of the Company, there are no circumstances that would reasonably be expected to prevent or interfere with the Company's or any of its Subsidiaries' compliance in any material respects with any Environmental Law, except where such failure to comply would not have a Company Material Adverse Effect. To the Knowledge of the Company, (i) no current or prior owner of any property leased or controlled by the Company or any of its Subsidiaries has received, between January 1, 2019 and the date of this Agreement, any written notice relating to property owned or leased at any time by the Company or any of its Subsidiaries, whether from a Governmental Body or other Person, that alleges that such current or prior owner or the Company or any of its Subsidiaries is not in compliance with or violated any Environmental Law relating to such property and (ii) neither the Company nor any of its Subsidiaries has any material liability under any Environmental Law.

2.19 **Insurance**. The Company has made available to Parent accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of the Company and each of its Subsidiaries. Each of such insurance policies is in full force and effect and the Company and each of its Subsidiaries are in compliance in all material respects with the terms thereof. Other than customary end of policy notifications from insurance carriers, between January 1, 2019 and the date of this Agreement, neither the Company nor any of its Subsidiaries has received any written notice regarding any actual or possible: (a) cancellation or invalidation of any insurance policy; or (b) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy. The Company and each of its Subsidiaries has provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding that is currently pending against the Company or any of its Subsidiaries for which the Company or such Subsidiary has insurance coverage, and no

such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed the Company or any of its Subsidiaries of its intent to do so.

2.20 **No Financial Advisors**. No broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of the Company or any of its Subsidiaries.

2.21 **Transactions with Affiliates**. Section 2.21 of the Company Disclosure Schedule describes any material transactions or relationships, between January 1, 2019 and the date of this Agreement, between, on one hand, the Company or any of its Subsidiaries and, on the other hand, any (A) executive officer or director of the Company or, to the Knowledge of the Company, any of its Subsidiaries or any of such executive officer's or director's immediate family members, (B) owner of more than 5% of the voting power of the outstanding Company Capital Stock or (C) to the Knowledge of the Company, any "related person" (within the meaning of Item 404 of Regulation S-K under the Securities Act) of any such officer, director or owner (other than the Company or its Subsidiaries) in the case of each of (A), (B) or (C) that is of the type that would be required to be disclosed under Item 404 of Regulation S-K under the Securities Act.

2.22 **Anti-Bribery**. None of the Company or any of its Subsidiaries or any of their respective directors, officers, employees or, to the Company's Knowledge, agents or any other Person acting on their behalf has, directly or indirectly, made any bribes, rebates, payoffs, influence payments, kickbacks, illegal payments, illegal political contributions, or other payments, in the form of cash, gifts, or otherwise, or taken any other action, in violation of the Foreign Corrupt Practices Act of 1977, or any other applicable anti-bribery or anti-corruption Law (collectively, the "***Anti-Bribery Laws***"). To the Knowledge of the Company, neither the Company nor any of its Subsidiaries has been the subject of any investigation or inquiry by any Governmental Body with respect to potential violations of Anti-Bribery Laws.

2.23 **Disclaimer of Other Representations or Warranties**. The Company acknowledges and agrees that, except for the representations and warranties contained in this Agreement, neither Parent nor any of its Subsidiaries nor any other person on behalf of Parent or its Subsidiaries make any express or implied representation or warranty with respect to Parent or its Subsidiaries or with respect to any other information provided by the Company, any of the Company's Subsidiaries or stockholder or any of their respective Affiliates in connection with the Contemplated Transactions, and (subject to the express representation and warranties of Parent set forth in Section 3 (in each case qualified and limited by the Parent Disclosure Schedule)), neither the Company, its Subsidiaries nor any of their respective Representatives or stockholders, has relied on such information including the accuracy or completeness thereof.

Section 3. REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Subject to Section 10.11(m), except (a) as set forth in the written disclosure schedule delivered by Parent to the Company (the "***Parent Disclosure Schedule***") or (b) as disclosed in the Parent SEC Documents filed with the SEC prior to the date hereof and publicly available on the SEC's Electronic Data Gathering Analysis and Retrieval system (but (i) without giving effect to any amendment thereof filed with, or furnished to the SEC on or after the date hereof and (ii) excluding any disclosures contained under the heading "Risk Factors" and any disclosure of risks included in any "forward-looking statements" disclaimer or in any other section to the extent they are forward-looking statements or cautionary, predictive or forward-looking in nature), it being understood and agreed that any matter disclosed in the Parent SEC Documents (x) shall not be deemed disclosed for purposes of Section 3.1, Section 3.2, Section 3.3, Section 3.4, Section 3.5 and Section 3.6 and (y) shall be deemed to be disclosed in a section of the Parent Disclosure Schedule only to the extent to which its relevance is readily apparent from a reading of such Parent SEC Documents, Parent and Merger Sub represent and warrant to the Company as follows:

3.1 **Due Organization; Subsidiaries**.

(a) Parent is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware, and has all necessary corporate power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used; and (iii) to perform its obligations under all material Contracts by which it is bound.

(b) Parent is duly licensed and qualified to do business, and is in good standing (to the extent applicable in such jurisdiction), under the Laws of all jurisdictions where the nature of its business requires such licensing or qualification other than in jurisdictions where the failure to be so qualified would not have a Parent Material Adverse Effect.

(c) Other than Merger Sub, Parent has no Subsidiaries, except for the Entities identified in Section 3.1(c) of the Parent Disclosure Schedule; and neither Parent nor any of Parent's Subsidiaries owns any capital stock of, or any equity, ownership or profit sharing interest of any nature in, or controls, directly or indirectly, any other Entity other than the Entities identified in Section 3.1(c) of the Parent Disclosure Schedule. Each of Parent's Subsidiaries identified in Section 3.1(c) of the Parent Disclosure Schedule is a corporation or other legal Entity duly incorporated or otherwise organized, validly existing and, if applicable, in good standing under the Laws of the jurisdiction of its incorporation or organization, as applicable, and has all necessary corporate or similar power and authority to conduct its business in the manner in which its business is currently being conducted and to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used, except where the failure to have such power or authority would not have a Parent Material Adverse Effect.

(d) Merger Sub is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware. Merger Sub was formed solely for the purpose of engaging in the Contemplated Transactions. All of the issued and outstanding capital stock of Merger Sub, which consists of 100 shares of common stock, $0.0001 par value, is validly issued, fully paid and non-assessable and is owned, beneficially and of record, by Parent, free and clear of any Encumbrances with respect thereto. Except for obligations and liabilities incurred in connection with its incorporation and the Contemplated Transactions, Merger Sub has not, and will not have, incurred, directly or indirectly, any obligations or liabilities or engaged in any business activities or conducted any operations of any type or kind whatsoever or entered into any agreements or arrangements with any Person.

(e) Neither Parent nor any of its Subsidiaries is or has otherwise been a party to, or a member of, any partnership, joint venture or similar business Entity. Neither Parent nor any of its Subsidiaries has agreed or is obligated to make, or is bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity. Neither Parent nor any of its Subsidiaries has, at any time, been a general partner of, or has otherwise been liable for, any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

3.2 **Organizational Documents**. Parent has made available to the Company accurate and complete copies of Parent's and each of its Subsidiaries Organizational Documents in effect as of the date of this Agreement. Neither Parent nor any of its Subsidiaries is in material breach or violation of its respective Organizational Documents.

3.3 **Authority; Binding Nature of Agreement**.

(a) Parent and each of its Subsidiaries has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement and to consummate the Contemplated Transactions. The Parent Board (at a meeting or meetings duly called and held and at which all members were present) has unanimously: (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of Parent and its stockholders; (ii) authorized, approved and declared advisable this Agreement and the Contemplated Transactions, including the issuance of shares of Parent Common Stock to the stockholders of the Company pursuant to the terms of this Agreement; and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of Parent vote to approve the Parent Stockholder Matters. The Merger Sub Board (by unanimous written consent) has: (A) determined that the Contemplated Transactions are fair to, advisable, and in the best interests of Merger Sub and its sole stockholder; (B) authorized, approved and declared advisable this Agreement and the Contemplated Transactions; and (C) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholder of Merger Sub vote to adopt this Agreement and thereby approve the Contemplated Transactions. Parent, in its capacity as the sole stockholder of Merger Sub, has by written consent duly approved votes adopting this Agreement and approving the Contemplated Transactions.

(b) This Agreement has been duly executed and delivered by each of Parent and Merger Sub and, assuming the due authorization, execution and delivery by the Company, constitutes the valid and binding obligation of Parent and Merger Sub, enforceable against each of Parent and Merger Sub in accordance with its terms, subject to the Enforceability Exceptions.

3.4 **Vote Required**. (a) The affirmative vote of the holders of a majority of the outstanding shares of Parent Common Stock entitled to vote on the record date for the Parent Stockholders' Meeting is the only vote of the holders of any class or series of Parent's capital stock necessary to approve the Nasdaq Reverse Split and (b) the affirmative vote of a majority in voting power of the votes cast by the holders of all shares of Parent Common Stock present or represented by proxy at the Parent Stockholders' Meeting and entitled to vote thereon is the only vote of the holders of any class or series of Parent's capital stock necessary to approve all other Parent Stockholder Matters (the "***Required Parent Stockholder Vote***").

3.5 **Non-Contravention; Consents**. Subject to obtaining the Required Parent Stockholder Vote, the filing of the Certificate of Merger with the Secretary of State of the State of Delaware required by the DGCL and clearance of the Merger under any applicable Antitrust Laws, neither (x) the execution, delivery or performance of this Agreement by Parent or Merger Sub, nor (y) the consummation by Parent and Merger Sub of the Contemplated Transactions, will directly or indirectly (with or without notice or lapse of time):

(a) contravene, conflict with or result in a violation of any of the provisions of the Organizational Documents of Parent or Merger Sub;

(b) contravene, conflict with or result in a material violation of, or, to the Knowledge of Parent, give any Governmental Body or other Person the right to successfully challenge the Contemplated Transactions or to successfully exercise any material remedy or obtain any material relief under, any Law or any order, writ, injunction, judgment or decree to which Parent or its Subsidiaries, or any of the assets owned or used by Parent or its Subsidiaries, is subject, except as would not reasonably be expected to be material to Parent and its Subsidiaries, taken as a whole;

(c) contravene, conflict with or result in a material violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by Parent or its Subsidiaries, except as would not reasonably be expected to be material to Parent and its Subsidiaries, taken as a whole;

(d) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Parent Material Contract, or give any Person the right to: (i) declare a default or exercise any remedy under any Parent Material Contract; (ii) any material payment or payments, rebate, chargeback, penalty or change in delivery schedule under any Parent Material Contract; (iii) accelerate the maturity or performance of any Parent Material Contract; or (iv) cancel, terminate or modify any term of any Parent Material Contract, except in the case under this clause (d) as would not reasonably be expected to be material to Parent and its Subsidiaries, taken as a whole; or

(e) result in the imposition or creation of any material Encumbrance upon or with respect to any material asset owned or used by Parent or its Subsidiaries (except for Permitted Encumbrances).

Except for (i) any Consent set forth in Section 3.5 of the Parent Disclosure Schedule, (ii) the Required Parent Stockholder Vote, (iii) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware pursuant to the DGCL and the clearance of the Merger under any applicable Antitrust Laws; and (iv) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal and state securities Laws or, if not given or obtained, as would not reasonably be expected to be material to Parent and its Subsidiaries, taken as a whole, or would not reasonably be expected to prevent or materially delay beyond the End Date the ability of Parent or the Merger Sub to consummate the Contemplated Transactions, neither Parent nor any of its Subsidiaries is or will be required to make any filing with or give any notice to, or to obtain any Consent from, any Person in connection with (A) the execution, delivery or performance by Parent and the Merger Sub of this Agreement, or (B) the consummation of the Contemplated Transactions. Assuming the accuracy of the representations and warranties of the Company in Section 2.5, the Parent Board and the Merger Sub Board have taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in Section 203 of the DGCL are, and will be, inapplicable to the execution, delivery and performance of this Agreement and the Parent Stockholder Support Agreements, and to the consummation of the Contemplated Transactions. No other state Takeover Statute or similar Law applies or purports to apply to the Merger, this Agreement, the Parent Stockholder Support Agreements or any of the Contemplated Transactions.

3.6 **Capitalization**.

(a) The authorized capital stock of Parent as of the date of this Agreement consists of (i) 400,000,000 shares of Parent Common Stock, par value $0.001 per share, of which 201,701,853 shares have been issued and are outstanding as of the date of this Agreement, and (ii) 5,000,000 shares of preferred stock of Parent, par value $0.001 per share, of which no shares have been issued and are outstanding as of the date of this Agreement. As of the date of this Agreement, Parent does not hold any shares of its capital stock in its treasury.

(b) All of the outstanding shares of Parent Common Stock have been duly authorized and validly issued, and are fully paid and nonassessable. None of the outstanding shares of Parent Common Stock are entitled or subject to any preemptive right, right of participation, right of maintenance or any similar right and none of the outstanding shares of Parent Common Stock are subject to any right of first refusal in favor of Parent, in each case under any Parent Contract. Except as contemplated herein, there is no Parent Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or granting any option or similar right with respect to), any shares of Parent Common Stock. Parent is not under any obligation, nor is it bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding shares of Parent Common Stock or other securities. There are outstanding Parent Warrants to purchase 198,535 shares of Parent Common Stock. Section 3.6(b) of the Parent Disclosure Schedule accurately and completely lists all repurchase or forfeiture rights held by Parent with respect to shares of Parent Common Stock (including shares issued pursuant to the exercise of stock options) and specifies which of those repurchase rights are currently exercisable and, to the Knowledge of Parent, whether the holder of such shares of Parent Common Stock timely filed an election with the IRS under Section 83(b) of the Code with respect to such shares.

(c) Except for the Parent Stock Plans (and awards granted thereunder) and as set forth in Section 3.6(c) of the Parent Disclosure Schedule, Parent does not have any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person. As of the date of this Agreement, 13,133,660 shares of Parent Common Stock have been reserved for issuance upon the exercise of Parent Options granted under the Parent Stock Plan that are outstanding as of the date of this Agreement, 3,068,594 shares of Parent Common Stock have been reserved for issuance upon the exercise of Parent Options granted outside of the Parent Stock Plans that are outstanding as of the date of this Agreement, 5,750,166 shares of Parent Common Stock have been reserved for issuance upon the settlement of Parent RSUs granted under the Parent Stock Plans that are outstanding as of the date of this Agreement, 0 shares of Parent Common Stock have been reserved for issuance upon the settlement of Parent RSUs granted outside of the Parent Stock Plans that are outstanding as of the date of this Agreement, 2,300,000 shares of Parent Common Stock have been reserved for issuance under the Parent ESPP, and 3,724,762 shares remain available for future issuance pursuant to the Parent Stock Plans. Section 3.6(c) of the Parent Disclosure Schedule sets forth the following information with respect to each Parent Option and Parent RSU outstanding as of the date of this Agreement: (i) the name of the holder; (ii) the number of shares of Parent Common Stock subject to such Parent Option or Parent RSU at the time of grant; (iii) the number of shares of Parent Common Stock subject to such Parent Option or Parent RSU as of the date of this Agreement; (iv) the exercise price of such Parent Option; (v) the date on which such Parent Option or Parent RSU was granted; (vi) the applicable vesting schedule, including the number of vested and unvested shares as of the date of this Agreement and any acceleration provisions; (vii) the date on which such Parent Option expires; and (viii) whether such Parent Option is intended to constitute an "incentive stock option" (as defined in the Code) or a non-qualified stock option. Parent has made available to the Company accurate and complete copies of the Parent Stock Plans and all forms of the stock option and other award agreements evidencing outstanding awards granted thereunder.

(d) Except for the Parent Warrants, the Parent Options and the Parent RSUs, there is no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of Parent or any of its Subsidiaries; or (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of Parent or any of its Subsidiaries. There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar rights with respect to Parent or any of its Subsidiaries.

(e) All outstanding shares of Parent Common Stock, Parent Options, Parent Warrants, Parent RSUs and other securities of Parent have been issued and granted in material compliance with (i) the Organizational Documents of Parent in effect as of the relevant time and all applicable securities Laws and other applicable Law, and (ii) all requirements set forth in applicable Contracts.

3.7 **SEC Filings; Financial Statements**.

(a) Parent has filed or furnished, as applicable, on a timely basis all forms, statements, certifications, reports and other documents required to be filed or furnished by Parent with the SEC under the Exchange Act or the Securities Act since January 1, 2019 (the "***Parent SEC Documents***"). As of the time it was filed with the SEC (or, if amended or superseded by a filing prior to the date of this Agreement, then on the date of such filing), each of the Parent SEC Documents complied in all material respects with the applicable requirements of the Securities Act or the Exchange Act (as the case may be) and, as of the time they were filed, or if amended or superseded by a filing prior to the date of this Agreement, on the date of the last such amendment or superseding filing prior to the date of this Agreement, none of the Parent SEC Documents contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The certifications and statements required by (i) Rule 13a-14 or Rule 15d-14(a) under the Exchange Act and (ii) 18 U.S.C. §1350 (Section 906 of the Sarbanes-Oxley Act) relating to the Parent SEC Documents (collectively, the "***Certifications***") are accurate and complete and comply as to form and content with all applicable Laws. Parent meets the registration requirements for the use of Form S-3 under the Securities Act. As used in this Section 3.7, the term "file" and variations thereof shall be broadly construed to include any manner in which a document or information is filed, furnished, supplied or otherwise made available to the SEC.

(b) The financial statements (including any related notes) contained or incorporated by reference in the Parent SEC Documents: (i) complied as to form in all material respects with the published rules and regulations of the SEC applicable thereto; (ii) were prepared in accordance with GAAP (except as may be indicated in the notes to such financial statements or, in the case of unaudited financial statements, except as permitted by Form 10-Q of the SEC, and except that the unaudited financial statements may not contain footnotes and are subject to normal and recurring year-end adjustments) applied on a consistent basis unless otherwise noted therein throughout the periods indicated; and (iii) fairly present, in all material respects, the financial position of Parent as of the respective dates thereof and the results of operations and cash flows of Parent for the periods covered thereby. Other than as expressly disclosed in the Parent SEC Documents filed prior to the date hereof or have been permitted or required by any regulatory authority, there has been no material change in Parent's accounting methods or principles that would be required to be disclosed in Parent's financial statements in accordance with GAAP. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Parent SEC Documents fairly presents the information called for in all material respects and has been prepared in accordance with the SEC's rules and guidelines applicable thereto. The books of accounts and other financial records of Parent and each of its Subsidiaries are true and complete in all material respects.

(c) Parent's independent registered accounting firm has at all times since its first date of service to Parent been: (i) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act); (ii) to the Knowledge of Parent, "independent" with respect to Parent within the meaning of Regulation S-X under the Exchange Act; and (iii) to the Knowledge of Parent, in compliance with subsections (g) through (l) of Section 10A of the Exchange Act and the rules and regulations promulgated by the SEC and the Public Company Accounting Oversight Board thereunder.

(d) Except as set forth in Section 3.7(d) of the Parent Disclosure Schedule, Parent has not received any comment letter from the SEC or the staff thereof or any correspondence from officials of Nasdaq or the staff thereof relating to the delisting or maintenance of listing of the Parent Common Stock on Nasdaq that has not been resolved, and Parent has made available to Company all such comments or correspondence (written or oral) with the Company.

(e) Between January 1, 2019 and the date of this Agreement, there have been no formal investigations regarding financial reporting or accounting policies and practices discussed with, reviewed by or initiated at the direction of the chief executive officer, chief financial officer, principal accounting officer or general counsel of Parent, the Parent Board or any committee thereof, other than ordinary course audits or reviews of accounting policies and practices or internal controls required by the Sarbanes-Oxley Act.

(f) Parent is in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act and the applicable listing and other rules and regulations of Nasdaq and, except as set forth in Section 3.7(f) of the Parent Disclosure Schedule, has not received any notice from Nasdaq asserting any noncompliance with such rules and regulations.

(g) Parent maintains a system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that is sufficient to provide reasonable assurance regarding the reliability of financial reporting and the preparation

of financial statements for external purposes in accordance with GAAP, including policies and procedures sufficient to provide reasonable assurance (i) that Parent maintains records that in reasonable detail accurately and fairly reflect Parent's transactions and dispositions of assets, (ii) that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, (iii) that receipts and expenditures are made only in accordance with authorizations of management and the Parent Board, (iv) regarding prevention or timely detection of the unauthorized acquisition, use or disposition of Parent's assets that could have a material effect on Parent's financial statements, and (v) interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Parent SEC Documents fairly presents the SEC's rules and guidelines applicable thereto. Parent has evaluated the effectiveness of Parent's internal control over financial reporting and, to the extent required by applicable Law, presented in any applicable Parent SEC Document that is a report on Form 10-K or Form 10-Q (or any amendment thereto) its conclusions about the effectiveness of the internal control over financial reporting as of the end of the period covered by such report or amendment based on such evaluation. Parent has disclosed to Parent's auditors and audit committee (and made available to the Company a summary of the significant aspects of such disclosure) (A) all significant deficiencies and material weaknesses, if any, in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect Parent's ability to record, process, summarize and report financial information and (B) any fraud, whether or not material, that involves management or other employees who have a significant role in Parent's or its Subsidiaries' internal control over financial reporting. Parent has not identified any material weaknesses in the design or operation of Parent's internal control over financial reporting.

(h) Parent maintains "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) that are reasonably designed to ensure that all information (both financial and non-financial) required to be disclosed by Parent in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods required by the SEC, and that all such information is accumulated and communicated to Parent's management as appropriate to allow timely decisions regarding required disclosure and to make the Certifications.

(i) Between January 1, 2019 and the date of this Agreement, (i) Parent has not received or otherwise had or obtained knowledge of any material complaint, allegation, assertion or claim, whether written or oral, regarding the accounting or auditing practices, procedures, methodologies or methods of Parent's internal accounting controls relating to periods after January 1, 2019, including any material complaint, allegation, assertion or claim that Parent has engaged in questionable accounting or auditing practices (except for any of the foregoing after the date of this Agreement which have no reasonable basis), and (ii) no attorney representing Parent, whether or not employed by Parent, has reported evidence of a material violation of securities Laws, breach of fiduciary duty or similar violation, relating to periods after January 1, 2019, by Parent or agents to the Parent Board or any committee thereof or, to the Knowledge of Parent, to any director or officer of Parent.

3.8 **Absence of Changes**. (a) Between the date of the Parent Balance Sheet and the date of this Agreement, (i) Parent has conducted its business only in the Ordinary Course of Business (except for the execution and performance of this Agreement and the discussions, negotiations and transactions related thereto) and (ii) Parent has not taken any action that would have required the consent of the Company pursuant to Section 4.1(b) had such action taken place after the execution and delivery of this Agreement; and (b) since the date of the Parent Balance Sheet, there has not been any Parent Material Adverse Effect.

3.9 **Absence of Undisclosed Liabilities**. Neither Parent nor any of its Subsidiaries has any Liability, except for: (a) Liabilities disclosed, reflected or reserved against in the Parent Balance Sheet; (b) Liabilities that have been incurred by Parent or its Subsidiaries since the date of the Parent Balance Sheet in the Ordinary Course of Business; (c) Liabilities for performance of obligations of Parent or any of its Subsidiaries under Parent Contracts (other than those arising as a result of a breach or default thereunder or as a result of failure to comply with applicable Law); (d) Liabilities for payment of fees and expenses incurred in connection with the Contemplated Transactions; (e) Liabilities which would not, individually or in the aggregate, reasonably be expected to be material to Parent and its Subsidiaries, taken as a whole; and (f) Liabilities described in Section 3.9 of the Parent Disclosure Schedule.

3.10 **Title to Assets**. Each of Parent and its Subsidiaries owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or tangible assets and equipment used or held for use in its business or operations or purported to be owned by it, in each case, that are material to Parent and its Subsidiaries, taken as a whole, including: (a) all such tangible assets reflected on the Parent Balance Sheet; and (b) all other such tangible assets reflected in the books and records of Parent or any of its Subsidiaries as being owned by Parent or such Subsidiary. All of such assets are owned or, in the case of leased assets, leased by Parent or any of its Subsidiaries free and clear of any Encumbrances, other than Permitted Encumbrances.

3.11 **Real Property; Leasehold**. Neither Parent nor any of its Subsidiaries owns or has ever owned any real property. Parent has made available to the Company (a) an accurate and complete list of all real properties with respect to which Parent directly or indirectly holds a valid leasehold interest as well as any other real estate that is in the possession of, or occupied or leased by Parent or any of its Subsidiaries, and (b) copies of all leases under which any such real property is possessed, occupied or leased (the "***Parent Real Estate Leases***"), each of which is in full force and effect, with no existing material default by Parent or any Subsidiary thereunder.

3.12 **Intellectual Property**.

(a) Section 3.12(a)(1) of the Parent Disclosure Schedule identifies, as of the date of this Agreement, each item of material Parent IP that is owned or purported to be owned by or assigned to Parent or its Subsidiaries and that is the subject of a registration or application in any jurisdiction ("***Parent Registered IP***"), including, with respect to each such patent and patent application: (i) the name of the applicant/registrant; (ii) the jurisdiction of application/registration; (iii) the application or registration number; and (iv) any other co-owners. Section 3.12(a)(2) of the Parent Disclosure Schedule identifies, as of the date of this Agreement, each license agreement under which Parent or its Subsidiaries exclusively licenses material Parent IP from a third party. To the Knowledge of Parent, each of the patents and patent applications included in Section 3.12(a)(1) of the Parent Disclosure Schedule properly identifies by name each and every inventor of the inventions claimed therein as determined in accordance with applicable Laws of the United States. To the Knowledge of Parent, as of the date of this Agreement, no cancellation, interference, opposition, reissue, reexamination or other proceeding of any nature (other than office actions or similar communications issued by any Governmental Body in the ordinary course of prosecution of any pending applications for registration) is pending or threatened in writing, in which the scope, validity, enforceability or ownership of any Parent IP, other than such items with pending applications, is being or has been contested or challenged. To the Knowledge of Parent, each item of issued Parent Registered IP is valid and enforceable and subsisting.

(b) Except as would not have a Parent Material Adverse Effect, Parent and its Subsidiaries collectively exclusively own, are the sole assignees of, or have exclusively licensed all material Parent IP, free and clear of all Encumbrances other than Permitted Encumbrances (other than as disclosed in Section 3.12(b) of the Parent Disclosure Schedule). The Parent IP and the Intellectual Property Rights licensed to Parent pursuant to a valid, enforceable written agreement constitute all Intellectual Property Rights used in, material to and otherwise necessary for the operation of Parent's business as currently conducted. Each Parent Associate involved in the creation or development of any material Parent IP, pursuant to such Parent Associate's activities on behalf of Parent or its Subsidiaries, has signed a valid and enforceable written agreement containing an assignment of such Parent Associate's rights in such Parent IP to Parent or its applicable Subsidiary. Each Parent Associate who has or has had access to Parent's trade secrets or confidential information has signed a valid and enforceable written agreement containing confidentiality provisions protecting the Parent IP, trade secrets and confidential information. Parent and its Subsidiaries have taken commercially reasonable steps to protect and preserve the confidentiality of its trade secrets and confidential information.

(c) To the Knowledge of Parent, no funding, facilities or personnel of any Governmental Body or any university, college, research institute or other educational institution has been used to create material Parent IP that is owned or purported to be owned by or assigned to Parent or its Subsidiaries, except for any such funding or use of facilities or personnel that does not result in such Governmental Body or institution obtaining ownership rights or a license to such Parent IP (excluding confirmatory licenses to inventions made with government funding and for which Parent, its Subsidiaries or either of their licensor has duly retained title under the Bayh-Dole Act) or the right to receive royalties for the practice of such Parent IP.

(d) Section 3.12(d) of the Parent Disclosure Schedule sets forth, as of the date of this Agreement, each license agreement pursuant to which Parent (i) is granted a license under any material Intellectual Property Right owned by any third party that is used by Parent or its Subsidiaries in its business as currently conducted (each a "***Parent In-bound License***") or (ii) grants to any third party a license under any material Parent IP or material Intellectual Property Right licensed to Parent or its Subsidiaries under a Parent In-bound License (each a "***Parent Out-bound License***") (*provided*, that, Parent In-bound Licenses shall not include, when entered into in the Ordinary Course of Business, material transfer agreements, clinical trial agreements, agreements with Parent Associates, services agreements, commercially available Software-as-a-Service offerings or off-the-shelf software licenses; and Parent Out-bound Licenses shall not include, when entered into in the Ordinary Course of Business, material transfer agreements, clinical trial agreements, services agreements, or non-exclusive outbound licenses). All Parent In-bound Licenses and Parent Out-bound Licenses are in full force and effect and are valid, enforceable and binding obligations of Parent or the applicable Subsidiary and, to the Knowledge of Parent, each other party to such Parent In-bound Licenses or Parent Out-

bound Licenses. Neither Parent or any of its Subsidiaries, nor to the Knowledge of Parent, any other party to such Parent In-bound Licenses or Parent Out-bound Licenses, is in material breach under any Parent In-bound Licenses or Parent Out-bound Licenses.

(e) To the Knowledge of Parent: (i) the operation of the businesses of Parent and its Subsidiaries as currently conducted does not infringe, misappropriate or otherwise violate any Intellectual Property Rights of any other Person; and (ii) no other Person is infringing, misappropriating or otherwise violating any Parent IP. As of the date of this Agreement, no Legal Proceeding is pending (or, to the Knowledge of Parent, is threatened in writing) (A) against Parent or its Subsidiaries alleging that the operation of the businesses of Parent or its Subsidiaries infringes or constitutes the misappropriation or other violation of any Intellectual Property Rights of another Person or (B) by Parent or its Subsidiaries alleging that another Person has infringed, misappropriated or otherwise violated any of the Parent IP or any Intellectual Property Rights exclusively licensed to Parent or its Subsidiaries. Between January 1, 2019 and the date of this Agreement, neither Parent nor its Subsidiaries has received any written notice or other written communication alleging that the operation of the business of Parent or its Subsidiaries infringes or constitutes the misappropriation or other violation of any Intellectual Property Right of another Person.

(f) None of the Parent IP that is owned or purported to be owned by or assigned to Parent or its Subsidiaries and, to the Knowledge of Parent, no material Intellectual Property Rights exclusively licensed to Parent or its Subsidiaries is subject to any pending or outstanding injunction, directive, order, judgment or other disposition of dispute that adversely and materially restricts the use, transfer, registration or licensing by Parent or its Subsidiaries of any such Parent IP that is owned or purported to be owned by or assigned to Parent or its Subsidiaries or material Intellectual Property Rights exclusively licensed to Parent or its Subsidiaries.

(g) To the Knowledge of Parent, Parent, its Subsidiaries and the operation of Parent's and its Subsidiaries' business are in substantial compliance with all Laws pertaining to data privacy and data security of Sensitive Data. Between January 1, 2019 and the date of this Agreement, there have been (i) no losses or thefts of data or security breaches relating to Sensitive Data used in the business of Parent, (ii) no material violations of any security policy of Parent regarding any such Sensitive Data used in the business of Parent or its Subsidiaries, (iii) no unauthorized access, unauthorized use or unintended or improper disclosure of any Sensitive Data used in the business of Parent or its Subsidiaries, except in each case as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole. Parent has taken commercially reasonable steps and implemented reasonable disaster recovery and security plans and procedures to protect the information technology systems used in, material to and necessary for operation of Parent's business as currently conducted from unauthorized use or access. To the Knowledge of Parent, as of the date of this Agreement, there have been no material malfunctions or unauthorized intrusions or breaches of the information technology systems used in, material to and necessary for the operation of Parent's business as currently conducted.

3.13 **Agreements, Contracts and Commitments**.

(a) Section 3.13(a) of the Parent Disclosure Schedule lists the following Parent Contracts in effect as of the date of this Agreement and under which Parent or any of its Subsidiaries has any remaining material rights or obligations (each, a "***Parent Material Contract***" and collectively, the "***Parent Material Contracts***"):

(i) a material Contract as defined in Item 601(b)(10) of Regulation S-K as promulgated under the Securities Act;

(ii) each Parent Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(iii) each Parent Contract containing (A) any covenant limiting the freedom of Parent or its Subsidiaries to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision, in each case, except for restrictions that would not materially affect the ability of Parent and its Subsidiaries to conduct its business;

(iv) each Parent Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $250,000 pursuant to its express terms and not cancelable without penalty;

(v) each Parent Contract relating to the disposition or acquisition of material assets or any ownership interest in any Entity, in each case, involving payments in excess of $250,000, other than Parent Contracts in which the applicable acquisition or disposition has been consummated and there are no material ongoing liabilities or obligations;

(vi) each Parent Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit in excess of $250,000 or creating any material Encumbrances with respect to any assets of Parent or any of its Subsidiaries or any loans or debt obligations with officers or directors of Parent;

(vii) each Parent Contract requiring payment by or to Parent or its Subsidiaries after the date of this Agreement in excess of $250,000 pursuant to its express terms and constituting: (A) an exclusive distribution agreement; (B) an agreement involving provision of material services or products with respect to any pre-clinical or clinical development activities of Parent or its Subsidiaries; (C) a dealer, distributor, joint marketing, alliance, joint venture, cooperation, development or similar agreement currently in force under which Parent or its Subsidiaries has continuing obligations to develop or market any product, technology or service, or an agreement pursuant to which Parent or its Subsidiaries has continuing obligations to develop any Intellectual Property Rights that will not be owned, in whole or in part, by Parent or its Subsidiaries; or (D) a Parent Contract to license any patent, trademark registration, service mark registration, trade name or copyright registration to or from any third party to the manufacture or produce any product, service or technology of Parent or its Subsidiaries or any Parent Contract to sell, distribute or commercialize any products or service of Parent or its Subsidiaries, in each case under clauses (A) through (D), except for Parent Contracts that are entered into in the Ordinary Course of Business;

(viii) each Parent Contract with any financial advisor, broker, finder, investment banker or other similar Person, providing advisory services to Parent in connection with the Contemplated Transactions;

(ix) each Parent Real Estate Lease;

(x) each Parent Out-bound License and Parent In-bound License, and each Parent Contract containing a covenant not to sue or otherwise enforce any Intellectual Property Rights;

(xi) each Parent Contract containing any royalty, dividend or similar arrangement based on the revenues or profits of Parent or any of its Subsidiaries;

(xii) each (A) Parent Contract, offer letter, employment agreement or other agreement with any employee that requires payment of base salary and target annual cash bonus in excess of $150,000 in any calendar year that (1) provides for employment by Parent or any of its Subsidiaries and is not immediately terminable at will by Parent without advance notice, severance, or other similar cost or liability (other than for accrued compensation, vacation, or other amounts due upon any termination), or (2) provides for or otherwise relates to any retention payments, change of control payments, severance, accelerated vesting or any payment or benefit that may or will become due as a result of the Merger (whether alone or in connection with any other event), and (B) Parent Contract, independent contractor agreement, or other agreement with any individual consultant or service provider requiring payment of fees in excess of $150,000 in any calendar year that (1) is not immediately terminable at will by the Company without more than 30 days' prior notice, severance, or other similar cost or liability (other than for any accrued but unpaid fees) or (2) provides for retention payments, change of control payments, severance, accelerated vesting or any payment or benefit that may or will become due as a result of the Merger (whether alone or in connection with any other event);

(xiii) each Parent Contract under which a third party would be entitled to receive a license or have any other rights in any material Parent IP;

(xiv) each Parent Contract entered into in settlement of any Legal Proceeding or other dispute; and

(xv) any other Parent Contract that is not terminable at will (with no penalty or payment) by Parent or any of its Subsidiaries, as applicable and (A) which involves payment or receipt by Parent or its Subsidiaries after the date of this Agreement under any such agreement, Contract or commitment of more than $250,000 in the aggregate, or obligations after

the date of this Agreement in excess of $250,000 in the aggregate, or (B) that is material to the business or operations of Parent and its Subsidiaries, taken as a whole.

(b) Parent has made available to the Company accurate and complete copies of all Parent Material Contracts, including all amendments thereto, in each case in effect on the date of this Agreement. There are no Parent Material Contracts that are not in written form. Neither Parent nor any of its Subsidiaries has, nor, to Parent's Knowledge, as of the date of this Agreement, has any other party to a Parent Material Contract, breached, violated or defaulted under, or as of the date of this Agreement received notice that it breached, violated or defaulted under, any of the terms or conditions of any Parent Material Contract in such manner as would permit any other party to cancel or terminate any such Parent Material Contract, or would permit any other party to seek damages which would have a Parent Material Adverse Effect. As to Parent and its Subsidiaries, as of the date of this Agreement, each Parent Material Contract is valid, binding, enforceable and in full force and effect, subject to the Enforceability Exceptions. As of the date of this Agreement, no Person is renegotiating, or has a right pursuant to the terms of any Parent Material Contract to change, any material amount paid or payable to Parent under any Parent Material Contract or any other material term or provision of any Parent Material Contract, and, as of the date of this Agreement, no Person has indicated in writing to Parent that it desires to renegotiate, modify, not renew or cancel any Parent Material Contract.

3.14 **Compliance; Permits**.

(a) Parent and each of its Subsidiaries is, and since January 1, 2019 has been, in compliance in all material respects with all applicable Laws, including the FDCA, PHSA and any other similar Law administered or promulgated by the FDA or other Drug Regulatory Agency, except for any noncompliance, either individually or in the aggregate, which would not be material to Parent and its Subsidiaries, taken as a whole.

(b) As of the date of this Agreement, no investigation, claim, suit, proceeding, audit or other action by any Governmental Body is pending or, to the Knowledge of Parent, threatened against Parent or any of its Subsidiaries. There is no judgment, injunction, order or decree binding upon Parent or any of its Subsidiaries which (i) has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of Parent or any of its Subsidiaries, any acquisition of material property by Parent or any of its Subsidiaries or the conduct of business by Parent or any of its Subsidiaries as currently conducted, (ii) is reasonably likely to have an adverse effect on Parent's ability to comply with or perform any covenant or obligation under this Agreement, or (iii) is reasonably likely to have the effect of preventing, delaying, making illegal or otherwise interfering with the Contemplated Transactions.

(c) Parent and its Subsidiaries hold all required Governmental Authorizations to develop, test, manufacture, store, label, package, distribute, import and export the respective current products or product candidates that are material to the operation of the business of Parent and its Subsidiaries as currently conducted (the "***Parent Permits***"). Section 3.14(c) of the Parent Disclosure Schedule identifies each Parent Permit. Each such Parent Permit is valid and in full force and effect, and each of Parent and its Subsidiaries is in material compliance with the terms of the Parent Permits. As of the date of this Agreement, no Legal Proceeding is pending or, to the Knowledge of Parent, threatened, which seeks to revoke, limit, suspend, or materially modify any Parent Permit.

(d) As of the date of this Agreement, there has not been and is not now any Form FDA-483 observation, civil, criminal or administrative action, suit, demand, claim, complaint, hearing, investigation, demand letter, warning letter, untitled letter, or proceeding pending or in effect against Parent or its Subsidiaries or any of their respective officers and employees, and Parent has no liability for failure to comply with the FDCA, PHSA, or other similar Laws. There is no act, omission, event, or circumstance of which Parent has Knowledge that would reasonably be expected to give rise to or form the basis for any civil, criminal or administrative action, suit, demand, claim, complaint, hearing, investigation, demand letter, warning letter, untitled letter, proceeding or request for information or any liability (whether actual or contingent) for failure to comply with the FDCA, PHSA or other similar Laws.

(e) All clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, Parent or its Subsidiaries, or of their respective current products or product candidates, were and, if still pending, are being conducted in all material respects with applicable regulations of any applicable Drug Regulatory Agency and other applicable Law, including the GCP regulations under 21 C.F.R. Parts 50, 54, 56 and 312 and GLP regulations under 21 C.F.R. Part 58. No preclinical study or clinical trial conducted by or on behalf of Parent or any of its Subsidiaries has been terminated or suspended prior to completion

for safety or non-compliance reasons. Between January 1, 2019 and the date of this Agreement, neither Parent nor any of its Subsidiaries has received any written notices, correspondence, or other written communications from any Drug Regulatory Agency requiring, or to the Knowledge of Parent, threatening to initiate, the termination or suspension of any clinical studies conducted by or on behalf of, or sponsored by, Parent any of its Subsidiaries or of their respective current products or product candidates.

(f) As of the date of this Agreement, neither Parent nor any of its Subsidiaries is the subject of any pending or, to the Knowledge of Parent, threatened investigation in respect of its business or products or product candidates pursuant to the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy set forth in 56 Fed. Reg. 46191 (September 10, 1991). To the Knowledge of Parent, neither Parent nor any of its Subsidiaries has committed any acts, made any statement, or failed to make any statement, in each case in respect of its business or products that would violate the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy.

(g) Neither Parent nor its Subsidiaries, nor any of their respective officers, directors, or employees has been, is, or is in anticipation of being (based on a conviction by the courts or a finding of fault by a regulatory authority): (a) debarred pursuant to the Generic Drug Enforcement Act of 1992 (21 U.S.C. § 335a), as amended from time to time; (b) disqualified from participating in clinical trials pursuant to 21 C.F.R. §312.70, as amended from time to time; (c) disqualified as a testing facility under 21 C.F.R. Part 58, Subpart K, as amended from time to time; (d) excluded, debarred or suspended from or otherwise ineligible to participate in a "Federal Health Care Program" as that term is defined in 42 U.S.C. 1320a-7b(f), including under 42 U.S.C. § 1320a-7 or relevant regulations in 42 C.F.R. Part 1001; (e) assessed or threatened with assessment of civil money penalties pursuant to 42 C.F.R. Part 1003; or (f) included on the HHS/OIG List of Excluded Individuals/Entities, the General Services Administration's System for Award Management, or the FDA Debarment List or the FDA Disqualified/Restricted List. Neither Parent nor its Subsidiaries, nor any of their respective officers, directors or employees has engaged in any activities that are prohibited, or are cause for civil penalties, or grounds for mandatory or permissive exclusion, debarment, or suspension pursuant to any of these authorities. Neither Parent nor its Subsidiaries are using, or have ever used, in any capacity any Person that has ever been, or to the Knowledge of Parent, is the subject of a proceeding that could lead to the Persons becoming debarred, excluded, disqualified, restricted or suspended pursuant to any of these authorities.

(h) Parent and its Subsidiaries have materially complied with all applicable Laws relating to patient, medical or individual health information, including HIPAA and the standards for the privacy of Individually Identifiable Health Information at 45 C.F.R. Parts 160 and 164, Subparts A and E, the standards for the protection of Electronic Protected Health Information set forth at 45 C.F.R. Part 160 and 45 C.F.R. Part 164, Subpart A and Subpart C, the standards for transactions and code sets used in electronic transactions at 45 C.F.R. Part 160, Subpart A and Part 162, and the standards for Breach Notification for Unsecured Protected Health Information at 45 C.F.R. Part 164, Subpart D, all as amended from time to time. Parent and its Subsidiaries have entered into, where required, and are in compliance in all material respects with the terms of all Business Associate Agreements to which Parent or any Subsidiary is a party or otherwise bound. Parent and its Subsidiaries where required, have (i) created and maintained written policies and procedures to protect the privacy of Protected Health Information in its possession or control, (ii) provided training to all employees and agents, and (iii) implemented security procedures, including physical, technical and administrative safeguards, to protect all Protected Health Information stored or transmitted in electronic form. As of the date of this Agreement, neither Parent nor any of its Subsidiaries has received written notice from the Office for Civil Rights for the U.S. Department of Health and Human Services or any other Governmental Body alleging a failure to comply with HIPAA or any other federal or state law or regulation applicable to the protection of individually identifiable health information or personally identifiable information. To the Knowledge of Parent, as of the date of this Agreement, there has been no Breach of Unsecured Protected Health Information, unpermitted disclosure of Personal Health Information, or breach of personally identifiable information with respect to information maintained or transmitted to Parent or any of its Subsidiaries that would require notice to a Governmental Body. All capitalized terms in this Section 3.14(h) not otherwise defined in this Agreement shall have the meanings set forth under HIPAA.

3.15 **Legal Proceedings; Orders**.

(a) As of the date of this Agreement, there is no material pending Legal Proceeding and, to the Knowledge of Parent, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves (A) Parent, (B) any of its Subsidiaries, (C) any Parent Associate (in his or her capacity as such) or (D) any of the material assets owned or used by Parent or any of its

Subsidiaries; or (ii) that challenges, or that would have the effect of preventing, delaying beyond the End Date, or making illegal, the Contemplated Transactions.

(b) There is no order, writ, injunction, judgment or decree to which Parent or any of its Subsidiaries is a party or any of the material assets owned or used by Parent or any of its Subsidiaries is subject. To the Knowledge of Parent, no officer or Key Employee of Parent or any of its Subsidiaries is subject to any order, writ, injunction, judgment or decree that prohibits such officer or employee from engaging in or continuing any conduct, activity or practice relating to the business of Parent or any of its Subsidiaries or to any material assets owned or used by Parent or any of its Subsidiaries.

3.16**Tax Matters**.

(a) Parent and each of its Subsidiaries have timely filed all income Tax Returns and other material Tax Returns that they were required to file under applicable Law. All such Tax Returns are correct and complete in all material respects and have been prepared in material compliance with all applicable Law. No written claim has ever been made by any Governmental Body in any jurisdiction where Parent or its any of its Subsidiaries does not file a particular Tax Return or pay a particular Tax that Parent or such Subsidiary is subject to taxation by that jurisdiction.

(b) All income and other material Taxes due and owing by Parent or any of its Subsidiaries (whether or not shown on any Tax Return) have been fully paid. The unpaid Taxes of Parent and its Subsidiaries did not, as of the date of the Parent Balance Sheet, materially exceed the reserve for Tax liability (excluding any reserve for deferred Taxes established to reflect timing differences between book and Tax items) set forth on the face of the Parent Balance Sheet. Since the Parent Balance Sheet Date, neither Parent nor any of its Subsidiaries has incurred any material Liability for Taxes outside the Ordinary Course of Business.

(c) All Taxes that Parent or any of its Subsidiaries are or were required by Law to withhold or collect from payments to employees, independent contractors, stockholders, lenders, customers or other third parties have been duly and timely withheld or collected in all material respects and, have been timely paid to the proper Governmental Body or properly set aside in accounts for this purpose.

(d) There are no Encumbrances for material Taxes (other than Permitted Encumbrances) upon any of the assets of Parent or any of its Subsidiaries.

(e) No deficiencies for income or other material Taxes with respect to Parent or any of its Subsidiaries have been claimed, proposed or assessed by any Governmental Body in writing other than any deficiency that has been resolved. There are no pending or ongoing, and to the Knowledge of Parent, threatened audits, assessments or other actions for or relating to any liability in respect of a material amount of Taxes of Parent or any of its Subsidiaries. Neither Parent nor any of its Subsidiaries (or any of their predecessors) has waived any statute of limitations in respect of any income or other material Taxes or agreed to any extension of time with respect to any income or other material Tax assessment or deficiency which waiver is still in effect.

(f) Neither Parent nor any of its Subsidiaries has, since January 1, 2019, distributed stock of another Person, or had its stock distributed by another Person, in a transaction that was purported or intended to be governed in whole or in part by Section 355 of the Code or Section 361 of the Code (or any similar provisions of state, local or foreign Law).

(g) Neither Parent nor any of its Subsidiaries has participated in or been a party to a transaction that, as of the date of this Agreement, constitutes a “listed transaction” that is required to be reported to the IRS pursuant to Section 6011 of the Code and applicable Treasury Regulations thereunder.

(h) Neither Parent nor any of its Subsidiaries has taken or agreed to take any action or knows of any fact or circumstance that would reasonably be expected to prevent the Merger from qualifying for the Intended Tax Treatment.

(i) Neither Parent nor any of its Subsidiaries is a party to any Tax allocation agreement, Tax sharing agreement, Tax indemnity agreement, or similar agreement or arrangement, other than customary commercial Contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes.

(j) Neither Parent nor any of its Subsidiaries will be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for Tax purposes filed on or prior to the Closing Date; (ii) use of an improper method of accounting for a Tax period ending on or prior to the Closing Date; (iii) "closing agreement" as described in Section 7121 of the Code (or any similar provision of state, local or foreign Law) executed on or prior to the Closing Date; (iv) intercompany transaction or excess loss account described in Treasury Regulations under Section 1502 of the Code (or any similar provision of state, local or foreign Law) as a result of a transaction on or prior to the Closing Date; (v) installment sale or open transaction disposition made on or prior to the Closing Date; or (vi) prepaid amount received outside of the Ordinary Course of Business on or prior to the Closing Date. Parent has not made any election under Section 965(h) of the Code.

(k) Neither Parent nor any of its Subsidiaries has ever been (i) a member of a consolidated, combined or unitary Tax group (other than such a group the common parent of which is Parent) or (ii) a party to any joint venture, partnership, or other arrangement that is treated as a partnership for U.S. federal income Tax purposes. Neither Parent nor its Subsidiaries has any Liability for any Taxes of any Person (other than Parent and any of its Subsidiaries) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local, or foreign Law), or as a transferee or successor.

(l) Neither Parent nor any of its Subsidiaries (i) is a "controlled foreign corporation" as defined in Section 957 of the Code; (ii) is a "passive foreign investment company" within the meaning of Section 1297 of the Code; (iii) has ever had a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise had an office or fixed place of business in a country other than the country in which it is organized; or (iv) is or was a "surrogate foreign corporation" within the meaning of Section 7874(a)(2)(B) or is treated as a U.S. corporation under Section 7874(b) of the Code.

3.17 **Employee and Labor Matters; Benefit Plans**.

(a) Section 3.17(a) of the Parent Disclosure Schedule is a list as of the date of this Agreement of all Parent Benefit Plans, including each Parent Benefit Plan that provides for retirement, change in control, stay or retention, deferred compensation, incentive compensation, severance or retiree medical or life insurance benefits. "***Parent Benefit Plan***" means each (i) "employee benefit plan" as defined in Section 3(3) of ERISA (whether or not ERISA governs such plan) and (ii) other pension, retirement, deferred compensation, excess benefit, profit sharing, bonus, incentive, equity or equity-based (other than individual Parent Options or Parent RSUs made pursuant to Parent's standard forms, in which case only representative standard forms of such stock option agreements and other award agreements shall be scheduled), phantom equity, employment (other than individual employment agreements made pursuant to Parent's standard forms, in which case only representative standard forms of such employment agreements shall be scheduled), offer letter (other than individual offer letters made pursuant to Parent's standard forms, in which case only representative standard forms of such offers shall be scheduled), consulting, severance, change-of-control, retention, health, life, disability, group insurance, paid-time off, holiday, welfare and fringe benefit plan, program, agreement, Contract, or arrangement (whether written or unwritten, qualified or nonqualified, funded or unfunded and including any that have been frozen or terminated but only if Parent has continuing liabilities with respect thereto), in any case, maintained, contributed to, or required to be contributed to, by Parent, any of its Subsidiaries or Parent ERISA Affiliates for the benefit of any current or former employee, director, officer or independent contractor of Parent or any of its Subsidiaries or under which Parent or any of its Subsidiaries has any Liability (including as the result of its being treated as a single employer under Code Section 414 with any other person).

(b) As applicable with respect to each Parent Benefit Plan, Parent has made available to the Company, true and complete copies of (i) each Parent Benefit Plan, including all amendments thereto, and in the case of an unwritten Parent Benefit Plan, a written description thereof, (ii) all current trust documents, investment management Contracts, custodial agreements, administrative services agreements and insurance and annuity Contracts relating thereto, (iii) the current summary plan description and each summary of material modifications thereto, (iv) the most recently filed annual reports with any Governmental Body (e.g., Form 5500 and all schedules thereto), (v) the most recent IRS determination, opinion or advisory letter, (vi) the most recent summary annual reports, nondiscrimination testing reports, actuarial reports, financial statements and trustee reports, and (vii) all material records, notices and filings concerning IRS or Department of Labor or other Governmental Body audits or investigations.

(c) Each Parent Benefit Plan has been maintained, operated and administered in compliance in all material respects with its terms and any related documents or agreements and the applicable provisions of ERISA, the Code and all other Laws, including

applicable pension Laws and, if applicable, the Income Tax Act (Canada) and the regulations thereunder. All filings and reports as to each Parent Plan required to have been submitted to the Internal Revenue Service, the Canada Revenue Agency, a Canadian Governmental Entity or to the Department of Labor, in each case to the extent applicable, have been timely submitted.

(d) The Parent Benefit Plans that are "employee pension benefit plans" within the meaning of Section 3(2) of ERISA and which are intended to meet the qualification requirements of Section 401(a) of the Code have received determination, opinion or advisory letters from the IRS to the effect that such plans are qualified under Section 401(a) of the Code and the related trusts are exempt from federal income Taxes under Section 501(a) of the Code, respectively, and to the Knowledge of Parent, nothing has occurred that would reasonably be expected to adversely affect the qualification of such Parent Benefit Plan or the tax exempt status of the related trust.

(e) Since January 1, 2016, neither Parent nor any of its Subsidiaries nor any Parent ERISA Affiliate has maintained, contributed to, been required to contribute to, or had any liability with respect to, (i) any "employee pension benefit plan" (within the meaning of Section 3(2) of ERISA) that is subject to Title IV or Section 302 of ERISA or Section 412 of the Code, (ii) any "multiemployer plan" (within the meaning of Section 3(37) of ERISA), or (iii) any "multiple employer plan" (within the meaning of Section 413 of the Code). No Parent Benefit Plan is a self-funded group health plan that is a "multiple employer welfare arrangement" (within the meaning of Section 3(40) of ERISA). No Parent Benefit Plan is sponsored by a professional employer organization. Except as set forth on Section 3.17(e) of the Parent Disclosure Schedule, Parent has not maintained any Parent Benefit Plans outside the United States that are defined-benefit type plans.

(f) As of the date of this Agreement, there are no (i) pending audits or investigations by any Governmental Body involving any Parent Benefit Plan, and (ii) pending or, to the Knowledge of Parent, threatened claims (except for individual claims for benefits payable in the normal operation of the Parent Benefit Plans), suits or proceedings involving any Parent Benefit Plan, any fiduciary thereof or service provider thereto. All contributions and premium payments required to have been made under any of the Parent Benefit Plans or by applicable Law (without regard to any waivers granted under Section 412 of the Code), have been timely made in all material respects and neither Parent nor any Parent ERISA Affiliate has any material liability for any unpaid contributions with respect to any Parent Benefit Plan.

(g) Neither Parent, any of its Subsidiaries nor any Parent ERISA Affiliates, nor to the Knowledge of Parent, any fiduciary, trustee or administrator of any Parent Benefit Plan, has engaged in, or in connection with the Contemplated Transactions will engage in, any transaction with respect to any Parent Benefit Plan which would subject any such Parent Benefit Plan, Parent or any of its Subsidiaries or Parent to a material Tax, material penalty or material liability for a "prohibited transaction" under Section 406 of ERISA or Section 4975 of the Code.

(h) No Parent Benefit Plan provides death, medical, dental, vision, life insurance or other welfare benefits beyond termination of service or retirement other than coverage mandated by Law and fully paid by the participant (except in connection with severance), and neither Parent, any of its Subsidiaries nor any Parent ERISA Affiliates has made a written or oral representation promising the same.

(i) Neither the execution of this Agreement nor the consummation of the Contemplated Transactions will either alone or in connection with any other event(s) (i) result in any payment becoming due to any current or former employee, director, officer, or independent contractor of Parent or any of its Subsidiaries, (ii) increase any amount of compensation or benefits otherwise payable under any Parent Benefit Plan, (iii) result in the acceleration of the time of payment, funding or vesting of any benefits under any Parent Benefit Plan, (iv) require any contribution or payment to fund any obligation under any Parent Benefit Plan or (v) limit the right to merge, amend or terminate any Parent Benefit Plan that is subject to ERISA.

(j) Neither the execution of this Agreement nor the consummation of the Contemplated Transactions (either alone or when combined with the occurrence of any other event, including without limitation, a termination of employment) will result in the receipt or retention by any Person who is a "disqualified individual" (within the meaning of Code Section 280G) with respect to Parent and its Subsidiaries of any payment or benefit under any Parent Benefit Plan that is or could reasonably be expected to be characterized as a "parachute payment" (within the meaning of Code Section 280G).

(k) The exercise price of each Parent Option granted to a U.S. taxpayer is not and never has been less than the fair market value, as determined by the Parent Board, of one share of Parent Common Stock as of the grant date of such Parent Option.

(l) Each Parent Benefit Plan providing for deferred compensation that constitutes a "nonqualified deferred compensation plan" (as defined in Section 409A(d)(1) of the Code and the regulations promulgated thereunder) is, and has been, established, administered and maintained in material compliance with the requirements of Section 409A of the Code and the regulations promulgated thereunder in all material respects.

(m) No current or former employee, officer, director or independent contractor of Parent or any of its Subsidiaries has any "gross up" agreements with Parent or any of its Subsidiaries or other assurance of reimbursement by Parent or any of its Subsidiaries for any Taxes imposed under Code Section 409A or Code Section 4999.

(n) No Parent Benefit Plan is maintained outside of the United States.

(o) Parent has made available to the Company a true and correct list, as of the date of this Agreement, containing an anonymized list of all full-time, part-time or temporary employees and independent contractors (and indication as such), and, as applicable: (i) the annual dollar amount of all compensation (including wages, salary or fees, commissions, director's fees, fringe benefits, bonuses, profit sharing payments, and other payments or benefits of any type) payable to each person; (ii), dates of employment or service; (iii) title; (iv) any eligibility to receive severance, retention payment, change of control payment, or other similar compensation; (v) visa status, if applicable; (vi) if any employee is an on approved leave, and the expected date of return, if known; and (vii) with respect to employees, a designation of whether they are classified as exempt or non-exempt for purposes of the Fair Labor Standards Act and any similar state or foreign law.

(p) Neither Parent nor any of its Subsidiaries is and has never been a party to, bound by, or has a duty to bargain under, any collective bargaining agreement or other Contract with a labor union, labor organization, or similar Person representing any of its employees, and there is no labor union, labor organization, or similar Person representing or, to the Knowledge of Parent, purporting to represent or seeking to represent any employees of Parent or its Subsidiaries, including through the filing of a petition for representation election. There is not and has not been in the past three years, nor is there or has there been in the past three years any threat of, any strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, or any similar activity or dispute, or, to the Knowledge of Parent, any union organizing activity, against Parent or any of its Subsidiaries. No event has occurred, and no condition or circumstance exists, that might directly or indirectly be likely to give rise to or provide a basis for the commencement of any such strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, any similar activity or dispute, or, to the Knowledge of Parent, any union organizing activity.

(q) Parent and each of its Subsidiaries is, and since January 1, 2019 has been, in material compliance with all applicable Laws respecting labor, employment, employment practices, and terms and conditions of employment, including worker classification, discrimination, harassment and retaliation, equal employment opportunities, fair employment practices, meal and rest periods, immigration, employee safety and health, payment of wages (including overtime wages), unemployment and workers' compensation, leaves of absence, and hours of work. Except as would not be reasonably likely to result in a material liability to Parent or any of its Subsidiaries, with respect to employees of Parent and its Subsidiaries, each of Parent and its Subsidiaries, since January 1, 2019: (i) has withheld and reported all amounts required by Law or by agreement to be withheld and reported with respect to wages, salaries and other payments, benefits, or compensation to employees; (ii) is not liable for any arrears of wages (including overtime wages), severance pay or any Taxes or any penalty for failure to comply with any of the foregoing; and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, disability, social security or other benefits or obligations for employees (other than routine payments to be made in the Ordinary Course of Business). As of the date of this Agreement, there are no Legal Proceedings, claims or charges pending or, to the Knowledge of Parent, threatened or reasonably anticipated against Parent or its Subsidiaries relating to any employee, applicant for employment, consultant, or employment agreement or otherwise relating to labor, employment, employment practices, or terms and conditions of employment.

(r) Except as would not be reasonably likely to result in a material liability to Parent or any of its Subsidiaries, Parent and each of its Subsidiaries has accurately classified each individual service provider as an employee, independent contractor, or otherwise under all applicable Laws and, for each individual classified as an employee, Parent and each of its Subsidiaries has accurately classified him or her as exempt or non-exempt under all applicable Laws. Neither Parent nor any of its Subsidiaries has any material liability with respect to any misclassification of: (a) any Person as an independent contractor rather than as an employee; (b) any employee leased from another employer; or (c) any employee currently or formerly classified as exempt under all applicable Laws.

(s) Within the preceding five years, Parent has not implemented any "plant closing" or "mass layoff" of employees that would reasonably be expected to require notification under the WARN Act or any similar state, local or foreign Law. No "plant closing" or "mass layoff" will be implemented before the Closing Date without advance notification to and approval of the Company.

3.18 **Environmental Matters**. Since January 1, 2019, Parent and each of its Subsidiaries have complied with all applicable Environmental Laws, which compliance includes the possession by Parent of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof, except for any failure to be in such compliance that would not have a Parent Material Adverse Effect. Neither Parent nor any of its Subsidiaries have received between January 1, 2019 and the date of this Agreement any written notice, whether from a Governmental Body or other Person, that alleges that Parent or any of its Subsidiaries is not in compliance with any Environmental Law and, to the Knowledge of Parent, there are no circumstances that would reasonably be expected to prevent or interfere with Parent's or any of its Subsidiaries' compliance in any material respects with any Environmental Law, except where such failure to comply would not have a Parent Material Adverse Effect. To the Knowledge of Parent, (i) no current or prior owner of any property leased or controlled by Parent or any of its Subsidiaries has received, between January 1, 2019 and the date of this Agreement, any written notice relating to property owned or leased at any time by Parent or any of its Subsidiaries, whether from a Governmental Body or other Person, that alleges that current or prior owners or Parent or any of its Subsidiaries is not in compliance with or violated any Environmental Law relating to such property and (ii) neither Parent nor any of its Subsidiaries has any material liability under any Environmental Law.

3.19 **Insurance**. Parent has made available to the Company accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of Parent and each of its Subsidiaries. Each of such insurance policies is in full force and effect and Parent and each of its Subsidiaries are in compliance in all material respects with the terms thereof. Other than customary end of policy notifications from insurance carriers, between January 1, 2019 and the date of this Agreement, neither Parent nor any of its Subsidiaries has received any written notice regarding any actual or possible: (a) cancellation or invalidation of any insurance policy; or (b) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy. Parent and each of its Subsidiaries have provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding that is currently pending against Parent or any of its Subsidiaries for which Parent or such Subsidiaries has insurance coverage, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed Parent or any of its Subsidiaries of its intent to do so.

3.20 **No Financial Advisors**. Other than SVB Securities LLC, no broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of Parent or any of its Subsidiaries.

3.21 **Transactions with Affiliates**. Except as set forth in the Parent SEC Documents filed prior to the date of this Agreement, since December 31, 2021, no event has occurred that would be required to be reported by Parent pursuant to Item 404 of Regulation S-K.

3.22 **Anti-Bribery**. Neither Parent nor any of its Subsidiaries or any of their respective directors, officers, employees or, to Parent's Knowledge, agents or any other Person acting on their behalf has, directly or indirectly, made any bribes, rebates, payoffs, influence payments, kickbacks, illegal payments, illegal political contributions, or other payments, in the form of cash, gifts, or otherwise, or taken any other action, in violation of Anti-Bribery Laws. To the Knowledge of Parent, neither Parent nor any of its Subsidiaries is or has been the subject of any investigation or inquiry by any Governmental Body with respect to potential violations of Anti-Bribery Laws.

3.23 **Valid Issuance**. The Parent Common Stock to be issued in the Merger will, when issued in accordance with the provisions of this Agreement, be validly issued, fully paid and nonassessable.

3.24 **Opinion of Financial Advisor**. The Parent Board has received an opinion of SVB Securities LLC to the effect that, as of the date of this Agreement and subject to the assumptions, qualifications, limitations and other matters set forth therein, the Exchange Ratio is fair, from a financial point of view, to Parent. It is agreed and understood that such opinion is for the benefit of the Parent Board and may not be relied upon by the Company or any other party.

3.25 **Disclaimer of Other Representations or Warranties**. Parent hereby acknowledges and agrees that, except for the representations and warranties contained in this Agreement, neither the Company nor any of its Subsidiaries nor any other person on behalf of the Company or any of its Subsidiaries makes any express or implied representation or warranty with respect to the Company or any of its Subsidiaries or with respect to any other information provided to Parent, Merger Sub or stockholders or any of their respective Affiliates in connection with the Contemplated Transactions, and (subject to the express representations and warranties of the Company set forth in Section 2 (in each case as qualified and limited by the Company Disclosure Schedule)) neither Parent, its Subsidiaries nor any of their respective Representatives or stockholders, has relied on any such information (including the accuracy or completeness thereof).

Section 4. CERTAIN COVENANTS OF THE PARTIES

4.1 **Operation of Parent's Business**.

(a) Except as expressly permitted by this Agreement, as required by applicable Law, in connection with any COVID-19 Measures or COVID-19 Response or unless the Company shall otherwise consent in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the period commencing on the date of this Agreement and continuing until the earlier to occur of the termination of this Agreement pursuant to Section 9 and the Effective Time (the "***Pre-Closing Period***"), Parent shall, and shall cause each of its Subsidiaries to, (x) use commercially reasonable efforts to conduct its business and operations in the Ordinary Course of Business and (y) conduct its business and operations in compliance in all material respects with all applicable Laws, including timely making all filings required by the SEC, and the requirements of all Contracts that constitute Parent Material Contracts.

(b) Except (i) as expressly permitted by this Agreement, (ii) as set forth in Section 4.1(b) of the Parent Disclosure Schedule, (iii) as required by applicable Law, (iv) in connection with an Asset Disposition, on the terms and subject to the limitations set forth in Section 4.7, (v) in connection with the Pre-Closing Dividend in accordance with Section 5.21, (vi) in connection with any COVID-19 Measures or COVID-19 Response, or (vii) with the prior written consent of the Company (which consent shall not be unreasonably withheld, delayed or conditioned), at all times during the Pre-Closing Period, Parent shall not, nor shall it cause or permit any of its Subsidiaries to, do any of the following:

(i) declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding Taxes incurred upon the exercise of any Parent Option or vesting of Parent RSUs in accordance with the terms of such award in effect on the date of this Agreement);

(ii) sell, issue, grant, pledge or otherwise dispose of or encumber or authorize the issuance of: (A) any capital stock or other security of Parent (except for Parent Common Stock issued upon the valid exercise or settlement of outstanding Parent Options, Parent Warrants or the vesting of Parent RSUs, as applicable, in accordance with their terms as in effect as of the date of this Agreement); (B) any option, warrant or right to acquire any capital stock or any other security; or (C) any other instrument convertible into or exchangeable for any capital stock or other security of Parent or any of its Subsidiaries;

(iii) amend any of its or any of its Subsidiaries' Organizational Documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, the Contemplated Transactions;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Entity, or enter into a joint venture with any other Entity;

(v) (A) lend money to any Person, (B) incur or guarantee any indebtedness for borrowed money, issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities, (C) guarantee any debt securities of others, or (D) make any capital expenditure or commitment in excess of $250,000;

(vi) other than as required by applicable Law or by the terms of any Parent Benefit Plan as in effect on the date of this Agreement and disclosed in Section 3.17(a) of the Parent Disclosure Schedule: (A) adopt, terminate, establish or enter into any Parent Benefit Plan; (B) cause or permit any Parent Benefit Plan to be amended in any material respect; (C) pay any

bonus or make any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, benefits or other compensation or remuneration payable to, any Parent Associate; or (D) increase or otherwise modify the severance, retention or change of control benefits offered to any current or former or new Parent Associate;

(vii) enter into any Contract with a labor union, labor organization, or similar Person, except as otherwise required by applicable Law;

(viii) (A) hire or engage, or offer to hire, any director, officer, employee or consultant, or (B) enter into, amend or extend the term of any employment or consulting agreement with any Parent Associate;

(ix) enter into any material transaction;

(x) acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its material assets or properties, or grant any Encumbrance with respect to such assets or properties;

(xi) make, change or revoke any material Tax election, file any material amended Tax Return, settle or compromise any income or other material Tax liability, enter into any Tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial Contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material Taxes (other than pursuant to an extension of time to file any Tax Return granted in the Ordinary Course of Business of not more than six months), or change any material accounting method in respect of Taxes;

(xii) (A) sell, assign, transfer, allow to lapse or expire, pledge, abandon, discontinue, fail to maintain or otherwise dispose of any right, title or interest of Parent or any of its Subsidiaries in any material Parent IP, or (B) license, sublicense or otherwise encumber (other than pursuant to a non-exclusive license granted to contract research organizations, including clinical trial sites and clinical trial services provides, or contract manufacturing organizations, in each case, (x) with whom Parent or any of its Subsidiaries has previously entered into Contracts prior to the Effective Time and (y) who are engaged to provide services directly related to clinical studies and manufacturing of any product candidate of Parent, provided that the scope of any such non-exclusive license grant is limited to only the extent necessary for such Persons to perform their obligations under the respective Contracts) any right, title or interest of Parent or any of its Subsidiaries in any material Parent IP;

(xiii) enter into, amend or terminate any Parent Material Contract (or any Contract that would have been a Parent Material Contract if in effect on or prior to the date of this Agreement);

(xiv) (A) materially change pricing or royalties or other payments set or charged by Parent or any of its Subsidiaries to its customers or licensees or (B) agree to materially change pricing or royalties or other payments set or charged by persons who have licensed Intellectual Property Rights to Parent or any of its Subsidiaries;

(xv) make any expenditures, incur any Liabilities or discharge or satisfy any Liabilities, in each case, other than those expenditures or Liabilities that (A) will not survive the Closing, (B) are discharged or satisfied prior to the Closing, and/or (C) are taken into account in the calculation of Net Cash;

(xvi) waive, settle or compromise any pending or threatened Legal Proceeding against Parent or any of its Subsidiaries, other than waivers, settlements or agreements (A) for an amount not in excess of $75,000 individually or in the aggregate (excluding amounts to be paid under existing insurance policies or renewals thereof) and (B) that do not (1) impose any restriction on the operations or business of Parent or its Subsidiaries (nor on the Company or any of its Subsidiaries, from and after the Closing), (2) involve any equitable relief and (3) do not involve admission of any wrongdoing by Parent or any of its Subsidiaries; or

(xvii) agree, resolve or commit to do any of the foregoing.

Notwithstanding anything to the contrary contained herein, nothing herein shall prevent Parent or any of its Subsidiaries from taking or not taking any action, including the establishment of any policy, procedure or protocol, in response to COVID-19 or any COVID-19 Measures or otherwise take any COVID-19 Response and (a) no such actions or failure to take such actions or COVID-19 Responses shall be deemed to violate or breach this Agreement in any way, (b) all such actions or failures to take such actions or COVID-19 Responses shall be deemed to constitute an action taken in the Ordinary Course of Business and (c) no such actions or failures to take such actions or COVID-19 Responses shall serve as a basis for the Company to terminate this Agreement or assert that any of the conditions to the Closing contained herein have not been satisfied.

Notwithstanding the generality of the foregoing, nothing set forth in this Section 4.1 shall restrict Parent's right to effectuate one or more Asset Dispositions, on the terms and subject to the limitations set forth in Section 4.7, or the Pre-Closing Dividend, on the terms and subject to the limitations set forth in Section 5.21, it being understood that Section 4.7 and Section 5.21 contains the parties' entire agreement pertaining to Parent's rights and obligations in connection with the preparation for, and negotiation and execution of, one or more Asset Dispositions prior to the Closing and the Pre-Closing Dividend. Nothing contained in this Agreement shall give the Company, directly or indirectly, the right to control or direct the operations of Parent prior to the Effective Time. Prior to the Effective Time, Parent shall exercise, consistent with the terms and conditions of this Agreement, complete unilateral control and supervision over its business operations.

4.2 **Operation of the Company's Business**.

(a) Except as set forth in Section 4.2(a) of the Company Disclosure Schedule, as expressly permitted by this Agreement, as required by applicable Law, in connection with any COVID-19 Measures or COVID-19 Response or unless Parent shall otherwise consent in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the Pre-Closing Period, each of the Company and its Subsidiaries shall (i) use commercially reasonable efforts to conduct its respective business and operations in the Ordinary Course of Business and (ii) conduct its business and operations in compliance in all material respects with all applicable Laws and the requirements of all Contracts that constitute Company Material Contracts.

(b) Except (i) as expressly permitted by this Agreement, (ii) as set forth in Section 4.2(b) of the Company Disclosure Schedule, (iii) as required by applicable Law, (iv) in connection with any COVID-19 Measures or COVID-19 Response, or (v) with the prior written consent of Parent (which consent shall not be unreasonably withheld, delayed or conditioned), at all times during the Pre-Closing Period, the Company shall not, nor shall it cause or permit any of its Subsidiaries to, do any of the following:

(i) declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding Taxes incurred upon the exercise of any Company Option in accordance with the terms of such award in effect on the date of this Agreement);

(ii) except as contemplated by the Company Pre-Closing Financing or the Conversion in accordance with the Convertible Note Conversion Agreement, sell, issue, grant, pledge or otherwise dispose of or encumber or authorize the issuance of: (A) any capital stock or other security of the Company or any of its Subsidiaries (except for shares of outstanding Company Common Stock issued upon the valid exercise or settlement of Company Options in accordance with their terms as in effect as of the date of this Agreement); (B) any option, warrant or right to acquire any capital stock or any other security, other than options grants to employees and service providers in the Ordinary Course of Business; or (C) any other instrument convertible into or exchangeable for any capital stock or other security of the Company or any of its Subsidiaries;

(iii) amend any of its or its Subsidiaries' Organizational Documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, the Contemplated Transactions;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Entity, or enter into a joint venture with any other Entity;

(v) (A) lend money to any Person (except for the advancement of reasonable expenses to employees, directors and consultants in the Ordinary Course of Business), (B) incur or guarantee any indebtedness for borrowed money, other than in the Ordinary Course of Business, (C) guarantee any debt securities of others or (D) except as contemplated by the Company's capital expenditure budget and operating budget made available to Parent, make any capital expenditure or commitment in excess of $350,000;

(vi) acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its material assets or properties, or grant any Encumbrance with respect to such assets or properties, except in the Ordinary Course of Business;

(vii) sell, assign, license, sublicense, transfer, allow to lapse or expire, pledge, abandon, discontinue, fail to maintain or otherwise dispose of any right, title or interest of the Company or any of its Subsidiaries in any material Company IP (other than pursuant to a non-exclusive license in the Ordinary Course of Business);

(viii) make, change or revoke any material Tax election file any material amended Tax Return, settle or compromise any income or other material Tax liability, enter into any Tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial Contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material Taxes (other than pursuant to an extension of time to file any Tax Return granted in the Ordinary Course of Business of not more than six months), or change any material accounting method in respect of Taxes;

(ix) enter into, materially amend or terminate any Company Material Contract (or any Contract that would have been a Company Material Contract if in effect on or prior to the date of this Agreement) other than in the Ordinary Course of Business;

(x) waive, settle or compromise any pending or threatened Legal Proceeding against the Company or any of its Subsidiaries, other than waivers, settlements or agreements (A) for an amount not in excess of $75,000 individually or in the aggregate (excluding amounts to be paid under existing insurance policies or renewals thereof) and (B) that do not (1) impose any material restriction on the operations or business of the Company or its Subsidiaries (nor, following the Closing, on Parent or any of its Subsidiaries), (2) involve any equitable relief and (3) involve admission of any wrongdoing by the Company or any of its Subsidiaries; or

(xi) agree, resolve or commit to do any of the foregoing.

Notwithstanding anything to the contrary contained herein, nothing herein shall prevent the Company or any of its Subsidiaries from taking or not taking any action, including the establishment of any policy, procedure or protocol, in response to COVID-19 or any COVID-19 Measures or otherwise take any COVID-19 Response and (a) no such actions or failure to take such actions or COVID-19 Responses shall be deemed to violate or breach this Agreement in any way, (b) all such actions or failures to take such actions or COVID-19 Responses shall be deemed to constitute an action taken in the Ordinary Course of Business and (c) no such actions or failures to take such actions or COVID-19 Responses shall serve as a basis for Parent to terminate this Agreement or assert that any of the conditions to the Closing contained herein have not been satisfied.

(c) Nothing contained in this Agreement shall give Parent, directly or indirectly, the right to control or direct the operations of the Company prior to the Effective Time. Prior to the Effective Time, the Company shall exercise, consistent with the terms and conditions of this Agreement, complete unilateral control and supervision over its business operations.

4.3 **Access and Investigation**.

(a) Subject to the terms of the Confidentiality Agreement, which the Parties agree will continue in full force following the date of this Agreement, during the Pre-Closing Period, upon reasonable notice, Parent, on the one hand, and the Company, on the other hand, shall and shall use commercially reasonable efforts to cause such Party's Representatives to: (i) provide the other Party and such other Party's Representatives with reasonable access, upon reasonable notice and during normal business hours to such Party's Representatives, personnel, property and assets and to all existing books, records, Tax Returns, work papers and other documents and information relating to such Party and its Subsidiaries; (ii) provide the other Party and such other Party's

Representatives with such copies of the existing books, records, Tax Returns, work papers, product data, and other documents and information relating to such Party and its Subsidiaries, and with such additional financial, operating and other data and information regarding such Party and its Subsidiaries as the other Party may reasonably request; (iii) permit the other Party's officers and other employees to meet, upon reasonable notice and during normal business hours, with the principal financial officer and other officers and managers of such Party responsible for such Party's financial statements and the internal controls of such Party to discuss such matters as the other Party may deem necessary or appropriate; and (iv) make available to the other Party copies of unaudited financial statements and any material notice, report or other document filed with or sent to or received from any Governmental Body in connection with the Contemplated Transactions. Any investigation conducted by either Parent or the Company pursuant to this Section 4.3(a) shall be conducted in such manner as not to interfere unreasonably with the conduct of the business of the other Party and to comply with applicable COVID-19 Measures and COVID-19 Responses.

(b) Notwithstanding the foregoing, any Party may restrict the foregoing access to the extent that any Law applicable to such Party requires such Party to restrict or prohibit access to any such properties or information or if access would jeopardize protections afforded the Party under the attorney-client privilege or the attorney work product doctrine, violate applicable Law or breach such Party's confidentiality obligations to a third party in effect as of the date of this Agreement; *provided*, *however*, that such Party shall use commercially reasonable efforts to allow for such access in a manner that does not violate any such applicable Law or jeopardize protections afforded the Party under the attorney-client privilege or the attorney work product doctrine, including by entering into such effective and appropriate joint-defense agreements or other protective arrangements as may be reasonably required by the other Party in order that all such information may be provided to the other Party without causing such violation or waiver.

4.4 **Parent Non-Solicitation**.

(a) Except as expressly permitted by this Agreement, Parent agrees that, during the Pre-Closing Period, neither it nor any of its Subsidiaries shall, nor shall it or any of its Subsidiaries authorize any of its Representatives to (and shall use reasonable best efforts to cause such Representative not to), directly or indirectly: (i) solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of any Acquisition Proposal or Acquisition Inquiry or take any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) furnish any non-public information regarding Parent to any Person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry; (iii) engage in discussions (other than to inform any Person of the existence of the provisions contained in this Section 4.4) or negotiations with any Person with respect to any Acquisition Proposal or Acquisition Inquiry; (iv) approve, endorse or recommend any Acquisition Proposal (subject to Section 5.4); (v) execute or enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction (other than a confidentiality agreement permitted under this Section 4.4(a)); or (vi) publicly propose to do any of the foregoing; *provided*, *however*, that, notwithstanding anything contained in this Section 4.4 and subject to compliance with this Section 4.4, prior to obtaining the Required Parent Stockholder Vote, Parent may furnish non-public information regarding Parent to, and enter into discussions or negotiations with, any Person in response to a *bona fide* written unsolicited Acquisition Proposal by such Person, which the Parent Board determines in good faith, after consultation with Parent's outside legal counsel and financial advisers, constitutes, or is reasonably likely to result in, a Superior Offer (and is not withdrawn) if: (A) neither Parent nor any of its Representatives shall have breached this Section 4.4 in any material respect; (B) the Parent Board concludes in good faith, after consultation with Parent's outside legal counsel, that the failure to take such action is reasonably likely to be inconsistent with the fiduciary duties of the Parent Board under applicable Law; (C) at least two Business Days prior to initially furnishing any such nonpublic information to, or entering into discussions with, such Person, Parent gives the Company written notice of the identity of such Person and of Parent's intention to furnish nonpublic information to, or enter into discussions with, such Person; (D) Parent receives from such Person an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions and no hire provisions) at least as favorable to Parent as those contained in the Confidentiality Agreement; and (E) at least two Business Days prior to furnishing any such nonpublic information to such Person, Parent furnishes such nonpublic information to the Company (to the extent such information has not been previously furnished by Parent to the Company). Without limiting the generality of the foregoing, Parent acknowledges and agrees that, in the event any Representative of Parent (whether or not such Representative is purporting to act on behalf of Parent) takes any action that, if taken by Parent, would constitute a breach of this Section 4.4, the taking of such action by such Representative shall be deemed to constitute a breach of this Section 4.4 by Parent for purposes of this Agreement.

(b) If Parent or any Representative of Parent receives an Acquisition Proposal or Acquisition Inquiry at any time during the Pre-Closing Period, then Parent shall promptly (and in no event later than twenty-four hours after Parent becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise the Company in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the Person making or submitting such Acquisition Proposal or Acquisition Inquiry (subject to any confidentiality restrictions that may be in place between Parent and such Person as of the date of this Agreement), and a copy of the Acquisition Proposal or Acquisition Inquiry, or if the Acquisition Proposal or Acquisition Inquiry is not written, the terms thereof, and the material terms thereof). Parent shall keep the Company reasonably informed with respect to the status and terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification or proposed material modification thereto. In addition to the foregoing, Parent shall provide the Company with reasonable advance (and in any event not less than 24 hours) written notice of a meeting of the Parent Board (or any committee thereof) at which the Parent Board (or any committee thereof) is reasonably expected to consider an Acquisition Proposal or Acquisition Inquiry it has received.

(c) Parent shall immediately cease and cause to be terminated any existing discussions, negotiations and communications with any Person that relate to any Acquisition Proposal or Acquisition Inquiry as of the date of this Agreement and request the destruction or return of any nonpublic information of Parent provided to such Person.

4.5 **Company Non-Solicitation**.

(a) Except as expressly permitted by this Agreement, the Company agrees that, during the Pre-Closing Period, neither it nor any of its Subsidiaries shall, nor shall it or any of its Subsidiaries authorize any of its Representatives to (and shall use reasonable best efforts to cause each such Representative not to), directly or indirectly: (i) solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of any Acquisition Proposal or Acquisition Inquiry or take any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) furnish any non-public information regarding the Company or any of its Subsidiaries to any Person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry; (iii) engage in discussions (other than to inform any Person of the existence of the provisions contained in this Section 4.5) or negotiations with any Person with respect to any Acquisition Proposal or Acquisition Inquiry; (iv) approve, endorse or recommend any Acquisition Proposal (subject to Section 5.3); (v) execute or enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction (other than a confidentiality agreement permitted under this Section 4.5(a)); or (vi) publicly propose to do any of the foregoing; *provided*, *however*, that, notwithstanding anything contained in this Section 4.5 and subject to compliance with this Section 4.5, prior to obtaining the Required Company Stockholder Vote, the Company may furnish non-public information regarding the Company to, and enter into discussions or negotiations with, any Person in response to a *bona fide* written unsolicited Acquisition Proposal by such Person, which the Company Board determines in good faith, after consultation with the Company's outside legal counsel and financial advisers, constitutes, or is reasonably likely to result in, a Superior Offer (and is not withdrawn) if: (A) neither the Company nor any of its Representatives shall have breached this Section 4.5 in any material respect; (B) the Company Board concludes in good faith, after consultation with the Company's outside legal counsel, that the failure to take such action is reasonably likely to be inconsistent with the fiduciary duties of the Company Board under applicable Law; (C) at least two Business Days prior to initially furnishing any such nonpublic information to, or entering into discussions with, such Person, the Company gives Parent written notice of the identity of such Person and of the Company's intention to furnish nonpublic information to, or enter into discussions with, such Person; (D) the Company receives from such Person an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions and no hire provisions), at least as favorable to the Company as those contained in the Confidentiality Agreement; and (E) at least two Business Days prior to furnishing any such nonpublic information to such Person, the Company furnishes such nonpublic information to Parent (to the extent such information has not been previously furnished by the Company to Parent). Without limiting the generality of the foregoing, the Company acknowledges and agrees that, in the event any Representative of the Company (whether or not such Representative is purporting to act on behalf of the Company) takes any action that, if taken by the Company, would constitute a breach of this Section 4.5, the taking of such action by such Representative shall be deemed to constitute a breach of this Section 4.5 by the Company for purposes of this Agreement.

(b) If the Company or any Representative of the Company receives an Acquisition Proposal or Acquisition Inquiry at any time during the Pre-Closing Period, then the Company shall promptly (and in no event later than twenty-four hours after the Company becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise Parent in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the Person making or submitting such Acquisition Proposal or Acquisition Inquiry (subject to any confidentiality restrictions that may be in place between the Company and such Person as of

the date of this Agreement), and a copy of the Acquisition Proposal or Acquisition Inquiry, or if the Acquisition Proposal or Acquisition Inquiry is not written, the terms thereof, and the material terms thereof). The Company shall keep Parent reasonably informed with respect to the status and terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification or proposed material modification thereto. In addition to the foregoing, the Company shall provide Parent with reasonable advance (and in any event not less than 24 hours) written notice of a meeting of the Company Board (or any committee thereof) at which the Company Board (or any committee thereof) is reasonably expected to consider an Acquisition Proposal or Acquisition Inquiry it has received.

(c) The Company shall immediately cease and cause to be terminated any existing discussions, negotiations and communications with any Person that relate to any Acquisition Proposal or Acquisition Inquiry as of the date of this Agreement and request the destruction or return of any nonpublic information of the Company or any of its Subsidiaries provided to such Person.

4.6 **Notification of Certain Matters**.

(a) During the Pre-Closing Period, the Company shall promptly notify Parent (and, if in writing, furnish copies of) if any of the following occurs: (i) any notice or other communication is received from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (ii) any Legal Proceeding against or involving or otherwise affecting the Company or its Subsidiaries is commenced, or, to the Knowledge of the Company, threatened against the Company or its Subsidiaries or, to the Knowledge of the Company, any director, officer or Key Employee of the Company or its Subsidiaries; (iii) the Company becomes aware of any inaccuracy in any representation or warranty made by it in this Agreement; or (iv) the failure of the Company to comply with any covenant or obligation of the Company; in the case of (iii) and (iv) that will or could reasonably be expected to result in the failure by the Company to satisfy any of the conditions set forth in Section 6 or Section 7. No notification given to Parent pursuant to this Section 4.6(a) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of the Company or any of its Subsidiaries contained in this Agreement or the Company Disclosure Schedule for purposes of Section 6 or Section 7, as applicable.

(b) During the Pre-Closing Period, Parent shall promptly notify the Company (and, if in writing, furnish copies of) if any of the following occurs: (i) any notice or other communication is received from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (ii) any Legal Proceeding against or involving or otherwise affecting Parent or its Subsidiaries is commenced, or, to the Knowledge of Parent, threatened against Parent or its Subsidiaries or, to the Knowledge of Parent, any director, officer or Key Employee of Parent or its Subsidiaries; (iii) Parent becomes aware of any inaccuracy in any representation or warranty made by it in this Agreement; or (iv) the failure of Parent to comply with any covenant or obligation of Parent or Merger Sub; in the case of (iii) and (iv) that will or could reasonably be expected to result in the failure by Parent to satisfy any of the conditions set forth in Section 6 or Section 8. No notification given to the Company pursuant to this Section 4.6(b) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of Parent contained in this Agreement or the Parent Disclosure Schedule for purposes of Section 6 or Section 8, as applicable.

4.7 **Potentially Transferable Assets**.

(a) Parent shall be entitled, but under no obligation, to sell, transfer, license, assign or otherwise divest Potentially Transferable Assets in a transaction or series of transactions; *provided*, that any such sale, transfer, license or other disposition must be expressly approved by the Parent Board (each, an "***Asset Disposition***" and collectively, the "***Asset Dispositions***").

(b) Parent shall keep the Company reasonably apprised of any developments related to the Asset Dispositions and any transactions undertaken pursuant to this Section 4.7. Without limiting the foregoing, Parent shall provide the Company with notice of Parent's intention to enter into any definitive written agreement (each, a "***Sale Agreement***") providing for the consummation of an Asset Disposition (such notice to include copies of the proposed execution form of such agreement) or otherwise to consummate an Asset Disposition, at least ten Business Days prior to the execution of such Sale Agreement or to otherwise consummate an Asset Disposition. Parent shall not enter into a Sale Agreement or otherwise consummate an Asset Disposition that would result in a Material Continuing Obligation without first obtaining the prior written consent of the Company, such consent not to be unreasonably withheld, delayed or conditioned (it being understood that if the Company does

not notify Parent by the tenth Business Day following receipt of the applicable notice from Parent that the Company has not consented to the entry into such Sale Agreement, then the Company shall be deemed to have given its consent).

Section 5. ADDITIONAL AGREEMENTS OF THE PARTIES.

5.1 **Registration Statement; Proxy Statement/Prospectus**.

(a) As promptly as practicable after the date of this Agreement (but in no event later than 30 days following the date of this Agreement), Parent shall, in cooperation with the Company, prepare and cause to be filed with the SEC, the Registration Statement, in which the Proxy Statement/Prospectus will be included, in connection with the registration under the Securities Act of the shares of Parent Common Stock to be issued by virtue of the Merger or the Conversion. Each of Parent and the Company shall use their commercially reasonable efforts to cause the Registration Statement to become effective as promptly as practicable, and shall take all or any action required under any applicable federal, state, securities and other Laws in connection with the issuance of shares of Parent Common Stock pursuant to the Merger or the Conversion. Each of the Parties shall furnish all information concerning itself and their Affiliates, as applicable, to the other Parties as the other Parties may reasonably request in connection with such actions and the preparation of the Registration Statement and the Proxy Statement/Prospectus.

(b) Parent covenants and agrees that the Registration Statement (and the letter to stockholders, notice of meeting and form of proxy included therewith), will comply with applicable U.S. federal securities laws and the DGCL in all material respects, and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances in which they were made, not misleading. The Company covenants and agrees that the information supplied, or to be supplied, by or on behalf of the Company or any of its Subsidiaries to Parent for inclusion in the Registration Statement (including the Company Financial Statements) will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make such information, in light of the circumstances in which they were made, not misleading. Notwithstanding the foregoing, Parent makes no covenant, representation or warranty with respect to statements made in the Registration Statement (and the letter to stockholders, notice of meeting and form of proxy included therewith), if any, based on information furnished in writing by the Company or any of its Subsidiaries or any of their representations specifically for inclusion therein. The Company and its legal counsel shall be given reasonable opportunity to review and comment on the Registration Statement, including all amendments and supplements thereto, prior to the filing thereof with the SEC, and on the response to any comments of the SEC on the Registration Statement, prior to the filing thereof with the SEC. The Registration Statement (and the letter to stockholders, notice of meeting and form of proxy included therewith), including any amendments thereto, shall be subject to the Company's advance review and reasonable approval. Each of the Parties shall use commercially reasonable efforts to cause the Registration Statement, including the Proxy Statement/Prospectus, to comply with the applicable rules and regulations promulgated by the SEC, to respond promptly to any comments of the SEC or its staff and to have the Registration Statement declared effective under the Securities Act as promptly as practicable after it is filed with the SEC. Each of the Parties shall use commercially reasonable efforts to cause the Proxy Statement/Prospectus to be mailed to holders of Parent Common Stock as promptly as practicable after the Registration Statement is declared effective under the Securities Act. If Parent, Merger Sub or the Company become aware of any event or information that, pursuant to the Securities Act or the Exchange Act, should be disclosed in an amendment or supplement to the Registration Statement or Proxy Statement/Prospectus, as the case may be, then such Party, as the case may be, shall promptly inform the other Parties thereof and shall cooperate with such other Parties in filing such amendment or supplement with the SEC and, if appropriate, in mailing such amendment or supplement to Parent's stockholders.

(c) The Company will use commercially reasonable efforts to cause to be delivered to Parent a consent letter of the Company's independent accounting firm, dated no more than two Business Days before the date on which the Registration Statement becomes effective, that is customary in scope and substance for consent letters delivered by independent public accountants in connection with registration statements similar to the Registration Statement.

5.2 **Regulatory Matters**.

(a) Subject to the terms and conditions of this Agreement, the Company and Parent shall use their respective reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary or desirable under applicable Laws to consummate the Merger as promptly as practicable, including in connection with (i) preparing and filing as promptly as practicable with any Governmental Body documentation to effect all necessary or desirable filings, notices, petitions, statements,

registrations, submissions of information, applications and other documents and (ii) obtaining and maintaining all approvals, consents, registrations, permits, authorizations and other confirmations required to be obtained from any Governmental Body that are necessary or desirable to consummate the Merger as promptly as practicable.

(b) In furtherance and not in limitation of the foregoing, each of the Company and, solely to the extent required under applicable Law as mutually determined by Parent and the Company, Parent shall make, with respect to the Merger: (i) no later than 10 Business Days after the date hereof, a Notification and Report Form pursuant to the HSR Act, as applicable; and (ii) as promptly as practicable after the date hereof, all filings required pursuant to applicable Antitrust Laws as described in Section 5.2(b) of the Company Disclosure Schedule.

(c) Each of the Company and Parent shall (i) respond as promptly as practicable to any inquiries or requests received from any Governmental Body, including in connection with any Antitrust Laws applicable to the Contemplated Transactions, (ii) supply as promptly as practicable any additional information and documentary material that may be requested by a Governmental Body, including pursuant to the HSR Act, as applicable, (iii) if any request for additional information and documents, including a "second request" under the HSR Act, as applicable, is received from any Governmental Body, then substantially comply with any such request at the earliest practicable date, (iv) not extend any waiting period or agree to refile under the HSR Act, as applicable, or any other Antitrust Law except with the prior consent of the other Party, and (v) take all other actions necessary or desirable to cause the expiration or termination of the applicable waiting periods under the HSR Act, as applicable, and any other Antitrust Laws, and obtain all other required consents, authorizations, orders and approvals from Governmental Bodies, as promptly as practicable.

(d) If any objections are asserted with respect to the Contemplated Transactions by any Governmental Body, including under the HSR Act, as applicable, or any other applicable Law (including applicable Antitrust Laws), or if any action is instituted or threatened by any Governmental Body or any private party challenging the transaction as violative of the HSR Act, as applicable, or any other applicable Law (including applicable Antitrust Laws), the Parties shall, and shall cause their respective Affiliates to, take any and all actions to resolve such objections as promptly as practicable and in any event prior to the End Date. The Company and Parent shall oppose, fully and vigorously, (A) any administrative or judicial action or proceeding that is initiated or threatened to be initiated challenging this Agreement or the consummation of the Contemplated Transactions and (B) any request for, the entry of, and seek to have vacated or terminated, any order that could restrain, prevent or delay the consummation of the transaction, including in the case of either (A) or (B) by defending through litigation any action asserted by any Person in any court or before any Governmental Body as may be required (x) by the applicable Governmental Body in order to resolve such objections as such Governmental Body may have to such transactions under the HSR Act, as applicable, or any other applicable Law (including any other applicable Antitrust Law) or (y) by any domestic or foreign court or other tribunal, in any action challenging the transaction as violative of the HSR Act, as applicable, or any other applicable Law (including other applicable Antitrust Law), in order to avoid the entry of, or to effect the dissolution, vacating, lifting, altering or reversal of, any order that has the effect of restricting, preventing or prohibiting the consummation of the transaction.

(e) Subject to applicable Law relating to the sharing of information, each Party shall (i) furnish the other Party with copies of all documents (except documents or portions thereof for which confidential treatment has been requested or given, which the Party may limit to sharing only with the external legal counsel of the other Party) and correspondence (A) prepared by or on behalf of such Party for any Governmental Body and affording the other Party the opportunity to comment and participate in responding, where appropriate; or (B) received by or on behalf of such Party from any Governmental Body, in each case in connection with the consents, authorizations, orders or approvals contemplated by this Section 5.2 and (ii) use reasonable best efforts to consult with and keep the other Party informed as to the status of such matters. Further, no Party shall, nor shall it permit any of its Representatives to, meet or engage in substantive conversations with any Governmental Body or representative of such Governmental Body in connection with obtaining any such consent, authorization, order and approval unless it consults with the other Party in advance and, to the extent not precluded by applicable Law, offers the other Party the opportunity to participate in such meeting or conversation.

5.3 **Company Stockholder Matters**.

(a) Promptly after the Registration Statement shall have been declared effective under the Securities Act, the Company shall prepare, with the cooperation of Parent, and cause to be mailed to its stockholders an information statement, which shall include a copy of the Proxy Statement/Prospectus, and the Company Stockholder Written Consent, in order to solicit the approval of the

Company's stockholders, including the Company's stockholders sufficient for the Required Company Stockholder Vote in lieu of a meeting pursuant to Section 228 of the DGCL, for purposes of (i) adopting and approving this Agreement and the Contemplated Transactions, (ii) acknowledging that the approval given thereby is irrevocable and that such stockholder is aware of its rights to demand appraisal for its shares pursuant to Section 262 of the DGCL, a true and correct copy of which will be attached thereto, and that such stockholder has received and read a copy of Section 262 of the DGCL and (iii) acknowledging that by its approval of the Merger it is not entitled to appraisal rights with respect to its shares in connection with the Merger and thereby waives any rights to receive payment of the fair value of its capital stock under the DGCL (collectively, the "***Company Stockholder Matters***"). Promptly following receipt of the duly executed Company Stockholder Written Consent from the stockholders representing the Required Company Stockholder Vote, the Company shall deliver a copy of the duly executed Company Stockholder Written Consent to Parent.

(b) The Company agrees that, subject to Section 5.3(c): (i) the Company Board shall recommend that the Company's stockholders vote to approve the Company Stockholder Matters and shall use its reasonable best efforts to solicit such approval from each of the Company stockholders necessary to deliver the Company Stockholder Written Consent evidencing the Required Company Stockholder Vote within the time set forth in Section 5.3(a) (the recommendation of the Company Board that the Company's stockholders vote to adopt and approve this Agreement being referred to as the "***Company Board Recommendation***"); and (ii) the Company Board Recommendation shall not be withdrawn or modified (and the Company Board shall not publicly propose to withdraw or modify the Company Board Recommendation) in a manner adverse to Parent, and no resolution by the Company Board or any committee thereof to withdraw or modify the Company Board Recommendation in a manner adverse to Parent or to adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any Acquisition Proposal shall be adopted or proposed (the actions set forth in the foregoing clause (ii), collectively, a "***Company Board Adverse Recommendation Change***").

(c) Notwithstanding anything to the contrary contained in Section 5.3(b) and subject to compliance with Section 4.5, if at any time prior to the approval and adoption of this Agreement by the Required Company Stockholder Vote, the Company receives a bona fide written Superior Offer, the Company Board may make a Company Board Adverse Recommendation Change, if, but only if, following the receipt of and on account of such Superior Offer, (i) the Company Board determines in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Company Board Recommendation would constitute a violation of the Company Board's fiduciary duties under applicable Law; (ii) the Company has, and has caused its financial advisors and outside legal counsel to, during the Notice Period (as defined below), negotiate with Parent in good faith to make such adjustments to the terms and conditions of this Agreement so that such Acquisition Proposal ceases to constitute a Superior Offer and (iii) if after Parent shall have delivered to the Company a written offer to alter the terms or conditions of this Agreement during the Notice Period, the Company Board shall have determined in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Company Board Recommendation would constitute a violation of the Company Board's fiduciary duties under applicable Law (after taking into account such alterations of the terms and conditions of this Agreement); *provided* that (x) Parent receives written notice from the Company confirming that the Company Board has determined to change its recommendation at least four Business Days in advance of the Company Board Adverse Recommendation Change (the "***Notice Period***"), which notice shall include a description in reasonable detail of the reasons for such Company Board Adverse Recommendation Change, and written copies of any relevant transaction agreements with any party making a potential Superior Offer, (y) during any Notice Period, Parent shall be entitled to deliver to the Company one or more counterproposals to such Acquisition Proposal and the Company will, and cause its Representatives to, negotiate with Parent in good faith (to the extent Parent desires to negotiate) to make such adjustments in the terms and conditions of this Agreement so that the applicable Acquisition Proposal ceases to constitute a Superior Offer, and (z) in the event of any material amendment to any Superior Offer (including any revision in the amount, form or mix of consideration the Company's stockholders would receive as a result of such potential Superior Offer), the Company shall be required to provide Parent with notice of such material amendment and the Notice Period shall be extended, if applicable, to ensure that at least two Business Days remain in the Notice Period following such notification during which the parties shall comply again with the requirements of this Section 5.3(c) and the Company Board shall not make a Company Board Adverse Recommendation Change prior to the end of such Notice Period as so extended (it being understood that there may be multiple extensions).

(d) The Company's obligation to solicit the consent of its stockholders to sign the Company Stockholder Written Consent in accordance with Section 5.3(a) and Section 5.3(b) shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior Offer or other Acquisition Proposal or by any withdrawal or modification of the Company Board Recommendation.

5.4 **Parent Stockholders' Meeting**.

(a) Promptly after the Registration Statement has been declared effective by the SEC under the Securities Act, Parent shall take all action necessary under applicable Law to call, give notice of and hold a meeting of the holders of Parent Common Stock for the purpose of seeking approval of this Agreement and the Contemplated Transactions, including:

(i) the amendment of Parent's certificate of incorporation to effect the Nasdaq Reverse Split;

(ii) the issuance of shares of Parent Common Stock to the Company's stockholders in connection with the Contemplated Transactions pursuant to the terms of this Agreement;

(iii) the change of control of Parent resulting from the Merger pursuant to Nasdaq rules (the matters contemplated by Sections 5.4(a)(i) through 5.4(a)(iii) are referred to as the "***Parent Stockholder Matters,***" and such meeting, the "***Parent Stockholders' Meeting***"); and

(iv) the approval of the Equity Plan Amendments.

(b) The Parent Stockholders' Meeting shall be held as promptly as practicable after the Registration Statement is declared effective under the Securities Act, and in any event no later than 45 days after the effective date of the Registration Statement. Parent shall take reasonable measures to ensure that all proxies solicited in connection with the Parent Stockholders' Meeting are solicited in compliance with all applicable Law. Notwithstanding anything to the contrary contained herein, if on the date of the Parent Stockholders' Meeting, or a date preceding the date on which the Parent Stockholders' Meeting is scheduled, Parent reasonably believes that (i) it will not receive proxies sufficient to obtain the Required Parent Stockholder Vote, whether or not a quorum would be present or (ii) it will not have sufficient shares of Parent Common Stock represented (whether in person or by proxy) to constitute a quorum necessary to conduct the business of the Parent Stockholders' Meeting, Parent may (and at the Company's request, Parent shall) postpone or adjourn, or make one or more successive postponements or adjournments of, the Parent Stockholders' Meeting as long as the date of the Parent Stockholders' Meeting is not postponed or adjourned more than an aggregate of 30 calendar days in connection with any postponements or adjournments in reliance on the preceding sentence.

(c) Parent agrees that, subject to Section 5.4(d): (i) the Parent Board shall recommend that the holders of Parent Common Stock vote to approve the Parent Stockholder Matters and shall use its reasonable best efforts to solicit such approval within the timeframe set forth in Section 5.4(b); (ii) the Proxy Statement/Prospectus shall include a statement to the effect that the Parent Board recommends that the holders of Parent Common Stock vote to approve the Parent Stockholder Matters (the recommendation of the Parent Board with respect to the Parent Stockholder Matters being referred to as the "***Parent Board Recommendation***"); and (iii) the Parent Board Recommendation shall not be withheld, amended, withdrawn or modified (and the Parent Board shall not publicly propose to withhold, amend, withdraw or modify the Parent Board Recommendation) in a manner adverse to the Company, and no resolution by the Parent Board or any committee thereof to withdraw of modify the Parent Board Recommendation in a manner adverse to the Company or to adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any Acquisition Proposal shall be adopted or proposed (the actions set forth in the foregoing clause (iii), collectively, a "***Parent Board Adverse Recommendation Change***").

(d) Notwithstanding anything to the contrary contained in Section 5.4(c) and subject to compliance with Section 4.4, if at any time prior to the approval of Parent Stockholder Matters by the Required Parent Stockholder Vote, Parent receives a bona fide written Superior Offer, the Parent Board may make a Parent Board Adverse Recommendation Change, if, but only if, following the receipt of and on account of such Superior Offer, (i) the Parent Board determines in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Parent Board Recommendation would constitute a violation of the Parent Board's fiduciary duties under applicable Law; (ii) Parent has, and has caused its financial advisors and outside legal counsel to, during the Notice Period, negotiate with the Company in good faith to make such adjustments to the terms and conditions of this Agreement so that such Acquisition Proposal ceases to constitute a Superior Offer and (iii) if after the Company shall have delivered to Parent a written offer to alter the terms or conditions of this Agreement during the Notice Period, the Parent Board shall have determined in good faith, based on the advice of its outside legal counsel, that the failure to withhold, amend, withdraw or modify the Parent Board Recommendation would constitute a violation of the Parent Board's fiduciary duties under applicable Law (after taking into account such alterations of the terms and conditions of this Agreement); *provided*, that (x) the Company receives written notice from Parent confirming that the Parent Board has determined

to change its recommendation during the Notice Period, which notice shall include a description in reasonable detail of the reasons for such Parent Board Adverse Recommendation Change, and written copies of any relevant transaction with any party making a potential Superior Offer, (y) during any Notice Period, the Company shall be entitled to deliver to Parent one or more counterproposals to such Acquisition Proposal and Parent will, and will cause its Representatives to, negotiate with the Company in good faith (to the extent the Company desires to negotiate) to make such adjustments in the terms and conditions of this Agreement so that the applicable Acquisition Proposal ceases to constitute a Superior Offer, and (z) in the event of any material amendment to any Superior Offer (including any revision in the amount, form or mix of consideration the Parent's stockholders would receive as a result of such potential Superior Offer), Parent shall be required to provide the Company with notice of such material amendment and the Notice Period shall be extended, if applicable, to ensure that at least two Business Days remain in the Notice Period following such notification during which the parties shall comply again with the requirements of this Section 5.4(d) and the Parent Board shall not make a Parent Board Adverse Recommendation Change prior to the end of such Notice Period so extended (it being understood that there may be multiple extensions).

(e) Parent's obligation to solicit the consent of its stockholders to approve the Parent Stockholder Matters shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior Offer or other Acquisition Proposal or by any withdrawal or modification of the Parent Board Recommendation.

(f) Nothing contained in this Agreement shall prohibit Parent or the Parent Board from (i) complying with Rules 14d-9 and 14e-2(a) under the Exchange Act, (ii) issuing a "stop, look and listen" communication or similar communication of the type contemplated by Rule 14d-9(f) under the Exchange Act or (iii) otherwise making any disclosure to Parent's stockholders if, in the case of the foregoing clause (iii), the Parent Board determines in good faith, after consultation with its outside legal counsel, that failure to make such disclosure would be inconsistent with applicable Law, including its fiduciary duties under applicable Law; *provided*, that in no event shall Parent or the Parent Board make a Parent Board Adverse Recommendation Change except in accordance with the provisions of Section 5.4(d) above.

5.5 **Company Options, Company Convertible Note, Parent Warrants, and Parent Equity Awards**.

(a) Subject to Section 5.5(d), at the Effective Time, each Company Option that is outstanding and unexercised immediately prior to the Effective Time under the Company Plan and that, following assumption by Parent at the Effective Time, will be eligible to be registered on Form S-8, whether or not vested, shall be converted into and become an option to purchase Parent Common Stock, and Parent shall assume the Company Plan and each such Company Option in accordance with the terms (as in effect as of the date of this Agreement) of the Company Plan and the terms of the stock option agreement by which such Company Option is evidenced (but with changes to such documents as Parent and the Company mutually agree are appropriate to reflect the substitution of the Company Options for an option to purchase shares of Parent Common Stock). All other Company Options that are outstanding and unexercised as of immediately prior to the Effective Time shall be canceled immediately prior to the Effective Time. All rights with respect to Company Common Stock subject to Company Options assumed by Parent shall thereupon be converted into rights with respect to Parent Common Stock. Accordingly, from and after the Effective Time: (i) each Company Option assumed by Parent may be exercised solely for shares of Parent Common Stock; (ii) the number of shares of Parent Common Stock subject to each Company Option assumed by Parent shall be determined by multiplying (A) the number of shares of Company Common Stock that were subject to such Company Option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio, and rounding the resulting number down to the nearest whole number of shares of Parent Common Stock; (iii) the per share exercise price for the Parent Common Stock issuable upon the exercise of each Company Option assumed by Parent shall be determined by dividing (A) the per share exercise price of Company Common Stock subject to such Company Option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Company Option assumed by Parent shall continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such Company Option shall otherwise remain unchanged; *provided, however*, that: (x) to the extent provided under the terms of a Company Option and the Company Plan, such Company Option may be further adjusted as necessary to reflect Parent's substitution of the Company Options with options to purchase Parent Common Stock (such as by making any change in control or similar definition relate to Parent and having any provision that provides for the adjustment of Company Options upon the occurrence of certain corporate events relate to corporate events that relate to Parent and/or Parent Common Stock); and (y) the Parent Board or a committee thereof shall succeed to the authority and responsibility of the Company Board or any committee thereof with respect to each Company Option assumed by Parent. Notwithstanding anything to the contrary in this Section 5.5(a), the conversion of each Company Option (regardless of whether such option qualifies as an "incentive stock option" within the meaning of Section 422 of

the Code) into an option to purchase shares of Parent Common Stock shall be made in a manner consistent with Treasury Regulation Section 1.424-1, such that the conversion of a Company Option shall not constitute a "modification" of such Company Option for purposes of Section 409A or Section 424 of the Code.

(b) Parent shall file with the SEC, promptly after the Effective Time, a registration statement on Form S-8 (or any successor or alternative form), relating to the shares of Parent Common Stock issuable with respect to Company Options assumed by Parent in accordance with Section 5.5(a).

(c) Subject to Section 5.5(d), as of immediately after the Effective Time, the Company Convertible Note shall convert into shares of Parent Common Stock in accordance with the Convertible Note Conversion Agreement, as amended or supplemented.

(d) Prior to the Effective Time, the Company shall take all actions that may be necessary (under the Company Plan and otherwise) to effectuate the provisions of Section 5.5(a) and Section 5.5(c) and to ensure that, from and after the Effective Time, holders of Company Options and the Company Convertible Note have no rights with respect thereto other than those specifically provided in Section 5.5.

(e) Prior to the Closing, Parent shall notify the holders of the Parent Warrants of the Contemplated Transactions in accordance with the terms of the applicable Parent Warrants and, at the Effective Time, each Parent Warrant that is outstanding and unexercised immediately prior to the Effective Time, shall survive the Closing and remain outstanding in accordance with its terms.

(f) Prior to the Effective Time, the Parent Board shall have the right, in its sole discretion, to adopt appropriate resolutions and take all other actions necessary and appropriate to provide that each Parent RSU and/or each Parent Option, to the extent unvested immediately prior to the Effective Time, be accelerated in full effective as of immediately prior to the Effective Time. At the Effective Time, each Parent RSU and/or each Parent Option that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, shall survive the Closing and remain outstanding in accordance with its terms.

5.6 **Indemnification of Officers and Directors**.

(a) From the Effective Time through the sixth anniversary of the date on which the Effective Time occurs, each of Parent and the Surviving Corporation shall, jointly and severally, indemnify and hold harmless each person who is now, or has been at any time prior to the date hereof, or who becomes prior to the Effective Time, a director, officer, fiduciary or agent of Parent or the Company and their respective Subsidiaries, respectively (the "***D&O Indemnified Parties***"), against all claims, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements and investigation costs, incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, or any other actual, threatened or completed proceeding arising out of or pertaining to the fact that the D&O Indemnified Party is or was a director, officer, fiduciary or agent of Parent or of the Company or their respective Subsidiaries, whether asserted or claimed prior to, at or after the Effective Time, in each case, to the fullest extent permitted under applicable Law. Each D&O Indemnified Party will be entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation from each of Parent and the Surviving Corporation, jointly and severally, upon receipt by Parent or the Surviving Corporation from the D&O Indemnified Party of a request therefor; *provided*, that any such person to whom expenses are advanced provides an undertaking to Parent, to the extent then required by the DGCL, to repay such advances if it is ultimately determined that such person is not entitled to indemnification.

(b) The provisions of Parent's Organizational Documents with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Parent that are presently set forth in the certificate of incorporation and bylaws of Parent shall not be amended, modified or repealed for a period of six years from the Effective Time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the Effective Time, were officers or directors of Parent, unless such modification is required by applicable Law. The certificate of incorporation and bylaws of the Surviving Corporation shall contain, and Parent shall cause the certificate of incorporation and bylaws of the Surviving Corporation to so contain, provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers as those presently set forth in the certificate of incorporation and bylaws of the Company.

(c) From and after the Effective Time, (i) the Surviving Corporation shall fulfill and honor, and Parent shall cause the Surviving Corporation to fulfill and honor, in all respects the obligations of the Company to its D&O Indemnified Parties as of

immediately prior to the Closing pursuant to any indemnification provisions under the Company's Organizational Documents and pursuant to any indemnification agreements between the Company and such D&O Indemnified Parties, with respect to claims arising out of matters occurring at or prior to the Effective Time and (ii) Parent shall fulfill and honor in all respects the obligations of Parent to its D&O Indemnified Parties as of immediately prior to the Closing pursuant to any indemnification provisions under Parent's Organizational Documents and pursuant to any indemnification agreements between Parent and such D&O Indemnified Parties, with respect to claims arising out of matters occurring at or prior to the Effective Time.

(d) From and after the Effective Time, Parent shall maintain directors' and officers' liability insurance policies, with an effective date as of the Closing Date, on commercially available terms and conditions and with coverage limits customary for U.S. public companies similarly situated to Parent. In addition, prior to the Effective Time, Parent shall purchase a six-year prepaid "tail policy" through Parent's recognized broker of record for the non-cancellable extension of the directors' and officers' liability coverage of Parent's existing directors' and officers' insurance policies for a claims reporting or discovery period of at least six years from and after the Effective Time with respect to any claim related to any period of time at or prior to the Effective Time with terms, conditions, and retentions that are no less favorable than the coverage provided under Parent's existing policies as of the date of this Agreement and with limits of liability no less than $20,000,000, in each case with respect to any actual or alleged error, misstatement, misleading statement, act, omission, neglect, breach of duty or any matter claimed against a director or officer of Parent by reason of him or her serving in such capacity that existed or occurred at or prior to the Effective Time (including in connection with this Agreement or the Contemplated Transactions) (the "***D&O Tail Policy***"). For clarity, the cost of any such D&O Tail Policy, to the extent unpaid as of the Effective Time, shall reduce the amount of Net Cash.

(e) From and after the Effective Time, Parent shall pay all expenses, including reasonable attorneys' fees, that are incurred by the persons referred to in this Section 5.6 in connection with their successful enforcement of the rights provided to such persons in this Section 5.6.

(f) The provisions of this Section 5.6 are intended to be in addition to the rights otherwise available to the current and former officers and directors of Parent and the Company by Law, charter, statute, bylaw or agreement, and shall operate for the benefit of, and shall be enforceable by, each of the D&O Indemnified Parties, their heirs and their Representatives. The obligations set forth in this Section 5.6 shall not be terminated, amended or otherwise modified in any manner that adversely affects any D&O Indemnified Party (and their heirs and Representatives) without the prior written consent of such affected D&O Indemnified Party (or their heirs and Representatives),

(g) In the event Parent or the Surviving Corporation or any of their respective successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger, or (ii) transfers all or substantially all of its properties and assets to any Person, then, and in each such case, proper provision shall be made so that the successors and assigns of Parent or the Surviving Corporation, as the case may be, shall succeed to the obligations set forth in this Section 5.6. Parent shall cause the Surviving Corporation to perform all of the obligations of the Surviving Corporation under this Section 5.6.

5.7 **Additional Agreements**. In addition to each Party's obligations in Section 5.2, the Parties shall use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions. Without limiting the generality of the foregoing, each Party: (a) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with the Contemplated Transactions; (b) shall use commercially reasonable efforts to obtain each Consent (if any) reasonably required to be obtained by such Party in connection with the Contemplated Transactions pursuant to any applicable Law or any Contracts set forth in Schedule 5.7; (c) shall use reasonable best efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; (d) in the case of Parent, commercially reasonable efforts to resolve the matters set forth on Schedule N, either without any Material Continuing Obligation, except for obligations which would reduce Net Cash pursuant to the definition thereof; and (e) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement.

5.8 **Disclosure**. The initial press release relating to this Agreement shall be a joint press release issued by, and mutually acceptable to, the Company and Parent and thereafter Parent and the Company shall obtain the consent of the other before issuing any further press release(s) or otherwise making any public statement or making any announcement to Parent Associates or Company Associates (to the extent not previously issued or made in accordance with this Agreement) with respect to the Contemplated Transactions and shall not issue any such press release, public statement or announcement to Parent Associates or Company

Associates without the other Party's prior written consent (which shall not be unreasonably withheld, conditioned or delayed). Notwithstanding the foregoing: (a) each Party may, without such consultation or consent, make any public statement in response to questions from the press, analysts, investors or those attending industry conferences, make internal announcements to employees and make disclosures in Parent SEC Documents, so long as such statements are consistent with previous press releases, public disclosures or public statements made jointly by the Parties (or individually, if approved by the other Party); (b) a Party may, without the prior consent of the other Party hereto but subject to giving advance notice to the other Party, issue any such press release or make any such public announcement or statement such Party has determined in good faith, upon the advice of outside legal counsel, is required by applicable Law; and (c) a Party need not consult with the any other Party in connection with such portion of any press release, public statement or filing to be issued or made pursuant to Section 5.4(e) or with respect to any Acquisition Proposal, Parent Board Adverse Recommendation Change or Company Board Adverse Recommendation Change, as applicable, or with respect to Parent only, pursuant to Section 5.4(f).

5.9 **Listing**. During the Pre-Closing Period, Parent shall use its commercially reasonable efforts: (a) to maintain its existing listing on Nasdaq and to obtain approval of the listing of the combined corporation on Nasdaq; (b) to the extent required by the rules and regulations of Nasdaq, to prepare and submit to Nasdaq a notification form for the listing of the shares of Parent Common Stock to be issued in connection with the Contemplated Transactions; (c) to prepare and timely submit to Nasdaq a notification form of the Nasdaq Reverse Split and to submit a copy of the amendment to Parent's certificate of incorporation to effect the Nasdaq Reverse Split certified by the Secretary of State of the State of Delaware to Nasdaq on the Closing Date; (d) to the extent required by Nasdaq Listing Rule 5110, to file an initial listing application for the Parent Common Stock on Nasdaq (the "***Nasdaq Listing Application***") and to cause such Nasdaq Listing Application to be approved; and (e) in the event of receipt of a Nasdaq delisting determination, Parent will request a hearing to appeal the delisting determination and will pay the appropriate fee to Nasdaq to appeal the delisting determination. Prior to the Effective Time, each Party will promptly inform the other Party of all verbal or written communications between Nasdaq and such Party or its Representatives. The Parties will use commercially reasonable efforts to coordinate with respect to compliance with Nasdaq rules and regulations. The Company will cooperate with Parent as reasonably requested by Parent with respect to the Nasdaq Listing Application and promptly furnish to Parent all information concerning the Company and its stockholders that may be required or reasonably requested in connection with any action contemplated by this Section 5.9.

5.10 **Tax Matters**.

(a) For U.S. federal income Tax purposes, (i) the Parties intend that (A) the Merger qualify as a "reorganization" within the meaning of Section 368(a) of the Code, and (B) the Nasdaq Reverse Split qualify as a "recapitalization" within the meaning of Section 368(a)(1)(e) of the Code (collectively, the "***Intended Tax Treatment***"), and (ii) this Agreement is intended to be, and is hereby adopted as, a "plan of reorganization" for purposes of Section 354 and 361 of the Code and Treasury Regulations Section 1.368-2(g) and 1.368-3(a), to which Parent, Merger Sub and the Company are parties under Section 368(b) of the Code. The Parties shall treat and shall not take any tax reporting position inconsistent with the Intended Tax Treatment, unless otherwise required pursuant to a "determination" within the meaning of Section 1313(a) of the Code.

(b) The Parties acknowledge and agree that each has relied upon the advice of its own tax advisors in connection with the Merger and the Contemplated Transactions and that none of the Company, on the one hand, and Parent and Merger Sub, on the other hand, makes any representation or warranty as to the Intended Tax Treatment, other than the representations and warranties contained in Sections 2.16(h) and 3.16(h), respectively.

(c) The Parties shall use their respective commercially reasonable efforts to cause the Merger to qualify, and will not take any action or cause or permit any action to be taken which action would reasonably be expected to prevent the Merger from qualifying, for the Intended Tax Treatment.

(d) Parent shall prepare and file, or cause to be prepared and filed, any IRS Forms 8937 that are required to be filed in connection with the Contemplated Transactions.

(e) In the event that the SEC requests or requires a tax opinion in connection with the Contemplated Transactions, each of Parent and the Company shall use its commercially reasonable efforts to deliver a "Tax Representation Letter," signed by an officer of Parent and/or the Company, as applicable, containing customary representations of Parent and Merger Sub or Company, as applicable, in each case, as shall be reasonably necessary or appropriate to enable legal counsel to provide an opinion relating to the Contemplated Transactions.

5.11 **Legends**. Parent shall be entitled to place appropriate legends on the book entries evidencing any shares of Parent Common Stock to be received in the Merger by equityholders of the Company who may be considered "affiliates" of Parent for purposes of Rules 144 and 145 under the Securities Act reflecting the restrictions set forth in Rules 144 and 145 and to issue appropriate stop transfer instructions to the transfer agent for Parent Common Stock.

5.12 **Directors and Officers**. Parent shall cause, effective as of the Effective Time, the Parent Board to be composed of seven members, to serve in the respective director class set forth opposite such member's name on Schedule 5.12, which shall consist of (a) one such member designated by Parent as set forth on Schedule 5.12 under the heading "Directors" (the "***Parent Designee***"), and (b) six such members designated by the Company as set forth on Schedule 5.12 under the heading "Directors" (the "***Company Designees***"). Furthermore, the Parties shall take all necessary action so that the Persons listed in Schedule 5.12 under the headings "Officers" or "Directors", as applicable, are elected or appointed, as applicable, to the positions of officers or directors of Parent and the Surviving Corporation, as set forth therein, to serve in such positions effective as of the Effective Time until the earlier of their resignation or removal or until their respective successors are duly elected or appointed and qualified, as the case may be. If any Person named in Schedule 5.12 as a director is unable or unwilling to serve as a director of Parent after the Effective Time, as set forth therein, the Party appointing such Person shall designate a successor. Other than with respect to the Parent Designee, prior to the Closing, Parent shall deliver to the Company written resignations, in a form reasonably satisfactory to the Company, of each pre-Closing member of the Parent Board.

5.13 **Termination of Certain Agreements and Rights**. The Company shall cause the Investor Agreements (excluding the Company Stockholder Support Agreements and the Company Lock-Up Agreements) to be terminated, contingent upon, and to take effect as of immediately prior to, the Effective Time, without any liability being imposed on the part of Parent or the Surviving Corporation.

5.14 **Section 16 Matters**. Prior to the Effective Time, Parent shall take all such steps as may be required to cause any acquisitions of Parent Common Stock (including derivative securities with respect to Parent Common Stock) in connection with the Contemplated Transactions, by each individual who is or is reasonably expected to become, subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Parent, to be exempt under Rule 16b-3 under the Exchange Act. At least 30 calendar days prior to the Closing Date, the Company shall furnish the following information to Parent for each individual who, immediately after the Effective Time, will become subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Parent: (a) the number of shares of Company Capital Stock owned by such individual and expected to be exchanged for shares of Parent Common Stock pursuant to the Merger; and (b) the number of other derivative securities (if any) with respect to Company Capital Stock owned by such individual and expected to be converted into shares of Parent Common Stock, restricted stock awards to acquire Parent Common Stock or derivative securities with respect to Parent Common Stock in connection with the Merger.

5.15 **Cooperation**. Each Party shall cooperate reasonably with the other Party and shall provide the other Party with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable the combined entity to continue to meet its obligations following the Effective Time.

5.16 **Allocation Certificates**.

(a) The Company will prepare and deliver to Parent at least two Business Days prior to the Closing Date a certificate signed by the Chief Executive Officer or Chief Financial Officer of the Company setting forth, as of immediately prior to the Effective Time, after giving effect to the Pre-Closing Financing: (i) each holder of Company Capital Stock and Company Options; (ii) such holder's name and address; (iii) the number and type of Company Capital Stock held and/or underlying the Company Options as of immediately prior to the Effective Time for each such holder and the per share exercise price of each Company Option; and (iv) the number of shares of Parent Common Stock to be issued to such holder, or to underlie any Parent Option to be issued to such holder, pursuant to this Agreement in respect of the Company Capital Stock or Company Options held by such holder as of immediately prior to the Effective Time (the "***Allocation Certificate***").

(b) Parent will prepare and deliver to the Company at least two Business Days prior to the Closing Date a certificate signed by the Chief Executive Officer or Chief Financial Officer of Parent, setting forth (as of immediately prior to the Effective Time), the number of Parent Outstanding Shares and each component thereof (broken down by outstanding shares of Parent Common Stock, Parent Options, Parent RSUs and Parent Warrants).

5.17 **Company Financial Statements**. The Company will furnish to Parent Company Financial Statements required to be included in the Registration Statement prior to the initial filing of such Registration Statement and in no event later than 15 calendar days after the date hereof; *provided* that, for clarity, the final, signed audit opinion with respect to such Company Financial Statements shall not be provided until the date of filing of the Registration Statement. The Company shall also furnish to Parent unaudited interim financial statements for each interim period completed prior to Closing required to be included in the Registration Statement prior to the initial filing of such Registration Statement and in no event later than 15 calendar days after the date hereof.

5.18 **Takeover Statutes**. If any Takeover Statute is or may become applicable to the Contemplated Transactions, each of the Company, the Company Board, Parent and the Parent Board, as applicable, shall grant such approvals and take such actions as are necessary so that the Contemplated Transactions may be consummated as promptly as practicable on the terms contemplated by this Agreement and otherwise act to eliminate or minimize the effects of such statute or regulation on the Contemplated Transactions.

5.19 **Stockholder Litigation**. Each Party shall give the other Party the opportunity to participate in the settlement or defense of any stockholder litigation brought or threatened against such Party or any of its directors and officers relating to or challenging this Agreement or the consummation of the Contemplated Transactions (each, a "***Transaction Litigation***"), and no such settlement shall be agreed to without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed. Without limiting in any way the Parties' obligations under Section 5.19, each of Parent and the Company will cooperate, and cause its Subsidiaries to cooperate, and shall use its reasonable best efforts to cause its Representatives to cooperate, in the defense against any Transaction Litigation. All costs and expenses, including attorney's fees and settlement costs, incurred in connection with any Transaction Litigation shall be treated in accordance with the definition of Net Cash.

5.20 **Employee Benefits**.

(a) Immediately following the Effective Time, the employment and service, as applicable, of each employee, independent contractor or officer of Parent, subject to the exceptions listed in Section 5.20(a) of the Parent Disclosure Schedule (each, a "***Terminated Parent Associate***") who remains employed or engaged immediately prior to the Effective Time shall automatically terminate. Each such termination shall be deemed to be an involuntary termination without "cause" after a "change in control transaction" or a "covered termination", as applicable, and Parent shall comply with the terms of any employment, severance, retention, change of control, or similar Contract or Parent Benefit Plan specified in Section 3.17(a) of the Parent Disclosure Schedule; *provided*, *however*, that any Terminated Parent Associate who is an employee of Parent as of the Effective Time and is terminated in accordance with the immediately preceding sentence and is not otherwise party to such Contract or subject to such a Parent Benefit Plan, shall be paid severance by Parent equal to two weeks of base salary plus one week of base salary for each full or partial year of employment with Parent, but no less than a minimum of 12 weeks of base salary, subject to such releases of claims against Parent and the Company and their agents, representatives, and other customary releases as the Company shall require. Notwithstanding the forgoing, any severance pay or severance benefits payable, including payments to cover COBRA, to Terminated Parent Associates pursuant to any employment, severance, retention, change of control, or similar Contract or Parent Benefit Plan specified in Section 3.17(a) of the Parent Disclosure Schedule as a result of the Effective Time, to the maximum extent permitted by Code Section 409A, be paid in lump sum as soon as practicable following the Effective Time, *provided* that the Terminated Parent Associate consents to the lump sum severance payment (to the extent required). From time to time after the date hereof, Parent may update Section 5.20(a) of the Parent Disclosure Schedule upon the prior written consent of the Company.

(b) Each Person, other than any Person who has previously entered into a Contract with Parent providing for the payment of severance benefits and/or is a Terminated Parent Associate, who is an employee of Parent as of the Effective Time and who is terminated by Parent following the Effective Time shall be entitled to severance benefits to be paid by Parent pursuant to Parent's current severance practice, but in no event shall such severance benefits be less than two weeks of base salary plus one week of base salary for each full or partial year of employment with Parent, but no less than a minimum of 12 weeks of base salary, subject to such releases of claims against Parent and the Company and their agents, representatives, and other customary releasees as the Company shall require. For the avoidance of doubt, all such payments under this Section 5.20(b) shall not be included in the calculation of Parent Transaction Expenses nor in the calculation of Net Cash.

5.21 **Pre-Closing Dividend**. Prior to the Effective Time, Parent may (a) declare a dividend (the "***Pre-Closing Dividend***") to its common stockholders of record consisting of (i) the right to receive one contingent value right (each, a "***CVR***") for each outstanding share of Parent Common Stock held by such stockholder as of such date, each representing the right to receive contingent payments upon the occurrence of certain events set forth in, and subject to and in accordance with the terms and conditions of, the Contingent

Value Rights Agreement in the form attached hereto as **Exhibit D** (the "***CVR Agreement***") and (ii) cash in an amount not to exceed $25,000,000 in the aggregate subject to satisfaction of Parent's obligation set forth in Section 8.5 and (b) make any necessary equitable adjustment required under the Parent Stock Plans. The record date for the Pre-Closing Dividend shall be a date agreed by Parent and the Company prior to the Effective Time and the payment date for which shall be three Business Days after the Effective Time; *provided*, that the payment of such dividend may be conditioned upon the occurrence of the Effective Time. In connection with the Pre-Closing Dividend, Parent shall cause the CVR Agreement to be duly authorized, executed and delivered by Parent and a rights agent selected by Parent with the Company's prior approval (such approval not to be unreasonably withheld, delayed or conditioned).

5.22 **Nasdaq Reverse Split**. Parent shall submit to Parent's stockholders at the Parent Stockholders Meeting a proposal to approve and adopt an amendment to Parent's certificate of incorporation to authorize the Parent Board to effect the Nasdaq Reverse Split, and shall take such other actions as shall be reasonably necessary to effectuate the Nasdaq Reverse Split.

5.23 **Parent SEC Documents**. From the date of this Agreement until the Effective Time, Parent shall use commercially reasonable efforts to timely file with the SEC all Parent SEC Documents. As of its filing date, or if amended after the date of this Agreement, as of the date of the last such amendment, each Parent SEC Document filed by Parent with the SEC shall comply in all material respects with the applicable requirements of the Exchange Act and the Securities Act.

5.24 **Obligations of Merger Sub**. Parent will take all actions necessary to cause Merger Sub to perform its obligations under this Agreement and to consummate the Merger on the terms and conditions set forth in this Agreement.

Section 6. CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY

The obligations of each Party to effect the Merger and otherwise consummate the Contemplated Transactions to be consummated at the Closing are subject to the satisfaction or, to the extent permitted by applicable Law, the written waiver by each of the Parties, at or prior to the Closing, of each of the following conditions:

6.1 **No Restraints**. No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Contemplated Transactions shall have been issued by any court of competent jurisdiction or other Governmental Body of competent jurisdiction and remain in effect and there shall not be any Law which has the effect of making the consummation of the Contemplated Transactions illegal.

6.2 **Stockholder Approval**. (i) Parent shall have obtained the Required Parent Stockholder Vote and (ii) the Company shall have obtained the Required Company Stockholder Vote.

6.3 **Listing**. The existing shares of Parent Common Stock shall have been continually listed on Nasdaq as of and from the date of this Agreement through the Closing Date, the approval of the listing of additional shares of Parent Common Stock on Nasdaq shall have been obtained and the shares of Parent Common Stock to be issued in the Merger and the Conversion pursuant to this Agreement shall have been approved for listing on Nasdaq.

6.4 **Effectiveness of Registration Statement**. The Registration Statement shall have become effective in accordance with the provisions of the Securities Act, and shall not be subject to any stop order or proceeding (or threatened proceeding by the SEC) seeking a stop order with respect to the Registration Statement that has not been withdrawn.

Section 7. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF PARENT AND MERGER SUB

The obligations of Parent and Merger Sub to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by Parent, at or prior to the Closing, of each of the following conditions:

7.1 **Accuracy of Representations**. The Company Fundamental Representations shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties shall be true and correct in all material respects as of such date). The Company Capitalization Representations shall be true and correct in all respects on and as of the Closing Date with the same force and effect as if made on and as of such date, except, in each case, (x) for

such inaccuracies which are *de minimis*, individually or in the aggregate, or (y) for those representations and warranties which address matters only as of a particular date (which representations and warranties shall have been true and correct, subject to the qualifications as set forth in the preceding clause (x), as of such particular date). The representations and warranties of the Company set forth in Section 2.8(b) shall be true and correct in all respects on and as of the Closing Date with the same force and effect as if made on and as of such date. The representations and warranties of the Company contained in this Agreement (other than the Company Fundamental Representations, the Company Capitalization Representations and the representations and warranties of the Company set forth in Section 2.8(b)) shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date, except (a) in each case, or in the aggregate, where the failure to be true and correct would not have a Company Material Adverse Effect (without giving effect to any references therein to any Company Material Adverse Effect or other materiality qualifications), or (b) for those representations and warranties which address matters only as of a particular date (which representations shall have been true and correct, subject to the qualifications as set forth in the preceding clause (a), as of such particular date) (it being understood that, for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Company Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded).

7.2 **Performance of Covenants**. The Company shall have performed or complied in all material respects with the agreements and covenants required to be performed or complied with by it under this Agreement at or prior to the Effective Time.

7.3 **Closing Certificate**. Parent shall have received a certificate executed by the Chief Executive Officer or Chief Financial Officer of the Company certifying (i) that the conditions set forth in Sections 7.1, 7.2 and 7.5 have been duly satisfied and (ii) that the information set forth in the Allocation Certificate delivered by the Company in accordance with Section 5.16 is true and accurate in all respects as of the Closing Date.

7.4 **FIRPTA Certificate**. Parent shall have received (i) an original signed statement from the Company that the Company Common Stock is not a "United States real property interest," as defined in Section 897(c) of the Code, conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and 1.897-2(h), and (ii) an original signed notice to be delivered to the IRS by Parent in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2), together with written authorization for Parent to deliver such notice to the IRS on behalf of the Company following the Closing, each dated as of the Closing Date, duly executed by an authorized officer of the Company, and in form and substance reasonably acceptable to Parent. If Parent does not receive the certification and notice described above on or before the Closing Date, Parent's sole remedy shall be to withhold from the payments to be made pursuant to this Agreement any required withholding Tax under Section 1445 of the Code.

7.5 **Termination of Investor Agreements**. The Investor Agreements shall have been terminated.

7.6 **Company Lock-Up Agreements**. The Company Lock-Up Agreement will continue to be in full force and effect as of immediately following the Effective Time.

Section 8. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATION OF THE COMPANY

The obligations of the Company to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by the Company, at or prior to the Closing, of each of the following conditions:

8.1 **Accuracy of Representations**. The Parent Fundamental Representations shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties shall be true and correct in all material respects as of such date). The Parent Capitalization Representations shall be true and correct in all respects on and as of the Closing Date with the same force and effect as if made on and as of such date, except, in each case, (x) for such inaccuracies which are *de minimis*, individually or in the aggregate, or (y) for those representations and warranties which address matters only as of a particular date (which representations and warranties shall have been true and correct, subject to the qualifications set forth in the preceding clause (x), as of such particular date). The representations and warranties of Parent and Merger Sub set forth in Section 3.8(b) shall be true and correct in all respects as of the Closing Date with the same force and effect as if made on and as of such date. The representations and warranties of Parent and Merger Sub contained in this Agreement (other than the Parent Fundamental Representations, the Parent Capitalization Representations or the representations and warranties of Parent and Merger Sub set forth in Section 3.8(b)) shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date

except (a) in each case, or in the aggregate, where the failure to be true and correct would not have a Parent Material Adverse Effect (without giving effect to any references therein to any Parent Material Adverse Effect or other materiality qualifications), or (b) for those representations and warranties which address matters only as of a particular date (which representations shall have been true and correct, subject to the qualifications as set forth in the preceding clause (a), as of such particular date) (it being understood that, for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Parent Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded).

8.2 **Performance of Covenants**. Parent and Merger Sub shall have performed or complied in all material respects with their agreements and covenants required to be performed or complied with by each of them under this Agreement at or prior to the Effective Time.

8.3 **Documents**. The Company shall have received the following documents, each of which shall be in full force and effect:

(a) a certificate executed by the Chief Executive Officer of Parent confirming that the conditions set forth in Sections 8.1, 8.2, and 8.5 have been duly satisfied;

(b) a copy of the CVR Agreement, duly executed by Parent and the Rights Agent (as defined therein); and

(c) a written resignation, in a form reasonably satisfactory to the Company, dated as of the Closing Date and effective as of the Closing, executed by each of the officers and directors, from their positions as such, of Parent who are not to continue as officers or directors (as applicable) of Parent after the Closing pursuant to Section 5.12, such resignation not effecting such officer's or directors' status as an employee (if applicable), including any characterization of their cessation from employment.

8.4 **Parent Lock-Up Agreements**. The Parent Lock-Up Agreements will continue to be in full force and effect as of immediately following the Effective Time.

8.5 **Minimum Parent Final Net Cash**. The Final Net Cash shall have been determined in accordance with Section 1.11 to be greater than or equal to $100,000,000.

Section 9. TERMINATION

9.1 **Termination**. This Agreement may be terminated prior to the Effective Time (whether before or after adoption of this Agreement by the Company's stockholders and whether before or after approval of the Parent Stockholder Matters by Parent's stockholders, unless otherwise specified below):

(a) by mutual written consent of Parent and the Company;

(b) by either Parent or the Company if the Contemplated Transactions shall not have been consummated by January 31, 2023 (subject to possible extension as provided in this Section 9.1(b), the "***End Date***"); *provided*, *however*, that the right to terminate this Agreement pursuant to this Section 9.1(b) shall not be available to the Company, on the one hand, or to Parent, on the other hand, if such Party's action or failure to act has been a principal cause of the failure of the Contemplated Transactions to occur on or before the End Date and such action or failure to act constitutes a breach of this Agreement; *provided*, *further*, *however*, that, in the event that a request for additional information has been made by any Governmental Body, or in the event that the SEC has not declared effective under the Securities Act the Registration Statement by the date which is 60 days prior to the End Date, then either the Company or Parent shall be entitled to extend the End Date to the date that is 60 days after the date that the SEC has declared effective the Registration Statement under the Securities Act, but in any event no more than 60 days after the original End Date, by written notice to the other Party;

(c) by either Parent or the Company if a court of competent jurisdiction or other Governmental Body shall have issued a final and nonappealable order, decree or ruling, or shall have taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the Contemplated Transactions;

(d) by Parent if the Company Stockholder Written Consent evidencing the Required Company Stockholder Vote shall not have been obtained within ten Business Days of the Registration Statement becoming effective in accordance with the provisions

of the Securities Act; *provided*, *however*, that once the Company Stockholder Written Consent evidencing the Required Company Stockholder Vote has been obtained, Parent may not terminate this Agreement pursuant to this Section 9.1(d);

(e) by either Parent or the Company if (i) the Parent Stockholders' Meeting (including, if applicable, following adjournments or postponements thereof as permitted or required pursuant to Section 5.4(b)) shall have been held and completed and Parent's stockholders shall have taken a final vote on the Parent Stockholder Matters and (ii) the Parent Stockholder Matters shall not have been approved at the Parent Stockholders' Meeting (or at any adjournment or postponement thereof) by the Required Parent Stockholder Vote; *provided*, *however*, that the right to terminate this Agreement pursuant to this Section 9.1(e) shall not be available to Parent if Parent's actions or failure to act has been a principal cause of the failure of Parent to obtain the Required Parent Stockholder Vote and such action or failure to act constitutes a breach by Parent of this Agreement;

(f) by the Company (at any time prior to the approval of the Parent Stockholder Matters by the Required Parent Stockholder Vote) if a Parent Triggering Event shall have occurred;

(g) by Parent (at any time prior to the Required Company Stockholder Vote being obtained) if a Company Triggering Event shall have occurred;

(h) by the Company, upon a breach of any representation, warranty, covenant or agreement set forth in this Agreement by Parent or Merger Sub or if any representation or warranty of Parent or Merger Sub shall have become inaccurate, in either case, such that the conditions set forth in Section 8.1 or Section 8.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate; *provided*, that the Company is not then in material breach of any representation, warranty, covenant or agreement under this Agreement; *provided*, *further*, that if such inaccuracy in Parent's or Merger Sub's representations and warranties or breach by Parent or Merger Sub is curable by the End Date by Parent or Merger Sub, then this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy until the expiration of a 30-day period commencing upon delivery of written notice from the Company to Parent or Merger Sub of such breach or inaccuracy and its intention to terminate pursuant to this Section 9.1(h) (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy if such breach by Parent or Merger Sub is cured prior to such termination becoming effective); or

(i) by Parent, upon a breach of any representation, warranty, covenant or agreement set forth in this Agreement by the Company or if any representation or warranty of the Company shall have become inaccurate, in either case, such that the conditions set forth in Section 7.1 or Section 7.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate; *provided*, that Parent is not then in material breach of any representation, warranty, covenant or agreement under this Agreement; *provided*, *further*, that if such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the End Date by the Company then this Agreement shall not terminate pursuant to this Section 9.1(i) as a result of such particular breach or inaccuracy until the expiration of a 30-day period commencing upon delivery of written notice from Parent to the Company of such breach or inaccuracy and its intention to terminate pursuant to this Section 9.1(i) (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(i) as a result of such particular breach or inaccuracy if such breach by the Company is cured prior to such termination becoming effective).

The Party desiring to terminate this Agreement pursuant to this Section 9.1 (other than pursuant to Section 9.1(a)) shall give notice of such termination to the other Party specifying the provisions hereof pursuant to which such termination is made and the basis therefore described in reasonable detail.

9.2 **Effect of Termination**. In the event of the termination of this Agreement as provided in Section 9.1, this Agreement shall be of no further force or effect; *provided*, *however*, that (a) this Section 9.2, Section 9.3, Section 10 and the definitions of the defined terms in such Sections shall survive the termination of this Agreement and shall remain in full force and effect, and (b) the termination of this Agreement and the provisions of Section 9.3 shall not relieve any Party of any liability for fraud or for any willful and material breach of any covenant or other obligation contained in this Agreement.

9.3 **Expenses; Termination Fees**.

(a) Except as set forth in this Section 9.3, whether or not the Merger is consummated, (i) all Parent Transaction Expenses shall be paid by Parent (or on behalf of Parent) at or prior to the Closing and (ii) all Company Transaction Expenses shall be paid by the Company at or prior to the Closing; *provided*, *however*, that Parent and the Company shall share equally all fees and expenses, other than attorneys' and accountants' fees and expenses, incurred in relation to the filings by the Parties under any filing requirement under any Antitrust Law, to the extent applicable to this Agreement and the transactions contemplated hereby; *provided*, *further*, *however*, that Parent and the Company shall also share equally all fees and expenses incurred in relation to the printing and filing with the SEC of the Registration Statement (including any financial statements and exhibits) and any amendments or supplements thereto and paid to a financial printer or the SEC and the filings with Nasdaq pursuant to Sections 5.9(b) and (d).

(b) If (i) this Agreement is terminated by Parent or the Company pursuant to Section 9.1(b) (and the Required Parent Stockholder Vote has not been obtained by Parent) or Section 9.1(e), (ii) at any time after the date of this Agreement and prior to the Parent Stockholder Meeting, an Acquisition Proposal with respect to Parent shall have been publicly announced or disclosed or otherwise communicated to Parent or the Parent Board (and shall not have been withdrawn), and (iii) within 12 months after the date of such termination, Parent consummates any Subsequent Transaction, then Parent shall pay to the Company, upon consummation of a Subsequent Transaction, a nonrefundable fee in an amount equal to $7,600,000 (the "***Company Termination Fee***"). If this Agreement is terminated by the Company pursuant to Section 9.1(f), then Parent shall pay to the Company the Company Termination Fee within two Business Days of such termination.

(c) If (i) this Agreement is terminated by Parent pursuant to Section 9.1(b) (and the Required Company Stockholder Vote has not been obtained by the Company) or Section 9.1(d), (ii) at any time after the date of this Agreement and before obtaining the Required Company Stockholder Vote, an Acquisition Proposal with respect to the Company shall have been publicly announced or disclosed or otherwise communicated to the Company or the Company Board (and shall not have been withdrawn), and (iii) within 12 months after the date of such termination, the Company consummates any Subsequent Transaction, then the Company shall pay to Parent, upon consummation of a Subsequent Transaction, a nonrefundable fee in an amount equal to $5,490,000 (the "***Parent Termination Fee***"). If this Agreement is terminated by Parent pursuant to Section 9.1(g), then the Company shall pay to Parent the Parent Termination Fee within two Business Days of such termination.

(d) If this Agreement is terminated by either the Company or Parent pursuant to Section 9.1(e) or by the Company pursuant to Section 9.1(f) or Section 9.1(h), then Parent shall reimburse the Company for all reasonable out of pocket fees and expenses incurred by the Company in connection with this Agreement and the Contemplated Transactions, up to a maximum of $1,750,000, by wire transfer of same day funds within five Business Days following the date on which the Company submits to Parent true and correct copies of reasonable documentation supporting such expenses.

(e) If this Agreement is terminated by Parent pursuant to Section 9.1(d), Section 9.1(g) or Section 9.1(i), then the Company shall reimburse Parent for all reasonable out of pocket fees and expenses incurred by Parent in connection with this Agreement and the Contemplated Transactions, up to a maximum of $1,750,000, by wire transfer of same day funds within five Business Days following the date on which Parent submits to the Company true and correct copies of reasonable documentation supporting such expenses.

(f) If a Party fails to pay when due any amount payable by it under this Section 9.3, then (i) such Party shall reimburse the other Party for reasonable costs and expenses (including reasonable fees and disbursements of counsel) incurred in connection with the collection of such overdue amount and the enforcement by the other Party of its rights under this Section 9.3 and (ii) such Party shall pay to the other Party interest on such overdue amount (for the period commencing as of the date such overdue amount was originally required to be paid and ending on the date such overdue amount is actually paid to the other Party in full) at a rate per annum equal to the "prime rate" (as published in *The Wall Street Journal* or any successor thereto) in effect on the date such overdue amount was originally required to be paid.

(g) The Parties agree that, subject to Section 9.2, (i) payment of the fees and expenses in this Section 9.3 shall, in the circumstances in which they are owed in accordance with the terms of this Agreement, constitute the sole and exclusive remedy of each Party following the termination of this Agreement under the circumstances described in this Section 9.3, it being understood that in no event shall either Parent or the Company be required to pay the individual amounts payable pursuant to this

Section 9.3 on more than one occasion and (ii) following the termination of this Agreement under the circumstances described in this Section 9.3 and the payment of the fees and expenses set forth in this Section 9.3 by a Party, (A) such Party shall have no further liability to the other Party in connection with or arising out of this Agreement or the termination thereof, any breach of this Agreement by the other Party giving rise to such termination, or the failure of the Contemplated Transactions to be consummated, (B) no other Party or their respective Affiliates shall be entitled to bring or maintain any other claim, action or proceeding against such Party or seek to obtain any recovery, judgment or damages of any kind against such Party (or any partner, member, stockholder, director, officer, employee, Subsidiary, Affiliate, agent or other Representative of such Party) in connection with or arising out of this Agreement or the termination thereof, any breach by any such Party giving rise to such termination or the failure of the Contemplated Transactions to be consummated and (C) all other Parties and their respective Affiliates shall be precluded from any other remedy against such Party and its Affiliates, at law or in equity or otherwise, in connection with or arising out of this Agreement or the termination thereof, any breach by such Party giving rise to such termination or the failure of the Contemplated Transactions to be consummated.

(h) Each of the Parties acknowledges that (i) the agreements contained in this Section 9.3 are an integral part of the Contemplated Transactions, (ii) without these agreements, the Parties would not enter into this Agreement and (iii) any amount payable pursuant to this Section 9.3 is not a penalty, but rather is liquidated damages in a reasonable amount that will compensate the Party in the circumstances in which such amount is payable.

Section 10. MISCELLANEOUS PROVISIONS

10.1 **Non-Survival of Representations and Warranties**. The representations and warranties of the Company, Parent and Merger Sub contained in this Agreement or any certificate or instrument delivered pursuant to this Agreement shall terminate at the Effective Time, and only the covenants that by their terms survive the Effective Time and this Section 10 shall survive the Effective Time.

10.2 **Amendment**. This Agreement may be amended with the approval of the respective boards of directors of the Company, Merger Sub and Parent at any time (whether before or after the adoption and approval of this Agreement by the Company's stockholders or before or after obtaining the Required Parent Stockholder Vote); *provided*, *however*, that after any such approval of this Agreement by a Party's stockholders, no amendment shall be made which by Law requires further approval of such stockholders without the further approval of such stockholders. This Agreement may not be amended except by an instrument in writing signed on behalf of each of the Company, Merger Sub and Parent.

10.3 **Waiver**.

(a) No failure on the part of any Party to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) Any provisions hereof may be waived (or the time for performance extended) by the waiving Party solely on such Party's own behalf, without the consent of any other Party. No Party shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.4 **Entire Agreement; Counterparts; Exchanges by Electronic Transmission**. This Agreement and the other agreements referred to in this Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties with respect to the subject matter hereof and thereof; *provided*, *however*, that the Confidentiality Agreement shall not be superseded and shall remain in full force and effect in accordance with its terms. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties by electronic transmission in PDF format shall be sufficient to bind the Parties to the terms and conditions of this Agreement.

10.5 **Applicable Law; Jurisdiction; Waiver of Jury Trial**.

(a) This Agreement shall be governed by, and construed in accordance with, the Laws of the State of Delaware, regardless of the Laws that might otherwise govern under applicable principles of conflicts of laws. In any action or proceeding between any of the Parties arising out of or relating to this Agreement or any of the Contemplated Transactions, each of the Parties: (i) irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Court of Chancery of the State of Delaware, New Castle County, or, to the extent such court does not have subject matter jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware; (ii) agrees that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (i) of this Section 10.5; (iii) waives any objection to laying venue in any such action or proceeding in such courts; (iv) waives any objection that such courts are an inconvenient forum or do not have jurisdiction over any Party; and (v) agrees that service of process upon such Party in any such action or proceeding shall be effective if notice is given in accordance with Section 10.7 of this Agreement. Nothing in this Section 10.5, however, shall affect the right of any Person to serve legal process in any other manner permitted by law.

(b) EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (i) ARISING UNDER THIS AGREEMENT OR (ii) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO IN RESPECT OF THIS AGREEMENT OR ANY OF THE CONTEMPLATED TRANSACTIONS, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES TO THIS AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OF A COPY OF THIS AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

10.6 **Assignability**. This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties and their respective successors and permitted assigns; *provided*, *however*, that neither this Agreement nor any of a Party's rights or obligations hereunder may be assigned or delegated by such Party without the prior written consent of the other Party, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party without the other Party's prior written consent shall be void and of no effect.

10.7 **Notices**. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic confirmation of delivery) prior to 5:00 p.m. New York time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

if to Parent or Merger Sub:
245 First Street, Suite 1800
Cambridge, MA
Attention: Chief Executive Officer
Email: *****@*****.com

with a copy to (which shall not constitute notice):

Hogan Lovells US LLP
1735 Market St, 23rd Floor
Philadelphia, PA 19103
Attention: Steve Abrams; Jessica A. Bisignano
Email: *****@*****.com; *****@*****.com

if to the Company:

3675 Market Street, Suite 200
Philadelphia, Pennsylvania 19104

Attention: President and Chief Executive Officer
Email: *****@*****.com

with a copy to (which shall not constitute notice):

Wilmer Cutler Pickering Hale and Dorr LLP
7 World Trade Center
250 Greenwich Street
New York, NY 10007
Attention: Brian A. Johnson; Hal Leibowitz; Christopher Barnstable-Brown
Email: *****@*****.com; *****@*****.com; *****@*****.com

10.8**Severability**. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

10.9**Other Remedies; Specific Performance**. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party, and the exercise by a Party of any one remedy will not preclude the exercise of any other remedy. The Parties agree that irreparable damage for which monetary damages, even if available, would not be an adequate remedy, would occur in the event that any Party does not perform the provisions of this Agreement (including failing to take such actions as are required of it hereunder to consummate the Contemplated Transactions) in accordance with its specified terms or otherwise breaches such provisions. Accordingly, the Parties acknowledge and agree that the Parties shall be entitled to an injunction, specific performance and other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance or other equitable relief on the basis that any other Party has an adequate remedy at law or that any award of specific performance or other equitable relief is not an appropriate remedy for any reason at law or in equity. Any Party seeking an injunction or injunctions to prevent breaches of this Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

10.10 **No Third Party Beneficiaries**. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than the Parties and the D&O Indemnified Parties to the extent of their respective rights pursuant to Section 5.6) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

10.11 **Construction**.

(a) References to “cash,” “dollars” or “$” are to U.S. dollars.

(b) For purposes of this Agreement, whenever the context requires: (i) the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; (ii) the feminine gender shall include the masculine and neuter genders; and (iii) the neuter gender shall include masculine and feminine genders.

(c) The Parties have participated jointly in the negotiating and drafting of this Agreement and agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement, and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provision of this Agreement.

(d) As used in this Agreement, the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation."

(e) As used in this Agreement, the words "hereof", "hereto", "hereby", "herein" and "hereunder" and variations thereof refer to this Agreement as a whole and not to any particular provision of this Agreement.

(f) As used in this Agreement, the words "date hereof" refers to the date set forth in the initial caption of this Agreement.

(g) As used in this Agreement, the word "extent" in the phrase "to the extent" means the degree to which a subject or other thing extended, and such phrase does not simply mean "if".

(h) Except as otherwise indicated, all references in this Agreement to an "Article," "Section," "Recital," "preamble," "Annex," "Exhibit" and "Schedule" are intended to refer to an Article, Section, Recital or preamble of, or an Annex, Exhibit or Schedule to, this Agreement, respectively.

(i) Any reference to a Person is also to its permitted successors and assigns.

(j) Any reference to legislation or to any provision of any legislation shall include any modification, amendment, re-enactment thereof, any legislative provision substituted therefore and all rules, regulations, and statutory instruments issued or related to such legislations.

(k) Any reference to a communication by a regulatory agency include a communication by the staff of such regulatory agency.

(l) The bold-faced headings and table of contents contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

(m) The Parties agree that each of the Company Disclosure Schedule and the Parent Disclosure Schedule shall be arranged in sections and subsections corresponding to the numbered and lettered sections and subsections contained in this Agreement. The disclosures in any section or subsection of the Company Disclosure Schedule or the Parent Disclosure Schedule shall only qualify other sections and subsections in this Agreement to the extent it is reasonably apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections. The inclusion of any information in the Company Disclosure Schedule or the Parent Disclosure Schedule shall not be deemed to be an admission or acknowledgment, in and of itself, that such information is required by the terms hereof to be disclosed, is material, has resulted in or would result in a Company Material Adverse Effect or a Parent Material Adverse Effect or is outside the Ordinary Course of Business.

(n) Each of "delivered" or "made available" means, with respect to any documentation, that prior to 11:59 p.m. (New York time) on the date that is one Business Days prior to the date of this Agreement (i) a copy of such material has been posted to and made available by a Party to the other Party and its Representatives in the electronic data room maintained by such disclosing Party or (ii) such material is disclosed in the Parent SEC Documents filed with the SEC prior to the date hereof and publicly made available on the SEC's Electronic Data Gathering Analysis and Retrieval system.

(o) Whenever the last day for the exercise of any privilege or the discharge of any duty hereunder shall fall upon a Saturday, Sunday, or any date on which banks in New York, New York are authorized or obligated by Law to be closed, the Party having such privilege or duty may exercise such privilege or discharge such duty on the next succeeding day which is a regular Business Day.

(*Remainder of page intentionally left blank*)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first above written.

SESEN BIO, INC.

By: /s/ Thomas R. Cannell, D.V.M.
Name: Thomas R. Cannell, D.V.M.
Title: President & Chief Executive Officer

SEAHAWK MERGER SUB, INC.

By: /s/ Mark Sullivan
Name: Mark Sullivan
Title: President, Secretary & Treasurer

CARISMA THERAPEUTICS INC.

By: /s/ Steven Kelly
Name: Steven Kelly
Title: Chief Executive Officer

[Signature Page to Agreement and Plan of Merger and Reorganization]

EXHIBIT A

CERTAIN DEFINITIONS

(a) For purposes of this Agreement (including this **Exhibit A**):

"***Acquisition Inquiry***" means, with respect to a Party, an inquiry, indication of interest or request for information (other than an inquiry, indication of interest or request for information made or submitted by the Company or any of its Affiliates, on the one hand, or Parent or any of its Affiliates, on the other hand, to the other Party) that could reasonably be expected to lead to an Acquisition Proposal, other than (i) with respect to Parent, solely with respect to the Asset Dispositions and (ii) with respect to the Company, solely with respect to the Pre-Closing Financing.

"***Acquisition Proposal***" means, with respect to a Party, any offer or proposal, whether written or oral (other than an offer or proposal made or submitted by or on behalf of the Company or any of its Affiliates, on the one hand, or by or on behalf of Parent or any of its Affiliates, on the other hand, to the other Party) contemplating or otherwise relating to any Acquisition Transaction with such Party, other than (i) with respect to Parent, solely with respect to an Asset Disposition and (ii) with respect to the Company, solely with respect to the Pre-Closing Financing.

"***Acquisition Transaction***" means any transaction or series of related transactions (other than the Asset Dispositions) involving:

(i) any merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction: (A) in which a Party is a constituent Entity; (B) in which a Person or "group" (as defined in the Exchange Act and the rules promulgated thereunder) of Persons directly or indirectly acquires beneficial or record ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of a Party or any of its Subsidiaries; or (C) in which a Party or any of its Subsidiaries issues securities representing more than 15% of the outstanding securities of any class of voting securities of such Party or any of its Subsidiaries; *provided*, *however*, that in the case of the Company, to the extent the Pre-Closing Financing is effected in accordance with the terms and conditions of this Agreement, the Pre-Closing Financing shall not constitute an Acquisition Transaction; or

(ii) any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets that constitute or account for 15% or more of the consolidated book value or the fair market value of the assets of a Party and its Subsidiaries, taken as a whole.

"***Affiliate***" shall have the meaning given to such term in Rule 145 under the Securities Act.

"***Antitrust Laws***" shall mean the Sherman Act, as amended, the Clayton Act, as amended, the HSR Act, the Federal Trade Commission Act, as amended, all applicable foreign anti-trust laws and all other applicable Laws issued by a Governmental Body that are designed or intended to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade or lessening of competition.

"***Business Day***" means any day other than a Saturday, Sunday or other day on which banks in New York, New York are authorized or obligated by Law to be closed.

"***Code***" means the Internal Revenue Code of 1986, as amended.

"***Company Associate***" means any current or former employee, independent contractor, officer or director of the Company or its Subsidiaries.

"***Company Board***" means the board of directors of the Company.

"***Company Capital Stock***" means the Company Common Stock and the Company Preferred Stock.

"***Company Capitalization Representations***" means the representations and warranties of the Company set forth in the first sentence of Sections 2.6(a) and in Section 2.6(d).

"***Company Common Stock***" means the common stock, $0.0001 par value per share, of the Company.

"***Company Contract***" means any Contract: (a) to which the Company or any of its Subsidiaries is a Party; (b) by which the Company or any of its Subsidiaries or any Company IP or any other asset of the Company or its Subsidiaries is or may become bound or under which the Company or any of its Subsidiaries has, or may become subject to, any obligation; or (c) under which the Company or any of its Subsidiaries has or may acquire any right or interest.

"***Company Convertible Note***" means the outstanding note convertible described in Section 2.6(a) of the Company Disclosure Schedule.

"***Company ERISA Affiliate***" means any corporation or trade or business (whether or not incorporated) which is (or at any relevant time was) treated with the Company or any of its Subsidiaries as a single employer within the meaning of Section 414 of the Code.

"***Company Fundamental Representations***" means the representations and warranties of the Company set forth in Sections 2.1(a) and 2.1(b) (Due Organization; Subsidiaries), 2.3 (Authority; Binding Nature of Agreement), 2.4 (Vote Required), 2.5(a) (Non-Contravention) and 2.20 (No Financial Advisors).

"***Company IP***" means all Intellectual Property Rights that are owned or purported to be owned by, assigned to, or exclusively licensed by, the Company or its Subsidiaries that are necessary for or used in the operation of the business of the Company or its Subsidiaries.

"***Company Material Adverse Effect***" means any Effect that, considered together with all other Effects that have occurred prior to the date of determination of the occurrence of a Company Material Adverse Effect, has or would reasonably be expected to have a material adverse effect on the business, financial condition, assets, liabilities or results of operations of the Company and its Subsidiaries, taken as a whole; *provided, however*, that Effects arising or resulting from the following shall not be taken into account in determining whether there has been a Company Material Adverse Effect: (a) the announcement of this Agreement or the pendency of the Contemplated Transactions; (b) general business, economic or political conditions or conditions generally affecting the industry in which the Company and its Subsidiaries operate; (c) hurricane, flood, tornado, earthquake or other natural disaster, changes in weather conditions, epidemic, plague, pandemic (including COVID-19) or any other outbreak of illness or other public health event or any other force majeure event, whether or not cause by any Person, or any national or international calamity or crises, or any law, regulation, statute, directive, pronouncement or guideline issued by a Governmental Body, the World Health Organization or industry group providing for business closures, "sheltering-in-place," curfews or other restrictions that relate to, or arise out of, an epidemic, pandemic or disease outbreak (including COVID-19) or any change in such law, regulation, statute, directive, pronouncement or guideline or interpretation thereof or any worsening of such conditions; (d) any COVID-19 Measures or COVID-19 Responses; (e) any acts, threats or escalations of war, armed hostilities or terrorism anywhere in the world or any governmental or other response or reaction to any of the foregoing; (f) any change in, or any compliance with or action taken for the purpose of complying with, any Law or GAAP (or interpretations of any Law or GAAP); (g) with respect to any product or product candidate of the Company or any of its Subsidiaries, the request of the FDA to refile, amend, or temporarily delay making any regulatory application or filing related to such product or product candidate or the protocol for any clinical trial relating to such product or product candidate (provided that this clause (g) shall not apply in the event of repeated or continued adverse decisions with respect to the Company's product or product candidates by the FDA); or (h) resulting from the taking of any action, or the failure to take any action, by the Company that is expressly required to be taken by this Agreement; *provided*, *however*, that, in the case of clauses (b), (c), (d), (e) and (f), solely to the extent the impact on the Company and its Subsidiaries, taken as a whole, is disproportionately adverse compared to the impact on similarly situated companies operating in the industries in which the Company and its Subsidiaries operate, the incrementally disproportionate impact or impacts shall be taken into account in determining whether there has been, or would reasonably be expected to be, a Company Material Adverse Effect.

"***Company Options***" means options or other rights to purchase shares of Company Common Stock issued by the Company.

"***Company Plan***" means the 2017 Stock Incentive Plan, as amended from time to time.

"***Company Preferred Stock***" means, collectively, the Company Series A Preferred Stock, Company Special Voting Preferred Stock, Company Series B Preferred Stock and the Company Series B Special Voting Preferred Stock.

"***Company Series A Preferred Stock***" means the Series A Preferred Stock, $0.0001 par value per share, of the Company.

"***Company Series B Preferred Stock***" means the Series B Preferred Stock, $0.0001 par value per share, of the Company.

"***Company Series B Special Voting Preferred Stock***" means the Series B Special Voting Preferred Stock, $0.0001 par value per share, of the Company.

"***Company Special Voting Preferred Stock***" means the Special Voting Preferred Stock, $0.0001 par value per share, of the Company.

"***Company Transaction Expenses***" means, as of the applicable time of determination and without duplication, the sum of (a) the cash cost of any accrued and unpaid retention payments or other bonuses, as well as any change of control payments or severance, termination or similar payments that are due or become due to any current or former employee, director or independent contractor of the Company or any of its Subsidiaries at or prior to the Effective Time or otherwise in connection with the Merger or the Contemplated Transactions, and (b) subject to Section 9.3, all costs, fees and expenses incurred by the Company or its Subsidiaries at or prior to the Effective Time in connection with the negotiation, preparation and execution of this Agreement or any agreements, documents, certificate, opinions or other items contemplated hereby and the consummation of the Merger or the Contemplated Transactions and that are unpaid as of the Effective Time, including brokerage fees and commissions, finder's fees, legal fees or financial advisory fees payable or otherwise incurred by such person at or prior to the Effective Time.

"***Company Triggering Event***" shall be deemed to have occurred if: (a) the Company shall have made a Company Board Adverse Recommendation Change; (b) the Company Board or any committee thereof shall have publicly approved, endorsed or recommended any Acquisition Proposal; or (c) the Company shall have entered into any letter of intent or similar document relating to any Acquisition Proposal.

"***Company Unaudited Interim Balance Sheet***" means the unaudited consolidated balance sheet of the Company and its consolidated Subsidiaries for the period ended June 30, 2022 provided to Parent prior to the date hereof.

"***Confidentiality Agreement***" means that certain Confidentiality Agreement, dated as of June 25, 2022, between the Company and Parent.

"***Consent***" means any approval, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

"***Contemplated Transactions***" means the Merger, the Nasdaq Reverse Split, and the other transactions and actions contemplated by this Agreement, including the CVR Agreement.

"***Contract***" means, with respect to any Person, any written or oral agreement, contract, subcontract, lease (whether for real or personal property), mortgage, license, sublicense or other legally binding commitment or undertaking of any nature to which such Person is a party or by which such Person or any of its assets are bound or affected under applicable Law.

"***Conversion***" means the conversion of the Company Convertible Note for shares of Parent Common Stock pursuant to the Convertible Note Conversion Agreement.

"***Convertible Note Conversion Agreement***" means that certain Conversion Agreement, dated as of September 20, 2022, by and between the Company and the holder of the Company Convertible Note.

"***COVID-19***" means SARS-CoV-2 or the COVID-19 virus, and any evolutions or mutations thereof and any related or associated epidemics, pandemics or disease outbreaks.

"***COVID-19 Measures***" means any quarantine, "shelter in place," "stay at home," workforce reduction, social distancing, shut down, closure, sequester or any other law, regulation, rule, order, directive, guideline or recommendation of any Governmental Body or industry group in connection with or in response to COVID-19, including the Coronavirus Aid, Relief, and Economic Security Act.

"***COVID-19 Responses***" means any action or inaction, including the establishment of any policy, procedure or protocol, by a Party or any of its Subsidiaries that such Party or any of its Subsidiaries determines in its reasonable discretion is necessary, advisable or prudent in connection with (a) mitigating the adverse effects of COVID-19 or applicable COVID-19 Measures, (b) ensuring compliance by such Party or any of its Subsidiaries with COVID-19 Measures applicable to any of them and/or (c) in respect of COVID-19, protecting the health and safety of employees or other persons with whom such Party or any of its Subsidiaries and their personnel come into contact with during the course of business operations.

"***DGCL***" means the General Corporation Law of the State of Delaware.

"***Effect***" means any effect, change, event, circumstance, or development.

"***Encumbrance***" means any lien, pledge, hypothecation, charge, mortgage, security interest, exclusive license, easement, adverse title or similar restriction or encumbrance of any nature.

"***Enforceability Exceptions***" means the (a) Laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (b) rules of law governing specific performance, injunctive relief and other equitable remedies.

"***Entity***" means any corporation (including any non-profit corporation), partnership (including any general partnership, limited partnership or limited liability partnership), joint venture, estate, trust, company (including any company limited by shares, limited liability company or joint stock company), firm, society or other enterprise, association, organization or entity, and each of its successors.

"***Environmental Law***" means any federal, state, local or foreign Law relating to pollution or protection of human health or the environment (including ambient air, surface water, ground water, land surface or subsurface strata), including any Law or regulation relating to emissions, discharges, releases or threatened releases of Hazardous Materials, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials.

"***Equity Plan Amendments***" means (a) an amendment to the Sesen Bio, Inc. 2014 Stock Incentive Plan to provide for (i) such number of shares of common stock of Parent as mutually agreed by Parent and the Company (such agreement not to be unreasonably withheld, conditioned or delayed), not to exceed 9.5% on a fully diluted basis to be available for grant or issuance thereunder, as calculated to be as of immediately following the Closing, (ii) an extension of the term of the Sesen Bio, Inc. 2014 Incentive Plan up to, in the Company's discretion, the 10th anniversary of the effectiveness of the Equity Plan Amendments and (iii) any other amendments deemed necessary and advisable by the Company, and (b) an amendment to the Parent ESPP to provide for such number of shares of common stock of Parent equal to one percent (1.0%) on a fully diluted basis to be available for purchase thereunder, as calculated to be as of immediately following the Closing.

"***ERISA***" means the Employee Retirement Income Security Act of 1974, as amended.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

"***Exchange Ratio***" means, subject to Section 1.5(h), the following ratio (rounded to four decimal places): the quotient obtained by dividing (a) the Company Merger Shares by (b) the Company Outstanding Shares, in which:

- "***Aggregate Valuation***" means the sum of (i) the Company Valuation, plus (ii) the Parent Valuation.
- "***Company Allocation Percentage***" means the quotient (expressed as a percentage with the percentage rounded to four decimal places) determined by dividing (i) the Company Valuation by (ii) the Aggregate Valuation.
- "***Company Merger Shares***" means the product of (i) the Post-Closing Parent Shares multiplied by (ii) the Company Allocation Percentage.

- "***Company Outstanding Shares***" means the total number of shares of Company Capital Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted and as-converted to Company Common Stock basis and assuming, without limitation or duplication, (i) the exercise of all Company Options outstanding as of immediately prior to the Effective Time, (ii) the closing of the Pre-Closing Financing, and (iii) the issuance of shares of Company Common Stock issuable in respect of all other outstanding options, restricted stock awards, warrants or rights to receive such shares, whether conditional or unconditional and including any outstanding options, warrants or rights triggered by or associated with the consummation of the Merger. Company Outstanding Shares shall also include all shares of the Company issued in the Pre-Closing Financing prior to the Effective Time and excludes any shares to be issued upon the conversion of the Company Convertible Note.

- "***Company Valuation***" means (i) $196,000,000, plus (ii) the amount of gross proceeds from the Pre-Closing Financing prior to the Effective Time.

- "***Parent Allocation Percentage***" means the quotient (expressed as a percentage, with the percentage rounded to four decimal places) determined by dividing (i) the Parent Valuation by (ii) the Aggregate Valuation.

- "***Parent Outstanding Shares***" means the total number of shares of Parent Common Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted and as converted to Parent Common Stock basis, assuming, without limitation or duplication, the issuance of shares of Parent Common Stock in respect of all Parent Options, Parent RSUs, Parent Warrants and other outstanding options, warrants or rights to receive such shares, in each case, outstanding as of immediately prior to the Effective Time.

- "***Parent Valuation***" means $140,000,000, minus the amount by which Final Net Cash as determined in accordance with Section 1.11 is less than $125,000,000 (if any), and plus the amount by which Final Net Cash as determined in accordance with Section 1.11 is greater than $125,000,000.

- "***Post-Closing Parent Shares***" means the quotient determined by dividing (i) the Parent Outstanding Shares by (ii) the Parent Allocation Percentage.

An example of the calculation of the Exchange Ratio and its components is set forth on **Exhibit H** for illustrative purposes only.

"***GAAP***" means generally accepted accounting principles and practices in effect from time to time within the United States applied consistently throughout the period involved.

"***Governmental Authorization***" means any: (a) permit, license, certificate, certification, franchise, permission, approval, exemption, variance, exception, order, clearance, registration, qualification or authorization issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Law; or (b) right under any Contract with any Governmental Body.

"***Governmental Body***" means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, department, agency, commission, bureau, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any taxing authority); or (d) self-regulatory organization (including Nasdaq).

"***Hazardous Materials***" means any pollutant, chemical, substance and any toxic, infectious, carcinogenic, reactive, corrosive, ignitable or flammable chemical, or chemical compound, or hazardous substance, material or waste, whether solid, liquid or gas, that is subject to regulation, control or remediation under any Environmental Law, including without limitation, crude oil or any fraction thereof, and petroleum products or by-products.

"***HSR Act***" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder.

"***Intellectual Property Rights***" means and includes all intellectual property or other proprietary rights under the laws of any jurisdiction in the world, including, without limitation: (a) rights associated with works of authorship, including exclusive exploitation

rights, copyrights, moral rights, software, databases, and mask works; (b) trademarks, service marks, trade dress, logos, trade names and other source identifiers, domain names and URLs and similar rights and any and all goodwill associated therewith; (c) rights associated with trade secrets, know how, inventions, invention disclosures, methods, processes, protocols, specifications, techniques and other forms of technology; (d) patents and industrial property rights; and (e) other similar proprietary rights in intellectual property of every kind and nature; (f) rights of privacy and publicity; and (g) all registrations, renewals, extensions, statutory invention registrations, provisionals, continuations, continuations-in-part, provisionals, divisions, or reissues of, and applications for, any of the rights referred to in clauses "(a)" through "(f)" above (whether or not in tangible form and including all tangible embodiments of any of the foregoing, such as samples, studies and summaries), along with all rights to prosecute and perfect the same through administrative prosecution, registration, recordation or other administrative proceeding, and all causes of action and rights to sue or seek other remedies arising from or relating to the foregoing, including for past, present or future infringement of any of the foregoing.

"***Investor Agreements***" means each stockholders agreement, voting agreement, registration rights agreement, co-sale agreement or other similar Contract between the Company and any holders of Company Common Stock, including any such Contract granting any Person investor rights, rights of first refusal, rights of first offer, registration rights, director designation rights or similar rights.

"***IRS***" means the United States Internal Revenue Service.

"***Key Employee***" means, with respect to the Company or Parent, an executive officer of such Party or any employee of such Party that reports directly to the board of directors of such Party or to the chief executive officer or chief accounting officer of such party.

"***Knowledge***" means, with respect to the Company or the Parent, that an individual identified on Schedule A of the Company Disclosure Schedule or Schedule A of the Parent Disclosure Schedule, as applicable, was actually aware on the date of this Agreement of the relevant fact.

"***Law***" means any federal, state, national, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (including under the authority of Nasdaq or the Financial Industry Regulatory Authority).

"***Legal Proceeding***" means any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), hearing, inquiry, audit, examination or investigation commenced, brought, conducted or heard by or before, or otherwise involving, any court or other Governmental Body or any arbitrator or arbitration panel.

"***Material Continuing Obligation***" shall mean (a) any non-competition obligation affecting any of the assets or business of the Company as they exist as of the date of this Agreement, or (b) any Liability or other obligation which would require Parent, Company or any of their respective Subsidiaries, to, after the Effective Time, make any cash payment or expenditure in excess of $250,000, which would not be offset by the receipt of a future payment or contingent consideration.

"***Merger Sub Board***" means the board of directors of Merger Sub.

"***Nasdaq***" means the Nasdaq Stock Market, LLC, including the Nasdaq Capital Market or such other Nasdaq market on which shares of Parent Common Stock are then listed.

"***Nasdaq Reverse Split***" means a reverse stock split of all outstanding shares of Parent Common Stock at a reverse stock split ratio as mutually agreed to by Parent and the Company that is effected by Parent for the purpose of maintaining compliance with Nasdaq listing standards.

"***Net Cash***" means, as of any applicable time of determination and without duplication, (A) the sum of (i) cash and cash equivalents, marketable securities and other short-term investments of Parent and its Subsidiaries, (ii) accounts receivable (including any Tax refund claims pending as of the date of this Agreement), deposits and interest, (iii) deposits, prepaid expenses and other prepaid assets which are reflected on the most recent balance sheet and do not constitute restricted cash of Parent and its Subsidiaries, and (iv) 50% of the cost of settling any Transaction Litigation to the extent actually paid in cash by Parent prior to the Closing Date, minus (B) the sum of (1) any unpaid Parent Transaction Expenses, (2) any unpaid indebtedness of Parent and/or its Subsidiaries outstanding as of the Closing Date, (3) any accounts payable, accrued expenses or short or long term liabilities that are or will become

payable in cash, including any such accounts payable, accrued expenses or short or long term liabilities under any Parent Contracts which were in effect prior to the Effective Time or associated with the termination of any Parent Contracts which were in effect prior to the Effective Time, or the termination before, at or after the Effective Time, of all current or former employees of Parent and its Subsidiaries (even if the applicable expenses or amounts are due and payable after the Effective Time) pursuant to Section 5.20(a) (including, for clarity, any amounts in respect of the matters set forth on Schedule N if reasonably estimable by Parent in good faith), (4) any unpaid employer portion of payroll or employment Taxes incurred in connection with the grant, exercise, conversion, settlement or cancellation of Parent RSUs, Parent Options, equity compensation and other change in control or severance payments (including bonuses payable) to be paid pursuant to Section 5.20(a) or CVRs issued to holders of Parent RSUs or Parent Options or otherwise as compensation (either incurred prior to or at the time of the Merger, and for the avoidance of doubt, not calculated as of the close of business on the Business Day prior to the Closing Date) in each case with respect to this clause (4), incurred in connection with the Merger by Parent at or prior to the Effective Time (even if payable after the Effective Time), (5) any pre-payment, termination, "end of term" or similar fee or charge payable to any lender in connection with the repayment of indebtedness by Parent at or prior to the Effective Time, (6) the amount of any cash dividend declared (or to be declared) but not yet paid as part of the Pre-Closing Dividend, (7) to the extent unpaid at Closing, the cost and/or premium of the D&O Tail Policy, and (8) to the extent unpaid at Closing, (A) the cost of settling any Legal Proceeding or other dispute existing as of the date of this Agreement, as well as the unpaid deductible amount under the Parent's insurance reasonably expected to be payable in connection with Legal Proceedings existing as of the date of this Agreement, and (B) if reasonably estimable by Parent in good faith as of the Closing Date, 50% of the cost of settling any Transaction Litigation. Each component of Net Cash, to the extent applicable, shall be determined in accordance with GAAP, applied on a basis consistent with the application of GAAP in the preparation of Parent's most recent audited or reviewed financial statements. Net Cash shall be calculated excluding the effects of any payments or liabilities (including attorney's fees and settlement costs) in respect of Dissenting Shares or any Transaction Litigation (other than as set forth in clause (8)(B)) and any payments which become due and payable after the Effective Time, if any, under that certain Share Purchase Agreement, dated September 20, 2016, by and among Eleven Biotherapeutics, Inc., Viventia Bio Inc. and the other parties thereto. Net Cash shall be increased as necessary to account for any payments made by Parent to cover expenses or fees that are required to be shared pursuant to Section 9.3(a). A sample calculation of Net Cash and its components is set forth on **Exhibit E** for illustrative purposes only.

"***Ordinary Course of Business***" means, in the case of each of the Company and Parent, such actions taken in the ordinary course of its normal operations and consistent in all material respects with its past practices, taking into account any acts or omissions that have been or may be taken to comply with COVID-19 Measures or in good faith response to the COVID-19 pandemic, or otherwise to the extent necessary to avoid, mitigate or remediate a material adverse effect on the Company, Parent or any of their respective Subsidiaries or their respective businesses as may result from the COVID-19 pandemic, and subject to any reasonable changes required to address any then current facts and circumstances (including requirements to comply with applicable Law and guidelines and to reasonably preserve the health and safety of current employees and other service providers of the Company, Parent or any of their respective Subsidiaries); *provided*, that any actions taken or not taken by the Company, Parent and any of their respective Subsidiaries reasonably and in good faith to respond to any other extraordinary event that was not reasonably foreseeable as of the date of this Agreement and occurring after the date of this Agreement that is outside of the control of the Company, Parent or their respective Affiliates, as applicable, shall be deemed to have been taken or not taken, as applicable, in the "Ordinary Court of Business."

"***Organizational Documents***" means, with respect to any Person (other than an individual), (a) the certificate or articles of association or incorporation or organization or limited partnership or limited liability company, and any joint venture, limited liability company, operating or partnership agreement and other similar documents adopted or filed in connection with the creation, formation or organization of such Person and (b) all bylaws, regulations and similar documents or agreements relating to the organization or governance of such Person, in each case, as amended or supplemented.

"***Parent Associate***" means any current or former employee, independent contractor, officer or director of Parent or any of its Subsidiaries.

"***Parent Balance Sheet***" means the unaudited balance sheet of Parent as of June 30, 2022 (the "***Parent Balance Sheet Date***"), included in Parent's Report on Form 10-Q for the quarterly period ended June 30, 2022, as filed with the SEC.

"***Parent Board***" means the board of directors of Parent.

"***Parent Capitalization Representations***" means the representations and warranties of Parent and Merger Sub set forth in the first sentence of Sections 3.6(a) and 3.6(d).

"***Parent Common Stock***" means the common stock, $0.001 par value per share, of Parent.

"***Parent Contract***" means any Contract: (a) to which Parent or any of its Subsidiaries is a party; (b) by which Parent, any of its Subsidiaries or any Parent IP or any other asset of Parent or any of its Subsidiaries is or may become bound or under which Parent or any of its Subsidiaries has, or may become subject to, any obligation; or (c) under which Parent or any of its Subsidiaries has or may acquire any right or interest.

"***Parent ERISA Affiliate***" means any corporation or trade or business (whether or not incorporated) which is (or at any relevant time was) treated with Parent or any of its Subsidiaries as a single employer within the meaning of Section 414 of the Code.

"***Parent ESPP***" means the Sesen Bio, Inc. 2014 Employee Stock Purchase Plan, as amended from time to time.

"***Parent Fundamental Representations***" means the representations and warranties of Parent and Merger Sub set forth in Sections 3.1 (Due Organization; Subsidiaries), 3.3 (Authority; Binding Nature of Agreement), 3.4 (Vote Required), 3.5(a) (Non-Contravention) and 3.20 (No Financial Advisors).

"***Parent IP***" means all Intellectual Property Rights that are owned or purported to be owned by, assigned to, or exclusively licensed by, Parent or its Subsidiaries that are necessary for or used in the operation of the business of Parent and its Subsidiaries as presently conducted.

"***Parent Material Adverse Effect***" means any Effect that, considered together with all other Effects that have occurred prior to the date of determination of the occurrence of a Parent Material Adverse Effect, has or would reasonably be expected to have a material adverse effect on the business, financial condition, assets, liabilities or results of operations of Parent and its Subsidiaries, taken as a whole; *provided*, *however*, that Effects arising or resulting from the following shall not be taken into account in determining whether there has been a Parent Material Adverse Effect: (a) the announcement of this Agreement or the pendency of the Contemplated Transactions; (b) general business, economic or political conditions or conditions generally affecting the industry in which Parent and its Subsidiaries operate; (c) hurricane, flood, tornado, earthquake or other natural disaster, changes in weather conditions, epidemic, plague, pandemic (including COVID-19) or any other outbreak of illness or other public health event or any other force majeure event, whether or not caused by any Person, or an national or international calamity or crises, or any law, regulation, statute, directive, pronouncement or guideline issued by a Governmental Body, the World Health Organization or industry group providing for business closures, "sheltering-in-place," curfews or other restrictions that relate to, or arise out of, an epidemic, pandemic or disease outbreak (including COVID-19) or any change in such law, regulation, statute, directive, pronouncement or guideline or interpretation thereof or any worsening of such conditions; (d) any COVID-19 Measures or COVID-19 Responses; (e) any acts, threats or escalations of war, armed hostilities or terrorism anywhere in the world or any governmental or other response or reaction to any of the foregoing; (f) changes in the trading price or trading volume of Parent Common Stock (it being understood, however, that any Effect causing or contributing to any change in stock price or trading volume of Parent Common Stock may be taken into account in determining whether a Parent Material Adverse Effect has occurred, unless such Effects are otherwise excepted from this definition), or the suspension of trading in or delisting of Parent's securities on Nasdaq; (g) any change in, or any compliance with or action taken for the purpose of complying with, any Law or GAAP (or interpretations of any Law or GAAP); (h) with respect to any product or product candidate of Parent or any of its Subsidiaries, the request of the FDA to refile, amend, or temporarily delay making any regulatory application or filing related to such product or product candidate or the protocol for any clinical trial relating to such product or product candidate (provided that this clause (h) shall not apply in the event of repeated or continued adverse decisions with respect to Parent's product or product candidates by the FDA); or (i) resulting from the taking of any action or the failure to take any action, by Parent that is expressly required to be taken by this Agreement; *provided*, *however*, that, in the case of clauses (b), (c), (d), (e), and (h), solely to the extent the impact on Parent and its Subsidiaries, taken as a whole, is disproportionately adverse compared to the impact on similarly situated companies operating in the industries in which Parent and its Subsidiaries operate, the incrementally disproportionate impact or impacts shall be taken into account in determining whether there has been, or would reasonably be expected to be, a Parent Material Adverse Effect.

"***Parent Options***" means options or other rights to purchase shares of Parent Common Stock issued by Parent other than Parent Warrants.

"***Parent RSUs***" means restricted stock units issued by Parent, whether time-based or performance based vesting.

"***Parent Stock Plans***" means the Sesen Bio, Inc. 2014 Stock Incentive Plan and the Sesen Bio, Inc. 2009 Stock Incentive Plan, in each case, as amended from time to time.

"***Parent Transaction Expenses***" means as of the applicable time of determination and without duplication, the sum of (a) the cash cost of any accrued and unpaid retention payments or other bonuses, as well as any change of control payments or severance, termination or similar payments that are due or become due to any current or former employee, director or independent contractor of Parent or any of its Subsidiaries at or prior to the Effective Time otherwise in connection with the Merger or the Contemplated Transactions (and, for the avoidance of doubt, shall exclude any payments under arrangements entered into by Parent after the Effective Time), and (b) subject to Section 9.3, all costs, fees and expenses incurred by Parent or its Subsidiaries at or prior to the Effective Time in connection with the negotiation, preparation and execution of this Agreement or any agreements, documents, certificate, opinions or other items contemplated hereby and the consummation of the Merger or the Contemplated Transactions and that are unpaid as of the Effective Time, including brokerage fees and commissions, finder's fees, legal fees or financial advisory fees payable or otherwise incurred by such person at or prior to the Effective Time.

"***Parent Triggering Event***" shall be deemed to have occurred if: (a) Parent shall have failed to include in the Proxy Statement/Prospectus the Parent Board Recommendation or shall have made a Parent Board Adverse Recommendation Change; (b) the Parent Board or any committee thereof shall have publicly approved, endorsed or recommended any Acquisition Proposal; or (c) Parent shall have entered into any letter of intent or similar document relating to any Acquisition Proposal (other than a confidentiality agreement permitted pursuant to Section 4.4).

"***Parent Warrants***" means the warrants to purchase capital stock of Parent listed in Section B of the Parent Disclosure Schedule.

"***Party***" or "***Parties***" means the Company, Merger Sub and Parent.

"***Permitted Encumbrance***" means: (a) any liens for current Taxes not yet due and payable or for Taxes that are being contested in good faith and, in each case, for which adequate reserves have been made on the Company Unaudited Interim Balance Sheet or the Parent Balance Sheet, as applicable; (b) minor liens that have arisen in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the assets or properties subject thereto or materially impair the use thereof or the operations of the Company or any of its Subsidiaries or Parent, as applicable; (c) statutory liens to secure obligations to landlords, lessors or renters under leases or rental agreements; (d) deposits or pledges made in connection with, or to secure payment of, workers' compensation, unemployment insurance or similar programs mandated by Law in the Ordinary Course of Business; (e) non-exclusive licenses of Intellectual Property Rights granted by the Company or any of its Subsidiaries or Parent or any of its Subsidiaries, as applicable, in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the Intellectual Property Rights subject thereto; and (f) statutory liens in favor of carriers, warehousemen, mechanics and materialmen, to secure claims for labor, materials or supplies.

"***Person***" means any individual, Entity or Governmental Body.

"***Potentially Transferable Assets***" means the non-cash assets of Parent existing as of the date of this Agreement.

"***Pre-Closing Financing***" means an acquisition of capital stock of the Company to be consummated immediately prior to the Closing pursuant to the Subscription Agreements.

"***Proxy Statement/Prospectus***" means the proxy statement/prospectus, which shall be included in the Registration Statement, to be sent to Parent's stockholders in connection with the Parent Stockholders' Meeting.

"***Registration Statement***" means the registration statement on Form S-4 (or any other applicable form under the Securities Act to register Parent Common Stock) to be filed with the SEC by Parent registering the public offering and sale of Parent Common Stock to holders of Company Capital Stock and the Company Convertible Note in the Merger or the Conversion, as applicable, as may be amended prior to the time it is declared effective by the SEC.

"***Representatives***" means directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors and representatives.

"***Sarbanes-Oxley Act***" means the Sarbanes-Oxley Act of 2002.

"***SEC***" means the United States Securities and Exchange Commission.

"***Securities Act***" means the Securities Act of 1933, as amended.

"***Subscription Agreement***" means any stock purchase agreement, as well as related investment agreements, entered into among the Company and the Person(s) named therein, pursuant to which such Persons have agreed to purchase immediately prior to the Effective Time the number of shares of capital stock of the Company set forth therein in connection with the Pre-Closing Financing.

"***Subsequent Transaction***" means any Acquisition Transaction (with all references to 15% in the definition of Acquisition Transaction being treated as references to 50% for these purposes).

"***Subsidiary***" means, with respect to a Person, another entity of which such Person directly or indirectly owns or purports to own, beneficially or of record, (a) an amount of voting securities or other interests that is sufficient to enable such Person to elect at least a majority of the members of such entity's board of directors or other governing body, or (b) at least 50% of the outstanding equity, voting, beneficial or financial interests in such Entity.

"***Superior Offer***" means an unsolicited bona fide written Acquisition Proposal (with all references to 15% in the definition of Acquisition Transaction being treated as references to 70% for these purposes) that: (a) was not obtained or made as a direct or indirect result of a breach of (or in violation of) this Agreement; (b) is on terms and conditions that the Parent Board or the Company Board, as applicable, determines in good faith, based on such matters that it deems relevant (including the likelihood of consummation thereof, the financing terms thereof, any termination or break-up fees and conditions to consummation), as well as any written offer by the other Party this Agreement to amend the terms of this Agreement, and following consultation with its outside legal counsel and financial advisors, if any, are more favorable to Parent's stockholders or the Company's stockholders, as applicable, than the terms of the Contemplated Transactions; (c) is not subject to any financing conditions (and if financing is required, such financing is then fully committed to the third party); and (d) is reasonably capable of being completed on the terms proposed without unreasonable delay.

"***Takeover Statute***" means any "fair price," "moratorium," "control share acquisition" or other similar anti-takeover Law.

"***Tax***" means any federal, state, local, foreign or other tax, including any income, capital gain, gross receipts, capital stock, profits, transfer, estimated, registration, stamp, premium, escheat, unclaimed property, customs duty, ad valorem, occupancy, occupation, alternative, add-on, windfall profits, value added, severance, property, business, production, sales, use, license, excise, franchise, employment, payroll, social security, disability, unemployment, workers' compensation, national health insurance, withholding or other taxes, duties, fees, assessments or governmental charges in the nature of a tax, surtaxes or deficiencies thereof of any kind whatsoever, however denominated, and including any fine, penalty, addition to tax or interest imposed by a Governmental Body with respect thereto.

"***Tax Return***" means any return (including any information return), report, statement, declaration, estimate, schedule, notice, notification, form, election, certificate or other document, and any amendment or supplement to any of the foregoing, filed with or submitted to, or required to be filed with or submitted to, any Governmental Body in connection with the determination, assessment, collection or payment of any Tax or in connection with the administration, implementation or enforcement of or compliance with any Law relating to any Tax.

"***Treasury Regulations***" means the United States Treasury regulations promulgated under the Code.

"***WARN Act***" means the Worker Adjustment and Retraining Notification Act of 1988, as amended, or any similar state or local plant closing mass layoff statute, rule or regulation.

(b) Each of the following terms is defined in the Section set forth opposite such term:

Term	Section
Accounting Firm	1.11(e)
Agreement	Preamble
Allocation Certificate	5.16(a)
Anti-Bribery Laws	2.22
Anticipated Closing Date	1.11(a)
Asset Disposition	4.7(a)
Asset Dispositions	4.7(a)
Book-Entry Shares	1.6
Business Associate Agreements	2.14(h)
Cash Determination Time	1.11(a)
Certificate of Merger	1.3
Certifications	3.7(a)
Closing	1.3
Closing Date	1.3
Company	Preamble
Company Benefit Plan	2.17(a)
Company Board Adverse Recommendation Change	5.3(b)
Company Board Recommendation	5.3(b)
Company Convertible Note	2.6(a)
Company Designees	5.12
Company Disclosure Schedule	Section 2
Company Financial Statements	2.7(a)
Company In-bound License	2.12(d)
Company Lock-Up Agreement	Recitals
Company Material Contract	2.13(a)
Company Material Contracts	2.13(a)
Company Out-bound License	2.12(d)
Company Permits	2.14(c)
Company Real Estate Leases	2.11
Company Registered IP	2.12(a)
Company Signatories	Recitals
Company Stock Certificate	1.6
Company Stockholder Matters	5.3(a)
Company Stockholder Support Agreement	Recitals
Company Stockholder Written Consent	2.4
Company Termination Fee	9.3(b)
CVR	5.21
CVR Agreement	5.21
D&O Indemnified Parties	5.6(a)
D&O Tail Policy	5.6(d)
Delivery Date	1.11(a)
Dispute Notice	1.11(b)
Dissenting Shares	1.8(a)
Drug Regulatory Agency	2.14(a)
Effective Time	1.3
End Date	9.1(b)

Exchange Agent	1.7(a)
Exchange Fund	1.7(a)
FDA	2.14(a)
FDCA	2.14(a)
Final Net Cash	1.11(c)
GCP	2.14(e)
GLP	2.14(e)
HIPAA	2.14(h)
Intended Tax Treatment	5.10(a)
Liability	2.9
LoT	1.7(b)
Merger	Recitals
Merger Consideration	1.5(a)(ii)
Merger Sub	Preamble
Nasdaq Listing Application	5.9
Net Cash Calculation	1.11(a)
Net Cash Schedule	1.11(a)
Notice Period	5.3(c)
Parent	Preamble
Parent Benefit Plan	3.17(a)
Parent Board Adverse Recommendation Change	5.4(c)
Parent Board Recommendation	5.4(c)
Parent Designees	5.12
Parent Disclosure Schedule	Section 3
Parent In-bound License	3.12(d)
Parent Lock-Up Agreement	Recitals
Parent Material Contract	3.13(a)
Parent Material Contracts	3.13(a)
Parent Out-bound License	3.12(d)
Parent Permits	3.14(c)
Parent Real Estate Leases	3.11
Parent Registered IP	3.12(a)
Parent SEC Documents	3.7(a)
Parent Signatories	Recitals
Parent Stockholder Matters	5.4(a)(iii)
Parent Stockholder Support Agreement	Recitals
Parent Stockholders' Meeting	5.4(a)(iii)
Parent Termination Fee	9.3(c)
PHSA	2.14(a)
Pre-Closing Dividend	5.21
Pre-Closing Period	4.1(a)
Required Company Stockholder Vote	2.4
Required Parent Stockholder Vote	3.4
Response Date	1.11(b)
Sale Agreement	4.7(b)
Sensitive Data	2.12(g)
Surviving Corporation	1.1
Terminated Parent Associate	5.20(a)
Transaction Litigation	5.19

EXHIBIT B-1

Form of Company Stockholder Support Agreement

EXHIBIT B-2

Form of Parent Stockholder Support Agreement

EXHIBIT C-1

Form of Company Lock-Up Agreement

EXHIBIT C-2

Form of Parent Lock-Up Agreement

EXHIBIT D

Form of CVR Agreement

EXHIBIT E

Net Cash Illustrative Calculations

EXHIBIT F

Form of Certificate of Merger

EXHIBIT G

Form of Company Stockholder Written Consent

EXHIBIT H

Exchange Ratio Calculation

Schedule 5.7

Additional Agreements

None.

Schedule 5.12

Post-Closing Directors and Officers of Parent and the Surviving Corporation

Schedule N

ANNEX B

September 20th, 2022

The Board of Directors
Sesen Bio, Inc.
245 First Street, Suite 1800
Cambridge, MA 02142

Ladies and Gentlemen:

You have requested our opinion as to the fairness, from a financial point of view, to Sesen Bio, Inc., a Delaware corporation ("Parent"), of the Exchange Ratio (as defined below) proposed to be paid by Parent pursuant to the terms of the Agreement and Plan of Merger and Reorganization (the "Merger Agreement") to be entered into by and among Parent, Sesen Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("Merger Sub"), and CARISMA Therapeutics Inc., a Delaware corporation (the "Company"). The Merger Agreement provides for the acquisition by Parent of the Company through the merger of Merger Sub with and into the Company (the "Merger"), with the Company continuing as the surviving entity of the Merger and as a wholly-owned subsidiary of Parent. Capitalized terms used but not defined herein have the meanings set forth in the Merger Agreement. At the effective time of the Merger (the "Effective Time"), after giving effect to the Nasdaq Reverse Split, if any, and the declaration of the Pre-Closing Dividend, by virtue of the Merger and without any further action on the part of Parent, Merger Sub, the Company or any stockholder of the Company or Parent, among other things, each share of Company Capital Stock outstanding immediately prior to the Effective Time (excluding Excluded Shares (as defined below)) shall be converted solely into the right to receive a number of shares of the common stock, $0.001 par value per share, of Parent (the "Parent Common Stock") equal to the Exchange Ratio. As used herein, (i) the "Exchange Ratio" is the number of shares of Parent Common Stock to be received by holders of Company Capital Stock, other than Excluded Shares, in the Merger, which is derived from the agreed relative valuations of the Company and Parent as set forth in the Merger Agreement; and (ii) "Excluded Shares" means (a) any shares of Company Capital Stock held as treasury stock or held or owned by the Company, Merger Sub or any Subsidiary of the Company immediately prior to the Effective Time (which shares shall be canceled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor); and (b) any shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who have exercised and perfected appraisal rights for such shares of Company Capital Stock in accordance with the General Corporation Law of the State of Delaware. The Exchange Ratio is subject to certain adjustments set forth in the Merger Agreement; we express no opinion as to any such adjustments. The Merger and the other transactions summarized above are collectively referred to herein as the "Transaction." The terms and conditions of the Transaction are more fully set forth in the Merger Agreement.

We have been engaged by Parent to act as its financial advisor in connection with the Transaction and we will receive a fee from Parent for providing such services, a portion of which is payable upon delivery of this opinion and the remaining (and principal) portion of which is contingent upon consummation of the Transaction. In addition, Parent has agreed to reimburse certain of our expenses arising, and indemnify us against certain liabilities that may arise, out of our engagement.

SVB Securities LLC is a full-service securities firm engaged in securities trading and brokerage activities as well as investment banking and financial advisory services. In the ordinary course of business, we and our affiliates have in the past provided, currently are providing and may in the future provide investment banking and commercial banking services to Parent, the Company or their respective affiliates and have received and would expect to receive customary fees for the rendering of such services. In the ordinary course of our business, we or our affiliates have in the past and may in the future hold positions, for our own account or the accounts of our customers, in equity, debt or other securities of Parent, the Company or their respective affiliates.

Consistent with applicable legal and regulatory requirements, we have adopted policies and procedures to establish and maintain the independence of our research department and personnel. As a result, our research analysts may hold views, make statements or investment recommendations and/or publish research reports with respect to Parent, the Company and the Transaction and other participants in the Transaction that differ from the views of our investment banking personnel.

In connection with this opinion, we have reviewed, among other things: (i) a draft of the Merger Agreement, dated September 20th, 2022; (ii) a draft of the form of Contingent Value Rights Agreement to be entered into at the closing of the Transaction by Parent and a rights agent (the "CVR Agreement"), dated September 20th, 2022; (iii) Parent's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as filed by Parent with the Securities and Exchange Commission (the "SEC"); (iv) Parent's Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2022 and June 30, 2022 (including any amendments thereto), as filed by Parent with the SEC; (v) certain Current Reports on Form 8-K (including any amendments thereto), as filed by Parent with, or furnished by Parent to, the SEC; (vi) certain internal information, primarily related to expense forecasts, relating to the business, operations, earnings, cash flow, assets, liabilities and prospects of Parent, as furnished to us by the management of Parent; and (vii) certain internal information relating to the business, operations, earnings, cash flow, assets, liabilities and prospects of the Company, including certain financial forecasts, analyses and projections relating to the Company prepared by management of the Company, as modified by management of Parent and furnished to, and approved for use by, us by Parent for purposes of our analysis (the "Company Forecast") (collectively, the "Internal Data"). We have also conducted discussions with members of the senior management of Parent and the Company and their respective advisors and representatives regarding such Internal Data as well as the past and current business, operations, financial condition and prospects of each of Parent and the Company. In addition, we reviewed certain financial data for the Company and compared that data to similar publicly available market, financial and other data for certain other companies, the securities of which are publicly traded, that we believe to be comparable in certain respects to the Company. We also conducted such other financial studies and analyses and took into account such other information as we deemed appropriate.

We have assumed, without independent verification or any responsibility therefor, the accuracy and completeness of the financial, legal, regulatory, tax, accounting and other information supplied to, discussed with, or reviewed by us for purposes of this opinion and have, with your consent, relied upon such information as being complete and accurate. In that regard, we have been advised by Parent, and have assumed, at your direction, that the Internal Data (including, without limitation, the Company Forecast) has been reasonably prepared on bases reflecting the best currently available estimates and judgments of the management of Parent and the Company as to the matters covered thereby and we have relied, at your direction, on the Internal Data for purposes of our analysis and this opinion. We express no view or opinion as to the Internal Data (including, without limitation, the Company Forecast) or the assumptions on which it is based. As you are aware, Parent's management did not provide us with, and we did not otherwise have access to, financial forecasts regarding Parent's business, other than the expense forecasts described above. Accordingly, we did not perform a discounted cash flow analysis or any multiples-based analysis with respect to Parent. In addition, at your direction, we have not made any independent evaluation or appraisal of any of the assets or liabilities (contingent, derivative, off-balance-sheet or otherwise) of Parent or the Company, nor have we been furnished with any such evaluation or appraisal, and we have not been asked to conduct, and did not conduct, a physical inspection of the properties or assets of Parent or the Company. Furthermore, at your direction, we have ascribed no value to the contingent value rights issuable pursuant to the CVR Agreement.

We have assumed, at your direction, that the final executed Merger Agreement will not differ in any respect material to our analysis or this opinion from the last draft of the Merger Agreement reviewed by us. We have also assumed, at your direction, that the representations and warranties made by the Company and Parent and Merger Sub in the Merger Agreement and the related agreements are and will continue to be true and correct in all respects material to our analysis. Furthermore, we have assumed, at your direction, that the Transaction will be consummated on the terms set forth in the Merger Agreement and in accordance with all applicable laws and other relevant documents or requirements, without delay or the waiver, modification or amendment of any term, condition or agreement, the effect of which would be material to our analysis or this opinion and that, in the course of obtaining the necessary governmental, regulatory and other approvals, consents, releases and waivers for the Transaction, no delay, limitation, restriction, condition or other change will be imposed, the effect of which would be material to our analysis or this opinion. We have not evaluated and do not express any opinion as to the solvency or fair value of Parent or the Company, or their respective abilities to pay their obligations when they come due, or as to the impact of the Transaction on such matters, under any state, federal or other laws relating to bankruptcy, insolvency, or similar matters. We are not legal, regulatory, tax or accounting advisors, and we express no opinion as to any legal, regulatory, tax or accounting matters. We express no view or opinion as to the price or range of prices at which the shares of stock or other securities or instruments of Parent or any third party may trade at any time, including subsequent to the announcement or consummation of the Transaction.

We express no view as to, and our opinion does not address, Parent's underlying business decision to proceed with or effect the Transaction, or the relative merits of the Transaction as compared to any alternative business strategies or transactions that might be available to Parent or in which Parent might engage. This opinion is limited to and addresses only the fairness, from a financial point of view, as of the date hereof, to Parent of the Exchange Ratio proposed to be paid by Parent pursuant to the terms of the Merger Agreement. We have not been asked to, nor do we express any view on, and our opinion does not address, any other term or aspect of the Merger Agreement or the Transaction, including, without limitation, the structure or form of the Transaction, or any other agreements or arrangements contemplated by the Merger Agreement or entered into in connection with or otherwise contemplated by the Transaction, including, without limitation, the fairness of the Transaction or any other term or aspect of the Transaction to, or any consideration to be received in connection therewith by, or the impact of the Transaction on, the holders of any class of securities, creditors or other constituencies of Parent or any other party. In addition, we express no view or opinion as to the fairness (financial or otherwise) of the amount, nature or any other aspect of any compensation to be paid or payable to any of the officers, directors or employees of Parent or any other party, or class of such persons in connection with the Transaction, whether relative to the Exchange Ratio to be paid by Parent pursuant to the terms of the Merger Agreement or otherwise. Our opinion is necessarily based on financial, economic, monetary, currency, market and other conditions and circumstances as in effect on, and the information made available to us as of, the date hereof, and we do not have any obligation or responsibility to update, revise or reaffirm this opinion based on circumstances, developments or events occurring after the date hereof. Our opinion does not constitute a recommendation to any stockholder of Parent as to whether or how such stockholder should vote with respect to the Merger or otherwise act with respect to the Transaction or any other matter.

Our financial advisory services and the opinion expressed herein are provided for the information and assistance of the Board of Directors of Parent (in their capacity as directors and not in any other capacity) in connection with and for purposes of its consideration of the Transaction. This opinion has been authorized by our Fairness Opinion Review Committee.

Based upon and subject to the foregoing, including the various assumptions, qualifications and limitations set forth herein, it is our opinion that, as of the date hereof, the Exchange Ratio proposed to be paid by Parent pursuant to the terms of the Merger Agreement is fair, from a financial point of view, to Parent.

Very truly yours,

/s/ SVB SECURITIES LLC

ANNEX C

FORM OF COMPANY STOCKHOLDER SUPPORT AGREEMENT

This STOCKHOLDER SUPPORT AGREEMENT (this "***Support Agreement***") is entered into as of [ ], 2022, among CARISMA Therapeutics Inc., a Delaware corporation (the "***Company***"), Sesen Bio, Inc., a Delaware corporation ("***Parent***"), and the undersigned stockholder (the "***Stockholder***") of the Company.

WHEREAS, as of the date hereof, the Stockholder is the sole record owner of and has the sole power to vote (or to direct the voting of) the number of shares of common stock, par value $0.0001 per share, of the Company (the "***Common Stock***"), and/or the number of shares of preferred stock, $0.0001 par value per share of the Company (the "***Preferred Stock***"), set forth opposite the Stockholder's name on Schedule I hereto (such Common Stock and Preferred Stock, together with any other shares of the Company that are hereafter issued to or otherwise acquired or owned by, including upon exercise of options or securities convertible into or exercisable or exchangeable for Common Stock (the "***Shares***"), the voting power of which is acquired by such Stockholder during the Voting Period (as defined below), are collectively referred to herein as the "***Subject Shares***");

WHEREAS, the Company, Parent, and Seahawk Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("***Merger Sub***"), are concurrently entering into an Agreement and Plan of Merger and Reorganization, dated on or about the date hereof (as amended from time to time, the "***Merger Agreement***"), pursuant to which Merger Sub shall be merged with and into the Company, with the Company continuing as the surviving corporation and as a wholly-owned subsidiary of Parent (the "***Merger***");

WHEREAS, the adoption of the Merger Agreement and the transactions contemplated thereby requires the written consent or affirmative vote of (i) the holders of a majority of the capital stock of the Company, voting together as a single class, (ii) the holders of a majority of the Series A Preferred Stock, $0.0001 par value per share, of the Company (the "***Series A Preferred Stock***"), and the Special Voting Preferred Stock, $0.0001 par value per share, of the Company (the "***Special Voting Preferred Stock***"), voting together as a single class, (iii) the holders of at least two-thirds of the Series B Preferred Stock, $0.0001 par value per share, of the Company (the "***Series B Preferred Stock***"), and the Series B Special Voting Preferred Stock, $0.0001 par value per share, of the Company (the "***Series B Special Voting Preferred Stock***"), voting together as a single class, and (iv) the holders of at least two-thirds of the Series A Preferred Stock, Special Voting Preferred Stock, Series B Preferred Stock and Series B Special Voting Preferred Stock, voting together as a single class; and

WHEREAS, as a condition and inducement to Parent's willingness to enter into the Merger Agreement and consummate the transactions contemplated thereby, Parent and the Company have required the Stockholder to, as an inducement and in consideration therefor, and the Stockholder (in the Stockholder's capacity as holder of the Subject Shares) has agreed to, enter into this Support Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective representations, warranties, covenants and agreements set forth herein, the parties agree as follows:

ARTICLE I
DEFINITIONS

SECTION 1.1 Capitalized Terms.

(a) For purposes of this Support Agreement, capitalized terms used and not defined herein shall have the respective meanings ascribed to them in the Merger Agreement.

(b) ***"Expiration Time"*** shall mean the earliest to occur of (i) the Effective Time, (ii) any amendment to the Merger Agreement that reduces the amount, or changes the form of any consideration payable to the Stockholder in the transaction, (iii) the date and time of the valid termination of the Merger Agreement in accordance with its terms and (iv) the End Date (as defined in the Merger Agreement in effect on the date hereof) provided that the Effective Time has not occurred on or before such date.

(c) "***Voting Period***" shall mean such period of time between the date hereof and the Expiration Time.

(d) "***Recommendation Change Requirement***" shall mean, with respect to the Stockholder, 35% of the Subject Shares held by such Stockholder.

ARTICLE II
VOTING AGREEMENT AND IRREVOCABLE PROXY

SECTION 2.1 Agreement to Vote. The Stockholder hereby agrees that, during the Voting Period, and at any duly called meeting of the stockholders of the Company (or any adjournment or postponement thereof), or in any other circumstances (including action by written consent of stockholders in lieu of a meeting) upon which a vote, adoption or other approval or consent with respect to the adoption of the Merger Agreement or the approval of the Merger and any of the transactions contemplated thereby is sought, the Stockholder:

(a) if no Company Board Adverse Recommendation Change has occurred in accordance with Section 5.3(c) of the Merger Agreement, shall, if a meeting is held, appear at the meeting, in person or by proxy, and shall provide a written consent (a "***Written Consent***") or vote (or cause to be voted), in person or by proxy, all of the Subject Shares, in each case (i) in favor of (A) any proposal to adopt and approve or reapprove the Merger Agreement and the transactions contemplated thereby, including (1) adoption and approval of the Merger Agreement and the Contemplated Transactions, (2) adoption and approval of an amendment of the Company's certificate of incorporation to increase the authorized shares of the Common Stock, (3) acknowledgment that the approval given thereby is irrevocable and that the Stockholder is aware of the Stockholder's rights to demand appraisal for its shares pursuant to Section 262 of the DGCL, a true and correct copy of which will be attached thereto, and that the Stockholder has received and read a copy of Section 262 of the DGCL, (4) acknowledgment that by the Stockholder's approval of the Merger the Stockholder is (A) waiving its appraisal rights with respect to the Subject Shares in connection with the Merger and thereby waives any rights to receive payment of the fair value of the Stockholder's capital stock under the DGCL, and (B) waiving any notice that may have been or may be required relating to the Merger or any of the other Contemplated Transactions (the "***Stockholder Approval Matters***"), and (ii) against any Acquisition Proposal and any action in furtherance of any such Acquisition Proposal; and

(b) if a Company Board Adverse Recommendation Change has occurred in accordance with Section 5.3(c) of the Merger Agreement, shall, if a meeting is held, appear at the meeting, in person or by proxy, and shall provide a Written Consent or vote (or caused to be voted), in person or by proxy, at least the Recommendation Change Requirement (rounded up to the nearest whole number of Subject Shares) of Subject Shares held by such Stockholder, in each case (i) in favor of the Stockholder Approval Matters, and (ii) against any proposals that compete with the Contemplated Transactions, including any Acquisition Proposal and any action in furtherance of any such Acquisition Proposal.

SECTION 2.2 Grant of Irrevocable Proxy. In the event and to the extent that the Stockholder fails to vote the Subject Shares in accordance with Section 2.1 at any applicable meeting of the stockholders of the Company or pursuant to any applicable meeting of the stockholders of the Company or pursuant to any applicable written consent of the stockholders of the Company, the Stockholder hereby appoints the Company and any designee of the Company, and each of them individually, as the Stockholder's proxy, with full power of substitution and re-substitution, to vote, including by executing written consents, during the Voting Period with respect to any and all of the Subject Shares solely on the matters and in the manner specified in Section 2.1; *provided*, that, for the avoidance of doubt, if a Company Board Adverse Recommendation Change in accordance with Section 5.3(c) of the Merger Agreement has occurred the Stockholder shall only be deemed to have granted a proxy to the extent of the Recommendation Change Requirement. The Stockholder shall take all further action or execute such other instruments as may be necessary to effectuate the intent of any such proxy. The Stockholder affirms that the irrevocable proxy given by it hereby with respect to the Merger Agreement and the Contemplated Transactions is given to the Company by the Stockholder to secure the performance of the obligations of the Stockholder under Section 2.1 of this Support Agreement. It is agreed that the Company (and its designees) will use the irrevocable proxy that is granted by the Stockholder hereby only in accordance with applicable Laws and that, to the extent the Company (and its designees) uses such irrevocable proxy, it will only vote (or sign written consents in respect of) the Subject Shares subject to such irrevocable proxy with respect to the matters specified in, and in accordance with the provisions of, Section 2.1.

SECTION 2.3 Nature of Irrevocable Proxy. The proxy granted pursuant to Section 2.2 to the Company by the Stockholder shall be irrevocable during the term of this Support Agreement, shall be deemed to be coupled with an interest sufficient in law to support an irrevocable proxy and shall revoke any and all prior proxies or powers of attorney granted by the Stockholder and no subsequent proxy or power of attorney shall be given or written consent executed (and if given or executed, shall not be effective) by

the Stockholder with respect thereto. The proxy that may be granted hereunder shall terminate automatically, without any further action on the part of the Company, Stockholder or any other Person, upon the Expiration Time, but shall survive the death or incapacity of the Stockholder and any obligation of the Stockholder under this Support Agreement shall be binding upon the heirs, personal representatives and successors of the Stockholder.

ARTICLE III
COVENANTS

SECTION 3.1 Subject Shares.

(a) The Stockholder agrees that (i) from the date hereof until the Expiration Time, it shall not, and shall not commit or agree to, without the prior written consent of Parent and the Company, directly or indirectly, whether by merger, consolidation or otherwise, offer for sale, sell (including short sales), transfer, tender, pledge, encumber, assign or otherwise dispose of (including by gift or by operation of law) (any of the foregoing, a "***Transfer***"), or enter into any contract, option, derivative, hedging or other agreement or arrangement or understanding (including any profit-sharing arrangement) with respect to, or consent to or permit, a Transfer of, any or all of the Subject Shares or any interest therein; and (ii) during the Voting Period, it shall not, and shall not commit or agree to, without the prior written consent of Parent and the Company, (A) grant any proxies or powers of attorney with respect to any or all of the Subject Shares or agree to vote (or sign written consents in respect of) the Subject Shares on any matter or divest itself of any voting rights in the Subject Shares that would conflict with the terms of this Support Agreement, or (B) take any action that would have the effect of preventing or disabling the Stockholder from performing its obligations under this Support Agreement. Notwithstanding the foregoing, the Stockholder may, at any time, Transfer its Subject Shares (1) by will or other testamentary document or by intestacy, (2) to any investment fund or other entity controlled or managed by the Stockholder or the investment adviser or general partner of the Stockholder, (3) to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect Affiliate of the Stockholder, including any investment funds or other entities that controls or manages, or is under common control or management with, or is controlled or managed by, the Stockholder, (4) to any member of the Stockholder′s immediate family, (5) to any trust for the direct or indirect benefit of the Stockholder or the immediate family of the Stockholder or otherwise for estate planning purposes, (6) to stockholders, current or former partners (general or limited), members or managers of the Stockholder, as applicable, or to the estates of any of the foregoing, or (7) to the extent required by applicable Law; *provided*, that the case of clauses (1)-(6), such permitted transferee shall have executed and delivered to Parent and the Company a support agreement substantially identical to this Support Agreement. The Stockholder agrees that any Transfer of Subject Shares not permitted hereby shall be null and void and that any such prohibited Transfer shall be enjoined. If any voluntary or involuntary Transfer of any Subject Shares covered hereby shall occur (including a sale by the Stockholder′s trustee in bankruptcy, or a sale to a purchaser at any creditor′s or court sale), the permitted transferee (which term, as used herein, shall include any and all transferees and subsequent transferees of the initial transferee) shall take and hold such Subject Shares subject to all of the restrictions, liabilities and rights under this Support Agreement, which shall continue in full force and effect.

(b) In the event of a stock dividend or distribution, or any change in the Subject Shares by reason of any stock dividend or distribution, split-up, recapitalization, combination, conversion, exchange of shares or the like, the term "***Subject Shares***" shall be deemed to refer to and include the Subject Shares as well as all such stock dividends and distributions and any securities into which or for which any or all of the Subject Shares may be changed or exchanged or which are received in such transaction. The Stockholder further agrees that, in the event the Stockholder purchases or otherwise acquires beneficial or record ownership of or an interest in, or acquires the right to vote or share in the voting of, any additional Shares, in each case after the execution of this Support Agreement and prior to the Expiration Time, the Stockholder shall deliver promptly to the Company and Parent written notice of such event, which notice shall state the number of additional Shares so acquired; provided, that no such notice shall be required with respect to any additional Shares acquired in connection with the Pre-Closing Financing. The Stockholder agrees that any such additional Shares shall constitute Subject Shares for all purposes of this Support Agreement and shall be subject to the terms of this Support Agreement, including all covenants, agreements, obligations, representations and warranties set forth herein as if those additional Shares were owned by the Stockholder on the date of this Support Agreement.

SECTION 3.2 Stockholder's Capacity. All agreements and understandings made herein shall be made solely in the Stockholder′s capacity as a holder of the Subject Shares and not in any other capacity, including not in the Stockholder′s capacity as a director or officer of the Company. Notwithstanding anything herein to the contrary, nothing herein shall in any way restrict a director of the Company (including any director who is an Affiliate of the Stockholder) in the taking of any actions (or failure to act) solely in his or her capacity as a director of the Company, or in the exercise of his or her fiduciary duties as a director of the Company, or prevent or be construed to create any obligation on the part of any director of the Company from taking any action in his or her

capacity as such director, and no action taken solely in any such capacity as a director of the Company shall be deemed to constitute a breach of this Support Agreement.

SECTION 3.3 Other Offers. Except to the extent the Company is permitted to take such action pursuant to the Merger Agreement, the Stockholder (in the Stockholder′s capacity as such) shall not, and shall direct its Representatives not to, take any of the following actions: (a) solicit, initiate, knowingly encourage or knowingly facilitate an Acquisition Proposal; (b) furnish any non-public information regarding the Company to any Person in connection with or in response to an Acquisition Proposal (except as required by applicable Law, pursuant to applicable rules and regulations of any applicable national securities exchange or pursuant to a request by a Governmental Body); (c) engage in, enter into, continue or otherwise participate in any discussions or negotiations with any Person with respect to, or otherwise knowingly cooperate in any way with any Person (or any Representative thereof) with respect to, any Acquisition Proposal; (d) approve, endorse or recommend or publicly propose to approve, endorse or recommend, any Acquisition Proposal; or (e) enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction or publicly proposing to approve, endorse or recommend, any Acquisition Transaction; *provided*, *however*, that none of the foregoing restrictions shall apply to the Stockholder′s and its Representatives′ interactions with Parent, Merger Sub, the Company and their respective subsidiaries and Representatives; *provided*, *further*, that nothing in this Section 3.3 shall prevent the Stockholder from referring a Person to this Section 3.3 or to the Merger Agreement. Without limiting the foregoing, it is understood that any violation of the foregoing restrictions by any Representatives of the Stockholder shall be deemed to be a breach of this Section 3.3.

SECTION 3.4 Communications. During the Voting Period, the Stockholder shall not, and shall direct its Representatives not to, make any press release, public announcement or other broad-based public communication that disparages this Support Agreement or the Merger Agreement or the Merger, without the prior written consent of Parent and the Company, except as may be required by applicable Law, including applicable rules and regulations of any national securities exchange applicable to Stockholder, in which circumstance such announcing party shall consult with the Company and Parent to the extent legally permissible prior to any such disclosure; *provided*, that the foregoing shall not: (x) limit or affect any actions taken by the Stockholder (or any affiliated officer or director of Stockholder) that would be permitted to be taken by Stockholder pursuant to the Merger Agreement or (y) prohibit the Stockholder or its Representatives from communicating truthfully with any Governmental Body or from cooperating with any such Governmental Body, or testifying truthfully pursuant to subpoena, as required by valid legal process, in which circumstance such announcing party shall consult with the Company and Parent to the extent legally permissible prior to any such disclosure. The Stockholder hereby: (a) consents to and authorizes the publication and disclosure in all documents and schedules filed the with SEC, and any press release or other disclosure document that Parent or the Company reasonably determines to be necessary in connection with the Merger or any Contemplated Transaction of (i) the Stockholder′s identity, (ii) the Stockholder′s ownership of the Subject Shares, (iii) this Support Agreement and (iv) the nature of the Stockholder′s commitments, arrangements and understandings under this Support Agreement; and (b) agrees as promptly as practicable to notify Parent, Merger Sub and the Company of any required corrections with respect to any written information supplied by the Stockholder specifically for use in any such disclosure document.

SECTION 3.5 Voting Trusts. Except for this Agreement and the Amended and Restated Voting Agreement of the Company, dated as of December 22, 2020 (the "Voting Agreement"), the Stockholder agrees that it will not, nor will it permit any entity under its control to, deposit any of its Subject Shares in a voting trust or subject any of its Subject Shares to any arrangement with respect to the voting of such Subject Shares, in each case to the extent that such action would restrict the Stockholder from performing its obligations under this Support Agreement.

SECTION 3.6 Waiver of Appraisal Rights. The Stockholder hereby irrevocably and unconditionally waives, and agrees not to assert, exercise or perfect (or attempt to exercise, assert or perfect) any rights of appraisal or rights to dissent from the Merger or quasi-appraisal rights that it may at any time have under applicable Laws, including Section 262 of the DGCL. The Stockholder agrees not to commence, join in, facilitate, assist or encourage, and agrees to take all actions necessary to opt out of any class in any class action with respect to, any claim, derivative or otherwise, against Parent, Merger Sub, the Company or any of their respective successors, directors or officers, (a) challenging the validity, binding nature or enforceability of, or seeking to enjoin the operation of, this Support Agreement or the Merger Agreement, or (b) alleging a breach of any fiduciary duty of any Person in connection with the evaluation, negotiation, entry into or consummation of transactions contemplated by the Merger Agreement; *provided, however*, that (i) the Stockholder may defend against, contest or settle any action, claim, suit or cause of action brought against the Stockholder that relates solely to the Stockholder's capacity as a director, officer or securityholder of the Company and (ii) the foregoing shall not limit or restrict in any manner the Stockholder from enforcing the Stockholder's rights under this Support Agreement and the other agreements entered into by the Stockholder in connection herewith, or otherwise in connection with the Merger, including the Stockholder's right to receive the Merger Consideration pursuant to the terms of the Merger Agreement.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF STOCKHOLDER

The Stockholder hereby represents and warrants to Parent and the Company as follows:

SECTION 4.1 Due Authorization, etc. The Stockholder is a natural person, corporation, limited partnership or limited liability company. If the Stockholder is a corporation, limited partnership or limited liability company, the Stockholder is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated, organized or constituted. The Stockholder has all necessary power and authority to execute and deliver this Support Agreement, perform the Stockholder's obligations hereunder and to consummate the transactions contemplated hereby. The execution and delivery by the Stockholder of this Support Agreement, the performance by the Stockholder's of its obligations hereunder and the consummation by the Stockholder of the transactions contemplated hereby have been duly authorized by all necessary action on the part of the Stockholder and no other proceedings on the part of the Stockholder are necessary to authorize this Support Agreement, or to consummate the transactions contemplated hereby. This Support Agreement has been duly executed and delivered by the Stockholder and (assuming the due authorization, execution and delivery by Parent and the Company) constitutes a valid and binding obligation of the Stockholder, enforceable against the Stockholder in accordance with its terms, except to the extent enforcement is limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar Laws of general applicability relating to or affecting creditors' rights and by general equitable principles.

SECTION 4.2 Ownership of Shares. Schedule I hereto sets forth opposite the Stockholder's name the Shares over which the Stockholder has record ownership as of the date hereof. As of the date hereof, the Stockholder is the lawful record owner of the Shares denoted as being owned by the Stockholder on Schedule I hereto, has the power to vote or cause to be voted such Shares and has the power to dispose of, or cause to be disposed, such Shares (other than, if the Stockholder is a partnership or a limited liability company, the rights and interest of Persons that own partnership interests or units in the Stockholder under the partnership agreement or operating agreement governing the Stockholder and applicable partnership or limited liability company law, or if the Stockholder is a married individual and resides in a state with community property laws, the community property interest of his or her spouse to the extent applicable under such community property laws, which spouse hereby consents to this Support Agreement by executing the spousal consent attached hereto as Exhibit A). The Stockholder has, and will at all times up until the Expiration Time have, good and valid title to the Shares denoted as being owned by the Stockholder on Schedule I hereto, free and clear of any and all pledges, mortgages, liens, charges, proxies, voting agreements, encumbrances, adverse claims, options, security interests and demands of any nature or kind whatsoever, other than (a) those created by this Support Agreement, (b) those created by the Voting Agreement, (c) those created by the Amended and Restated Investors' Rights Agreement of the Company, dated as of December 22, 2020, (d) those existing under applicable securities laws and (e) those that would not prevent or materially delay the Stockholder's ability to perform its obligations under this Support Agreement. Without limiting the generality of the foregoing, no Person has any contractual or other right or obligation to purchase or otherwise acquire any of the Shares denoted as being owned by the Stockholder on Schedule I

hereto, and no such Shares are subject to any proxy, voting trust or other agreement or arrangement with respect to the voting of such Shares except as provided hereunder and in the Voting Agreement.

SECTION 4.3 No Conflicts. (a) No filing with any Governmental Body, and no authorization, consent or approval of any other Person, is necessary for the execution of this Support Agreement by the Stockholder and (b) none of the execution and delivery of this Support Agreement by the Stockholder, the performance of the Stockholder's obligations hereunder, the consummation by the Stockholder of the transactions contemplated hereby or compliance by the Stockholder with any of the provisions hereof shall (i) conflict with or result in any breach of the organizational documents of the Stockholder, (ii) result in, or give rise to, a violation or breach of or a default under any of the terms of any material Contract, understanding, agreement or other instrument or obligation to which the Stockholder is a party or by which the Stockholder or any of the Subject Shares or its assets may be bound or (iii) violate any applicable order, writ, injunction, decree, judgment, statute, rule or regulation, in each case except for any of the foregoing as would not reasonably be expected to prevent or materially delay the Stockholder's ability to perform its obligations under this Support Agreement.

SECTION 4.4 Finder's Fees. No investment banker, broker, finder or other intermediary is entitled, whether directly or indirectly, to a fee, commission or other benefit from Parent, Merger Sub or the Company in respect of this Support Agreement based upon any Contract made by or on behalf of the Stockholder.

SECTION 4.5 Reliance. The Stockholder has had the opportunity to review the Merger Agreement and this Support Agreement with counsel of the Stockholder's own choosing. The Stockholder has had an opportunity to review with its own tax advisors the tax consequences of the Merger and the Contemplated Transactions. The Stockholder understands that it must rely solely on its advisors and not on any statements or representations made by Parent, the Company or any of their respective Representatives with respect to the tax consequences of the Merger and the Contemplated Transactions. The Stockholder understands that such Stockholder (and not Parent, the Company or the Surviving Corporation) shall be responsible for such Stockholder's tax liability that may arise as a result of the Merger or the Contemplated Transactions. The Stockholder understands and acknowledges that Parent and the Company are entering into the Merger Agreement in reliance upon the Stockholder's execution, delivery and performance of this Support Agreement.

SECTION 4.6 No Litigation. As of the date of this Support Agreement, there is no Legal Proceeding pending or, to the knowledge of the Stockholder, threatened against the Stockholder that would reasonably be expected to prevent or materially delay the ability of the Stockholder to perform its obligations hereunder or consummate the transactions contemplated hereby.

ARTICLE V
TERMINATION

SECTION 5.1 Termination. This Support Agreement shall automatically terminate, and none of Parent, the Company or the Stockholder shall have any rights or obligations hereunder and this Support Agreement shall become null and void and have no effect upon the earliest to occur of: (a) the Effective Time; (b) the valid termination of the Merger Agreement in accordance with its terms; (c) any amendment to the Merger Agreement that reduces the amount, or changes the form of any consideration payable to the Stockholder in the Contemplated Transactions; (d) the time this Support Agreement is terminated upon the written agreement of the Stockholder, the Company and Parent; and (e) the End Date (as defined in the Merger Agreement in effect on the date hereof) provided that the Effective Time has not occurred on or before such date. The parties acknowledge that upon termination of this Support Agreement as permitted under and in accordance with the terms of this Support Agreement, no party to this Support Agreement shall have the right to recover any claim with respect to any losses suffered by such party in connection with such termination, and no party shall have any further obligations or liabilities under this Support Agreement, subject to the following sentence. Notwithstanding anything to the contrary herein, (i) nothing set forth in this Section 5.1 shall relieve any party from liability for any willful breach of this Support Agreement prior to termination hereof, and (ii) the provisions of this Article V and of Article VI (other than Section 6.1) shall survive the termination of this Support Agreement.

ARTICLE VI
MISCELLANEOUS

SECTION 6.1 Further Actions. Subject to the terms and conditions set forth in this Support Agreement, the Stockholder agrees to take any and all actions and to do all things reasonably necessary to effectuate this Support Agreement. If the Stockholder is a married individual, his or her spouse shall deliver the spousal consent attached hereto as Exhibit A unless such Stockholder can demonstrate to Parent's and the Company's reasonable satisfaction that his or her spouse does not have any community property interests in the Subject Shares.

SECTION 6.2 Fees and Expenses. Except as otherwise specifically provided herein, each party shall bear its own fees and expenses in connection with this Support Agreement and the transactions contemplated hereby.

SECTION 6.3 Amendments, Waivers, etc. This Support Agreement may not be amended except by an instrument in writing signed by all the parties hereto and specifically referencing this Support Agreement. No failure on the part of any party to exercise any power, right privilege or remedy under this Support Agreement, and no delay on the part of any party in exercising any power, right, privilege or remedy under this Support Agreement, shall operate as a waiver of such power, right, privilege or remedy, and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy. No party shall be deemed to have waived any claim arising out of this Support Agreement, or any power, right, privilege or remedy under this Support Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such party and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

SECTION 6.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic confirmation of delivery) prior to 5:00 p.m. New York time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

If to the Company, to

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

with a copy to (which shall not constitute notice):

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

If to Parent, to

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

with a copy to (which shall not constitute notice):

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

If to the Stockholder, to the address or electronic mail address set forth on the signature pages hereto or to such other Person or address as any party shall specify by written notice so given.

SECTION 6.5 Interpretation; Construction. Headings of the Articles and Sections of this Support Agreement are for convenience of the parties only, and shall be given no substantive or interpretive effect whatsoever. Except as otherwise indicated, all references in this Support Agreement to "Exhibits", "Sections" or "Schedules" are intended to refer to Sections of this Support Agreement and the Exhibits or Schedules to this Support Agreement. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Support Agreement. As used in this Support Agreement, the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation." For purposes of this Support Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

SECTION 6.6 Severability. Any term or provision of this Support Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Support Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Support Agreement is invalid or unenforceable, the parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Support Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

SECTION 6.7 Entire Agreement; Assignment. This Support Agreement constitutes the entire agreement, and supersedes all other prior agreements and understandings, both written and oral, between the parties, or any of them, with respect to the subject matter hereof; *provided*, *however*, that, as between the Company and Parent, to the extent of any conflict between the Merger Agreement and this Support Agreement, the terms of the Merger Agreement shall control and supersede any such conflicting terms. This Support Agreement will be binding upon, inure to the benefit of and be enforceable by the parties hereto and their respective successors and permitted assigns, and, in the case of Stockholder, such Persons to which record or beneficial ownership of the Stockholder's Subject shares shall pass; *provided, however*, that neither this Support Agreement nor any of the rights, interests or obligations hereunder shall be assigned or delegated by any of the parties hereto (whether by operation of law or otherwise) without the prior written consent of the other parties, except that, without consent, each of Parent and the Company may assign all or any of its rights and obligations hereunder to any of its Affiliates that assume the rights and obligations of such party under the Merger Agreement, and any attempted assignment or delegation of this Support Agreement or any of the rights, interests or obligations by any of the parties without the other parties prior written consent shall be void and of no effect.

SECTION 6.8 Governing Law. THIS SUPPORT AGREEMENT AND ALL QUESTIONS RELATING TO THE INTERPRETATION OR ENFORCEMENT OF THIS SUPPORT AGREEMENT SHALL BE DEEMED

TO BE MADE IN AND IN ALL RESPECTS SHALL BE INTERPRETED, CONSTRUED AND GOVERNED BY AND IN ACCORDANCE WITH THE LAW OF THE STATE OF DELAWARE WITHOUT REGARD TO THE CONFLICTS OF LAW PRINCIPLES THEREOF TO THE EXTENT THAT SUCH PRINCIPLES WOULD DIRECT A MATTER TO ANOTHER JURISDICTION.

SECTION 6.9 Specific Performance. The parties hereto acknowledge that any breach of this Support Agreement would give rise to irreparable harm for which monetary damages, even if applicable, would not be an adequate remedy, and would occur in the event that any party does not perform the provisions of this Support Agreement (including failing to take such actions as are required of it hereunder to consummate the transactions contemplated hereby) in accordance with its specified terms or otherwise breaches such provisions. Accordingly, the parties shall be entitled to a decree of specific performance, an injunction or other equitable relief to prevent breaches or threatened breaches of any of the provisions of this Support Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Each of the parties agrees that it will not oppose the granting of specific performance, an injunction or other equitable relief on the basis that any other party has an adequate remedy at law or that any award of specific performance or other equitable relief is not an appropriate remedy for any reason at law or in equity. Any party seeking an injunction or injunctions to prevent breaches of this Support Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

SECTION 6.10 Submission to Jurisdiction. The parties hereby (a) irrevocably and unconditionally submit to the exclusive personal jurisdiction and venue of the Court of Chancery of the State of Delaware, New Castle County, or, if the Chancery Court declines jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware, (b) agree that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (a) of this Section 6.10, (c) waive any objection to laying venue in any such action or proceeding in such courts, (d) waive any objection that such courts are an inconvenient forum or do not have jurisdiction over any party, and (e) agree that service of process upon such party in any such action or proceeding shall be effective if notice is given in accordance with Section 6.4 of this Support Agreement. Nothing in this Section 6.10, however, shall affect the right of any person to serve legal process in any other manner permitted by Law.

SECTION 6.11 Waiver of Jury Trial. EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (i) ARISING UNDER THIS SUPPORT AGREEMENT OR (ii) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO IN RESPECT OF THIS SUPPORT AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES TO THIS SUPPORT AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OF A COPY OF THIS SUPPORT AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

SECTION 6.12 Counterparts. This Support Agreement may be executed in two or more counterparts (including by facsimile transmission or other means of electronic transmission, such as by electronic mail in "pdf" form), each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and shall become effective when one or more counterparts have been signed by each of the parties and delivered (by facsimile or otherwise) to the other parties.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company, Parent and the Stockholder have caused this Support Agreement to be duly executed as of the day and year first above written.

CARISMA THERAPEUTICS INC.

By: _____
Name:
Title:

SESEN BIO, INC.

By: _____
Name:
Title:

STOCKHOLDER

By: _____
Name:
Title:

Address:

Electronic Mail Address:

[Signature Page to Stockholder Support Agreement]

Exhibit A

Form of Spousal Consent

I acknowledge that I have read the Stockholder Support Agreement (to which this consent is attached) and that I know and understand, and have been fully advised by my attorney with respect to, its contents. As the spouse of the Stockholder, I hereby agree: (i) that all shares of capital stock, all options, all warrants and all additional securities of the Company held by the Stockholder, and all other rights with respect to the capital stock of the Company held by the Stockholder, and my interest in such shares, options, warrants, additional securities and other rights, if any, are subject to the provisions of the Stockholder Support Agreement and the Merger Agreement (as defined in the Stockholder Support Agreement), which I consent to; and (ii) that I will take no action at any time to hinder the operation of the Stockholder Support Agreement or the Merger Agreement.

SIGNATURE OF SPOUSE:

_____

Printed Name: _____

Schedule I

Ownership of Shares

Name and Address of Stockholder	Number of Shares of Common Stock	Number of Shares of Preferred Stock
[·]	[·]	[·]

ANNEX D

FORM OF PARENT STOCKHOLDER SUPPORT AGREEMENT

This STOCKHOLDER SUPPORT AGREEMENT (this "***Support Agreement***") is entered into as of [ ], 2022, among CARISMA Therapeutics Inc., a Delaware corporation (the "***Company***"), Sesen Bio, Inc., a Delaware corporation ("***Parent***"), and the undersigned stockholder (the "***Stockholder***") of Parent.

WHEREAS, as of the date hereof, the Stockholder is the sole record owner of and has the sole power to vote (or to direct the voting of) the number of shares of common stock, par value $0.001 per share, of Parent (the "***Common Stock***"), set forth opposite the Stockholder's name on Schedule I hereto (such Common Stock, together with any other shares of Parent that are hereafter issued to or otherwise acquired or owned by, including upon exercise of options or securities convertible into or exercisable or exchangeable for Common Stock (the "***Shares***"), the voting power of which is acquired by such Stockholder during the Voting Period (as defined below), are collectively referred to herein as the "***Subject Shares***");

WHEREAS, the Company, Parent, and Seahawk Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("***Merger Sub***"), are concurrently entering into an Agreement and Plan of Merger and Reorganization, dated on or about the date hereof (as amended from time to time, the "***Merger Agreement***"), pursuant to which Merger Sub shall be merged with and into the Company, with the Company continuing as the surviving corporation and as a wholly-owned subsidiary of Parent (the "***Merger***");

WHEREAS, the adoption of the Merger Agreement and the transactions contemplated thereby requires the written consent or affirmative vote of (i) the holders of a majority of the outstanding shares of Common Stock entitled to vote on the record date for the Parent Stockholders' Meeting and (ii) the holders of a majority in voting power of the votes cast by the holders of all shares of Common Stock present or represented by proxy at the Parent Stockholders' Meeting and entitled to vote thereon; and

WHEREAS, as a condition and inducement to the Company's willingness to enter into the Merger Agreement and consummate the transactions contemplated thereby, Parent and the Company have required the Stockholder to, as an inducement and in consideration therefor, and the Stockholder (in the Stockholder's capacity as holder of the Subject Shares) has agreed to, enter into this Support Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective representations, warranties, covenants and agreements set forth herein, the parties agree as follows:

ARTICLE I
DEFINITIONS

SECTION 1.1 Capitalized Terms.

(a) For purposes of this Support Agreement, capitalized terms used and not defined herein shall have the respective meanings ascribed to them in the Merger Agreement.

(b) ***"Expiration Time"*** shall mean the earliest to occur of (i) the Effective Time, (ii) any amendment to the Merger Agreement that reduces the amount, or changes the form of any consideration payable to the Stockholder in the transaction or otherwise materially and adversely affects the Stockholder and (iii) the date and time of the valid termination of the Merger Agreement in accordance with its terms.

(c) ***"Voting Period"*** shall mean such period of time between the date hereof and the Expiration Time.

ARTICLE II
VOTING AGREEMENT AND IRREVOCABLE PROXY

SECTION 2.1 Agreement to Vote. The Stockholder hereby agrees that, during the Voting Period, and at any duly called meeting of the stockholders of Parent (or any adjournment or postponement thereof), or in any other circumstances (including action by written consent of stockholders in lieu of a meeting) upon which a vote, adoption or other approval or consent with respect to the adoption of the Merger Agreement or the approval of the Merger and any of the transactions contemplated thereby is sought, the Stockholder, if a meeting is held, appear at the meeting, in person or by proxy, and shall provide a written consent (a "***Written Consent***") or vote (or cause to be voted), in person or by proxy, all of the Subject Shares, in each case (i) in favor of (A) any proposal to adopt and approve or reapprove the Merger Agreement and the transactions contemplated thereby, including (1) adoption and approval of the Merger Agreement and the Contemplated Transactions, (2) the issuance of shares of Common Stock to the Company's stockholders in connection with the Contemplated Transactions pursuant to the terms of the Merger Agreement, (3) the change of control of Parent resulting from the Merger pursuant to Nasdaq rules, (4) the approval of the Equity Plan Amendments, and (B) waiving any notice that may have been or may be required relating to the Merger or any of the other Contemplated Transactions (the "***Stockholder Approval Matters***"), and (ii) against any Acquisition Proposal and any action in furtherance of any such Acquisition Proposal.

SECTION 2.2 Grant of Irrevocable Proxy. In the event and to the extent that the Stockholder fails to vote the Subject Shares in accordance with Section 2.1 at any applicable meeting of the stockholders of Parent or pursuant to any applicable meeting of the stockholders of Parent or pursuant to any applicable written consent of the stockholders of Parent, the Stockholder hereby appoints Parent and any designee of Parent, and each of them individually, as the Stockholder's proxy, with full power of substitution and re-substitution, to vote, including by executing written consents, during the Voting Period with respect to any and all of the Subject Shares on the matters and in the manner specified in Section 2.1. The Stockholder shall take all further action or execute such other instruments as may be necessary to effectuate the intent of any such proxy. The Stockholder affirms that the irrevocable proxy given by it hereby with respect to the Merger Agreement and the Contemplated Transactions is given to Parent by the Stockholder to secure the performance of the obligations of the Stockholder under this Support Agreement. It is agreed that Parent (and its designees) will use the irrevocable proxy that is granted by the Stockholder hereby only in accordance with applicable Laws and that, to the extent Parent (and its designees) uses such irrevocable proxy, it will only vote (or sign written consents in respect of) the Subject Shares subject to such irrevocable proxy with respect to the matters specified in, and in accordance with the provisions of, Section 2.1.

SECTION 2.3 Nature of Irrevocable Proxy. The proxy granted pursuant to Section 2.2 to Parent by the Stockholder shall be irrevocable during the term of this Support Agreement, shall be deemed to be coupled with an interest sufficient in law to support an irrevocable proxy and shall revoke any and all prior proxies or powers of attorney granted by the Stockholder and no subsequent proxy or power of attorney shall be given or written consent executed (and if given or executed, shall not be effective) by the Stockholder with respect thereto. The proxy that may be granted hereunder shall terminate upon the termination of this Support Agreement, but shall survive the death or incapacity of the Stockholder and any obligation of the Stockholder under this Support Agreement shall be binding upon the heirs, personal representatives and successors of the Stockholder.

ARTICLE III
COVENANTS

SECTION 3.1 Subject Shares.

(a) The Stockholder agrees that (i) from the date hereof until the Expiration Time, it shall not, and shall not commit or agree to, without the prior written consent of Parent and the Company, directly or indirectly, whether by merger, consolidation or otherwise, offer for sale, sell (including short sales), transfer, tender, pledge, encumber, assign or otherwise dispose of (including by gift or by operation of law) (collectively, a "***Transfer***"), or enter into any contract, option, derivative, hedging or other agreement or arrangement or understanding (including any profit-sharing arrangement) with respect to, or consent to or permit, a Transfer of, any or all of the Subject Shares or any interest therein; and (ii) during the Voting Period, it shall not, and shall not commit or agree to, without the prior written consent of Parent and the Company, (A) grant any proxies or powers of attorney with respect to any or all of the Subject Shares or agree to vote (or sign written consents in respect of) the Subject Shares on any matter or divest itself of any voting rights in the Subject Shares that would conflict with the terms of this Support Agreement, or (B) take any action that would have the effect of preventing or disabling the Stockholder from performing its obligations under this Support Agreement. Notwithstanding the foregoing, the Stockholder may, at any time, Transfer its Subject Shares (1) by will or other testamentary document or by intestacy, (2) to any investment fund or other entity controlled or managed by the Stockholder or the investment

adviser or general partner of the Stockholder,, (3) to any member of the Stockholder′s immediate family, (4) to any trust for the direct or indirect benefit of the Stockholder or the immediate family of the Stockholder or otherwise for estate planning purposes or (5) to the extent required by applicable Law; *provided*, that the case of clauses (1)-(4), such permitted transferee shall have executed and delivered to Parent and the Company a support agreement substantially identical to this Support Agreement. The Stockholder agrees that any Transfer of Subject Shares not permitted hereby shall be null and void and that any such prohibited Transfer shall be enjoined. If any voluntary or involuntary Transfer of any Subject Shares covered hereby shall occur (including a sale by the Stockholder′s trustee in bankruptcy, or a sale to a purchaser at any creditor′s or court sale), the permitted transferee (which term, as used herein, shall include any and all transferees and subsequent transferees of the initial transferee) shall take and hold such Subject Shares subject to all of the restrictions, liabilities and rights under this Support Agreement, which shall continue in full force and effect.

(b) In the event of a stock dividend or distribution, or any change in the Subject Shares by reason of any stock dividend or distribution, split-up, recapitalization, combination, conversion, exchange of shares or the like, the term "***Subject Shares***" shall be deemed to refer to and include the Subject Shares as well as all such stock dividends and distributions and any securities into which or for which any or all of the Subject Shares may be changed or exchanged or which are received in such transaction. The Stockholder further agrees that, in the event the Stockholder purchases or otherwise acquires beneficial or record ownership of or an interest in, or acquires the right to vote or share in the voting of, any additional Shares, in each case after the execution of this Support Agreement and prior to the Expiration Time, the Stockholder shall deliver promptly to the Company and Parent written notice of such event, which notice shall state the number of additional Shares so acquired. The Stockholder agrees that any such additional Shares shall constitute Subject Shares for all purposes of this Support Agreement and shall be subject to the terms of this Support Agreement, including all covenants, agreements, obligations, representations and warranties set forth herein as if those additional Shares were owned by the Stockholder on the date of this Support Agreement.

SECTION 3.2 Stockholder's Capacity. All agreements and understandings made herein shall be made solely in the Stockholder′s capacity as a holder of the Subject Shares and not in any other capacity, including not in the Stockholder′s capacity as a director or officer of Parent. Notwithstanding anything herein to the contrary, nothing herein shall in any way restrict a director of Parent (including any director who is an Affiliate of the Stockholder) in the taking of any actions (or failure to act) solely in his or her capacity as a director of Parent, or in the exercise of his or her fiduciary duties as a director of Parent, or prevent or be construed to create any obligation on the part of any director of Parent from taking any action in his or her capacity as such director, and no action taken solely in any such capacity as a director of Parent shall be deemed to constitute a breach of this Support Agreement.

SECTION 3.3 Other Offers. Except to the extent Parent is permitted to take such action pursuant to the Merger Agreement, the Stockholder (in the Stockholder′s capacity as such) shall not, and shall instruct and cause its Representatives not to, take any of the following actions: (a) solicit, initiate, knowingly encourage or knowingly facilitate an Acquisition Proposal; (b) furnish any non-public information regarding Parent to any Person in connection with or in response to an Acquisition Proposal (except as required by applicable Law or pursuant to a request by a Governmental Body); (c) engage in, enter into, continue or otherwise participate in any discussions or negotiations with any Person with respect to, or otherwise knowingly cooperate in any way with any Person (or any representative thereof) with respect to, any Acquisition Proposal; (d) approve, endorse or recommend or publicly propose to approve, endorse or recommend, any Acquisition Proposal; or (e) enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction or publicly proposing to approve, endorse or recommend, any Acquisition Transaction; *provided*, *however*, that none of the foregoing restrictions shall apply to the Stockholder′s and its Representatives′ interactions with Parent, Merger Sub, the Company and their respective subsidiaries and Representatives; *provided*, *further*, that nothing in this Section 3.3 shall prevent the Stockholder from referring a Person to this Section 3.3 or to the Merger Agreement. Without limiting the foregoing, it is understood that any violation of the foregoing restrictions by any Representatives of the Stockholder shall be deemed to be a breach of this Section 3.3.

SECTION 3.4 Communications. During the Voting Period, the Stockholder shall not, and shall use its reasonable best efforts to cause its Representatives, if any, not to, directly or indirectly, make any press release, public announcement or other public communication that criticizes or disparages this Support Agreement or the Merger Agreement or any of the transactions contemplated hereby and thereby, without the prior written consent of Parent and the Company, except as may be required by applicable Law in which circumstance such announcing party shall consult with the Company and Parent to the extent legally permissible prior to any such disclosure; *provided*, that the foregoing shall not limit or affect any actions taken by the Stockholder (or any affiliated officer or director of Stockholder) that would be permitted to be taken by Stockholder pursuant to the Merger Agreement. The Stockholder hereby: (a) consents to and authorizes the publication and disclosure in all documents and schedules filed the with SEC, and any press release or other disclosure document that Parent or the Company reasonably determines to be necessary in connection with the Merger or any Contemplated Transaction of (i) the Stockholder′s identity, (ii) the Stockholder′s ownership of the Subject Shares, (iii) this

Support Agreement and (iv) the nature of the Stockholder's commitments, arrangements and understandings under this Support Agreement; and (b) agrees as promptly as practicable to notify Parent, Merger Sub and the Company of any required corrections with respect to any written information supplied by the Stockholder specifically for use in any such disclosure document.

SECTION 3.5 Voting Trusts. Except for this Agreement, the Stockholder agrees that it will not, nor will it permit any entity under its control to, deposit any of its Subject Shares in a voting trust or subject any of its Subject Shares to any arrangement with respect to the voting of such Subject Shares that would restrict the Stockholder from performing its obligations under this Support Agreement.

SECTION 3.6 Waiver of Appraisal Rights. The Stockholder hereby irrevocably and unconditionally waives, and agrees not to assert, exercise or perfect (or attempt to exercise, assert or perfect) any rights of appraisal or rights to dissent from the Merger or quasi-appraisal rights that it may at any time have under applicable Laws, including Section 262 of the DGCL. The Stockholder agrees not to commence, join in, facilitate, assist or encourage, and agrees to take all actions necessary to opt out of any class in any class action with respect to, any claim, derivative or otherwise, against Parent, Merger Sub, the Company or any of their respective successors, directors or officers, (a) challenging the validity, binding nature or enforceability of, or seeking to enjoin the operation of, this Support Agreement or the Merger Agreement, or (b) alleging a breach of any fiduciary duty of any Person in connection with the evaluation, negotiation, entry into or consummation of the Merger Agreement; *provided, however*, that (i) the Stockholder may defend against, contest or settle any action, claim, suit or cause of action brought against the Stockholder that relates solely to the Stockholder's capacity as a director, officer or securityholder of Parent and (ii) the foregoing shall not limit or restrict in any manner the Stockholder from enforcing the Stockholder's rights under this Support Agreement and the other agreements entered into by the Stockholder in connection herewith, or otherwise in connection with the Merger, including the Stockholder's right to receive the Merger Consideration pursuant to the terms of the Merger Agreement.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF STOCKHOLDER

The Stockholder hereby represents and warrants to Parent and the Company as follows:

SECTION 4.1 Due Authorization, etc. The Stockholder is a natural person, corporation, limited partnership or limited liability company. If the Stockholder is a corporation, limited partnership or limited liability company, Stockholder is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated, organized or constituted. The Stockholder has all necessary power and authority to execute and deliver this Support Agreement, perform the Stockholder's obligations hereunder and to consummate the transactions contemplated hereby. The execution and delivery by the Stockholder of this Support Agreement, the performance by the Stockholder's of its obligations hereunder and the consummation by the Stockholder of the transactions contemplated hereby have been duly authorized by all necessary action on the part of the Stockholder and no other proceedings on the part of the Stockholder are necessary to authorize this Support Agreement, or to consummate the transactions contemplated hereby. This Support Agreement has been duly executed and delivered by the Stockholder and (assuming the due authorization, execution and delivery by Parent and the Company) constitutes a valid and binding obligation of the Stockholder, enforceable against the Stockholder in accordance with its terms, except to the extent enforcement is limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar Laws of general applicability relating to or affecting creditors' rights and by general equitable principles.

SECTION 4.2 Ownership of Shares. Schedule I hereto sets forth opposite the Stockholder's name the Shares over which the Stockholder has record ownership as of the date hereof. As of the date hereof, the Stockholder is the lawful record owner of the Shares denoted as being owned by the Stockholder on Schedule I hereto, has the power to vote or cause to be voted such Shares and has the power to dispose of, or cause to be disposed, such Shares (other than, if the Stockholder is a partnership or a limited liability company, the rights and interest of Persons that own partnership interests or units in the Stockholder under the partnership agreement or operating agreement governing the Stockholder and applicable partnership or limited liability company law, or if the Stockholder is a married individual and resides in a state with community property laws, the community property interest of his or her spouse to the extent applicable under such community property laws, which spouse hereby consents to this Support Agreement by executing the spousal consent attached hereto as Exhibit A). The Stockholder has, and will at all times up until the Expiration Time have, good and valid title to the Shares denoted as being owned by the Stockholder on Schedule I hereto, free and clear of any and all pledges, mortgages, liens, charges, proxies, voting agreements encumbrances, adverse claims, options, security interests and demands of any nature or kind whatsoever, other than (a) those created by this Support Agreement, (b) those existing under applicable securities laws and (c) those that would not adversely affect the Stockholder's ability to perform its obligations under this Support Agreement.

Without limiting the generality of the foregoing, no Person has any contractual or other right or obligation to purchase or otherwise acquire any of the Shares, and no Shares are subject to any proxy, voting trust or other agreement or arrangement with respect to the voting of the Shares except as provided hereunder.

SECTION 4.3 No Conflicts. (a) No filing with any Governmental Body, and no authorization, consent or approval of any other Person, is necessary for the execution of this Support Agreement by the Stockholder and (b) none of the execution and delivery of this Support Agreement by the Stockholder, the performance of the Stockholder's obligations hereunder, the consummation by the Stockholder of the transactions contemplated hereby or compliance by the Stockholder with any of the provisions hereof shall (i) conflict with or result in any breach of the organizational documents of the Stockholder, (ii) result in, or give rise to, a violation or breach of or a default under any of the terms of any material Contract, understanding, agreement or other instrument or obligation to which the Stockholder is a party or by which the Stockholder or any of the Subject Shares or its assets may be bound or (iii) violate any applicable order, writ, injunction, decree, judgment, statute, rule or regulation, except for any of the foregoing as would not reasonably be expected to impair the Stockholder's ability to perform its obligations under this Support Agreement.

SECTION 4.4 Finder's Fees. No investment banker, broker, finder or other intermediary is entitled, whether directly or indirectly, to a fee, commission or other benefit from Parent, Merger Sub or the Company in respect of this Support Agreement based upon any Contract made by or on behalf of the Stockholder.

SECTION 4.5 Reliance. The Stockholder has had the opportunity to review the Merger Agreement and this Support Agreement with counsel of the Stockholder's own choosing. The Stockholder has had an opportunity to review with its own tax advisors the tax consequences of the Merger and the Contemplated Transactions. The Stockholder understands that it must rely solely on its advisors and not on any statements or representations made by Parent, the Company or any of their respective Representatives with respect to the tax consequences of the Merger and the Contemplated Transactions. The Stockholder understands that such Stockholder (and not Parent, the Company or the Surviving Corporation) shall be responsible for such Stockholder's tax liability that may arise as a result of the Merger or the Contemplated Transactions. The Stockholder understands and acknowledges that Parent and the Company are entering into the Merger Agreement in reliance upon the Stockholder's execution, delivery and performance of this Support Agreement.

SECTION 4.6 No Litigation. As of the date of this Support Agreement, there is no Legal Proceeding pending or, to the knowledge of the Stockholder, threatened against the Stockholder that would reasonably be expected to impair the ability of the Stockholder to perform its obligations hereunder or consummate the transactions contemplated hereby.

ARTICLE V
TERMINATION

SECTION 5.1 Termination. This Support Agreement shall automatically terminate, and none of Parent, the Company or the Stockholder shall have any rights or obligations hereunder and this Support Agreement shall become null and void and have no effect upon the earliest to occur of: (a) the Effective Time; (b) the valid termination of the Merger Agreement in accordance with its terms; (c) any amendment to the Merger Agreement that reduces the amount, or changes the form of any consideration payable to the Stockholder in the Contemplated Transactions or otherwise materially and adversely affects the Stockholder; and (d) the time this Support Agreement is terminated upon the written agreement of the Stockholder, the Company and Parent. The parties acknowledge that upon termination of this Support Agreement as permitted under and in accordance with the terms of this Support Agreement, no party to this Support Agreement shall have the right to recover any claim with respect to any losses suffered by such party in connection with such termination, and no party shall have any further obligations or liabilities under this Support Agreement, subject to the following sentence. Notwithstanding anything to the contrary herein, (i) nothing set forth in this Section 5.1 shall relieve any party from liability for any willful breach of this Support Agreement prior to termination hereof, and (ii) the provisions of this Article V and of Article VI shall survive the termination of this Support Agreement.

ARTICLE VI
MISCELLANEOUS

SECTION 6.1 Further Actions. Subject to the terms and conditions set forth in this Support Agreement, the Stockholder agrees to take any all actions and to do all things reasonably necessary to effectuate this Support Agreement. If the Stockholder is a married individual, his or her spouse shall deliver the spousal consent attached hereto as Exhibit A unless such Stockholder can demonstrate to

Parent's and the Company's reasonable satisfaction that his or her spouse does not have any community property interests in the Subject Shares.

SECTION 6.2 Fees and Expenses. Except as otherwise specifically provided herein, each party shall bear its own fees and expenses in connection with this Support Agreement and the transactions contemplated hereby.

SECTION 6.3 Amendments, Waivers, etc. This Support Agreement may not be amended except by an instrument in writing signed by all the parties hereto and specifically referencing this Support Agreement. No failure on the part of any party to exercise any power, right privilege or remedy under this Support Agreement, and no delay on the part of any party in exercising any power, right, privilege or remedy under this Support Agreement, shall operate as a waiver of such power, right, privilege or remedy, and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy. No party shall be deemed to have waived any claim arising out of this Support Agreement, or any power, right, privilege or remedy under this Support Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such party and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

SECTION 6.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic confirmation of delivery) prior to 5:00 p.m. New York time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

If to the Company, to

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

with a copy to (which shall not constitute notice):

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

If to Parent, to

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

with a copy to (which shall not constitute notice):

[ ]
[ ]
[ ]
Attn: [ ]
Email: [ ]

If to the Stockholder, to the address or electronic mail address set forth on the signature pages hereto or to such other Person or address as any party shall specify by written notice so given.

SECTION 6.5 Interpretation; Construction. Headings of the Articles and Sections of this Support Agreement are for convenience of the parties only, and shall be given no substantive or interpretive effect whatsoever. Except as otherwise indicated, all references in this Support Agreement to "Exhibits", "Sections" or "Schedules" are intended to refer to Sections of this Support Agreement and the Exhibits or Schedules to this Support Agreement. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Support Agreement. As used in this Support Agreement, the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation." For purposes of this Support Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

SECTION 6.6 Severability. Any term of provision of this Support Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Support Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Support Agreement is invalid or unenforceable, the parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Support Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

SECTION 6.7 Entire Agreement; Assignment. This Support Agreement constitutes the entire agreement, and supersedes all other prior agreements and understandings, both written and oral, between the parties, or any of them, with respect to the subject matter hereof; *provided*, *however*, that, as between the Company and Parent, to the extent of any conflict between the Merger Agreement and this Support Agreement, the terms of the Merger Agreement shall control and supersede any such conflicting terms. This Support Agreement will be binding upon, inure to the benefit of and be enforceable by the parties hereto and their respective successors and permitted assigns, and, in the case of Stockholder, such Persons to which record or beneficial ownership of the Stockholder's Subject shares shall pass; *provided, however*, that neither this Support Agreement nor any of the rights, interests or obligations hereunder shall be assigned or delegated by any of the parties hereto (whether by operation of law or otherwise) without the prior written consent of the other parties, except that, without consent, each of Parent and the Company may assign all or any of its rights and obligations hereunder to any of its Affiliates that assume the rights and obligations of such party under the Merger Agreement, and any attempted assignment or delegation of this Support Agreement or any of the rights, interests or obligations by any of the parties without the other parties prior written consent shall be void and of no effect.

SECTION 6.8 Governing Law. THIS SUPPORT AGREEMENT AND ALL QUESTIONS RELATING TO THE INTERPRETATION OR ENFORCEMENT OF THIS SUPPORT AGREEMENT SHALL BE DEEMED TO BE MADE IN AND IN

ALL RESPECTS SHALL BE INTERPRETED, CONSTRUED AND GOVERNED BY AND IN ACCORDANCE WITH THE LAW OF THE STATE OF DELAWARE WITHOUT REGARD TO THE CONFLICTS OF LAW PRINCIPLES THEREOF TO THE EXTENT THAT SUCH PRINCIPLES WOULD DIRECT A MATTER TO ANOTHER JURISDICTION.

SECTION 6.9 Specific Performance. The parties hereto acknowledge that any breach of this Support Agreement would give rise to irreparable harm for which monetary damages, even if applicable, would not be an adequate remedy, would occur in the event that any party does not perform the provisions of this Support Agreement (including failing to take such actions as are required of it hereunder to consummate the transactions contemplated hereby) in accordance with its specified terms or otherwise breaches such provisions. Accordingly, the parties shall be entitled to a decree of specific performance, an injunction or other equitable relief to prevent breaches or threatened breaches of any of the provisions of this Support Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Each of the parties agrees that it will not oppose the granting of specific performance, an injunction or other equitable relief on the basis that any other party has an adequate remedy at law or that any award of specific performance or other equitable relief is not an appropriate remedy for any reason at law or in equity. Any party seeking an injunction or injunctions to prevent breaches of this Support Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

SECTION 6.10 Submission to Jurisdiction. The parties hereby (a) irrevocably and unconditionally submit to the exclusive personal jurisdiction and venue of the Court of Chancery of the State of Delaware, New Castle County, or, if the Chancery Court declines jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware, (b) agree that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (a) of this Section 6.10, (c) waive any objection to laying venue in any such action or proceeding in such courts, (d) waive any objection that such courts are an inconvenient forum or do not have jurisdiction over any party, and (e) agree that service of process upon such party in any such action or proceeding shall be effective if notice is given in accordance with Section 6.4 of this Support Agreement. Nothing in this Section 6.10, however, shall affect the right of any person to serve legal process in any other manner permitted by Law.

SECTION 6.11 Waiver of Jury Trial. EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (i) ARISING UNDER THIS SUPPORT AGREEMENT OR (ii) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO IN RESPECT OF THIS SUPPORT AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES TO THIS SUPPORT AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OF A COPY OF THIS SUPPORT AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

SECTION 6.12 Counterparts. This Support Agreement may be executed in two or more counterparts (including by facsimile transmission or other means of electronic transmission, such as by electronic mail in "pdf" form), each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and shall become effective when one or more counterparts have been signed by each of the parties and delivered (by facsimile or otherwise) to the other parties.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company, Parent and the Stockholder have caused this Support Agreement to be duly executed as of the day and year first above written.

CARISMA THERAPEUTICS INC.

By: _____
Name:
Title:

SESEN BIO, INC.

By: _____
Name:
Title:

STOCKHOLDER

By: _____
Name:
Title:

Address:

Electronic Mail Address:

[Signature Page to Stockholder Support Agreement]

Exhibit A

Form of Spousal Consent

I acknowledge that I have read the Stockholder Support Agreement (to which this consent is attached) and that I know and understand, and have been fully advised by my attorney with respect to, its contents. As the spouse of the Stockholder, I hereby agree: (i) that all shares of capital stock, all options, all warrants and all additional securities of Parent held by the Stockholder, and all other rights with respect to the capital stock of Parent held by the Stockholder, and my interest in such shares, options, warrants, additional securities and other rights, if any, are subject to the provisions of the Stockholder Support Agreement and the Merger Agreement (as defined in the Stockholder Support Agreement), which I consent to; and (ii) that I will take no action at any time to hinder the operation of the Stockholder Support Agreement or the Merger Agreement.

SIGNATURE OF SPOUSE:

Printed Name: _____

Schedule I

Ownership of Shares

Name and Address of Stockholder	Number of Shares of Common Stock
[·]	[·]

ANNEX E

Sesen Bio, Inc.
245 First Cambridge Street, Suite 1800
Cambridge, MA 02142

Lock-Up Agreement

, 2022

This Lock-Up Agreement (this "***Lock-Up Agreement***") is executed in connection with the Agreement and Plan of Merger and Reorganization (the "***Merger Agreement***") by and among Sesen Bio, Inc. ("***Parent***"), Seahawk Merger Sub, Inc. ("***Merger Sub***"), and CARISMA Therapeutics Inc. (the "***Company***"), dated as of , 2022. Capitalized terms used herein but not defined shall have the meanings ascribed to such terms in the Merger Agreement.

In connection with, and as an inducement to, each of the parties entering into the Merger Agreement and to consummate the transactions contemplated thereby and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the undersigned, by executing this Lock-Up Agreement, irrevocably agrees that, without the prior written consent of Parent, during the period commencing at the Effective Time and continuing until the end of the Lock-Up Period (as hereinafter defined), the undersigned will not: (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of or lend, directly or indirectly, any shares of Parent Common Stock or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Parent Common Stock (including without limitation, Parent Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the SEC and securities of Parent which may be issued upon exercise of a stock option, restricted stock unit or warrant) whether now owned or hereafter acquired (collectively, the "***Parent Securities***"); (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Parent Securities, whether any such transaction described in clause (i) or this clause (ii) is to be settled by delivery of Parent Common Stock or such other securities, in cash or otherwise; (iii) make any demand for or exercise any right with respect to, the registration of any Parent Common Stock or any security convertible into or exercisable or exchangeable for Parent Common Stock (other than such rights set forth in the Merger Agreement); (iv) except for any voting agreement entered into as of the date hereof by the undersigned with Parent and the Company, grant any proxies or powers of attorney with respect to any Parent Securities, deposit any Parent Securities into a voting trust or enter into a voting agreement or similar arrangement or commitment with respect to any Parent Securities; or (v) publicly disclose the intention to do any of the foregoing (each of the foregoing restrictions, the "***Lock-Up Restrictions***").

Notwithstanding the terms of the foregoing paragraph, the Lock-Up Restrictions shall automatically terminate and cease to be effective on the date that is one-hundred and eighty (180) days after the Effective Time. The period during which the Lock-Up Restrictions apply to the Parent Securities shall be deemed the "***Lock-Up Period***" with respect thereto.

The undersigned agrees that the Lock-Up Restrictions preclude the undersigned from engaging in any hedging or other transaction with respect to any then-subject Parent Securities which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of such Parent Securities even if such Parent Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to such Parent Securities or with respect to any security that includes, relates to, or derives any significant part of its value from such Parent Securities.

Notwithstanding the foregoing, the undersigned may transfer any of the Parent Securities: (i) if the undersigned is a natural person, (1) to any person related to the undersigned (or to an ultimate beneficial owner of the undersigned) by blood or adoption who is an immediate family member of the undersigned, or a family member by marriage or domestic partnership (a "***Family Member***"), (2) as a *bona fide* gift or charitable contribution, (3) to any trust for the direct or indirect benefit of the undersigned or any Family Member of the undersigned, (4) to the undersigned's estate, following the death of the undersigned, by will, intestacy or other operation of law, (5) by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement, or (6) to any partnership, corporation, limited liability company, investment fund or other entity which is controlled by the undersigned and/or by any Family Member of the undersigned; (ii) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity, (1) to another corporation, partnership, limited liability company, trust or other business entity that controls, is controlled by or is under common control with the undersigned, or to direct or indirect affiliates (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned, including any investment funds or other entities that controls or manages, or is under common control or management with, or is controlled or managed by, the undersigned, (2) to current or former partners (general or limited), members or managers, limited liability company members or stockholders of the undersigned or holders of similar equity interests in the undersigned (including upon the liquidation and dissolution of the undersigned pursuant to a plan of liquidation approved by the undersigned's stockholders) or to the estates of any of the foregoing, (3) as a *bona fide* gift, donation or charitable contribution or otherwise to a trust or entity for the direct or indirect benefit of an immediate family member of a beneficial owner (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned's Parent Securities or (4) transfers of dispositions not involving a change in beneficial ownership; (iii) if the undersigned is a trust, to any grantors or beneficiaries of such trust; (iv) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under above clauses (i) through (iii); (v) to Parent in a transaction exempt from Section 16(b) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***") upon a vesting event of the Parent Securities or upon the exercise of options or warrants to purchase Parent Common Stock, including on a "cashless" or "net exercise" basis or to cover tax withholding obligations of the undersigned in connection with such vesting or exercise (but for the avoidance of doubt, excluding all manners of exercise that would involve a sale in the open market of any securities relating to such options or warrants, whether to cover the applicable aggregate exercise price, withholding tax obligations or otherwise); (vi) to Parent in connection with the termination of employment or other termination of a service provider and pursuant to agreements in effect as of the Effective Time whereby Parent has the option to repurchase such shares or securities; (vii) acquired by the undersigned in open market transactions or in a public offering by Parent after the Effective Time; (viii) pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of Parent's capital stock involving a change of control of Parent, *provided*, that in the event that such tender offer, merger, consolidation or other such transaction is not completed, the Parent Securities shall remain subject to the restrictions contained in this Lock-Up Agreement; or (ix) pursuant to an order of a court or regulatory agency; *provided*, that in the case of clauses (i)-(iv), that (A) such transfer shall not involve a disposition for value and (B) the transferee shall have executed and delivered a Lock-Up Agreement with terms and in a form substantially identical to this Lock-Up Agreement with respect to the Parent Securities so transferred. For purposes of this Agreement, "change of control" shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons, of shares of capital stock if, after such transfer, such person or group of affiliated persons would hold a majority of the outstanding voting securities of Parent (or the surviving entity).

In addition, the foregoing restrictions shall not apply to (i) the exercise of stock options granted pursuant to equity incentive plans existing immediately following the Effective Time, including the "net" or cashless exercise of such options in accordance with their terms and any related transfers of Parent Common Stock to Parent for purposes of paying the exercise price of such options or for paying taxes (including estimated taxes and withholding taxes) due as a result of such exercise; *provided*, that the restrictions set forth in this Lock-Up Agreement shall apply to any of the Parent Securities issued upon such exercise; or (ii) the establishment of any contract, instruction or plan (a "***Plan***") that satisfies the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"); *provided*, that such Plan does not provide for the transfer of Parent Common Stock or any securities convertible into or exercisable or exchangeable for Parent Common Stock during the Lock-Up Period; *provided, further*, that with respect to each of clauses (i) and (ii) above, no filing by any party under Section 16 of the Exchange Act or other public announcement shall be made voluntarily reporting a reduction in beneficial ownership of shares of Parent Common Stock or any securities convertible into or exercisable or exchangeable for Parent Common Stock in connection with such transfer or disposition during the Lock-Up Period (other than any exit filings) and if any filings under Section 16(a) of the Exchange Act, or other public

filing, report or announcement reporting a reduction in beneficial ownership of shares of Parent Common Stock in connection with such transfer or distribution, shall be legally required during the Lock-Up Period, such filing, report or announcement shall clearly indicate in the footnotes therein, in reasonable detail, a description of the circumstances of the transfer and that the shares remain subject to the Lock-Up Agreement, including a statement to the effect that no transfer of Parent Common Stock may be made under such Plan during the Lock-Up Period.

Any attempted transfer in violation of this Lock-Up Agreement will be of no effect and null and void, regardless of whether the purported transferee has any actual or constructive knowledge of the transfer restrictions set forth in this Lock-Up Agreement, and will not be recorded on the share register of Parent. In furtherance of the foregoing, the undersigned hereby agrees and consents to the entry of "stop transfer" instructions with Parent's transfer agent and registrar relating to the transfer of the undersigned's shares of Parent Common Stock in violation of this Lock-Up Agreement and further agrees that Parent and its transfer agent and registrar are hereby authorized to decline to make any transfer of shares of Parent Common Stock if such transfer would constitute a violation or breach of this Lock-Up Agreement.

Parent may cause the legend set forth below, or a legend substantially equivalent thereto, to be placed upon any certificate(s) or other documents, ledgers or instruments evidencing the undersigned's ownership of Parent Common Stock:

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO AND MAY ONLY BE TRANSFERRED IN COMPLIANCE WITH A LOCK-UP AGREEMENT, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY.

Upon the release of any Parent Common Stock from this Lock-Up Agreement, Parent will cooperate with the undersigned to facilitate the timely preparation and delivery of certificates or the establishment of book entry positions at the Parent's transfer agent representing the Parent Common Stock without the restrictive legend above and the withdrawal of any stop transfer instructions at the Parent's transfer agent.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement and that upon request, the undersigned will execute any additional documents reasonably necessary to ensure the validity or enforcement of this Lock-Up Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

In the event that during the Lock-Up Period any holder of Parent Securities that is subject to a substantially similar agreement entered into by such holder (such agreement, a "***Similar Agreement***"), other than the undersigned, is permitted by Parent or otherwise granted a release to sell or otherwise transfer or dispose of shares of Parent Common Stock for value other than as permitted by this or a substantially similar agreement entered into by such holder (whether in one or multiple releases), the same percentage of shares of Parent Common Stock held by the undersigned on the date of such release or waiver as the percentage of the total number of outstanding shares of Parent Common Stock held by such holder on the date of such release or waiver that are subject to such release or waiver shall be immediately and fully released on the same terms from any remaining restrictions set forth herein (the "***Pro-Rata Release***"). Parent will notify the undersigned of any Pro-Rata Release within ten business days of such release. Upon the release of any Parent Securities from this Lock-Up Agreement, Parent will promptly cooperate with the undersigned to facilitate the timely preparation and delivery of evidence of book-entry shares representing the Parent Securities without the restrictive legend above or the withdrawal of any stop transfer instructions.

This Lock-Up Agreement shall terminate automatically, and the undersigned shall automatically be released from all restrictions and obligations under this Lock-Up Agreement upon the earlier of (i) the expiration of the Lock-Up Period, (ii) if the Merger Agreement is terminated prior to the Effective Time pursuant to its terms, upon the date of such termination and (iii) the End Date (as defined in the Merger Agreement in effect on the date hereof) provided that the Effective Time has not occurred on or before such date.

This Lock-Up Agreement and any claim, controversy or dispute arising under or related to this Lock-Up Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to the conflict of laws principles thereof.

This Lock-Up Agreement, and any certificates, documents, instruments and writings that are delivered pursuant hereto, constitutes the entire agreement and understanding of Parent, the Company and the undersigned in respect of the subject matter hereof and supersedes all prior understandings, agreements or representations by or among Parent, the Company and the undersigned, written or oral, to the extent they relate in any way to the subject matter hereof. This Lock-Up Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by the undersigned by facsimile or electronic transmission in ".pdf" format shall be sufficient to bind the undersigned to the terms and conditions of this Lock-Up Agreement.

(*Signature Page Follows*)

The undersigned understands that Parent, Merger Sub and the Company are relying on this Lock-Up Agreement in entering into the Merger Agreement and proceeding toward consummation of the transactions contemplated thereby. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned and the heirs, personal representatives, successors and assigns of the undersigned.

Very truly yours,

_____
Printed Name of Holder

By: _____
Signature

_____
Printed Name of Person Signing
(and indicate capacity of person signing if signing
as custodian, trustee, or on behalf of an entity)

[*Lock-Up Agreement Signature Page]*

ANNEX F

CONTINGENT VALUE RIGHTS AGREEMENT

THIS CONTINGENT VALUE RIGHTS AGREEMENT, dated as of [·], 2022 (this "***Agreement***"), is entered into by and among Sesen Bio, Inc., a Delaware corporation ("***Parent***"), and [·], a [·], as Rights Agent.

RECITALS

WHEREAS, Parent, Seahawk Merger Sub, Inc., a Delaware corporation ("***Merger Sub***"), and CARISMA Therapeutics Inc., a Delaware corporation (the "***Company***"), have entered into an Agreement and Plan of Merger and Reorganization, dated as of [·], 2022 (as it may be amended or supplemented from time to time pursuant to the terms thereof, the "***Merger Agreement***"), pursuant to which Merger Sub will merge with and into the Company, with the Company surviving the Merger as a subsidiary of Parent; and

WHEREAS, pursuant to the Merger Agreement, Parent has agreed to provide to the holders of record of Parent's common stock, par value $0.001 per share ("***Parent Common Stock***"), immediately prior to the Effective Time, the right to receive certain contingent cash payments, on the terms and subject to the conditions hereinafter described.

NOW, THEREFORE, in consideration of the foregoing and the consummation of the transactions referred to above, Parent and Rights Agent agree, for the proportionate benefit of all Holders (as hereinafter defined), as follows:

1. DEFINITIONS; CERTAIN RULES OF CONSTRUCTION

1.1 Definitions. Capitalized terms used but not otherwise defined herein will have the meanings ascribed to them in the Merger Agreement, unless expressly set forth otherwise herein. As used in this Agreement, the following terms will have the following meanings:

"***Acquiror***" has the meaning set forth in Section 6.3(a).

"***Acquisition***" has the meaning set forth in Section 6.3(a).

"***Acting Holders***" has the meaning set forth in Section 3.3(d)

"***Affiliate***" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. The term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"***Agreement***" has the meaning set forth in the Preamble.

"***Assignee***" has the meaning set forth in Section 6.3(a).

"***Board of Directors***" means the board of directors of Parent.

"***Board Resolution***" means a copy of the resolution(s) that have been duly adopted by the Board of Directors and are in full force and effect on the date of such approval, and delivered to the Rights Agent.

"***Business Day***" means any day other than a Saturday, Sunday or other day on which banks in New York, New York are authorized or obligated by Law to be closed.

"***Company***" has the meaning set forth in the Recitals.

"***CVR Payment***" has the meaning set forth in Section 2.4(a).

"***CVR Payment Amount***" means, with respect to each Holder, an amount equal to (a) (i) the Roche Payment Amount, less (ii) less applicable accrued and documented Permitted Deductions, as calculated in accordance with GAAP divided by (b) the total number of

CVRs and then multiplied by the total number of CVRs held by such Holder as reflected on the CVR Register (rounded down to the nearest whole cent).

"***CVR Register***" has the meaning set forth in Section 2.3(b).

"***CVR Term***" means the period beginning on the date hereof and ending on the earlier of (a) the CVR Payment being delivered to each Holder in accordance with Section 2.4 of this Agreement, and (b) March 31, 2027.

"***CVRs***" means the rights of Holders to receive contingent cash payments pursuant to the Merger Agreement and this Agreement.

"***DTC***" means The Depository Trust Company or any successor thereto.

"***Funds***" has the meaning set forth in Section 6.9.

"***Holder***" means a Person in whose name a CVR is registered in the CVR Register at the applicable time.

"***Merger Agreement***" has the meaning set forth in the Recitals.

"***Merger Sub***" has the meaning set forth in the Recitals.

"***Officer's Certificate***" means a certificate signed by the chief executive officer, president, chief financial officer, any vice president, the controller, the treasurer or the secretary, in each case of Parent, in his or her capacity as such an officer, and delivered to the Rights Agent.

"***Parent***" has the meaning set forth in the Preamble.

"***Parent Common Stock***" has the meaning set forth in the Recitals.

"***Permitted Deductions***" means the following costs or expenses, without duplication:

(a) any applicable Tax (including any unreimbursed applicable value added or sales tax) imposed on the Roche Payment Amount and payable by Parent or any of its Affiliates to any tax authority and, without duplication, any income or other similar Taxes payable by Parent or any of its Affiliates that would not have been incurred by Parent or any of its Affiliates but for the Roche Payment Amount; provided that, for purposes of calculating income Taxes incurred by Parent and its Affiliates in respect of the Roche Payment Amount, any such income Taxes shall be computed after reduction for any net operating loss carryforwards or other Tax attributes (including Tax credits) of Parent or its subsidiaries (owned prior to the Merger) as of the Closing Date that are available to the maximum extent permitted by law to offset such gain after taking into account any limits on the usability of such attributes, including under Section 382 of the Code, in each case, as reasonably determined by a nationally recognized tax advisor (and for the sake of clarity such income taxes shall be calculated without taking into account any net operating losses or other Tax attributes generated by Parent or its subsidiaries after the Closing Date or any Tax attributes of the Company, whether generated before or after the Closing Date), assuming for this purpose that (i) the only item of gross income of Parent and its subsidiaries is the Roche Payment Amount (for the avoidance of doubt, assuming that the Roche Payment Amount is taxable in the hands of Parent or its subsidiaries no later than the taxable year that includes the corresponding CVR Payment), and (ii) the net operating loss carryforwards or other Tax attributes (including Tax credits) of Parent or its subsidiaries shall only include any net operating loss carryforwards or other Tax attributes (including Tax credits) of Parent or its subsidiaries (owned prior to the Merger) existing as of immediately prior to the Merger for U.S. federal income tax purposes and applicable state and local income tax purposes;

(b) any reasonable and documented out-of-pocket expenses incurred by Parent or any of its Affiliates in respect of its performance of this Agreement following the Effective Time, losses incurred and paid by Parent or any of its Affiliates following the Effective Time arising out of any Legal Proceeding relating to or in connection with Parent's, Roche's or any of their respective Affiliates' obligations under the Roche Agreement or otherwise with respect to the Roche Payment Amount; and

(c) any Liabilities that were ascertainable prior to or at the Effective Time which Parent reasonably and in good faith determines (with the approval of the Parent Designee (as defined in the Merger Agreement)) should have been, but were not, deducted from "Net Cash" (as defined in the Merger Agreement), in connection with the Closing of the Merger, to the extent that deduction of

such Liabilities would have resulted in a change in the Exchange Ratio under the Merger Agreement were such amounts properly deducted;

provided that no Permitted Deductions shall be deducted to the extent they were otherwise deducted from the calculation of Net Cash (as defined in the Merger Agreement).

"***Permitted Transfer***" means a transfer of CVRs: (a) on death of a Holder by will or intestacy; (b) by instrument to an inter vivos or testamentary trust in which the CVRs are to be passed to beneficiaries upon the death of the trustee; (c) pursuant to a court order; (d) made by operation of law (including a consolidation or merger) or without consideration in connection with the dissolution, liquidation or termination of any corporation, limited liability company, partnership or other entity; (e) in the case of CVRs held in book-entry or other similar nominee form, from a nominee to a beneficial owner (through an intermediary if applicable) or from a nominee to another nominee for the same beneficial owner, to the extent allowable by DTC; (f) a transfer from a participant's account in a tax-qualified employee benefit plan to the participant or to such participant's account in a different tax-qualified employee benefit plan or to a tax-qualified individual retirement account for the benefit of such participant; (g) to Parent or its Affiliates for any or no consideration; or (h) as provided in Section 2.6.

"***Person***" means any natural person, corporation, limited liability company, trust, unincorporated association, partnership, joint venture or other entity.

"***Record Time***" has the meaning set forth in Section 2.3(e).

"***Rights Agent***" means the Rights Agent named in the Preamble, until a successor Rights Agent will have become such pursuant to the applicable provisions of this Agreement, and thereafter "Rights Agent" will mean such successor Rights Agent.

"***Roche***" means the collective reference to F. Hoffman-La Roche Ltd and Hoffmann La Roche Inc. or its successors or any of its or their respective Affiliates; provided, that neither Chugai Pharmaceutical Co., Ltd, a Japanese corporation ("***Chugai***") nor its subsidiaries (if any) shall be deemed as Affiliates of Roche unless Roche provides written notice to Parent of its desire to include Chugai or its respective subsidiaries (as applicable) as Affiliate(s) of Roche.

"***Roche Agreement***" means that certain Asset Purchase Agreement, dated as of July 15, 2022, by and among F. Hoffman-La Roche Ltd, Hoffmann La Roche Inc. and Parent.

"***Roche Payment Amount***" means the thirty million dollar ($30,000,000) milestone payment to be made by Roche to Parent upon the initiation of a phase III clinical study in diabetic macular disorder with the compound known as "EBI-031" during the CVR Term, as set forth in Section 11.1 of the Roche Agreement.

"***Third Party***" means any Person other than Parent, Rights Agent or their respective Affiliates.

1.2 Rules of Construction. Except as otherwise explicitly specified to the contrary, (a) whenever the context requires, the singular number shall include the plural, and vice versa; (b) the masculine gender shall include the feminine gender and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter genders shall include masculine and feminine genders; (c) the word "extent" in the phrase "to the extent" means the degree to which a subject or other thing extends, and does not simply mean "if"; (d) the word "including" (in its various forms) means "including without limitation"; (e) references to a "Section" means a Section of this Agreement unless another agreement is specified; (f) references to a particular statute or regulation include all rules and regulations thereunder and any predecessor or successor statute, rules or regulation, in each case as amended or otherwise modified from time to time; (g) words in the singular or plural form include the plural and singular form, respectively; (h) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement; (i) the word "or" shall not be exclusive (i.e., "or" shall be deemed to mean "and/or") unless the subject of the conjunction are mutually exclusive; and (j) all references to dollars or "$" refer to United States dollars. For clarity, the parties agree that the phrase "materially adverse" when used in this Agreement with respect to the Holders includes any amendment or other action, as applicable, that does or would be reasonably expected to reduce, eliminate, or materially delay the Roche Payment Amount.

2. CONTINGENT VALUE RIGHTS

2.1 CVRs; Appointment of Rights Agent.

(a) Each Holder is entitled to one CVR in the form of a dividend for each share of Parent Common Stock held by such Holder as of the Record Time. The CVRs represent the rights of Holders to receive contingent cash payments pursuant to the Merger Agreement and this Agreement. The initial Holders will be the holders of Parent Common Stock as of immediately prior to the Effective Time.

(b) Parent hereby appoints the Rights Agent to act as rights agent for Parent as contemplated hereby in accordance with the express terms and conditions set forth in this Agreement (and no implied terms or conditions), and the Rights Agent hereby accepts such appointment.

(c) Parent intends to treat the issuance of the CVRs as a distribution of property by Parent to the holders of Parent Common Stock for U.S. federal income tax purposes. Consistent with such intended tax treatment, Parent will timely send Forms 1099-DIV to all Holders notifying them of the portion of the CVR value that is a nondividend distribution (or a dividend to the extent of Parent's earnings and profits) for U.S. federal income tax purposes, and take all necessary steps to file its tax returns and any information statements consistent with such tax treatment. Parent will determine, in consultation with and with the consent of the Parent Designee, the fair market value of the CVRs in connection with the issuance and Parent will utilize such fair market value for purposes of all tax reporting (including on Forms 1099-DIV) with respect to the CVR.

2.2 Nontransferable. The CVRs shall not be sold, assigned, transferred, pledged, encumbered or in any other manner transferred or disposed of, in whole or in part, other than through a Permitted Transfer. Any attempted sale, assignment, transfer, pledge, encumbrance, transfer or disposition, in whole or in part, that is not a Permitted Transfer will be void *ab initio* and of no effect.

2.3 No Certificate; Registration; Registration of Transfer; Change of Address.

(a) The CVRs will not be evidenced by a certificate or other instrument.

(b) The Rights Agent will create and keep a register (the "***CVR Register***") for the purpose of identifying the Holders and registering CVRs and transfers of CVRs as permitted herein. The CVR Register will be created, and CVRs will be distributed, pursuant to written instructions to the Rights Agent from Parent. The CVR Register will initially show one position for Cede & Co. representing all the CVRs provided to the holders of shares of Parent Common Stock held as of immediately prior to the Effective Time. The Rights Agent will have no responsibility whatsoever directly to the street name holders or DTC participants with respect to transfers of CVRs unless and until such CVRs are transferred into the name of such street name holders or DTC participants in accordance with Section 2.2 of this Agreement. With respect to any payments to be made under Section 2.4(a) below, the Rights Agent will accomplish the payment to any former street name holders of shares of Parent Common Stock by sending one lump payment to DTC. The Rights Agent will have no responsibilities whatsoever with regard to the distribution of payments by DTC to such street name holders.

(c) Subject to the restrictions on transferability set forth in Section 2.2, every request made to transfer a CVR must be in writing and accompanied by a written instrument of transfer in form reasonably satisfactory to the Rights Agent, duly executed by the Holder thereof or the Holder's attorney duly authorized in writing, personal representative or survivor and setting forth in reasonable detail the circumstances relating to the transfer. Upon receipt of such written notice, the Rights Agent will, subject to its reasonable determination that the transfer instrument is in proper form and the transfer otherwise complies with the other terms and conditions of this Agreement (including the provisions of Section 2.2), register the transfer of the CVRs in the CVR Register and notify Parent of the same. No service charge shall be made for any registration of transfer of a CVR; however Parent and the Rights Agent may require payment of a sum sufficient to cover any stamp or other tax or governmental charge that is imposed in connection with any such registration of transfer. The Rights Agent shall have no duty or obligation to take any action under any section of this Agreement that requires the payment by a Holder of applicable taxes or charges unless and until the Rights Agent is satisfied that all such taxes or charges have been paid or will be paid. All duly transferred CVRs registered in the CVR Register will be the valid obligations of Parent and will entitle the transferee to the same benefits and rights under this Agreement as those held immediately prior to the transfer by the transferor. No transfer of a CVR will be valid until registered in the CVR Register.

(d) A Holder may make a written request to the Rights Agent to change such Holder's address of record in the CVR Register. The written request must be duly executed by the Holder. Upon receipt of such written request, the Rights Agent will promptly record the change of address in the CVR Register.

(e) Parent will provide written instructions to the Rights Agent for the distribution of CVRs to holders of Parent Common Stock as of immediately prior to the Effective Time (the "***Record Time***"). Subject to the terms and conditions of this Agreement and Parent's prompt confirmation of the Effective Time, the Rights Agent shall effect the distribution of the CVRs, less any applicable tax withholding, to each holder of Parent Common Stock as of the Record Time by the mailing of a statement of holding reflecting such CVRs.

2.4 Payment Procedures.

(a) Within thirty (30) days after the receipt of the Roche Payment Amount, Parent shall (i) deliver to the Rights Agent a certificate certifying to and specifying in reasonable detail the aggregate amount of (A) the Roche Payment Amount received by Parent or its Affiliates, (B) a calculation of the CVR Payment Amount and CVR Payment, and (C) the Permitted Deductions reflected in such CVR Payment Amount, and (ii) deliver to the Rights Agent an amount equal to the aggregate CVR Payment Amount in immediately available funds (the "***CVR Payment***"). The Rights Agent will promptly, and in any event within ten (10) Business Days after receipt of the CVR Payment, pay to each Holder, by check mailed to the address of each Holder as reflected in the CVR Register as of the close of business on the date of the receipt of the CVR Payment statement, such Holder's CVR Payment Amount less any applicable tax withholding.

(b) All payments by Parent to the Rights Agent under this Agreement shall be made in U.S. dollars.

(c) Parent and the Rights Agent shall be entitled to deduct and withhold from any CVR Payment Amount otherwise payable or otherwise deliverable pursuant to this Agreement, in each case directly or through an authorized payroll agent, such amounts as are reasonably determined to be required to be deducted or withheld therefrom under the Code or any other provision of any applicable federal, state, local or non-U.S. Tax Law. To the extent such amounts are so deducted or withheld and paid over or deposited with the relevant Tax authority, such amounts shall be treated for all purposes under this Agreement as having been paid to the Holder(s) to whom such amounts would otherwise have been paid or delivered. Prior to making any such Tax withholdings or causing any such Tax withholdings to be made with respect to any Holder, the Rights Agent shall, to the extent practicable, provide notice to the Holder of such potential withholding and a reasonable opportunity for the Holder to provide any necessary Tax forms (including an IRS Form W-9 or an applicable IRS Form W-8) in order to avoid or reduce such withholding amounts; provided, that the time period for payment of a CVR Payment Amount by the Rights Agent set forth in Sections 2.4(a) shall be extended by a period equal to any delay caused by the Holder providing such forms; provided, further, that in no event shall such period be extended for more than ten (10) Business Days, unless otherwise requested by the Holder for the purpose of delivering such forms and agreed to by the Rights Agent.

(d) Any portion of any CVR Payment that remains undistributed to the Holders six (6) months after the CVR Payment is received by the Rights Agent from the Parent, provided, that the Rights Agent has fully complied with Section 2.4(a), will be delivered by the Rights Agent to Parent, upon demand, and any Holder will thereafter look only to Parent for payment of its share of such returned CVR Payment, without interest.

(e) Neither Parent nor the Rights Agent will be liable to any person in respect of any CVR Payment Amount delivered to a public official pursuant to any applicable abandoned property, escheat or similar Law. If, despite Parent's and/or the Rights Agent's reasonable best efforts to deliver a CVR Payment Amount to the applicable Holder, such CVR Payment Amount has not been paid immediately prior to the date on which such CVR Payment Amount would otherwise escheat to or become the property of any Governmental Body, any such CVR Payment Amount will, to the extent permitted by applicable Law, become the property of Parent, free and clear of all claims or interest of any person previously entitled thereto. In addition to and not in limitation of any other indemnity obligation herein, Parent agrees to indemnify and hold harmless the Rights Agent with respect to any liability, penalty, cost or expense the Rights Agent may incur or be subject to in connection with transferring such property to Parent.

2.5 No Voting, Dividends or Interest; No Equity or Ownership Interest in Parent.

(a) The CVRs will not have any voting or dividend rights, and interest will not accrue on any amounts payable on the CVRs to any Holder.

(b) The CVRs will not represent any equity or ownership interest in Parent or in any constituent company to the Merger. The sole right of the Holders to receive property hereunder is the right to receive the CVR Payment in accordance with the terms hereof. It is hereby acknowledged and agreed that a CVR shall not constitute a security of Parent or any constitutent company to the Merger.

2.6 Ability to Abandon CVR. A Holder may at any time, at such Holder's option, abandon all of such Holder's remaining rights in a CVR by transferring such CVR to Parent without consideration therefor, and such rights will be cancelled, with the Rights Agent being promptly notified in writing by Parent of such transfer and cancellation. Nothing in this Agreement is intended to prohibit Parent from offering to acquire CVRs, in a private transaction or otherwise, for consideration in its sole discretion.

3. THE RIGHTS AGENT

3.1 Certain Duties and Responsibilities. The Rights Agent will not have any liability for any actions taken or not taken in connection with this Agreement, except to the extent of its willful misconduct, bad faith or gross negligence.

3.2 Certain Rights of Rights Agent. The Rights Agent undertakes to perform such duties and only such duties as are specifically set forth in this Agreement, and no implied covenants or obligations will be read into this Agreement against the Rights Agent. In addition:

(a) the Rights Agent may rely and will be protected by Parent in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other paper or document believed by it in good faith to be genuine and to have been signed or presented by the proper party or parties;

(b) whenever the Rights Agent will deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Rights Agent may, in the absence of bad faith, gross negligence or willful misconduct on its part, request and rely upon an Officer's Certificate with respect to such matter;

(c) the Rights Agent may engage and consult with counsel of its selection and the written advice of such counsel or any opinion of counsel will be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(d) the permissive rights of the Rights Agent to do things enumerated in this Agreement will not be construed as a duty;

(e) the Rights Agent will not be required to give any note or surety in respect of the execution of such powers or otherwise in respect of the premises;

(f) Parent agrees to indemnify Rights Agent for, and hold Rights Agent harmless against, any loss, liability, claim, demands, suits or expense arising out of or in connection with Rights Agent's duties under this Agreement, including the reasonable and documented out-of-pocket costs and expenses of defending the Rights Agent against any claims, charges, demands, suits or loss, unless such loss has been determined by a court of competent jurisdiction to be a result of Rights Agent's gross negligence, bad faith or willful or intentional misconduct; and

(g) Parent agrees (i) to pay the fees and expenses of the Rights Agent in connection with the Rights Agent's duties under this Agreement as agreed upon in writing by the Rights Agent and Parent on or prior to the date hereof, and (ii) to reimburse the Rights Agent for all taxes and governmental charges, reasonable and documented out-of-pocket expenses and other charges of any kind and nature incurred by the Rights Agent in the execution of this Agreement (other than taxes imposed on or measured by the Rights Agent's net income and franchise or similar taxes imposed on it (in lieu of net income taxes)). The Rights Agent will also be entitled to reimbursement from Parent for all reasonable and documented out-of-pocket expenses paid or incurred by it in connection with the administration by the Rights Agent of its duties hereunder. Notwithstanding the foregoing, Parent shall have no obligation to pay the fees of the Rights Agent or reimburse the Rights Agent for the fees of counsel, in each case in connection with any lawsuit initiated by the Rights Agent on behalf of itself or the Holders, except in the case of any suit enforcing the provisions of Section 2.4(a) or Section 3.2(f).

3.3 Resignation and Removal; Appointment of Successor.

(a) The Rights Agent may resign at any time by giving written notice thereof to Parent specifying a date when such resignation will take effect, which notice will be sent at least sixty (60) days prior to the date so specified, and such resignation will

become effective on the earlier of (i) the date so specified and (ii) the appointment of a successor Rights Agent. Parent has the right to remove the Rights Agent at any time by a Board Resolution specifying a date when such removal will take effect (or, if earlier, the appointment of the successor Rights Agent). Notice of such removal will be given by Parent to the Rights Agent, which notice will be sent at least sixty (60) days prior to the date so specified.

(b) If the Rights Agent provides notice of its intent to resign, is removed or becomes incapable of acting, Parent, by a Board Resolution, will as soon as is reasonably possible appoint a qualified successor Rights Agent who shall be a stock transfer agent or national reputation or the corporate trust department of a commercial bank. The successor Rights Agent so appointed will, forthwith upon its acceptance of such appointment in accordance with Section 3.4, become the successor Rights Agent.

(c) Parent will give notice to each Holder of each resignation and each removal of a Rights Agent and each appointment of a successor Rights Agent by mailing written notice of such event by first-class mail to the Holders as their names and addresses appear in the CVR Register. Each notice will include the name and address of the successor Rights Agent. If Parent fails to send such notice within ten (10) Business Days after acceptance of appointment by a successor Rights Agent, the successor Rights Agent will cause the notice to be mailed at the expense of Parent.

(d) Notwithstanding anything to the contrary in this Section 3.3, unless consented to in writing by, at the applicable time of determination, Holders of at least 33% of the then outstanding CVRs, as set forth in the CVR Register (the "***Acting Holders***"), Parent will not appoint as a successor Rights Agent any Person that is not a stock transfer agent of national reputation or the corporate trust department of a commercial bank.

(e) The Rights Agent will reasonably cooperate with Parent and any successor Rights Agent in connection with the transition of the duties and responsibilities of the Rights Agent to the successor Rights Agent, including the transfer of all relevant data, including the CVR Register, to the successor Rights Agent, but such predecessor Rights Agent shall not be required to make any additional expenditure or assume any additional liability in connection with the foregoing.

3.4 Acceptance of Appointment by Successor. Every successor Rights Agent appointed hereunder will, at or prior to such appointment, execute, acknowledge and deliver to Parent and to the retiring Rights Agent an instrument accepting such appointment and a counterpart of this Agreement, and thereupon such successor Rights Agent, without any further act, deed or conveyance, will become vested with all the rights, powers, trusts and duties of the retiring Rights Agent. On request of Parent or the successor Rights Agent, the retiring Rights Agent will execute and deliver an instrument transferring to the successor Rights Agent all the rights (except such rights of the predecessor Rights Agent which survive pursuant to Section 3.3 of this Agreement), powers and trusts of the retiring Rights Agent.

4. COVENANTS

4.1 List of Holders. Parent will furnish or cause to be furnished to the Rights Agent in such form as Parent receives from Parent's transfer agent (or other agent performing similar services for Parent), the names and addresses of the Holders within ten (10) Business Days of the Effective Time.

4.2 Payment of CVR Payment Amounts. If the CVR Payment is due under Section 2.4(a), Parent will deposit the CVR Payment with the Rights Agent for payment to the Holders in accordance with Section 2.4(a).

4.3 Roche Agreements. Without the prior written consent of the Acting Holders, neither Parent nor any of its Affiliates shall (a) amend, restate, supplement, terminate or otherwise modify the Roche Agreement in a manner materially adversely affecting the Holders' rights under this Agreement, (b) in the event that Roche fails to make a payment of a Roche Payment at the time rightfully due and payable, take action with respect to, or unreasonably waive or fail to enforce, the right to receive the applicable payments which are rightfully due and payable under the Roche Agreement, in a manner materially adversely affecting the Holders' rights under this Agreement or (c) agree to any of the foregoing. Without limiting the foregoing, Parent and its Affiliates shall pursue their rights under the Roche Agreement in good faith, and not take any action (or fail to take any action) with the intention of avoiding, reducing or materially delaying any payment to the Holders hereunder.

4.4 Records. Parent shall, and shall cause its Affiliates to, keep true, complete and accurate records in sufficient detail to enable the Holders and their consultants or professional advisors to confirm (a) whether the Roche Payment Amount has been received by Parent or its successors or Affiliates and (b) the applicable CVR Payment Amount payable to each Holder hereunder in accordance with the terms specified in this Agreement.

5. AMENDMENTS

5.1 Amendments without Consent of Holders.

(a) Without the consent of any Holders, Parent, when authorized by a Board Resolution, at any time and from time to time, and the Rights Agent may enter into one or more amendments hereto, solely to evidence any successor to or permitted Assignee of Parent and the assumption by any such successor or permitted Assignee of the covenants of Parent herein as provided in Section 6.3.

(b) Without the consent of any Holders, Parent, when authorized by a Board Resolution, may, with the consent of the Rights Agent, which consent shall not be unreasonably withheld, conditioned or delayed, at any time and from time to time, enter into one or more amendments hereto, solely for any of the following purposes:

(i) to evidence the succession of another Person as a successor Rights Agent in accordance with Section 3 and the assumption by any successor of the covenants and obligations of the Rights Agent herein;

(ii) to add to the covenants of Parent such further covenants, restrictions, conditions or provisions as Parent shall consider to be for the protection of the Holders; provided, that, in each case, such provisions do not adversely affect the interests of the Holders;

(iii) to cure any ambiguity, to correct or supplement any provision herein that may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Agreement; provided, that, in each case, such provisions do not adversely affect the interests of the Holders;

(iv) as may be necessary or appropriate to ensure that the CVRs are not subject to registration under the Securities Act or the Exchange Act or any applicable state securities or "blue sky" laws; provided, that, in each case, such provisions do not adversely affect the interests of the Holders;

(v) to cancel any CVRs (A) in the event that any Holder has abandoned its rights in accordance with Section 2.6, or (B) following a transfer of such CVRs to Parent or its Affiliates in accordance with Section 2.2 or Section 2.3;

(vi) any other amendments hereto for the purpose of adding, eliminating or changing any provisions of this Agreement, unless such addition, elimination or change is adverse to the interests of the Holders; or

(vii) as may be necessary or appropriate to ensure that Parent complies with applicable Law.

(c) Promptly after the execution by Parent and the Rights Agent of any amendment pursuant to the provisions of this Section 5.1, Parent will mail (or cause the Rights Agent to mail) a notice thereof by first class mail to the Holders at their addresses as they appear on the CVR Register, setting forth in general terms the substance of such amendment.

5.2 Amendments with Consent of Holders.

(a) Subject to Section 5.1 (which amendments pursuant to Section 5.1 may be made without the consent of the Holders), with the consent of the Acting Holders, whether evidenced in writing or taken at a meeting of such Holders, Parent, when authorized by a Board Resolution, and the Rights Agent may enter into one or more amendments hereto for the purpose of adding, eliminating or changing any provisions of this Agreement, even if such addition, elimination or change is materially adverse to the interest of the Holders.

(b) Promptly after the execution by Parent and the Rights Agent of any amendment pursuant to the provisions of this Section 5.2, Parent will mail (or cause the Rights Agent to mail) a notice thereof by first class mail to the Holders at their addresses as they appear on the CVR Register, setting forth in general terms the substance of such amendment.

5.3 Execution of Amendments. In executing any amendment permitted by this Section 5, the Rights Agent will be entitled to receive, and will be fully protected in relying upon, an opinion of counsel selected by Parent stating that the execution of such amendment is authorized or permitted by this Agreement. The Rights Agent may, but is not obligated to, enter into any such

amendment that affects the Rights Agent's own rights, privileges, covenants or duties under this Agreement or otherwise. No supplement or amendment to this Agreement shall be effective unless duly executed by the Rights Agent.

5.4 Effect of Amendments. Upon the execution of any amendment under this Section 5, this Agreement will be modified in accordance therewith, such amendment will form a part of this Agreement for all purposes and every Holder will be bound thereby.

6. OTHER PROVISIONS OF GENERAL APPLICATION

6.1 Notices to Rights Agent and Parent. Any notice or other communication required or permitted hereunder shall be in writing and shall be deemed given when delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fee prepared, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic confirmation of delivery) prior to 5:00 p.m. New York time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

If to the Rights Agent, to it at:

[●]
Telephone: [●]
Email: [●]
Attention: [●]

with a copy to:

[●]
Telephone: [●]
Email: [●]
Attention: [●]

If to Parent, to it at:

Sesen Bio, Inc.
Telephone: [●]
Email: [●]
Attention: [●]

with a copy to:

[●]
Telephone: [●]
Email: [●]
Attention: [●]

The Rights Agent or Parent may specify a different address, email address by giving notice to each other in accordance with this Section 6.1 and to the Holders in accordance with Section 6.2.

6.2 Notice to Holders. Where this Agreement provides for notice to Holders, such notice will be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder affected by such event, at the Holder's address as it appears in the CVR Register, not later than the latest date, and not earlier than the earliest date, if any, prescribed for the giving of such notice. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder will affect the sufficiency of such notice with respect to other Holders.

6.3 Parent Successors and Assigns.

(a) Parent may not assign this Agreement without the prior written consent of the Acting Holders. Notwithstanding the foregoing (i) Parent may assign, in its sole discretion and without the consent of any other party, any or all of its rights, interests and obligations hereunder to one or more direct or indirect wholly-owned subsidiaries of Parent for so long as they remain

wholly-owned subsidiaries of Parent (each, an "***Assignee***") and the Assignee agrees to assume and be bound by all of the terms of this Agreement; provided, however, that in connection with any assignment to an Assignee, Parent shall, and shall agree to, remain liable for the performance by such Assignee of all obligations of Parent hereunder, with such Assignee substituted for Parent under this Agreement, and (ii) Parent may assign this Agreement in its entirety without the consent of any other party to its successor in interest in connection with the sale of all or substantially all of its assets or of its stock, or in connection with a merger, acquisition or similar transaction (such successor in interest, the "***Acquiror***", and such transaction, the "***Acquisition***"). This Agreement will be binding upon, inure to the benefit of and be enforceable by Parent's successors, acquirers and each Assignee. Each reference to "***Parent***" in this Agreement shall be deemed to include Parent's successors, acquirers and all Assignees. Each of Parent's successors, acquirers and assigns shall expressly assume by an instrument supplemental hereto, executed and delivered to the Rights Agent, the due and punctual payment of the CVR Payments and the due and punctual performance and observance of all of the covenants and obligations of this Agreement to be performed or observed by Parent.

(b) Any Person into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or any Person resulting from any merger or consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any Person succeeding to the stock transfer or other shareholder services business of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto; provided, that such Person would be eligible for appointment as a successor Rights Agent under the provisions of this Agreement. The purchase of all or substantially all of the Rights Agent's assets employed in the performance of transfer agent activities shall be deemed a merger or consolidation for purposes of this Section 6.3(b).

6.4 Benefits of Agreement; Action by Acting Holders. Parent and the Rights Agent hereby agree that the respective covenants and agreements set forth herein are intended to be for the benefit of, and shall be enforceable by, the Holders, acting by the written consent of the Acting Holders, all of whom are intended third-party beneficiaries hereof; provided that under no circumstances shall the rights of Holders as third-party beneficiaries pursuant to this Section 6.4 be enforceable by such Holders or any other Person acting for or on their behalf other than through the action of the Acting Holders, which Acting Holders shall have the sole power and authority to act on behalf of the Holders in enforcing any of their rights hereunder. Nothing in this Agreement, express or implied, will give to any Person (other than the Rights Agent, Parent, Parent's successors and permitted assignees, and the Holders and their respective successors and permitted assignees) any benefit or any legal or equitable right, remedy or claim under this Agreement or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the Rights Agent, Parent, Parent's successors and permitted Assignees, and the Holders and their respective successors and permitted assignees. The rights of Holders are limited to those expressly provided in this Agreement and the Merger Agreement.

6.5 Governing Law. This Agreement, the CVRs and all claims and causes of action based upon, arising out of or in connection herewith shall be governed by, and construed in accordance with, the Laws of the State of Delaware, without regard to Laws that may be applicable under conflicts of laws principles (whether of the State of Delaware or any other jurisdiction) that would cause the application of the Laws of any jurisdiction other than the State of Delaware.

In any Legal Proceeding between any of the parties arising out of our relating to this Agreement, each of the parties hereby (i) irrevocably and unconditionally consent and submits, for itself and its property, to the exclusive jurisdiction and venue of the Court of Chancery of the State of Delaware, New Castle County, or, if such court does not have jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware, (ii) agrees that any claim in respect of any such Legal Proceeding shall be heard and determined exclusively in accordance with clause (i) of this Section 6.5, (iii) waives, to the fullest extent it may legally and effectively do so, any objection which it may now or hereafter have to the laying of venue of any such Legal Proceeding in any such court, (iv) waives, to the fullest extent permitted by Law, any objection that such courts are an inconvenient forum or do not have jurisdiction over any party, and (v) agrees that service of process upon such party in any such Legal Proceeding shall be effective if notice is given in accordance with Section 6.1 of this Agreement. Nothing in this Section 6.5, however, shall affect the right of any Person to serve legal process in any manner permitted by Law.

6.6 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If any term or other provision of this Agreement is determined by a final judgement of a court of competent jurisdiction to be invalid or unenforceable, the parties agree that the court making such determination shall have the power to limit such term or provisions, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court

does not exercise the power granted to it in the prior sentence, the parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business or other purposes of such invalid or unenforceable term or provision.

6.7 Counterparts and Signature. This Agreement may be signed in any number of counterparts, including by electronic transmission, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

6.8 Termination. This Agreement will expire and be of no force or effect, the parties hereto will have no liability hereunder (other than with respect to monies due and owing by Parent to the Rights Agent or any other rights of the Rights Agent which expressly survive the termination of this Agreement), and no additional payments will be required to be made, upon the later of (i) the conclusion of the CVR Term and (ii) the payment of the full amount of all CVR Payments made to Parent on or prior to the end of the CVR Term to the Rights Agent and the payment of the full amount of all CVR Payment Amounts to the Holders by the mailing by the Rights Agent of each applicable CVR Payment Amount to each Holder at the address reflected in the CVR Register.

6.9 Funds. All funds received by the Rights Agent under this Agreement that are to be distributed or applied by the Rights Agent in the performance of services hereunder (the "***Funds***") shall be held by the Rights Agent as agent for Parent and deposited in one or more bank accounts to be maintained by the Rights Agent in its name as agent for Parent. Until paid pursuant to the terms of this Agreement, the Rights Agent will hold the Funds through such accounts in: deposit accounts of commercial banks with Tier 1 capital exceeding $1 billion or with an average rating above investment grade by S&P (LT Local Issuer Credit Rating), Moody's (Long Term Rating) and Fitch Ratings, Inc. (LT Issuer Default Rating) (each as reported by Bloomberg Finance L.P.). The Rights Agent shall have no responsibility or liability for any diminution of the Funds that may result from any deposit made by the Rights Agent in accordance with this paragraph, including any losses resulting from a default by any bank, financial institution or other Third Party. The Rights Agent may from time to time receive interest, dividends or other earnings in connection with such deposits. The Rights Agent shall not be obligated to pay such interest, dividends or earnings to Parent, any Holder or any other party.

6.10 Entire Agreement. This Agreement and the Merger Agreement (including the schedules, annexes and exhibits thereto, the documents and instruments referred to therein and the documents delivered pursuant thereto) constitute the entire agreement of the parties and supersede all prior agreements and undertakings, both written and oral, among the parties, or any of them, with respect to the subject matter hereof and, except as otherwise expressly provided herein or therein, are not intended to confer upon any other Person any rights or remedies hereunder or thereunder. If and to the extent that any provision of this Agreement is inconsistent or conflicts with the Merger Agreement, this Agreement will govern and control.

6.11 Waiver of Jury Trial. EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (i) ARISING UNDER THIS AGREEMENT OR (ii) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO IN RESPECT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES TO THIS AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OF A COPY OF THIS AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed on its behalf by its duly authorized officers as of the day and year first above written.

SESEN BIO, INC.

By: _____
Name: _____
Title: _____

[RIGHTS AGENT]

By: _____
Name: _____
Title: _____

ANNEX G

FORM OF CERTIFICATE OF AMENDMENT
TO THE RESTATED CERTIFICATE OF INCORPORATION OF
SESEN BIO, INC.

Sesen Bio, Inc., a corporation organized and existing under the laws of the State of Delaware (the"Corporation") hereby certifies as follows:

FIRST: That the Board of Directors of the Corporation adopted resolutions setting forth the proposed amendment to the Restated Certificate of Incorporation of the Corporation, declaring said amendment to be advisable and in the best interests of the Corporation and its stockholders in accordance with Section 242 of the Delaware General Corporation Law (the "DGCL"). The resolution setting forth the proposed amendment is as follows:

"**RESOLVED**, the first paragraph of Article FOURTH shall be amended and restated to read in its entirety as follows:

The total number of shares of all classes of stock which the Corporation shall have authority to issue is _____ shares, consisting of (i) _____ shares of Common Stock, $0.001 par value per share ("Common Stock"), and (ii) 5,000,000 shares of Preferred Stock, $0.001 par value per share ("Preferred Stock").

Upon the filing and effectiveness (the "Effective Time") of this Certificate of Amendment to the Restated Certificate of Incorporation with the Secretary of State of the State of Delaware, every _____ shares of Common Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the Corporation or the respective holder thereof, be combined into one validly issued, fully paid and non-assessable share of Common Stock (the "Reverse Stock Split"). No fractional shares of Common Stock shall be issued as a result of the Reverse Stock Split and, in lieu thereof, the Corporation shall pay cash equal to such fraction multiplied by the fair market value per share of Common Stock immediately prior to the Effective Time, as determined by the Board of Directors of the Corporation. The Reverse Stock Split shall occur whether or not the certificates representing such shares of Common Stock are surrendered to the Corporation or its transfer agent."

SECOND: The Certificate of Amendment to the Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Section 242 of the DGCL.

THIRD: That except as amended hereby, the provisions of the Restated Certificate of Incorporation shall remain in full force and effect.

FOURTH: This Certificate of Amendment shall be effective as of ____, ____.

IN WITNESS WHEREOF, I have signed this Certificate this _____ day of _____, _____.

SESEN BIO, INC.

_____
Thomas R. Cannell, D.V.M.
President and Chief Executive Officer

ANNEX H

Section 262 of the Delaware General Corporation Law

§ 262. Appraisal rights

(a) Any stockholder of a corporation of this State who holds shares of stock on the date of the making of a demand pursuant to subsection (d) of this section with respect to such shares, who continuously holds such shares through the effective date of the merger, consolidation, or conversion, who has otherwise complied with subsection (d) of this section and who has neither voted in favor of the merger, consolidation or conversion nor consented thereto in writing pursuant to § 228 of this title shall be entitled to an appraisal by the Court of Chancery of the fair value of the stockholder's shares of stock under the circumstances described in subsections (b) and (c) of this section. As used in this section, the word "stockholder" means a holder of record of stock in a corporation; the words "stock" and "share" mean and include what is ordinarily meant by those words; the words "depository receipt" mean a receipt or other instrument issued by a depository representing an interest in 1 or more shares, or fractions thereof, solely of stock of a corporation, which stock is deposited with the depository; the words "beneficial owner" mean a person who is the beneficial owner of shares of stock held either in voting trust or by a nominee on behalf of such person; and the word "person" means any individual, corporation, partnership, unincorporated association or other entity.

(b) Appraisal rights shall be available for the shares of any class or series of stock of a constituent or converting corporation in a merger, consolidation or conversion to be effected pursuant to § 251 (other than a merger effected pursuant to § 251(g) of this title), § 252, § 254, § 255, § 256, § 257, § 258, § 263, § 264 or § 266 of this title (other than, in each case and solely with respect to a domesticated corporation, a merger, consolidation or conversion authorized pursuant to and in accordance with the provisions of § 388 of this title):

(1) Provided, however, that no appraisal rights under this section shall be available for the shares of any class or series of stock, which stock, or depository receipts in respect thereof, at the record date fixed to determine the stockholders entitled to receive notice of the meeting of stockholders, or at the record date fixed to determine the stockholders entitled to consent pursuant to § 228 of this title, to act upon the agreement of merger or consolidation or the resolution providing for conversion (or, in the case of a merger pursuant to § 251(h) of this title, as of immediately prior to the execution of the agreement of merger), were either: (i) listed on a national securities exchange or (ii) held of record by more than 2,000 holders; and further provided that no appraisal rights shall be available for any shares of stock of the constituent corporation surviving a merger if the merger did not require for its approval the vote of the stockholders of the surviving corporation as provided in § 251(f) of this title.

(2) Notwithstanding paragraph (b)(1) of this section, appraisal rights under this section shall be available for the shares of any class or series of stock of a constituent or converting corporation if the holders thereof are required by the terms of an agreement of merger or consolidation, or by the terms of a resolution providing for conversion, pursuant to § 251, § 252, § 254, § 255, § 256, § 257, § 258, § 263, § 264 or § 266 of this title to accept for such stock anything except:

a. Shares of stock of the corporation surviving or resulting from such merger or consolidation, or of the converted entity if such entity is a corporation as a result of the conversion, or depository receipts in respect thereof;

b. Shares of stock of any other corporation, or depository receipts in respect thereof, which shares of stock (or depository receipts in respect thereof) or depository receipts at the effective date of the merger, consolidation or conversion will be either listed on a national securities exchange or held of record by more than 2,000 holders;

c. Cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a. and b. of this section; or

d. Any combination of the shares of stock, depository receipts and cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a., b. and c. of this section.

(3) In the event all of the stock of a subsidiary Delaware corporation party to a merger effected under § 253 or § 267 of this title is not owned by the parent immediately prior to the merger, appraisal rights shall be available for the shares of the subsidiary Delaware corporation.

(4) [Repealed.]

(c) Any corporation may provide in its certificate of incorporation that appraisal rights under this section shall be available for the shares of any class or series of its stock as a result of an amendment to its certificate of incorporation, any merger or consolidation in which the corporation is a constituent corporation, the sale of all or substantially all of the assets of the corporation or a conversion effected pursuant to § 266 of this title. If the certificate of incorporation contains such a provision, the provisions of this section, including those set forth in subsections (d), (e), and (g) of this section, shall apply as nearly as is practicable.

(d) Appraisal rights shall be perfected as follows:

(1) If a proposed merger, consolidation or conversion for which appraisal rights are provided under this section is to be submitted for approval at a meeting of stockholders, the corporation, not less than 20 days prior to the meeting, shall notify each of its stockholders who was such on the record date for notice of such meeting (or such members who received notice in accordance with § 255(c) of this title) with respect to shares for which appraisal rights are available pursuant to subsection (b) or (c) of this section that appraisal rights are available for any or all of the shares of the constituent corporations or the converting corporation, and shall include in such notice either a copy of this section (and, if 1 of the constituent corporations or the converting corporation is a nonstock corporation, a copy of § 114 of this title) or information directing the stockholders to a publicly available electronic resource at which this section (and, § 114 of this title, if applicable) may be accessed without subscription or cost. Each stockholder electing to demand the appraisal of such stockholder's shares shall deliver to the corporation, before the taking of the vote on the merger, consolidation or conversion, a written demand for appraisal of such stockholder's shares; provided that a demand may be delivered to the corporation by

electronic transmission if directed to an information processing system (if any) expressly designated for that purpose in such notice. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such stockholder's shares. A proxy or vote against the merger, consolidation or conversion shall not constitute such a demand. A stockholder electing to take such action must do so by a separate written demand as herein provided. Within 10 days after the effective date of such merger, consolidation or conversion, the surviving, resulting or converted entity shall notify each stockholder of each constituent or converting corporation who has complied with this subsection and has not voted in favor of or consented to the merger, consolidation or conversion, and any beneficial owner who has demanded appraisal under paragraph (d)(3) of this section, of the date that the merger, consolidation or conversion has become effective; or

(2) If the merger, consolidation or conversion was approved pursuant to § 228, § 251(h), § 253, or § 267 of this title, then either a constituent or converting corporation before the effective date of the merger, consolidation or conversion, or the surviving, resulting or converted entity within 10 days after such effective date, shall notify each stockholder of any class or series of stock of such constituent or converting corporation who is entitled to appraisal rights of the approval of the merger, consolidation or conversion and that appraisal rights are available for any or all shares of such class or series of stock of such constituent or converting corporation, and shall include in such notice either a copy of this section (and, if 1 of the constituent corporations or the converting corporation is a nonstock corporation, a copy of § 114 of this title) or information directing the stockholders to a publicly available electronic resource at which this section (and § 114 of this title, if applicable) may be accessed without subscription or cost. Such notice may, and, if given on or after the effective date of the merger, consolidation or conversion, shall, also notify such stockholders of the effective date of the merger, consolidation or conversion. Any stockholder entitled to appraisal rights may, within 20 days after the date of giving such notice or, in the case of a merger approved pursuant to § 251(h) of this title, within the later of the consummation of the offer contemplated by § 251(h) of this title and 20 days after the date of giving such notice, demand in writing from the surviving or resulting entity the appraisal of such holder's shares; provided that a demand may be delivered to such entity by electronic transmission if directed to an information processing system (if any) expressly designated for that purpose in such notice. Such demand will be sufficient if it reasonably informs such entity of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such holder's shares. If such notice did not notify stockholders of the effective date of the merger, consolidation or conversion, either (i) each such constituent corporation or the converting corporation shall send a second notice before the effective date of the merger, consolidation or conversion notifying each of the holders of any class or series of stock of such constituent or converting corporation that are entitled to appraisal rights of the effective date of the merger, consolidation or conversion or (ii) the surviving, resulting or converted entity shall send such a second notice to all such holders on or within 10 days after such effective date; provided, however, that if such second notice is sent more than 20 days following the sending of the first notice or, in the case of a merger approved pursuant to § 251(h) of this title, later than the later of the consummation of the offer contemplated by § 251(h) of this title and 20 days following the sending of the first notice, such second notice need only be sent to each stockholder who is entitled to appraisal rights and who has demanded appraisal of such holder's shares in accordance with this subsection and any

beneficial owner who has demanded appraisal under paragraph (d)(3) of this section. An affidavit of the secretary or assistant secretary or of the transfer agent of the corporation or entity that is required to give either notice that such notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. For purposes of determining the stockholders entitled to receive either notice, each constituent corporation or the converting corporation may fix, in advance, a record date that shall be not more than 10 days prior to the date the notice is given, provided, that if the notice is given on or after the effective date of the merger, consolidation or conversion, the record date shall be such effective date. If no record date is fixed and the notice is given prior to the effective date, the record date shall be the close of business on the day next preceding the day on which the notice is given.

(3) Notwithstanding subsection (a) of this section (but subject to this paragraph (d)(3)), a beneficial owner may, in such person's name, demand in writing an appraisal of such beneficial owner's shares in accordance with either paragraph (d)(1) or (2) of this section, as applicable; provided that (i) such beneficial owner continuously owns such shares through the effective date of the merger, consolidation or conversion and otherwise satisfies the requirements applicable to a stockholder under the first sentence of subsection (a) of this section and (ii) the demand made by such beneficial owner reasonably identifies the holder of record of the shares for which the demand is made, is accompanied by documentary evidence of such beneficial owner's beneficial ownership of stock and a statement that such documentary evidence is a true and correct copy of what it purports to be, and provides an address at which such beneficial owner consents to receive notices given by the surviving, resulting or converted entity hereunder and to be set forth on the verified list required by subsection (f) of this section.

(e) Within 120 days after the effective date of the merger, consolidation or conversion, the surviving, resulting or converted entity, or any person who has complied with subsections (a) and (d) of this section hereof and who is otherwise entitled to appraisal rights, may commence an appraisal proceeding by filing a petition in the Court of Chancery demanding a determination of the value of the stock of all such stockholders. Notwithstanding the foregoing, at any time within 60 days after the effective date of the merger, consolidation or conversion, any person entitled to appraisal rights who has not commenced an appraisal proceeding or joined that proceeding as a named party shall have the right to withdraw such person's demand for appraisal and to accept the terms offered upon the merger, consolidation or conversion. Within 120 days after the effective date of the merger, consolidation or conversion, any person who has complied with the requirements of subsections (a) and (d) of this section hereof, upon request given in writing (or by electronic transmission directed to an information processing system (if any) expressly designated for that purpose in the notice of appraisal), shall be entitled to receive from the surviving, resulting or converted entity a statement setting forth the aggregate number of shares not voted in favor of the merger, consolidation or conversion (or, in the case of a merger approved pursuant to § 251(h) of this title, the aggregate number of shares (other than any excluded stock (as defined in § 251(h)(6)d. of this title)) that were the subject of, and were not tendered into, and accepted for purchase or exchange in, the offer referred to in § 251(h)(2) of this title)), and, in either case, with respect to which demands for appraisal have been received and the aggregate number of stockholders or beneficial owners holding or owning such shares (provided that, where a beneficial owner makes a demand pursuant to paragraph (d)(3) of this section, the record holder of such shares shall not be considered a separate stockholder holding such shares for purposes of such aggregate number). Such statement shall be given to the person within 10 days after such person's request for such a statement is received by the surviving,

resulting or converted entity or within 10 days after expiration of the period for delivery of demands for appraisal under subsection (d) of this section hereof, whichever is later.

(f) Upon the filing of any such petition by any person other than the surviving, resulting or converted entity, service of a copy thereof shall be made upon such entity, which shall within 20 days after such service file in the office of the Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all persons who have demanded appraisal for their shares and with whom agreements as to the value of their shares have not been reached by such entity. If the petition shall be filed by the surviving, resulting or converted entity, the petition shall be accompanied by such a duly verified list. The Register in Chancery, if so ordered by the Court, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to the surviving, resulting or converted entity and to the persons shown on the list at the addresses therein stated. The forms of the notices by mail and by publication shall be approved by the Court, and the costs thereof shall be borne by the surviving, resulting or converted entity.

(g) At the hearing on such petition, the Court shall determine the persons who have complied with this section and who have become entitled to appraisal rights. The Court may require the persons who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any person fails to comply with such direction, the Court may dismiss the proceedings as to such person. If immediately before the merger, consolidation or conversion the shares of the class or series of stock of the constituent or converting corporation as to which appraisal rights are available were listed on a national securities exchange, the Court shall dismiss the proceedings as to all holders of such shares who are otherwise entitled to appraisal rights unless (1) the total number of shares entitled to appraisal exceeds 1% of the outstanding shares of the class or series eligible for appraisal, (2) the value of the consideration provided in the merger, consolidation or conversion for such total number of shares exceeds $1 million, or (3) the merger was approved pursuant to § 253 or § 267 of this title.

(h) After the Court determines the persons entitled to an appraisal, the appraisal proceeding shall be conducted in accordance with the rules of the Court of Chancery, including any rules specifically governing appraisal proceedings. Through such proceeding the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger, consolidation or conversion, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. Unless the Court in its discretion determines otherwise for good cause shown, and except as provided in this subsection, interest from the effective date of the merger, consolidation or conversion through the date of payment of the judgment shall be compounded quarterly and shall accrue at 5% over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger, consolidation or conversion and the date of payment of the judgment. At any time before the entry of judgment in the proceedings, the surviving, resulting or converted entity may pay to each person entitled to appraisal an amount in cash, in which case interest shall accrue thereafter as provided herein only upon the sum of (1) the difference, if any, between the amount so paid and the fair value of the shares as determined by the Court, and (2) interest theretofore accrued, unless paid at that time. Upon application by the surviving, resulting or converted entity or by any person entitled to participate in the appraisal proceeding, the Court may, in its discretion, proceed to trial upon the appraisal prior to the final determination of the persons entitled to an appraisal. Any person whose name appears on

the list filed by the surviving, resulting or converted entity pursuant to subsection (f) of this section may participate fully in all proceedings until it is finally determined that such person is not entitled to appraisal rights under this section.

(i) The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving, resulting or converted entity to the persons entitled thereto. Payment shall be so made to each such person upon such terms and conditions as the Court may order. The Court's decree may be enforced as other decrees in the Court of Chancery may be enforced, whether such surviving, resulting or converted entity be an entity of this State or of any state.

(j) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances. Upon application of a person whose name appears on the list filed by the surviving, resulting or converted entity pursuant to subsection (f) of this section who participated in the proceeding and incurred expenses in connection therewith, the Court may order all or a portion of such expenses, including, without limitation, reasonable attorney's fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares entitled to an appraisal not dismissed pursuant to subsection (k) of this section or subject to such an award pursuant to a reservation of jurisdiction under subsection (k) of this section.

(k) From and after the effective date of the merger, consolidation or conversion, no person who has demanded appraisal rights with respect to some or all of such person's shares as provided in subsection (d) of this section shall be entitled to vote such shares for any purpose or to receive payment of dividends or other distributions on such shares (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger, consolidation or conversion); provided, however, that if no petition for an appraisal is filed within the time provided in subsection (e) of this section, or if a person who has made a demand for an appraisal in accordance with this section shall deliver to the surviving, resulting or converted entity a written withdrawal of such person's demand for an appraisal in respect of some or all of such person's shares in accordance with subsection (e) of this section, then the right of such person to an appraisal of the shares subject to the withdrawal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any person without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just, including without limitation, a reservation of jurisdiction for any application to the Court made under subsection (j) of this section; provided, however that this provision shall not affect the right of any person who has not commenced an appraisal proceeding or joined that proceeding as a named party to withdraw such person's demand for appraisal and to accept the terms offered upon the merger, consolidation or conversion within 60 days after the effective date of the merger, consolidation or conversion, as set forth in subsection (e) of this section.

(l) The shares or other equity interests of the surviving, resulting or converted entity to which the shares of stock subject to appraisal under this section would have otherwise converted but for an appraisal demand made in accordance with this section shall have the status of authorized but not outstanding shares of stock or other equity interests of the surviving, resulting or converted entity, unless and until the person that has demanded appraisal is no longer entitled to appraisal pursuant to this section.

PART II

INFORMATION NOT REQUIRED IN

PROXY STATEMENT/PROSPECTUS

Item 20 – Indemnification of Directors and Officers

Delaware General Corporation Law

Section 145(a) of the DGCL empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

Section 145(b) of the DGCL empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which the person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expenses which the Delaware Court of Chancery or such other court shall deem proper.

Section 145(c) of the DGCL provides that to the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

Section 145(d) of the DGCL states that any indemnification under subsections (a) and (b) of Section 145 (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of Section 145. Such determination shall be made with respect to a person who is a director or officer at the time of such determination (i) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum, (ii) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, (iii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion or (iv) by the stockholders.

Section 145(f) of the DGCL states that the indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of Section 145 shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

Section 145(g) of the DGCL provides that a corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as

a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against such person and incurred by such person in any such capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of Section 145.

Section 145(j) of the DGCL states that the indemnification and advancement of expenses provided by, or granted pursuant to, Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

Certificate of Incorporation

Sesen Bio has adopted provisions in the Sesen Bio Certificate of Incorporation that provide for indemnification of Sesen Bio's officers and directors to the maximum extent permitted under the DGCL. As authorized by the DGCL, the Sesen Bio Certificate of Incorporation limits the liability of Sesen Bio's directors for monetary damages. The effect of this provision is to eliminate Sesen Bio's rights and those of Sesen Bio's stockholders to recover monetary damages against a director for breach of the fiduciary duty of care as a director except in certain limited situations. This provision does not limit or eliminate Sesen Bio's rights or that of any stockholder to seek non-monetary relief such as an injunction or rescission in the event of a breach of a director's duty of care. These provisions will not alter the liability of the Sesen Bio board of directors under federal securities laws.

Insurance Policy

Sesen Bio maintains a general liability insurance policy that covers certain liabilities of Sesen Bio directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Indemnification Agreement

Sesen Bio has entered into indemnification agreements with its directors and executive officers. In general, these agreements provide that Sesen Bio will indemnify the director or executive officer to the fullest extent permitted by law for claims arising in his or her capacity as a director or officer of Sesen Bio or in connection with their service at Sesen Bio's request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director or executive officer makes a claim for indemnification and establish certain presumptions that are favorable to the director or executive officer.

Merger Agreement

Further, pursuant to the terms of the Merger Agreement, the provisions of the Sesen Bio Certificate of Incorporation and the Sesen Bio Bylaws with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Sesen Bio, shall not be amended, modified or repealed for a period of six years from the effective time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the effective time, were officers or directors of Sesen Bio.

Item 21 – Exhibits and Financial Statement Schedules

(a) Exhibit Index

A list of exhibits filed with this registration statement on Form S-4 is set forth on the Exhibit Index and is incorporated herein by reference.

(b) Financial Statements

The financial statements filed with this registration statement on Form S-4 are set forth on the Financial Statement Index and are incorporated herein by reference.

Item 22 – Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser: if the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes as follows: that prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

(c) The undersigned registrant hereby undertakes as follows: that every prospectus (i) that is filed pursuant to paragraph (b) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Securities Act of 1933 and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(d) The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into this proxy statement/prospectus pursuant to Item 4, 10(b), 11, or 13 of Form S-4, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(e) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(f) The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

(g) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

INDEX TO EXHIBITS

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
2.1*	Agreement and Plan of Merger, dated as of September 20, 2022, by and among Sesen Bio, Inc., Seahawk Merger Sub, Inc. and Carisma (included as Annex A to the proxy statement/prospectus forming a part of this Registration Statement).
2.2*	Form of Carisma Support Agreement, by and between the Sesen Bio, Inc., Carisma and certain stockholders of Carisma (included as Annex C to the proxy statement/prospectus forming a part of this Registration Statement).
2.3*	Form of Sesen Bio Support Agreement, by and between the Sesen Bio, Inc., Carisma and certain stockholders of Sesen Bio, Inc. (included as Annex D to the proxy statement/prospectus forming a part of this Registration Statement).
2.4*	Form of Lock-Up Agreement, by and between Sesen Bio, Inc., Carisma and certain stockholders of Sesen Bio, Inc. and Carisma (included as Annex E to the proxy statement/prospectus forming a part of this Registration Statement).
2.5*	Form of Contingent Value Rights Agreement by and among Sesen Bio, Inc. and the Rights Agent (included as Annex F to the proxy statement/prospectus forming a part of this Registration Statement).
2.6†	Share Purchase Agreement, effective as of September 20, 2016, by and between Eleven Biotherapeutics, Inc., Viventia Bio Inc. and Clairmark Investments Ltd., as representative of the selling shareholders (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on September 21, 2016).
3.1	Restated Certificate of Incorporation of Sesen Bio, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on February 18, 2014).
3.2	Certificate of Amendment of Certificate of Incorporation of Sesen Bio, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on May 17, 2018).
3.3	Certificate of Amendment of Certificate of Incorporation of Sesen Bio, Inc. (incorporated by reference to Exhibit 3.3 to the Registrant's Quarterly Report on Form 10-Q, filed on May 10, 2021).
3.4	Amended and Restated By-Laws of Sesen Bio, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K, filed on May 17, 2018).
4.1	Specimen Certificate for Sesen Bio, Inc.'s Common Stock, par value $.001 per share (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1/A (File No. 333-193131), filed on January 23, 2014).
4.2	Eleven Biotherapeutics, Inc. Form of Warrant issued to Silicon Valley Bank and Life Science Loans, LLC dated November 25, 2014 (incorporated by reference to Exhibit 10.23 to the Registrant's Registration Statement on Form S-1 (File No. 333-201176), filed on December 19, 2014).
4.3	Form of Common Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on November 3, 2017).
4.4	Form of Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on March 23, 2018).

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
4.6	Form of 2018 Warrant Amendment Agreement (incorporated by reference to Exhibit 4.4 to the Registrant's Current Report on Form 8-K, filed on October 29, 2019).
5.1**	Opinion of Hogan Lovells US LLP as to the validity of shares of common stock to be issued to CARISMA Therapeutics Inc.
10.1+	Eleven Biotherapeutics, Inc. Amended and Restated 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-193131), filed on December 30, 2013).
10.2+	Form of Incentive Stock Option Agreement under the Eleven Biotherapeutics, Inc. Amended and Restated 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-193131), filed on December 30, 2013).
10.3+	Form of Non-Statutory Stock Option Agreement under the Eleven Biotherapeutics, Inc. Amended and Restated 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-193131), filed on December 30, 2013).
10.4+	Sesen Bio, Inc. 2014 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on June 25, 2019).
10.5+	Form of Incentive Stock Option Agreement under the Sesen Bio Inc. 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1/A (File No. 333-193131), filed on January 23, 2014).
10.6+	Form of Non-Statutory Stock Option Agreement under the Sesen Bio, Inc. 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1/A (File No. 333-193131), filed on January 23, 2014).
10.7+	Form of Restricted Stock Unit Agreement under the Sesen Bio, Inc. 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on June 29, 2015).
10.8+	Form of Indemnification Agreement by and between Sesen Bio, Inc. and Each of its Directors and Executive Officers (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022).
10.9+	Eleven Biotherapeutics, Inc. 2014 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1/A (Reg. No. 333-193131), filed on January 23, 2014).
10.10◊	Non-Exclusive Product License Agreement, effective as of October 18, 2005, by and between Micromet AG and Viventia Biotech Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on November 9, 2018).
10.11◊	Non-Exclusive License Agreement, effective as of November 30, 2001, by and between XOMA Ireland Limited and Viventia Biotech Inc. (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed on November 9, 2018).
10.12+	Employment Agreement, dated August 7, 2018, by and between Sesen Bio, Inc. and Thomas R. Cannell, D.V.M. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on August 13, 2018).
10.13	Form of Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on March 23, 2018).
10.14	Amendment to Securities Purchase Agreement, dated October 28, 2019, by and among Sesen Bio, Inc. and the undersigned parties thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on October 29, 2019).
10.15	Stock Option Award Agreement, dated August 7, 2018, by and between Sesen Bio, Inc. and Thomas R. Cannell, D.V.M (incorporated by reference to Exhibit 10.32 to the Registrant's Annual Report on Form 10-K, filed on March 1, 2019).

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
10.16+	Employment Agreement, dated September 20, 2016, by and between Eleven Biotherapeutics, Inc. and Glen Macdonald, as amended on February 21, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on May 10, 2019).
10.17+	Employment Agreement, dated August 26, 2019, by and between Monica Forbes and Sesen Bio, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on August 26, 2019).
10.18+	Employment Agreement, dated July 26, 2019, by and between Mark R. Sullivan and Sesen Bio, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on November 12, 2019).
10.19+	Stock Option Award Agreement, dated August 1, 2019, by and between Sesen Bio, Inc. and Monica Forbes (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q, filed on November 12, 2019).
10.20	Open Market Sale Agreement℠, dated November 2019, by and between Sesen Bio, Inc. and Jefferies LLC (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on November 29, 2019).
10.21	Amendment No. 1 to the Open Market Sale Agreement℠, dated October 30, 2020, by and between Sesen Bio, Inc. and Jefferies LLC (incorporated by reference to Exhibit 1.1 to the Registrant's Current Report on Form 8-K, filed on October 30, 2020).
10.22◇	Exclusive License Agreement, dated July 30, 2020, by and among Sesen Bio, Inc., Viventia Bio, Inc. and Qilu Pharmaceutical Co., Ltd. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on November 9, 2020).
10.23	Amendment No. 2 to the Open Market Sale Agreement℠, dated February 17, 2021, by and between Sesen Bio, Inc. and Jefferies LLC (incorporated by reference to Exhibit 1.1 to the Registrant's Current Report on Form 8-K, filed on February 17, 2021).
10.24+	Amendment No. 2 to the Sesen Bio, Inc. 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on May 3, 2021).
10.25+	Amendment No. 1 to the Sesen Bio, Inc. 2014 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed on May 3, 2021).
10.26	Amendment No. 3 to the Open Market Sale Agreement℠, dated June 1, 2021, by and between Sesen Bio, Inc. and Jefferies LLC (incorporated by reference to Exhibit 1.1 to the Registrant's Current Report on Form 8-K, filed on June 1, 2021).
10.27+	Form of RSU Award Agreement for Retention Awards (incorporated by reference to Exhibit 10.30 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022).
10.28+	Form of PSU Award Agreement for Retention Awards (incorporated by reference to Exhibit 10.31 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022).
10.29◇	License Agreement, effective January 13, 2003, as amended and restated on October 14, 2015, by and between The University of Zurich and Viventia Bio, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on May 9, 2022).
10.30◇	Asset Purchase Agreement, dated as of July 15, 2022 by and among Sesen Bio, Inc., F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on July 18, 2022).
10.31+	Employment Agreement, dated January 5, 2022, by and between Sesen Bio, Inc. and Minori Rosales (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q/A, filed on August 25, 2022).

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
10.32*◇	Collaboration and License Agreement, dated January 7, 2022, by and between Carisma and Moderna Therapeutics Inc.
10.33*◇	License Agreement, dated as of November 10, 2017, by and between the Carisma and the Trustees of the University of Pennsylvania, as amended.
10.34*◇	License Agreement, dated as of July 24, 2020, by and between the Carisma and New York University.
21.1*	Subsidiaries of Sesen Bio, Inc.
23.1*	Consent of KPMG LLP.
23.2**	Consent of Hogan Lovells US LLP (contained in Exhibit 5.1).
23.3*	Consent of Ernst & Young, LLP.
24.1*	Power of Attorney (included on signature page).
99.1**	Form of Proxy Card for Special Meeting of Stockholders of Registrant.
99.2*	Proposed Certificate of Amendment to the Restated Certificate of Incorporation of Registrant for the Sesen Bio, Inc. Reverse Stock Split (included as Annex G to the proxy statement/prospectus forming a part of this Registration Statement).
99.3*	Opinion of SVB Securities LLC, financial advisor to Sesen Bio, Inc. (included as Annex B to the proxy statement/prospectus forming part of this Registration Statement).
99.4*	Consent of SVB Securities LLC, financial advisor to Sesen Bio, Inc.
99.5*	Consent of Sanford Zweifach to be named as a Director.
99.6*	Consent of Regina Hodits, Ph.D. to be named as a Director.
99.7*	Consent of Steven Kelly to be named as a Director.
99.8*	Consent of Briggs Morrison, M.D. to be named as a Director.
99.9*	Consent of Björn Odlander to be named as a Director.
99.10*	Consent of Chidozie Ugwumba to be named as a Director.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
107*	Filing Fee Table.

* Filed herewith.

** To be filed by amendment.

\+ Indicates management contract or compensatory plan.

† Certain schedules and exhibits have been omitted pursuant to Item 601 of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the SEC upon request.

◇ Portions of this exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the town of Cambridge, Commonwealth of Massachusetts, on October 14, 2022.

SESEN BIO, INC.

By: /s/ Thomas R. Cannell, D.V.M.
Name: Thomas R. Cannell, D.V.M.
Title: President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Thomas R. Cannell D.V.M. and Monica Forbes of Sesen Bio, Inc., true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement, and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable Sesen Bio, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorney-in-fact and agent, or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

IN WITNESS HEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated opposite his or her name.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Thomas R. Cannell, D.V.M. Thomas R. Cannell, D.V.M.	Director, President and Chief Executive Officer (Principal Executive Officer)	October 14, 2022
/s/ Monica Forbes Monica Forbes	Chief Financial Officer (Principal Financial Officer)	October 14, 2022
/s/ Elly Ryu Elly Ryu	Corporate Controller (Principal Accounting Officer)	October 14, 2022
/s/ Jay S. Duker, M.D. Jay S. Duker, M.D.	Chair of the Board of Directors	October 14, 2022
/s/ Carrie L. Bourdow Carrie L. Bourdow	Director	October 14, 2022
/s/ Peter K. Honig, M.D. Peter K. Honig, M.D.	Director	October 14, 2022
/s/ Michael A.S. Jewett, M.D. Michael A.S. Jewett, M.D.	Director	October 14, 2022
/s/ Jason A. Keyes Jason A. Keyes	Director	October 14, 2022

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

COLLABORATION AND LICENSE AGREEMENT

by and among

CARISMA THERAPEUTICS INC.

and

MODERNATX, INC.

Dated as of January 7, 2022

ARTICLE I. DEFINITIONS 1
ARTICLE II. RESEARCH 15
2.1. Collaboration Overview 15
2.2. Research Targets 15
2.3. Pre-Cleared Target List Adjustments 16
2.4. Maximum Number of Research Targets; Replacement Research Targets 16
2.5. Replacement of Research Target Without Counting Against Replacement Cap. 16
2.6. Research Activities; Research Plan and Research Budget. 17
2.7. Research Plan and Research Budget Updates 19
2.8. Briefing the JSC 20
2.9. Development Target Designation; Replacement 20
2.10. [**] Targets 20
2.11. Carisma Activities Outside of the Field 21
2.12. Subcontractors 21
2.13. Transfer of Materials 22
2.14. Board Seat 22
ARTICLE III. DEVELOPMENT AND COMMERCIALIZATION 23
3.1. Development; Commercialization. 23
3.2. Regulatory. 23
3.3. Cessation of Activities with respect to a Development Target 24
3.4. No Representation 24
ARTICLE IV. EXCLUSIVITY 24
4.1. Research Term Exclusivity 24
4.2. Collaboration Target Exclusivity 25
4.3. Product Polypeptide Exclusivity 25
4.4. Exception for Business Combination 25
ARTICLE V. GOVERNANCE 26
5.1. Joint Steering Committee. 26
5.2. Alliance Managers 27

ARTICLE VI. FINANCIAL TERMS 27
6.1. Upfront Payment 27
6.2. Development Target Designation Fee. 27
6.3. Development Milestones 28
6.4. Sales Milestone Payments 29
6.5. Royalties. 29
6.6. [**] Royalties and Payments 31
6.7. Additional Payment Terms. 31
6.8. Records Retention by Moderna; Review by Carisma. 32
ARTICLE VII. CONFIDENTIALITY 33
7.1. Nondisclosure 33
7.2. Exceptions 33
7.3. Authorized Disclosure. 33
7.4. Terms of this Agreement 35
7.5. Securities Filings 35
7.6. Publications 35
7.7. Press Release; Publicity 36
ARTICLE VIII. INTELLECTUAL PROPERTY 36
8.1. License. 36
8.2. Ownership. 38
8.3. Product-Specific Program Technology License. 41
8.4. Carisma Platform Program Technology License 41
8.5. In-Licenses. 41
8.6. America Invents Act 43
ARTICLE IX. PATENT PROSECUTION 44
9.1. Prosecution and Maintenance of Patents. 44
9.2. Defense of Claims Brought by Third Parties. 44
9.3. Patent Term Extensions 45
9.4. Recording 45
9.5. Regulatory Data Protection 45

9.6. Liability 45
ARTICLE X. PATENT ENFORCEMENT 46
10.1. Enforcement of Patents. 46
10.2. Enforcement of Moderna Patents 48
10.3. Other Actions by Third Parties. 48
ARTICLE XI. INDEMNIFICATION; INSURANCE 49
11.1. Indemnification by Moderna 49
11.2. Indemnification by Carisma 49
11.3. Notice of Claims 49
11.4. Indemnification Procedures 49
11.5. Insurance 50
11.6. LIMITATION OF LIABILITY 51
ARTICLE XII. TERM AND TERMINATION 51
12.1. Term; Expiration. 51
12.2. Termination Without Cause 52
12.3. Termination for Breach. 52
12.4. Termination for Bankruptcy 53
12.5. Effects of Termination 53
12.6. Survival of Sublicensees 54
12.7. Optional Reduction of Royalties 55
12.8. Surviving Provisions. 55
ARTICLE XIII. REPRESENTATIONS AND WARRANTIES; COVENANTS 55
13.1. Warranties; Disclaimer of Warranties. 55
13.2. Covenants 57
13.3. Disclaimer 58
ARTICLE XIV. MISCELLANEOUS 58
14.1. Severability 58
14.2. Force Majeure 58
14.3. Assignment. 59
14.4. Dispute Resolution by Executive Officers 59

14.5.	Governing Law; Jurisdiction; Venue; Waiver of Jury Trial.	59
14.6.	Notices	60
14.7.	Export Control	61
14.8.	Third Party Rights and Obligations	61
14.9.	Entire Agreement	61
14.10.	English Language	61
14.11.	Independent Contractors	61
14.12.	Equitable Relief	61
14.13.	References	62
14.14.	Construction	62
14.15.	Waiver; Amendment	62
14.16.	Further Assurances	62
14.17.	Counterparts	62

LIST OF EXHIBITS

Exhibit A Licensed Patents

Exhibit B Research Plan for First Research Program and Platform Development Activities

Exhibit B-1 Research Budget

Exhibit C Form of MTA

LIST OF SCHEDULES

Carisma Reserved Targets – Schedule 1.23

Pre-Cleared Target List – Schedule 1.116

Carisma Agreements – Schedule 13.1.2(i)

COLLABORATION AND LICENSE AGREEMENT

This **COLLABORATION AND LICENSE AGREEMENT** (this "**Agreement**") is entered into and made effective as of January 7, 2022 (the "**Effective Date**") by and among CARISMA Therapeutics Inc., a Delaware corporation ("**Carisma**"), and ModernaTX, Inc., a Delaware corporation ("**Moderna**"). Moderna and Carisma are each referred to herein by name or as a "**Party**" or, collectively, as the "**Parties**."

RECITALS

WHEREAS, Moderna wishes to access and research Carisma's technology to potentially develop and commercialize products employing such Carisma technology and Moderna's technologies, on the terms and conditions set forth herein; and

WHEREAS, simultaneously with the execution of this Agreement, in partial consideration for the research work to be performed by Carisma under this Agreement and the licenses and other rights granted to Moderna under this Agreement, the Parties are entering into a Convertible Promissory Note in the aggregate principal amount of $35,000,000.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements set forth below, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I.
DEFINITIONS

1.1. "**Accounting Principles**" means either U.S. generally accepted accounting principles ("**GAAP**") or International Financial Reporting Standards ("**IFRS**"), as designated and used by Moderna in preparing its financial statements from time to time.

1.2. **"Affiliate**" means, with respect to a Person, any Person that, directly or indirectly, through one (1) or more intermediaries, controls, is controlled by or is under common control with such first Person at any time during the Term for so long as such Person controls, is controlled by or is under common control with such first Person. For purposes of this definition, "control" and, with correlative meanings, the terms "controlled by" and "under common control with" means: (a) the possession, directly or indirectly, of the power to direct the management or policies of a business entity, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance or otherwise; or (b) the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities or other ownership interests of a business entity (or, with respect to a limited partnership or other similar entity, its general partner or controlling entity); or (c) any other arrangement whereby a Person controls or has the right to control the board of directors or equivalent governing body or management of a corporation or other entity; provided that if local Applicable Laws restrict foreign ownership, control shall be established by direct or indirect ownership of the maximum ownership percentage that may, under such local Applicable Laws, be owned by foreign interests. For the avoidance of doubt, Moderna and Carisma shall not be deemed to be Affiliates hereunder.

1.3. "**[**] Targets**" has the meaning set forth in Section 2.10.1.

1.4. "**Alliance Manager**" has the meaning set forth in Section 5.2.

1.5. "**Annual Net Sales**" means, on a Product-by-Product basis, total Net Sales by Moderna, its Affiliates and Sublicensees in the Territory of such Product in a particular Calendar Year.

1.6. "**Applicable Law**" means applicable laws, statutes, rules, regulations, orders, judgments, or ordinances having the effect of law, including any rules, regulations, guidelines or other requirements of Governmental Authorities, that may be in effect from time to time.

1.7. "**Bankruptcy Code**" has the meaning set forth in Section 8.1.5.

1.8. "**Binder**" means, on a Target-by-Target basis, [**].

1.9. "**Biologics License Application**" or "**BLA**" means a Biologics License Application (as more fully described in U.S. 21 C.F.R. Part 601.20 or its successor regulation) and all amendments and supplements thereto submitted to the FDA, or any equivalent filing, including a Marketing Authorization Application, in a country or regulatory jurisdiction other than the U.S. with the applicable Regulatory Authority, or any similar application or submission for Regulatory Approval filed with a Regulatory Authority to obtain marketing approval for a biologic product in a country or in a group of countries.

1.10. "**Biosimilar Application**" has the meaning set forth in Section 10.1.2.

1.11. "**[**]**" has the meaning set forth in Section **[**]**.

1.12. "**Business Combination**" means, with respect to a Party (or its Affiliate), any of the following events: (a) any Third Party (or group of Third Parties acting in concert) acquires (including by way of a tender or exchange offer or issuance by such Party (or its Affiliate)), directly or indirectly, beneficial ownership or a right to acquire beneficial ownership of shares of a majority of the total voting shares of such Party (or its Affiliate) (where voting refers to being entitled to vote for the election of directors) then outstanding of such Party (or its Affiliate); (b) such Party (or its Affiliate) consolidates with or merges into another corporation or entity which is a Third Party, or any corporation or entity which is a Third Party consolidates with or merges into such Party (or its Affiliate), in either event, pursuant to a transaction in which a majority of the total voting shares of the acquiring or resulting entity outstanding immediately after such consolidation or merger is not held by the holders of the outstanding voting shares of such Party (or its Affiliate) immediately preceding such consolidation or merger; or (c) such Party (or its Affiliate) sells, assigns, conveys or transfers all or substantially all of its assets to any Person other than a wholly owned Affiliate of the Party.

1.13. "**Business Day**" means a day on which banking institutions in New York City, New York are open for business, excluding any Saturday or Sunday.

1.14. "**Calendar Quarter**" means the period beginning on the Effective Date and ending on the last day of the calendar quarter in which the Effective Date falls, and thereafter each successive period of three (3) consecutive calendar months ending on the last day of March, June,

September, or December, respectively; provided that the final Calendar Quarter shall end on the last day of the Term.

1.15. "**Calendar Year**" means the period beginning on the Effective Date and ending on December 31 of the calendar year in which the Effective Date falls, and thereafter each successive period of twelve (12) consecutive calendar months beginning on January 1 and ending on December 31; provided that the final Calendar Year shall end on the last day of the Term.

1.16. "**CAR-M**" means any myeloid cell that has been engineered to express a modified chimeric antigen receptor, including chimeric antigen receptor macrophages.

1.17. "**Carisma Business Combination Program**" has the meaning set forth in Section 4.4.

1.18. "**Carisma Indemnitees**" means Carisma, its Affiliates and its or their respective directors, officers, managers, partners, employees, agents, successors and permitted assigns.

1.19. "**Carisma Platform Program Know-How**" has the meaning set forth in Section 8.2.2(e).

1.20. "**Carisma Platform Program Patents**" has the meaning set forth in Section 8.2.2(e).

1.21. "**Carisma Platform Program Technology**" has the meaning set forth in Section 8.2.2(e).

1.22. "**Carisma Research Activities**" means, with respect to a Research Plan, any activities for which Carisma is specifically designated as the responsible Party under such Research Plan.

1.23. "**Carisma Reserved Targets**" means the [**] Targets listed on Schedule 1.23. Any Carisma Reserved Target (i) for which Carisma or any of its Affiliates has not Initiated Work and (ii) that is not subject to a Third Party Obligation, in each case by [**] after the Effective Date, shall cease to be a Carisma Reserved Target and shall otherwise be subject to the Target selection provisions set forth in Section 2.2.

1.24. "**Carisma Technology**" means all Know-How, Materials and Patents Controlled by Carisma or any of its Affiliates.

1.25. "**Carisma [**] Field Research Program**" has the meaning set forth in Section 4.1.2(b).

1.26. "**Claims**" means any and all suits, claims, actions, proceedings or demands brought by a Third Party.

1.27. "**Clinical Trial**" means a human clinical trial, including any Phase 1 Clinical Trial, Phase 2 Clinical Trial or Phase 3 Clinical Trial, or any human clinical trial commenced after Regulatory Approval.

1.28. "**Collaboration**" has the meaning set forth in Section 2.1.

1.29. "**Collaboration Targets**" means Research Targets, Development Targets and Pre-Cleared Targets, but excludes Discontinued Targets.

1.30. "**Commercialization**" means any and all activities directed to the manufacturing (including Manufacturing) of commercial supply of a product and related diagnostic product, the marketing, detailing, promotion and securing of pricing and reimbursement of such products, whether before or after Regulatory Approval has been obtained (including making, having made, using, importing, selling and offering for sale such product or related diagnostic product), and shall include post-launch marketing, promoting, detailing, marketing, research, distributing, customer service, administering and commercially selling such products, importing, exporting or transporting such products for commercial sale, and all regulatory compliance with respect to the foregoing.

1.31. "**Commercially Reasonable Efforts**" means, with respect to either Party in relation to this Agreement [**].

1.32. "**Competitive Infringement"** has the meaning set forth in Section 10.1.1.

1.33. "**Confidential Information**" means, with respect to a Party, all non-public, confidential and proprietary information and materials, whether of such Party or a Third Party, including Know-How, marketing plans, strategies, and customer lists, in each case, that are disclosed by such Party to the other Party, regardless of whether any of the foregoing are marked "confidential" or "proprietary" or communicated to the other Party by the disclosing Party in oral, written, visual, graphic or electronic form. All data, results and Know-How generated in the performance of the Research Programs shall be deemed the Confidential Information of Moderna, except for any such data, results or Know-How that solely constitutes Carisma Platform Technology, which shall be deemed the Confidential Information of Carisma. Confidential Information of a Third Party disclosed by a Party to the other Party shall be deemed the Confidential Information of the disclosing Party.

1.34. "**Control**", "**Controls**" or "**Controlled**" means, with respect to any intellectual property (including Patents and Know-How), Confidential Information, Regulatory Materials or other materials, the ability of a Party or its Affiliates (whether through ownership or license (other than a license granted in this Agreement)) to grant to the other Party and/or its Affiliates, as applicable, the licenses or sublicenses as provided herein, or to otherwise disclose such intellectual property, Confidential Information, Regulatory Materials or other materials to the other Party as provided herein without violating the terms of any then-existing agreement with any Third Party or misappropriating such intellectual property, Confidential Information, Regulatory Materials or other materials. Notwithstanding the foregoing:

(a) Carisma and its Affiliates shall be deemed not to Control any Patent or Know-How that it first licenses from a Third Party after the Effective Date if (i) Carisma or its Affiliates would be required to make any payment or impose any restrictions or conditions in connection with the grant of, or Moderna's exercise of rights under, a sublicense to such Patent or Know-How

hereunder, and (ii) Moderna does not exercise its option to take a sublicense to such Patent or Know-How under Section 8.5.3;

(b) Carisma and its Affiliates shall be deemed not to Control any Patent, Know-How, Regulatory Materials or other materials that, prior to or after the consummation of a Business Combination of Carisma, is owned or in-licensed by a Third Party that becomes an Affiliate of Carisma after the Effective Date as a result of such Business Combination unless (i) prior to the consummation of the Business Combination, Carisma or its Affiliates also Controlled such Patent, Know-How, Regulatory Materials or other materials, or (ii) such Patent, Know-How, Regulatory Materials or other materials owned or in-licensed by the applicable Third Party was not used in the performance of activities under this Agreement prior to the consummation of such Business Combination, but after the consummation of such Business Combination, Carisma or any of its Affiliates determines to use or uses any such Patent, Know-How, Regulatory Materials or other materials in the performance of its obligations or exercise of its rights under this Agreement or Carisma or any of its Affiliates that were Affiliates prior to the consummation of the Business Combination otherwise obtains Control of any such Patent, Know-How, Regulatory Materials or other materials. If requested by Moderna, Carisma shall make a bona fide request to such Third Party to provide Carisma with the right to include any Patent(s) owned or in-licensed by such Third Party (other than Patents that are deemed Controlled by Carisma pursuant to clauses (i) or (ii) above), as requested by Moderna, within the Licensed Patents hereunder; and

(c) Carisma and its Affiliates shall be deemed not to Control the intellectual property licensed from [**] under that certain License Agreement by and between Carisma and [**] dated [**] (such intellectual property, the "**[**] IP**") unless Moderna exercises its option to take a sublicense to such intellectual property under Section 8.5.3.3.

(d) Carisma and its Affiliates shall be deemed not to Control the "[**] Patent Rights" as defined in the [**].

1.35. "**Cover**", "**Covering**" or "**Covered**" means, with reference to a Patent, that the research, Development, Manufacture, use, offer for sale, sale or importation of a product, or practice of a method, would infringe a Valid Claim of such Patent in the country in which such activity occurs without a license thereto (or ownership thereof), if such Patent is an issued patent, or if such Patent is a pending patent application, would infringe such Valid Claim if such Patent were to issue.

1.36. "**Cure Period**" has the meaning set forth in Section 12.3.1.

1.37. "**Development**" (and other correlative terms) means preclinical and clinical drug development activities with respect to a product or diagnostic product, including: test method development and stability testing, toxicology, formulation, process development, qualification and validation, manufacture scale-up, development-stage manufacturing (including Manufacturing), quality assurance/quality control, Clinical Trials (including Clinical Trials and other studies commenced after Regulatory Approval), statistical analysis and report writing, the preparation and submission of INDs, BLAs and MAAs (and their equivalents in any country), regulatory affairs with respect to the foregoing and all other activities necessary or useful or otherwise requested or

required by a Regulatory Authority or as a condition or in support of obtaining or maintaining a Regulatory Approval.

1.38. **"Development Costs**" with respect to each Development Target, all costs associated with the Development and Commercialization of Products in the Field directed to such Development Target.

1.39. "**Development Milestone**" has the meaning set forth in Section 6.3.

1.40. "**Development Milestone Payment**" has the meaning set forth in Section 6.3.

1.41. "**Development Targets**" means the Research Targets nominated by Moderna for further development pursuant to Section 2.9.1.

1.42. "**Development Target Designation Cap**" has the meaning set forth in Section 2.9.1.

1.43. "**Development Target Designation Milestone Payment**" has the meaning set forth in Section 6.2.1.

1.44. "**Development Target Nomination Period**" means, on a Research Target-by-Research Target basis, the period beginning on the Effective Date and ending on the earlier of (i) [**] or (ii) [**] after the end of the Research Term.

1.45. "**Development Target Replacement Period**" has the meaning set forth in Section 2.9.2.

1.46. "**Disclosing Party**" has the meaning set forth in Section 7.1.

1.47. "**Discontinued Target**" means (a) for a given Research Target, that (i) the Development Target Nomination Period for such Research Target has expired and Moderna did not nominate such Research Target as a Development Target pursuant to Section 2.9 prior to such expiration of such Development Target Nomination Period, or (ii) such Research Target was replaced by Moderna pursuant to Section 2.4 or Section 2.5, (b) for a given Pre-Cleared Target, that such Pre-Cleared Target did not become a Research Target prior to the expiration of the Research Term, or (c) for a given Development Target, that (i) such Development Target was replaced by Moderna pursuant to Section 2.9.2, or (ii) Moderna has provided written notice to Carisma that it has ceased all Development and Commercialization of Products with respect to such Development Target pursuant to Section 3.3. A Research Target that becomes a Discontinued Target pursuant to clause (a) above shall be deemed a Discontinued Target for purposes of ARTICLE IV and Section 8.3.1 from and after the date that is [**] after (w) the expiration of the Development Target Nomination Period for such Research Target with respect to clause (a)(i) or (x) the replacement of such Research Target pursuant to Section 2.4 or Section 2.5 with respect to clause (a)(ii), and prior to such date such Research Target shall continue to be deemed a Collaboration Target subject to ARTICLE IV. A Development Target that becomes a Discontinued Target pursuant to clause (c) above shall be deemed a Discontinued Target for purposes of ARTICLE IV from and after the date that is [**] after (y) the designation of a replacement for such Development Target pursuant to Section 2.9.2 with respect to clause (c)(i) or

(z) the provision by Moderna to Carisma of written notice to Carisma pursuant to Section 3.3 with respect to clause (c)(ii) above, and prior to such date such Development Target shall continue to be deemed a Collaboration Target subject to ARTICLE IV. A Collaboration Target shall also become a Discontinued Target as provided in Section 12.5.

1.48. "**Dollars**" or "**$**" means the legal tender of the United States.

1.49. "**EMA**" means the European Medicines Agency, and any successor entity thereto.

1.50. "**Enforcement Proceeding**" has the meaning set forth in Section 10.1.3(b).

1.51. "**EU**" means, at any particular time, all countries that are officially recognized as member states of the European Union at such particular time.

1.52. "**Executive Officers**" means for Moderna, its [**], and for Carisma, its [**].

1.53. "**Exploit**" means to make, have made, import, use, sell or offer for sale, including to research, develop (including Develop), commercialize (including Commercialize), register, manufacture (including Manufacture), have manufactured (including have Manufactured), hold or keep (whether for disposal or otherwise), have used, export, transport, distribute, conduct medical affairs activities with respect to, promote, market or have sold or otherwise dispose of a compound, product or process. "**Exploitation**" means the act of Exploiting a compound, product or process.

1.54. "**FDA**" means the U.S. Food and Drug Administration, and any successor entity thereto.

1.55. "**Field**" means *in vivo* therapies for the treatment and prevention of oncological human diseases and conditions. For the avoidance of doubt, *ex vivo* treatments, including *ex vivo* cell therapy treatments, are excluded from the Field.

1.56. "**First Commercial Sale**" means, on a Product-by-Product and country-by-country basis, the first sale of such Product in such country for use or consumption by the general public and for which any of Moderna or its Affiliates or Sublicensees has invoiced sales of Products in the Territory for which all Regulatory Approvals that are legally required in order to sell such Product in such country have been granted; in each case, provided, however, that the following shall not constitute a First Commercial Sale: (a) any sale to an Affiliate or Sublicensee, unless the Affiliate or Sublicensee is the last entity in the distribution chain of the Product; (b) any use of such Product in Clinical Trials or non-clinical development activities with respect to such Product by or on behalf of a Party, or disposal or transfer of such Product for a bona fide charitable purpose; and (c) compassionate use; and (d) named patient use.

1.57. "**Force Majeure**" has the meaning set forth in Section 14.2.

1.58. "**Fraud**" means, with respect to a Person, actual and intentional (and not constructive) common law fraud under Delaware law with respect to the making of the representations and warranties in ARTICLE XIII.

1.59. "**FTE**" means the equivalent of the work of one (1) full-time employee of a Party or any of its Affiliates for one (1) year (consisting of [**] hours per year) in directly conducting relevant activities hereunder. Any Party's employee who devotes fewer than [**] hours per year on the applicable activities shall be treated as an FTE on a pro-rata basis, calculated by dividing the actual number of hours worked by such employee on such activities by [**]. Any employee who devotes more than [**] hours per year on the applicable activities shall be treated as one (1) FTE.

1.60. "**FTE Rate**" means $[**] per FTE for the period commencing on the Effective Date and ending on December 31, 2022. On January 1, 2023 and on January 1st of each subsequent Calendar Year, the foregoing rate shall be increased for the Calendar Year then commencing by the percentage increase, if any, in the Consumer Price Index – Urban Wage Earners and Clerical Workers, US City Average, All Items, 1982-84 = 100, published by the United States Department of Labor, Bureau of Labor Statistics (or its successor equivalent index), as of December 31 of the then most recently completed Calendar Year with respect to the level of the CPI on December 31, 2022. The FTE Rate represents the fully loaded rate per FTE and includes (a) all wages and salaries, office supplies, customary lab and other consumables (i.e., those costing less than $[**] per item), employee benefits and bonuses, and capital expenditures and (b) indirect allocations, including all overhead, general and administrative expenses, human resources, finance, occupancy and depreciation.

1.61. "**German Exemption Certificate**" has the meaning set forth in Section 6.7.3(c).

1.62. "**Governmental Authority"** means any: (a) nation, principality, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, officer, official, representative, organization, unit, body or entity and any court or other tribunal); (d) multinational organization or body; or (e) individual, entity or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

1.63. "**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

1.64. "**Improvements**" means any discovery, invention, idea, contribution, method, finding, or trade secret, whether or not patentable, and all intellectual property therein, that is discovered, conceived, reduced to practice, or otherwise developed by or on behalf of a Party, during the Term, that is a modification, derivation, improvement or enhancement.

1.65. "**IND**" means an investigational new drug application (including any amendment or supplement thereto) submitted to the FDA pursuant to U.S. 21 C.F.R. Part 312, including any amendments thereto. References herein to IND shall include, to the extent applicable, any comparable filing(s) outside the U.S. for the investigation of any product in any other country or group of countries (such as a Clinical Trial Application ("**CTA**") in the EU).

1.66. "**IND-Enabling Toxicology Studies**" means the pharmacokinetic and toxicology studies that are intended to satisfy the requirements for filing an IND with respect to a product.

1.67. "**Indemnification Claim**" has the meaning set forth in Section 11.3.

1.68. "**Indemnitee**" has the meaning set forth in Section 11.3.

1.69. "**Indemnitor**" has the meaning set forth in Section 11.3.

1.70. "**Initiated Work**" means, with respect to a Carisma Reserved Target, that Carisma has [**].

1.71. "**Internal Carisma Program**" means, with respect to a Target, [**].

1.72. "**Joint IP**" has the meaning set forth in Section 8.2.2(c).

1.73. "**Joint Know-How**" has the meaning set forth in Section 8.2.2(c).

1.74. "**Joint Patents**" has the meaning set forth in Section 8.2.2(c).

1.75. "**Joint Steering Committee**" or "**JSC**" has the meaning set forth in Section 5.1.1.

1.76. "**JSC Term**" has the meaning set forth in Section 5.1.1.

1.77. "**Know-How**" means all tangible and intangible information, techniques, technology, practices, trade secrets, inventions (whether patentable or not), methods, sequences, data, results (including pharmacological, toxicological and clinical test data and results, chemical structures, sequences, processes, formulae, techniques, research data, reports, standard operating procedures and batch records), analytical and quality control data, analytical methods (including applicable reference standards), full batch documentation, packaging records, release, stability, storage and shelf-life data, and manufacturing process information, results or descriptions, software and algorithms.

1.78. "**Lead Candidate**" means, [**].

1.79. "**Licensed Intellectual Property**" means the Licensed Know-How and the Licensed Patents.

1.80. "**Licensed Know-How**" means all Know-How Controlled by Carisma or its Affiliates as of the Effective Date or thereafter during the Term that [**].

1.81. "**Licensed Patents**" means all Patents Controlled by Carisma or its Affiliates as of the Effective Date or thereafter during the Term that [**].

1.82. "**Litigation Conditions**" means, with respect to a Claim, (a) such Claim does not seek injunctive relief or non-monetary damages from the Indemnitee and (b) the Indemnitor expressly agrees in writing that as between the Indemnitor and Indemnitee, the Indemnitor shall be solely obligated to satisfy and discharge such Claim in full and is able to reasonably demonstrate that it has sufficient financial resources to meet such indemnification obligations.

1.83. "**LNP**" means lipid nanoparticle.

1.84. "**Manufacture**" means all activities related to the manufacturing of a product or diagnostic product or, in either case, any component or ingredient thereof, including test method development and stability testing, formulation, process development, manufacturing scale-up whether before or after Regulatory Approval, manufacturing any product or diagnostic product in bulk or finished form for Development or Commercialization (as applicable), including filling and finishing, packaging, labeling, shipping and holding, in-process and finished product testing, release of a product or diagnostic product or, in either case, any component or ingredient thereof, quality assurance and quality control activities related to manufacturing and release of a Product, and regulatory activities related to any of the foregoing. "**Manufacturing**" has a corresponding meaning.

1.85. "**Marketing Authorization Application**" or "**MAA**" means an application to the appropriate Regulatory Authority for approval to market a Product in any particular jurisdiction and all amendments and supplements thereto.

1.86. "**Materials**" means any tangible biological or chemical materials.

1.87. "**Minimum Funding**" has the meaning set forth in Section 2.6.

1.88. "**Moderna Indemnitees**" means Moderna, its Affiliates and its or their respective directors, officers, managers, partners, employees, agents, successors and permitted assigns.

1.89. "**Moderna In-License Agreements**" means Pre-Existing Moderna In-Licenses and New Moderna In-Licenses.

1.90. "**[**]**" has the meaning set forth in Section **[**]**.

1.91. "**Moderna Platform Program Know-How**" has the meaning set forth in Section 8.2.2(d).

1.92. "**Moderna Platform Program Patents**" has the meaning set forth in Section 8.2.2(d).

1.93. "**Moderna Platform Program Technology**" has the meaning set forth in Section 8.2.2(d).

1.94. "**Moderna Research Activities**" means, with respect to a Research Plan, any activities for which Moderna is specifically designated as the responsible Party under such Research Plan.

1.95. "**mRNA**" means messenger RNA.

1.96. "**mRNA Construct**" means a messenger RNA construct for the [**] contained in such construct.

1.97. "**mRNA Technology**" means [**].

1.98. "**MTA**" has the meaning set forth in Section 2.13.

1.99. "**Net Sales**" means, with respect to any Product, the gross amounts invoiced by Moderna, its Affiliates or Sublicensees (each, a "**Selling Party**") to Third Party customers for sales of such Product, less the following deductions actually incurred, allowed, paid, accrued or specifically allocated in its financial statements in accordance with the Accounting Principles, for:

[**]

1.100. "**New Carisma In-Licensed IP**" has the meaning set forth in Section 8.5.3.1.

1.101. "**New In-License**" has the meaning set forth in Section 8.5.1.

1.102. "**New In-License IP**" has the meaning set forth in Section 8.5.1.

1.103. "**New Moderna In-License**" means any New In-License to which Moderna or any of its Affiliates is a Party.

1.104. "**[**] Field**" means therapies in the Field that are not in the [**] Field.

1.105. "**[**] IP**" has the meaning set forth in Section 1.34(c).

1.106. "**Out-of-Pocket Costs**" means, with respect to a Party or its Affiliates, costs and expenses paid by such Party or its Affiliate to Third Parties (or payable to Third Parties and accrued in accordance with Accounting Principles), that are directly and solely attributable to the relevant products, services or activities performed or provided, including the costs of subcontractors of such Party or its Affiliates used to perform such activities in connection with the performance of a Research Plan.

1.107. "**Patents**" means (a) all patents and patent applications in any country or supranational jurisdiction worldwide, (b) any substitutions, divisionals, continuations, continuations-in-part, reissues, renewals, registrations, confirmations, re-examinations, extensions, supplementary protection certificates and the like of any such patents or patent applications, and (c) foreign counterparts of any of the foregoing.

1.108. "**[**]**" means [**].

1.109. "**[**] License Agreement**" means the License Agreement, dated [**], between [**] and Carisma [**].

1.110. "**Per Product Annual Net Sales**" has the meaning set forth in Section 6.5.1.

1.111. "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

1.112. "**Phase 1 Clinical Trial**" means a human clinical trial of a product in any country as described in 21 C.F.R. 312.21(a), or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.113. "**Phase 2 Clinical Trial**" means a human clinical trial of a product in any country as described in 21 C.F.R. Part 312.21(b), or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.114. "**Phase 3 Clinical Trial**" means a human clinical trial of a product in any country as described in 21 C.F.R. Part 312.21(c), or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.115. "**Polypeptide**" means, with respect to a Target, a polypeptide that is [**].

1.116. "**Pre-Cleared Targets**" means, subject to Section 2.3, the [**] Targets listed on Schedule 1.116 (the "**Pre-Cleared Target List**") that Moderna may nominate during the Research Term for inclusion in Research Programs.

1.117. "**Pre-Existing Moderna In-License**s" means any in-license agreements entered into between Moderna or any of its Affiliates and a Third Party that is not a New In-License and pursuant to which the Third Party grants to Moderna or its Affiliates a license to Patents, Know-How or Materials that are [**].

1.118. "**Product**" means (a) [**] ("**Collaboration Products**") and (b) [**] ("**Other Products**"); in each case in all forms, presentations, and formulations (including manner of delivery and dosage).

1.119. "**Product Polypeptide"** means any Polypeptide that [**].

1.120. "**Product Polypeptide Patents**" has the meaning set forth in Section 9.1.1(a).

1.121. "**Product-Specific Program Know-How**" has the meaning set forth in Section 8.2.2(f).

1.122. "**Product-Specific Program Patents**" has the meaning set forth in Section 8.2.2(f).

1.123. "**Product-Specific Program Technology**" has the meaning set forth in Section 8.2.2(f).

1.124. "**Proposed Research Summary**" has the meaning set forth in Section 4.1.2(b).

1.125. "**Prosecution and Maintenance**" or "**Prosecute and Maintain**" means, with regard to a Patent, the preparation, filing, prosecution and maintenance of such Patent, as well as re-examinations, reissues, appeals, requests for patent term adjustments and patent term extensions with respect to such Patent, together with the initiation or defense of interferences, oppositions, inter partes reviews, re-examinations, post-grant proceedings and other similar proceedings with respect to the particular Patent, and any appeals therefrom. For clarification, "Prosecution and

Maintenance" or "Prosecute and Maintain" shall not include any other enforcement actions taken with respect to a Patent.

1.126. "**Receiving Party**" has the meaning set forth in Section 7.1.

1.127. "**Regulatory Approval**" means the approval, license or authorization of the applicable Regulatory Authority necessary for the marketing and sale of a product for a particular indication in a country in the world (including separate pricing or reimbursement approvals whether or not legally required in order to sell the product in such country), and including the approval by the applicable Regulatory Authority of any expansion or modification of the label for such indication.

1.128. "**Regulatory Authority**" means, with respect to a country in the Territory, any national (e.g., the FDA), supra-national (e.g., the European Commission, the Council of the European Union, or the EMA), regional, state or local regulatory agency, department, bureau, commission, council or other Governmental Authority involved in the granting of Regulatory Approvals for pharmaceutical products in such country or countries.

1.129. "**Regulatory-Based Exclusivity**" means, on a Product-by-Product and country-by-country basis, that (a) Moderna or any of its Affiliates or Sublicensees has been granted the exclusive legal right by a Regulatory Authority (or is otherwise entitled to the exclusive legal right by operation of Applicable Law) in such country to market and sell the Product or the active ingredient comprising such Product in such country, including any pediatric or orphan drug exclusivity, or (b) a Regulatory Authority has undertaken (or such undertaking is otherwise imposed by operation of Applicable Law) that the data and information submitted by Moderna or any of its Affiliates or Sublicensees to such Regulatory Authority in such country for purposes of obtaining Regulatory Approval may not be disclosed, referenced or relied upon in any way by such Regulatory Authority (including by relying upon the Regulatory Authority's previous findings regarding the safety or effectiveness of the Product) to support the Regulatory Approval or marketing of any product by a Third Party in such country.

1.130. "**Regulatory Materials**" means the regulatory registrations, applications, authorizations and approvals (including approvals of BLAs, supplements and amendments, pre- and post-approvals, pricing and Third Party reimbursement approvals, and labeling approvals), Regulatory Approvals or other submissions made to or with any Regulatory Authority necessary for the research, Development (including the conduct of Clinical Trials), Manufacture, or Commercialization of a Product in a regulatory jurisdiction, together with all related correspondence to or from any Regulatory Authority and all documents referenced in the complete regulatory chronology for each BLA, including all Drug Master File(s) (if any), IND, CTA in the EU, MAA and supplemental new drug applications (sNDAs) or foreign equivalents of any of the foregoing.

1.131. "**Research Budget**" has the meaning set forth in Section 2.6.

1.132. "**Research Costs**" means with respect to Carisma Research Activities conducted pursuant to a Research Plan, (a) Carisma's and its Affiliates' internal costs with respect to such Carisma Research Activities determined at the FTE Rate; and (b) all Out-of-Pocket Costs incurred

by Carisma or its Affiliates in the performance of such Carisma Research Activities, including payments made to Third Parties with respect to such activities (except to the extent that such costs have been included in FTE costs under clause (a) and excluding, for clarity, any capital expenditures), determined from Carisma's and its Affiliates' books and records maintained in accordance with GAAP, and excluding entertainment costs.

1.133. "**Research Plan**" has the meaning set forth in Section 2.6.

1.134. "**Research Program**" has the meaning set forth in Section 2.1.

1.135. "**Research Targets**" means all Targets as each specifically relates to a CAR-M that are nominated by Moderna or Carisma and included in a Research Program pursuant to Section 2.2.

1.136. "**Research Term**" means the period beginning on the Effective Date and ending on the [**] anniversary of the Effective Date, as may be extended pursuant to Section 2.6.2.

1.137. "**Research Term Year**" has the meaning set forth in Section 2.2.2.

1.138. "**Right of Reference**" has the meaning set forth in Section 3.2.2.

1.139. "**Royalty Rate**" has the meaning set forth in Section 6.5.1.

1.140. "**Royalty Term**" means, on a Product-by-Product and country-by-country basis, the period of time commencing on the Effective Date and expiring upon the latest of (a) the expiration of the last Valid Claim of a [**], (b) the expiration of Regulatory-Based Exclusivity for such Product in such country, and (c) the [**] anniversary of the date of First Commercial Sale of such Product in such country.

1.141. "**Sales Milestone**" has the meaning set forth in Section 6.4.

1.142. "**Sales Milestone Payment**" has the meaning set forth in Section 6.4.

1.143. "**SEC**" has the meaning set forth in Section 7.3.1(a).

1.144. **"Securities Regulators**" has the meaning set forth in Section 7.5.

1.145. "**Step-In Proceeding**" has the meaning set forth in Section 10.1.3(b).

1.146. "**Subcontractor**" has the meaning set forth in Section 2.12.

1.147. "**Sublicensee**" means a Third Party to whom Moderna or any of its Affiliates has granted a license to Develop, Manufacture, have Manufactured, use, offer for sale, sell, import and otherwise Commercialize Products in the Field in the Territory, but excluding any Third Party acting solely as a distributor or wholesaler.

1.148. "**Target**" means any clinically relevant biological target.

1.149. "**Term**" has the meaning set forth in Section 12.1.1.

1.150. "**Territory**" means worldwide.

1.151. "**Third Party**" means any Person other than Carisma or Moderna that is not an Affiliate of Carisma or of Moderna.

1.152. "**Third Party Damages**" means [**].

1.153. "**Third Party Obligation**" means, with respect to a Target nominated by Moderna as a Research Target pursuant to Section 2.2, that Carisma or any of its Affiliates has as of the date of such nomination, as evidenced by written records, already granted to a Third Party an exclusive license or option to obtain an exclusive license to Develop and Commercialize products incorporating or directed to such Target.

1.154. "**United States**" or "**U.S.**" means the United States of America and all of its territories and possessions.

1.155. "**Valid Claim**" means a claim of (a) an issued patent in the U.S. or in a jurisdiction outside the U.S., as applicable, that has not expired, lapsed, been cancelled or abandoned, or been dedicated to the public, disclaimed, or held unenforceable, invalid, revoked or cancelled by a court or administrative agency of competent jurisdiction in an order or decision from which no appeal has been or can be taken, including through opposition, re-examination, reissue, disclaimer, inter partes review, post grant or similar proceedings; or (b) a pending patent application that has not been finally abandoned or finally rejected or expired and which has been pending for no more than [**] from the date of filing of the earliest patent application to which such pending patent application is entitled to claim priority, in the case of (a) and (b) above, claims the composition of matter, manufacture or method of use of a Product.

1.156. "**[**] Field**" means therapies in the Field that [**].

1.157. "**[**] Field Program Option Fee**" means, with respect to a Carisma [**] Field Research Program, (a) [**] Dollars ($[**]) if the product that is the subject of such Carisma [**] Field Research Program [**], and (b) [**] Dollars ($[**]) if the product that is the subject of such Carisma [**] Field Research Program has [**].

ARTICLE II.
RESEARCH

2.1. Collaboration Overview. Subject to Section 2.4, the Parties shall initiate at least [**] research programs each Research Term Year focused on the discovery and research of products directed to Research Targets utilizing Carisma Technology for use in the Field (each, a "**Research Program**"), including [**] Research Programs to be initiated within [**] following the effectiveness of the Agreement, with the objective of Moderna evaluating [**] Products in Clinical Trials and potentially obtaining Marketing Approval therefor by performing the activities set forth in the Research Plans (the "**Collaboration**").

2.2. Research Targets. During the Research Term, subject to Section 2.4, either Party may nominate a Target to be a Research Target for inclusion in a Research Program by providing

written notice of such nomination to the other Party. Moderna shall nominate at least [**] Targets from the Pre-Cleared Target List as Research Targets within the first [**] after the Effective Date.

2.2.1. If Moderna is the nominating Party and the nominated Target is a [**], then such [**] become a Research Target [**] and the Parties shall [**].

2.2.2. If Moderna is the nominating Party and the nominated Target (a) [**], (b) [**] and (c) (i) [**] and (ii) [**], then such [**] become a Research Target [**] and the Parties shall [**]. Carisma shall notify Moderna within [**] of Moderna's nomination of a Target if such Target is the [**]. Carisma shall be [**] per each [**] period of the Research Term, with the first such period beginning on the Effective Date (each, a "**[**]**") pursuant to Section 2.2.2(c), this being cumulative (provided that, if [**]), so that over the Research Term, Carisma shall be [**] in the aggregate, exclusive of the [**]. Notwithstanding the foregoing, Carisma may not [**] under Section 2.2.2(c) in any [**]. For example, [**].

2.2.3. If Moderna is the nominating Party and the nominated Target is [**] or such nominated Target is [**], then the Parties shall [**] such nominated Target [**].

2.2.4. If Carisma is the nominating Party, the nominated Target shall [**] and [**] only if [**].

2.3. Pre-Cleared Target List Adjustments. The number of Pre-Cleared Targets in the Pre-Cleared Target List shall be [**].

[**]				
[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]	[**]	[**]

2.4. Maximum Number of Research Targets; Replacement Research Targets. At any time during the Research Term there shall be not more than twelve (12) Research Targets nominated by Moderna and included in the Research Programs, unless otherwise agreed in writing by the Parties. During the Research Term, Moderna shall have the right to replace a Research Target with a new Research Target in accordance with the Research Target nomination provision set forth in Section 2.2 by providing written notice to Carisma of such replacement; provided that Moderna may replace up to a maximum of [**] of such Research Targets for any reason pursuant to this Section 2.4. With respect to any such replacement Research Target, the Parties shall agree upon a Research Plan for such Research Target and any updates to the Research Budget in accordance with Section 2.6.

2.5. Replacement of Research Target Without Counting Against Replacement Cap.

2.5.1. If the Parties determine, within [**] after the date that a Target nominated by Moderna becomes a Research Target pursuant to Section 2.2, that it is [**] Moderna shall have the right to nominate a new Research Target pursuant to Section 2.2, which new Research Target shall not count as a replacement for purposes of Section 2.4.

2.5.2. If the Parties [**], then (a) Moderna shall have the right to nominate a new Research Target pursuant to Section 2.2, which new Research Target shall not count as a replacement for purposes of Section 2.4, and (b) the Research Target [**] shall cease to be a Research Target, shall not count as a Research Target nominated by Moderna for purposes of Section 2.4 and shall become a Discontinued Target pursuant to Section 1.47.

2.6. Research Activities; Research Plan and Research Budget. On a Research Target-by-Research Target basis, the Parties shall approve at the JSC a research plan for the Research Program for such Research Target (each such research plan, a "**Research Plan**") within [**] after the date that such Research Target is included in the Collaboration pursuant to Section 2.2 or Section 4.1.2(b), together with an update to the Research Budget if it does not then cover the Research Costs for such Research Program. In addition to the Research Plans for each Research Program, the Parties shall agree to one or more research plans for platform development activities (each such research plan also a "**Research Plan**"). Each Research Plan shall automatically be deemed included as an Exhibit to this Agreement. The Research Plan attached hereto as Exhibit B shall be used for the first Research Program and platform development activities commenced under this Agreement. The research budget attached hereto as Exhibit B-1 (the "**Research Budget**") shall cover all Research Costs for the Carisma Research Activities conducted over the first [**] Research Term Years for up to [**] Research Programs and for platform development activities, and shall be updated as provided in Section 2.7. Each Research Plan shall specify (a) the Carisma Research Activities and (b) the Moderna Research Activities. Carisma shall be primarily responsible for, and the Carisma Research Activities for each Research Program shall generally include, substantially the same level of resources and effort as provided for the first Research Target in the Research Plan attached hereto as Exhibit B. Carisma shall be responsible for carrying out all Carisma Research Activities under each Research Plan, and Moderna shall be responsible for carrying out all Moderna Research Activities under the Research Plan. Each Party shall use Commercially Reasonable Efforts to perform the activities for which it is responsible under the Research Plan in accordance with the timelines set forth therein. Without limiting the foregoing, Moderna shall fund a minimum of [**] Dollars ($[**]) in Research Costs for Carisma Research Activities over the first [**] Research Term Years (the "**Minimum Funding**"). If Moderna terminates this Agreement pursuant to Section 12.2 prior to the expiration of the [**] Research Term Year and has not paid to Carisma the Minimum Funding, then Moderna shall pay such unpaid amount, less any non-cancellable expenses paid by Moderna pursuant to Section 12.5.3, to Carisma within [**] after such termination.

2.6.1. Prior to the Effective Date (as to the first Calendar Quarter during the Research Term) and thereafter no later than [**] before the end of each Calendar Quarter during the Research Term, Carisma shall provide to Moderna a good faith estimate of the Research Costs that Carisma expects to incur in the performance of the Carisma Research Activities in accordance with each Research Plan and the Research Budget during the next Calendar Quarter. If such estimate with respect to Research Costs designated as "Pass Through" costs in the Research Budget is more than [**] percent ([**]%) of the amounts budgeted for such "Pass Through" costs in the Research Budget for such Calendar Quarter, then the Parties shall discuss in good faith an apportionment of responsibility for such excess Research Costs or an amendment to the Research Plan(s) to reduce the Research activities giving rise to such excess Research Costs. Subject to this Section 2.6.1, Moderna shall prepay to Carisma the estimated Research Costs for the next Calendar Quarter (with any adjustment required to reflect over-payments or under-payments as identified in

the reconciliation referenced below) within [**] after receipt of such estimate. Within [**] after the end of each Calendar Quarter during the Research Term, Carisma shall provide to Moderna a written report setting forth the reconciliation of Research Costs previously funded by Moderna against actually incurred Research Costs as of the end of such Calendar Quarter, and any adjustment required to reflect over-payments or under-payments as identified in such report shall be applied to the next prepayment of estimated Research Costs, subject to clauses (a) and (b) of this Section 2.6.1. At the conclusion of activities in all Research Plans, the Parties shall conduct a final reconciliation of such Research Cost funding against actual costs and the Party that has been overpaid or the Party that has under-funded shall make a final reconciliation payment to the other Party. The Parties shall reasonably cooperate on a quarterly basis during the Research Term to provide such invoices and other documentation as needed to satisfy each Party's accounting needs with respect to such Research Costs. Notwithstanding anything to the contrary herein, Moderna shall have no obligation to reimburse Carisma for Research Costs that exceed the amounts budgeted for the associated Carisma Research Activities in the Research Budget, and in no event in excess of the Research Budget for all Carisma Research Activities, unless otherwise agreed by Moderna in its sole discretion, provided that (a) with respect to each Calendar Quarter and the Research Costs that are designated as "Pass Through" costs in the Research Budget for such Calendar Quarter, Moderna shall reimburse Carisma up to [**] percent ([**]%) of the amounts budgeted for such "Pass Through" costs in the Research Budget for such Calendar Quarter, and (b) within [**] after the end of each Research Term Year, the Parties shall conduct a reconciliation of the actual "Pass Through" costs incurred by Carisma with respect to such Research Term Year against the amounts budgeted for "Pass Through" costs in the Research Budget for such Research Term Year, and if such actual "Pass Through" costs exceeded the budgeted amounts therefor for such Research Term Year, then Moderna shall reimburse Carisma for such excess actual "Pass Through" costs up to [**] percent ([**]%) of the amounts budgeted for such "Pass Through" costs for such Research Term Year, taking into account the funding for such "Pass Through" costs that was already paid to Carisma for such Research Term Year.

2.6.2. Carisma shall dedicate FTEs and other resources that are sufficient to conduct the Carisma Research Activities set forth in each Research Plan. Carisma shall have at least the following numbers of FTEs dedicated to the performance of the Carisma Research Activities at the following times: (a) as of the Effective Date, [**] FTEs; (b) as of [**] FTEs; (c) as of [**] FTEs; (d) as of [**] FTEs; and (e) as of [**] FTEs. At all times thereafter, Carisma shall use Commercially Reasonable Efforts to maintain a sufficient number of dedicated FTEs to perform Carisma's obligations under the Research Plans. The Research Term shall be extended by any duration of time during which Carisma fails to meet the requirements of any of the foregoing clauses (a) through (e) of this Section 2.6.2, or fails to use Commercially Reasonable Efforts in accordance with the preceding sentence. The foregoing number of FTEs shall be reviewed by the Parties on [**] basis and adjusted as necessary, including in light of the number of then-ongoing and anticipated Research Programs and the results of the Research Programs, upon mutual agreement of the Parties, such agreement not to be unreasonably withheld.

2.6.3. Each Party shall cooperate with and provide reasonable support to the other Party in such other Party's performance of its responsibilities under each Research Plan. Each Party shall keep the other Party reasonably informed of such Party's Research Activities under each Research Plan and shall reasonably consult with such other Party and reasonably consider

such other Party's comments and advice with respect to all material decisions relating to such activities.

2.6.4. Subject to Section 8.5.3, in performing the Carisma Research Activities under each Research Plan, Carisma shall employ the most advanced Carisma Technology, including any New In-License IP, that is best suited to result in the successful outcome of the associated Research Program, as reasonably determined by Carisma, and that is then being used by Carisma with respect to its research and development activities conducted for its, and its Affiliates' and development partners' programs. If at any time during the Research Term Moderna believes that a Product or Products incorporating or directed to such Research Target would benefit from new Carisma Technology that was not utilized in the Research Program for such Research Target, upon Moderna's request the Parties shall discuss the potential use of such Carisma Technology for such Products and, if requested by Moderna, the Parties shall commence a new Research Program for such Research Target and agree to a Research Plan for such new Research Program and an update to the Research Budget within [**] of Moderna's request, provided that Carisma shall not be required to commence more than [**] new Research Programs pursuant to the foregoing, but shall if requested by Moderna discuss with Moderna in good faith the conduct of such additional new Research Programs. For clarity, new Research Programs pursuant to this Section 2.6.4 shall not count as an additional or replacement Research Target for purposes of Section 2.4.

2.7. Research Plan and Research Budget Updates.

2.7.1. With respect to each Research Program for which the Research Costs are not included in the then-current Research Budget, the Parties shall submit to the JSC for the JSC's review and approval an update to the Research Budget to include such Research Costs prior to the commencement of such Research Program.

2.7.2. Each of Carisma and Moderna shall have the right to propose modifications or amendments to any Research Plan, provided that any modifications or amendments to such Research Plan that are proposed by either Party shall be subject to approval by the JSC. To the extent any such proposed amendment includes additional or different Research Activities that are to be performed by Carisma, Carisma shall within [**] of receipt of the proposed amendment, provide any proposed changes thereto, along with a proposed update to the Research Budget for the amended Carisma Research Activities, for review and approval by the JSC, and to the extent approved by the JSC, such Research Plan and the Research Budget shall be amended accordingly. By [**] of each year in which any Research Program is ongoing, the Parties may update each Research Plan for each ongoing Research Program and the Research Budget and submit the relevant Research Plan and updated Research Budget, which shall specify Research Costs for each Calendar Quarter, to the JSC for discussion and approval by the JSC, provided that if mutually agreed by the Parties, the timing for such updates for any Calendar Year may be adjusted to meet a Party's internal budgeting process.

2.7.3. In addition to any amendments to the Research Budget contemplated by Section 2.7.1 and Section 2.7.2, the Parties agree to periodically (but at least [**]) review and submit updates to the Research Budget to the JSC for discussion and approval by the JSC .

2.8. Briefing the JSC. At each regularly scheduled meeting of the JSC, each Party shall provide detailed progress updates on activities conducted under each Research Plan along with a summary of data associated with such activities.

2.9. Development Target Designation; Replacement.

2.9.1. Moderna shall have the right to designate up to twelve (12) Research Targets as Development Targets ("**Development Target Designation Cap**") upon payment of the Development Target Designation Milestone Payment to Carisma for each such designated Development Target pursuant to Section 6.2.1. Moderna may exercise such right, on a Research Target-by-Research Target basis, by providing written notice of such designation to Carisma prior to the end of the Development Target Nomination Period for such Research Target.

2.9.2. Moderna shall have the right to replace a Development Target with a Research Target at any time after the designation of such Development Target and before the earlier of (a) [**] after such designation and (b) the end of the Development Target Nomination Period for the Research Target that would be the replacement Development Target (such period, the "**Development Target Replacement Period**"), but only if [**]. Moderna shall provide Carisma with written notice of its decision to replace a Development Target, at which time Moderna's obligations under Section 3.1.1 with respect to such Development Target shall cease. If at such time there is not a Research Target that Moderna wishes to designate as the replacement Development Target, the first Research Target subsequently nominated by Moderna before the end of the Development Target Replacement Period shall be considered the replacement Development Target. If at the end of the Development Target Replacement Period Moderna has not designated a replacement Development Target and [**], Moderna may elect by written notice to Carisma within [**] after the end of such the Development Target Replacement Period to either (i) withdraw its notice of the replacement of such Development Target, in which case Moderna's obligations under Section 3.1.1 with respect to such Development Target shall resume, or (ii) discontinue such Development Target, in which case such Development Target shall no longer count against the Development Target Designation Cap. The designation of a replacement Development Target shall not count against the Development Target Designation Cap and, if a replacement Development Target is designated by Moderna within [**] after the date it first provided written notice to Carisma of its decision to replace a Development Target, [**] percent ([**]%) of the Development Target Designation Milestone Payment paid to Carisma for the replaced Development Target shall be credited against the Development Target Designation Milestone Payment to be paid to Carisma for the replacement Development Target. A Development Target replaced by Moderna pursuant to this Section 2.9.2 shall cease to be a Development Target and shall be a Discontinued Target pursuant to Section 1.47.

2.10. [**] Targets.

2.10.1. Commencing [**] after the Effective Date, Moderna shall have the right to nominate Targets relating to [**] human diseases and conditions ("**[**] Targets**") for inclusion in Research Programs hereunder unless Moderna determines, after discussion by the Parties at the JSC, that [**]. Whether such sufficient preclinical and clinical data exists shall be reasonably determined by the Parties considering all relevant factors, including [**].

2.10.2. If, pursuant to Section 2.10.1, Moderna elects to nominate [**] Targets for inclusion in Research Programs hereunder, then:

2.10.2.1. such nomination and [**] Targets, and Products which incorporate or are directed to such [**] Targets, shall be subject to the terms of this Agreement the same as any Collaboration Target relating to oncological human diseases and conditions, including Section 2.2, and for clarity such [**] Targets included in a Research Program shall be Collaboration Targets; and

2.10.2.2. the Field shall be deemed to include *in vivo* therapies for the treatment and prevention of [**] human diseases and conditions with respect to such [**] Targets and Products for all provisions of this Agreement, other than Sections 2.11, 4.1 and 13.1.2(l), provided that the license granted to Moderna in Sections 8.1.1(a)(ii)(A) and 8.1.1(a)(iii) (other than with respect to the Manufacture of and having Manufactured Product Polypeptides and Products, which shall be exclusive) shall be limited to a non-exclusive license with respect to [**] human diseases and conditions.

2.11. Carisma Activities Outside of the Field. During the Research Term, Carisma shall, subject to confidentiality restrictions in its agreements with Third Parties, keep Moderna apprised of its ongoing research and Development efforts outside the Field and Improvements made to or acquired for the Carisma Technology, in each case to the extent applicable to therapies for the treatment and prevention of oncological human diseases and conditions, in accordance with this Section 2.11. At each JSC meeting, Carisma shall disclose to Moderna the Targets for which Carisma is conducting such research or Development. At each other JSC meeting, Carisma shall provide Moderna with a detailed summary of such ongoing research and Development efforts outside the Field, including Target related data, and any such Improvements to the Carisma Technology.

2.12. Subcontractors. Each Party may engage consultants, subcontractors, or other vendors (including academic and not-for profit collaborators and principal investigators) (each, a "**Subcontractor**") to perform its Research Activities under a Research Plan and other activities or obligations under this Agreement, provided that Carisma shall obtain Moderna's prior written consent, not to be unreasonably withheld, prior to engaging any Subcontractor. Each such contract between a Party and a Subcontractor performing activities under this Agreement shall be consistent with the provisions of this Agreement (including ARTICLE VII and ARTICLE VIII) and include terms and conditions protecting and limiting use and disclosure of Confidential Information and Materials and Know-How at least to the same extent as under this Agreement, and requiring such Subcontractor and its personnel to assign to such Party all right, title and interest in and to any Patents, Know-How and Materials created, conceived or developed in connection with the performance of subcontracted activities. Each Party shall be responsible for the effective and timely management of and payment of its Subcontractors. The engagement of any Subcontractor in compliance with this Section 2.12 shall not relieve the applicable Party of its obligations under this Agreement or any Research Plan. Each Party shall be solely responsible for any taxes, including income, withholding, payroll, VAT, sales tax or the like, that arise from the use of a Subcontractor to perform activities under this Agreement, without limiting Moderna's research funding obligations pursuant to Section 2.6.

2.13. Transfer of Materials. To facilitate the conduct of activities under each Research Plan, each Party shall provide any Materials required by such Research Plan to be transferred to the other Party, and each Party may provide to the other Party certain other Materials at its discretion and free of charge. In connection with the first transfer of Materials between the Parties, the Parties shall enter into a material transfer agreement substantially in the form of Exhibit C (each, a "**MTA**"), which shall set forth in the Material Transmissions Form (as defined in the MTA) attached thereto the type and name of the Material transferred, the amount of the Materials transferred, the date of the transfer of the Materials and the permitted use of the Materials. All subsequent transfers of Materials shall be pursuant to the executed MTA, which transfer shall be accompanied by a new Material Transmissions Form to the MTA that sets forth the type and name of the Material transferred, the amount of the Materials transferred, the date of the transfer of the Materials and the permitted use of the Materials. All Materials (a) shall remain the sole property of the supplying Party and shall be subject to the Third Party restrictions communicated in writing by the supplying Party to the Receiving Party, (b) shall be used only in the fulfillment of the Receiving Party's obligations or exercise of rights under this Agreement, (c) shall remain solely under the control of the Receiving Party and its Affiliates and shall not be transferred to any Third Party without the providing Party's consent, (d) shall not be used or delivered by the Receiving Party to or for the benefit of any Third Party (other than a permitted Subcontractor) or for any purpose outside the scope of this Agreement without the prior written consent of the supplying Party, and (e) shall not be used in research or testing involving human subjects, unless expressly agreed by the Parties. Subject to ARTICLE XIII, all Materials supplied under this Section 2.13 are supplied "as is", with no warranties of fitness for a particular purpose and must be used with prudence and appropriate caution in any experimental work, since not all of their characteristics may be known. The Materials provided to a Party shall be returned to the providing Party or destroyed, in the providing Party's sole discretion, upon the expiration of the Research Term or upon the discontinuation of the use of such Materials (whichever occurs first).

2.14. Board Seat. Moderna shall be entitled, in accordance with the terms of the Amended and Restated Voting Agreement, dated December 22, 2020, as amended from time to time, by and among Carisma and the stockholders party thereto (the "**Voting Agreement**"), to appoint a member of the board of directors of Carisma (the "**Board of Directors**"), and any committee thereof, and such appointee shall possess all rights and be subject to all duties and obligations of a member of the Board of Directors thereto, in each case, as set forth in the governance documents of Carisma, including but not limited to the Amended and Restated Certificate of Incorporation of Carisma as in effect from time to time, and Carisma shall take all actions necessary to duly effect such appointment. The Voting Agreement shall be amended on or about the Effective Date to provide to Moderna such Board of Directors appointment right consistent with the existing terms thereof applicable to current Carisma investors with comparable rights. Moderna represents and warrants that, to its knowledge, none of the "bad actor" disqualifying events described in Rule 506(d)(1)(i)-(viii) under the Securities Act of 1933, as amended (the "**Securities Act**") (each, a "**Disqualification Event**"), is or will be applicable to Moderna's initial appointee to the Board of Directors, except, if applicable, for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable. Any director appointee to whom any Disqualification Event is applicable, except for a Disqualification Event to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable, is hereinafter referred to as a "Disqualified Designee". Moderna covenants and agrees (A) not to designate or participate in the designation of any director appointee who, to Moderna's knowledge, is a Disqualified Designee and (B) that in the event

Moderna becomes aware that any individual previously designated by Moderna is or has become a Disqualified Designee, Moderna shall as promptly as practicable take such actions as are necessary to remove such Disqualified Designee from the Board of Directors and designate a replacement designee who is not a Disqualified Designee.

ARTICLE III.
DEVELOPMENT AND COMMERCIALIZATION

3.1. Development; Commercialization.

3.1.1. Diligence. Moderna, directly or through one or more of its Affiliates or Sublicensees, shall use Commercially Reasonable Efforts to Develop, obtain Marketing Approval for, and Commercialize at least [**] in the Field directed to each Development Target in [**].

3.1.2. Responsibility. As to each Development Target, Moderna shall have sole responsibility for, and control of, Developing, Manufacturing and Commercializing Products in the Field in the Territory directed to such Development Target and shall be responsible for all related Development Costs. If requested by Moderna, Carisma agrees to provide its reasonable cooperation and assistance to Moderna with respect to the Development of Products, including providing access to Carisma personnel involved in the Carisma Research Activities hereunder or who are familiar with the Carisma Technology.

3.1.3. Annual Reports. Moderna shall keep Carisma informed of the status of the Development and Commercialization activities conducted by Moderna under this Agreement by providing to Carisma, by [**] of each Calendar Year, a written report (which may be in the form of a slide deck) containing a summary of material activities undertaken by Moderna with respect to the Development and Commercialization of Products during the prior Calendar Year, and if requested by Carisma shall make appropriate personnel available to meet with Carisma to discuss such report, and shall use reasonable efforts to respond to any questions of Carisma regarding such activities.

3.2. Regulatory.

3.2.1. Responsibility. Moderna shall lead and have sole control of all efforts with Regulatory Authorities regarding the Development, Manufacture and Commercialization of Products in the Territory, including taking full responsibility for preparing and filing the relevant Regulatory Materials and seeking Regulatory Approval. If requested by Moderna, Carisma agrees to provide its reasonable cooperation and assistance to Moderna with respect to regulatory matters involving the Products, including in connection with the preparation of IND or equivalent filings for the Products, which cooperation and assistance shall be included in the applicable Research Plan and Research Budget and subject to Moderna's research funding obligations pursuant to Section 2.6.

3.2.2. Right of Reference. Carisma hereby grants Moderna, its Affiliates and Sublicensees a "**Right of Reference**," as that term is defined in 21 C.F.R. § 314.3(b) and any foreign counterpart to such regulation, to any Regulatory Materials Controlled by Carisma or its Affiliates to the extent necessary or useful to research, Develop, Manufacture or Commercialize Products in the Field in the Territory. Carisma shall provide a signed statement to this effect, if

requested by Moderna, in accordance with 21 C.F.R. § 314.50(g)(3) or any foreign counterpart to such regulation.

3.3. Cessation of Activities with respect to a Development Target. If Moderna decides to cease all Development and Commercialization activities for Products with respect to a Development Target, then Moderna shall promptly notify Carisma thereof, and such Development Target shall become a Discontinued Target as provided in Section 1.47.

3.4. No Representation. Neither Party makes any representation, warranty or guarantee that the Development or Commercialization of the Products shall be successful, or that any other particular results shall be achieved with respect to any Product.

ARTICLE IV.
EXCLUSIVITY

4.1. Research Term Exclusivity.

4.1.1. [**] Field. During the [**], Carisma and its Affiliates shall not, either for their own benefit or on behalf of any Third Party (and shall not grant or maintain a grant to any rights to any Third Parties to), research, Develop or Commercialize, any product for use in the [**] Field, other than in performance of this Agreement.

4.1.2. [**] Field.

(a) During the [**], Carisma and its Affiliates shall not, either for their own benefit or on behalf of any Third Party (and shall not grant or maintain a grant to any rights to any Third Parties to), research, Develop or Commercialize, any product for use in the [**] Field, other than in performance of this Agreement.

(b) Beginning on the [**] and until the [**], the exclusivity restrictions in 4.1.2(a) shall continue to apply but shall not restrict Carisma or its Affiliates from pursuing research programs in the [**] Field with respect to any Targets that are not Collaboration Targets (each such research program, a "**Carisma [**] Field Research Program**"). Prior to commencing any Carisma [**] Field Research Program, Carisma shall provide Moderna with a reasonably detailed written overview of such proposed Carisma [**] Field Research Program and the associated Target, along with any available data and a reasonably detailed draft research plan for such proposed Carisma [**] Field Research Program (collectively, the "**Proposed Research Summary**"). Carisma shall promptly provide to Moderna any additional information reasonably requested by Moderna with respect to such Proposed Research Summary, including a proposed research budget. Moderna shall have the option to include such proposed Carisma [**] Field Research Program as a Research Program under the Agreement and the associated Target as a Research Target. If Moderna wishes to exercise such option, it shall provide written notice of such exercise to Carisma within [**] of the receipt of the Proposed Research Summary, and in such case the Parties shall agree to a Research Plan and an update to the Research Budget in accordance with Section 2.6 or Section 2.7 for such Carisma [**] Field Research Program, which shall be a Research Program under this Agreement, provided that the Research Target(s) of such Research Program shall not count against the twelve (12) Research Targets that Moderna may nominate for inclusion in Research Programs under Section 2.4. If Moderna does not exercise such option as

to a Carisma [**] Field Research Program, Carisma may unilaterally pursue such Carisma [**] Field Research Program at its own cost and expense, provided that, notwithstanding Section 2.2.2(b), Moderna shall have the right to nominate the Target of such Carisma [**] Field Research Program as a Research Target and include such Carisma [**] Field Research Program as an additional Research Program under the Agreement at any time prior to the earlier of (i) [**], and (ii) [**], by notifying Carisma of such nomination and paying the [**] Field Program Option Fee and prospective research funding, and in such case the Parties shall agree to a Research Plan and an update to the Research Budget in accordance with Section 2.6 or Section 2.7 for such Carisma [**] Field Research Program, which shall be a Research Program under this Agreement, provided that the Research Target(s) of such Research Program shall not count against the twelve (12) Research Targets that Moderna may nominate for inclusion in Research Programs under Section 2.4. If Moderna does opt-in to any such Carisma [**] Field Research Program, Moderna's right to nominate the associated Research Target as a Development Target shall continue until the earlier of (1) [**] and (2) [**], and the nomination of such Research Target as a Development Target shall [**]. If Moderna does not opt-in to any such Carisma [**] Field Research Program, nothing in this Section 4.1.2(b) or any other provision of this Agreement shall prevent Moderna from nominating at any time during the Research Term any Target associated with such Carisma [**] Field Research Program as a Research Target, and (x) if such nomination occurs before [**], then Carisma shall promptly terminate all activities with respect to such Carisma [**] Field Research Program, and (y) if such nomination occurs after [**], Carisma may continue to progress such Carisma [**] Field Research Program in accordance with the terms of this Agreement, and shall perform all of its obligations under this Agreement with respect to the Research Program for such Research Target and in a manner that does not disadvantage such Research Program relative to the Carisma [**] Field Research Program.

4.2. Collaboration Target Exclusivity. During the Term, Carisma and its Affiliates shall not, either for their own benefit or on behalf of any Third Party (and shall not grant or maintain a grant to any rights to any Third Parties to), research, Develop or Commercialize, any product incorporating or directed to any Collaboration Target, other than in performance of this Agreement, provided that the foregoing shall not apply to the conduct of any Carisma [**] Field Research Program in the [**] Field pursuant to Section 4.1.2(b).

4.3. Product Polypeptide Exclusivity. During the Term, Carisma and its Affiliates shall not, either for their own benefit or on behalf of any Third Party (and shall not grant or maintain a grant to any rights to any Third Parties to), research, Develop or Commercialize, the Product Polypeptide that is incorporated or contained in any Product incorporating or directed to any Development Target or any product incorporating or based upon such Product Polypeptide, other than in performance of this Agreement.

4.4. Exception for Business Combination. Notwithstanding Sections 4.1, 4.2 and 4.3, if a Business Combination occurs with respect to Carisma with a Third Party, and the Third Party (or any of such Third Party's Affiliates or any successors or assigns of such Third Party or such Third Party's Affiliates, other than Carisma and its Affiliates as of the Business Combination) has as of the Business Combination, or later has, a program (or rights thereto) that would otherwise violate any of Sections 4.1, 4.2 or 4.3 (each, a "**Carisma Business Combination Program**"), then [**].

ARTICLE V.
GOVERNANCE

5.1. Joint Steering Committee.

5.1.1. Formation. As of the Effective Date, the Parties have established a joint steering committee (the "**Joint Steering Committee**" or "**JSC**") to oversee and coordinate the Research Programs and activities of the Parties during the period during which Carisma continues to participate in research pursuant to a Research Plan (the "**JSC Term**"). The JSC also shall be responsible for resolving any disagreements between the Parties with respect to any Research Plan that the Parties are unable to agree upon pursuant to Section 2.6. The JSC shall be comprised of [**] representatives with appropriate experience, expertise and decision making authority from each Party. The JSC may change its size from time to time by mutual consent of its members; provided that the JSC shall consist at all times of an equal number of representatives of each of Carisma and Moderna. In addition, with the consent of the other Party, each Party may invite a reasonable number of additional representatives as subject matter experts to participate in discussions and meetings of the JSC. Each Party's representatives on the JSC and all other individuals participating in discussions and meetings of the JSC on behalf of a Party shall be subject to confidentiality and non-use obligations with respect to information disclosed at such meeting that are no less restrictive than the provisions of ARTICLE VII. Carisma and Moderna shall each designate one of its JSC members as co-chairperson of the JSC. The co-chairpersons of the JSC shall be responsible for setting the agenda for meetings of the JSC with input from the other members, and for conducting the meetings of the JSC. The JSC shall conduct its responsibilities hereunder in good faith and with reasonable care and diligence. Each Party may replace its representatives on the JSC at any time upon written notice to the other Party. The initial members of the JSC shall be appointed within [**] after the Effective Date. Unless agreed otherwise by the Parties in writing, the JSC shall be disbanded at the end of the JSC Term.

5.1.2. Meetings; Minutes.

(a) Unless otherwise agreed by the JSC, the JSC shall meet at least [**] during the JSC Term on such dates and at such times and places as agreed to by the members of the JSC. JSC meetings may be held in person or by audio or videoconference. Each Party shall be responsible for its own expenses relating to attendance at, or participation in, JSC meetings.

(b) The co-chairpersons of the JSC shall provide the members of the JSC with draft written minutes from each meeting within [**] after each such meeting to be approved by the JSC members within [**] after the meeting.

5.1.3. Decision-Making. Each Party's representatives on the JSC shall collectively have one vote on all matters within the scope of the JSC's responsibilities. The JSC members shall use reasonable efforts to reach unanimous agreement on all JSC decisions. If the JSC is unable to reach consensus with respect to a particular matter within [**] after the matter is first presented to the JSC, then upon the written request of a Party, the matter shall be referred to the Executive Officers (or their designees, which designee is required to have decision-making authority on behalf of such Party), who shall use reasonable efforts to reach agreement on such matters in good faith by negotiation and consultation for a period of [**] following receipt of such written notice.

If such Executive Officers are unable to reach consensus with respect to a particular matter within such [**] period after the matter is first referred to such Executive Officers, then Moderna shall have the right to make the final decision with respect to the relevant matter, provided that Moderna shall not have the right to unilaterally: [**].

5.2. Alliance Managers. Within [**] after the Effective Date, each Party shall appoint an individual, who is an employee of such Party, to act as its alliance manager under this Agreement (the "**Alliance Manager**"). The Alliance Managers shall: (a) serve as the primary points of contact between the Parties for the purpose of providing the other Party with information on the progress of a Party's activities under this Agreement; (b) be responsible for facilitating the flow of information and otherwise promoting communication, coordination and collaboration between the Parties; (c) facilitate the prompt resolution of any disputes; and (d) attend JSC meetings. Each Alliance Manager may also serve as a representative of its respective Party on the JSC. An Alliance Manager may also bring any matter to the attention of the JSC if such Alliance Manager reasonably believes that such matter warrants such attention. Each Party may replace its Alliance Manager at any time upon written notice to the other Party. For clarity, unless an Alliance Manager is a representative of its respective Party on the JSC, each Alliance Manager will have no voting right on the JSC unless otherwise agreed to in writing by the Parties.

ARTICLE VI.
FINANCIAL TERMS

6.1. Upfront Payment. No later than [**] following the Effective Date, Moderna shall pay Carisma a one-time, non-refundable and non-creditable payment of forty five million U.S. Dollars ($45,000,000) by wire transfer of immediately available funds in consideration for the research work to be performed by Carisma as part of the Collaboration and for the license and other rights granted by Carisma to Moderna hereunder with respect to the Territory.

6.2. Development Target Designation Fee.

6.2.1. On a Development Target-by-Development Target basis, upon Moderna's designation of a Development Target, the Parties shall determine whether filings are required under the HSR Act in connection therewith and, subject to the termination or expiration of any applicable waiting period or other applicable clearance under the HSR Act if any such filings are required, Moderna shall pay to Carisma the non-refundable and non-creditable amount set forth in the table below ("**Development Target Designation Milestone Payment**") within (a) [**] after providing written notice to Carisma of the designation of such Development Target pursuant to Section 2.9 or (b) [**], whichever is later.

Development Target Designation Milestone	**Development Target Designation Milestone Payment (in US$ millions)**
Designation of each of the [**] through the [**] Development Targets	[**]

Development Target Designation Milestone	Development Target Designation Milestone Payment (in US$ millions)
Designation of each of the [**] and subsequent Development Targets	[**]

6.3. Development Milestones. Subject to the terms and conditions of this Agreement, no later than [**] following the first occurrence of each event described below (each, a "**Development Milestone**"), on Product-by-Product basis Moderna shall pay Carisma the non-refundable and non-creditable amounts set forth below for each Product to achieve such event (each, a "**Development Milestone Payment**"):

Development Milestone	Development Milestone Payment (in US$ millions)
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

Moderna shall provide written notice to Carisma of the achievement of each Development Milestone within [**] after such achievement.

If a Development Milestone for a Product is achieved without the preceding Development Milestone(s) having been achieved for such Product, then the Development Milestone Payment for such preceding Development Milestone(s) shall be paid by Moderna to Carisma together with

the Development Milestone Payment for the Development Milestone that was achieved. For example, if the [**] Development Milestone [**] in the table above is achieved for a Product but the [**] Development Milestone [**] in the table above had not been achieved for such Product, then Moderna would pay the Development Milestone Payment for both such [**] Development Milestone and [**] Development Milestone upon achievement of the [**] Development Milestone.

Each of the Development Milestone Payments set forth above shall be payable one time only per Product.

If Moderna or its Affiliates or Sublicensees Develops a Product that has achieved at least one Development Milestone and subsequently discontinues Development of such Product and Develops a different Product incorporating or directed to the same combination of Collaboration Targets (whether one Collaboration Target or multiple Collaboration Targets), then Moderna shall be required to pay Development Milestone Payments for such different Product only for Development Milestones that had not been achieved by such discontinued Product.

6.4. Sales Milestone Payments. Subject to the terms and conditions of this Agreement, on a Product-by-Product basis, Moderna shall pay to Carisma the non-refundable and non-creditable milestone payments on sales of Products ("**Sales Milestone Payments**") set forth below within [**] of the achievement by Moderna or its Affiliates or Sublicensee of each of the corresponding events (each, a "**Sales Milestone**"), it being understood and agreed that each of the Sales Milestone Payments shall only be due and payable one time per Product:

Sales Milestone	**Sales Milestone Payment (in US$ millions)**
First achievement of aggregate Annual Net Sales in any Calendar Year of a Product in the Territory of at least $[**]	[**]
First achievement of aggregate Annual Net Sales in any Calendar Year of a Product in the Territory of at least $[**]	[**]
First achievement of aggregate Annual Net Sales in any Calendar Year of a Product in the Territory of at least $[**]	[**]

Moderna shall provide written notice to Carisma of the achievement of each Sales Milestone within [**] of such achievement.

Each of the Sales Milestone Payments set forth above shall be payable one time only with respect to each Product (regardless of the number of the number of times with respect to any Product the specified Sales Milestone occurs).

6.5. Royalties.

6.5.1. Product Royalties. Moderna shall pay Carisma royalties on Annual Net Sales, on a Product-by-Product basis, equal to the following portions of Annual Net Sales multiplied by the applicable royalty rate (each royalty rate, a "**Royalty Rate**") for such portion during the applicable Royalty Term for each such Product in accordance with this Section 6.5 (the "**Per Product Annual Net Sales**").

For Per Product Annual Net Sales of Products, Moderna shall pay the applicable corresponding Royalty Rate set forth below:

Per Product Annual Net Sales	Royalty Rate
Per Product Annual Net Sales above $[**], up to $[**]	[**]%
Per Product Annual Net Sales exceeding $[**] up to $[**]	[**]%
Per Product Annual Net Sales exceeding $[**]	[**]%

Each Royalty Rate set forth in the table above shall apply only to that portion of the Per Product Annual Net Sales of Products in the Territory during a Calendar Year that falls within the indicated range of Per Product Annual Net Sales (as represented in the left column in the table above).

6.5.2. Fully Paid-Up, Royalty Free License. Following expiration of the applicable Royalty Term for any Product in a given country, no further royalties shall be payable in respect of sales of such Product in such country and such sales shall not be included in Net Sales for any purpose hereunder, and thereafter the license granted to Moderna hereunder with respect to such Product in such country shall automatically become fully paid-up, perpetual, irrevocable and royalty-free.

6.5.3. Royalty Reduction for Third Party Payments. Subject to Section 6.5.5, the amount of any royalties owed by Moderna to Carisma pursuant to Section 6.5.1 shall be reduced, on a Product-by-Product, country-by-country and Calendar Quarter-by-Calendar Quarter basis, by (a) an amount equal to [**] percent ([**]%) of any royalties paid by Moderna (i) [**], (ii) [**], and (b) an amount equal to [**] percent ([**]%) of any royalties paid by Moderna with respect to [**].

6.5.4. Royalty Term; Reduction. Moderna's royalty obligations to Carisma under this Section 6.5 shall be on a Product-by-Product and country-by-country basis for the applicable Royalty Term for such Product in such country in the Territory; provided that, subject to Section 6.5.5, the royalty amounts payable with respect to Annual Net Sales of Products shall be reduced on a Product-by-Product and country-by-country basis, to [**] percent ([**]%) of the amounts otherwise payable pursuant to Section 6.5.1 during any portion of the Royalty Term in which there is neither (a) at least one (1) Valid Claim of a [**] or (B) that Covers such Product in such country nor (b) Regulatory-Based Exclusivity for such Product in such country. Only one royalty shall be payable by Moderna to Carisma for each sale of a Product.

6.5.5. Royalty Floor. The royalty reductions under Section 6.5.3 and 6.5.4 shall not, individually or in combination, reduce the royalties payable by Moderna for a given Calendar Quarter pursuant to Section 6.5.1 to less than [**] percent ([**]%) of the amounts payable by Moderna for a given Calendar Quarter pursuant to Section 6.5.1.

6.5.6. [**].

6.5.7. Payment of Royalties. Moderna shall: (a) within [**] following the end of each Calendar Quarter in which a royalty payment accrues, provide to Carisma a report for each country in the Territory in which sales of Product occurred in the Calendar Quarter covered by such statement, specifying for such Calendar Quarter: the number of Products sold; the gross sales and Annual Net Sales in each country's currency; the applicable royalty rate under this Agreement; the royalties payable in each country's currency, including an accounting of deductions taken in the calculation of Annual Net Sales in accordance with Moderna's Accounting Principles; the applicable exchange rate to convert from each country's currency to U.S. Dollars under Section 6.5.1; and the royalty calculation and royalties payable in U.S. Dollars, and (b) make the royalty payments owed to Carisma hereunder in accordance with such royalty report in arrears, within [**] from the end of each Calendar Quarter in which such payment accrues.

6.6. [**] Royalties and Payments. Moderna shall pay Carisma for all milestone payments under Section [**] of the [**] License Agreement and royalty payments under Section [**] of the [**] License Agreement, after application of all deductions to such royalty payments permitted under the [**] License Agreement (including Section [**] thereof) to the extent [**], which royalty payments may be deducted in part from the royalties payable to Carisma as provided in Section 6.5.3. Moderna shall pay to Carisma such royalty and milestone payments prior to such time as Carisma is due to make such payments under the [**] License Agreement, and the Parties shall cooperate to provide royalty and milestone reports and invoices to facilitate Moderna's payment prior to such time. Except as provided in this Section 6.6, Carisma shall be solely responsible for all payments due under the [**] License Agreement.

6.7. Additional Payment Terms.

6.7.1. Accounting. All payments hereunder shall be made in U.S. Dollars by wire transfer to a bank designated in writing by Carisma. Conversion of sales recorded in local currencies to Dollars shall be performed in a manner consistent with Moderna's normal practices used to prepare its audited financial statements for internal and external reporting purposes. For purposes of calculating the Net Sales thresholds set forth in Section 6.5.1, the aggregate Per Product Annual Net Sales with respect to each Calendar Quarter within a Calendar Year shall be calculated based on the currency exchange rates for the Calendar Quarter in which such Per Product Annual Net Sales occurred, in a manner consistent with the exchange rate procedures set forth in the immediately preceding sentence.

6.7.2. Late Payments. Any payments or portions thereof due hereunder that are not paid on the date such payments are due under this Agreement shall bear interest at an annual rate equal to the lesser of: (a) [**] points ([**]%) above the prime rate as published by Citibank, N.A., New York, New York, or any successor thereto, at 12:01 a.m. on the first day of each Calendar Quarter in which such payments are overdue or (b) the maximum rate permitted by

Applicable Law; in each case calculated on the number of days such payment is delinquent, compounded monthly.

6.7.3. Tax Withholding.

(a) Tax Withholding. Except as expressly set forth in this Section 6.7.3(a), each Party shall pay any and all taxes levied on it on account of all payments it receives under this Agreement. The amounts payable under this Agreement are based on [**].

(b) Indirect Tax. Notwithstanding anything to the contrary in this Agreement (including anything to the contrary in Section 6.7.3(a)), this Section 6.7.3(b) shall apply with respect to value added tax, goods and services tax, sales tax, consumption tax or any similar tax ("**Indirect Tax**"). All amounts agreed by the Parties under this Agreement are exclusive of VAT. [**].

(c) [**]. Notwithstanding Section 6.7.3(a) and 6.7.3(b), [**].

6.7.4. Blocked Payments. In the event that, by reason of Applicable Law in any country, it becomes impossible or illegal for Moderna (or any of its Affiliates or Sublicensees) to transfer, or have transferred on its behalf, payments owed Carisma hereunder, Moderna shall promptly notify Carisma of the conditions preventing such transfer and such payments shall be deposited in local currency in the relevant country to the credit of Carisma in a recognized banking institution designated by Carisma or, if none is designated by Carisma within a period of [**], in a recognized banking institution selected by Moderna or any of its Affiliates or its Sublicensees, as the case may be, and identified in a written notice given to Carisma.

6.8. Records Retention by Moderna; Review by Carisma.

6.8.1. Records. With respect to payments to be made under ARTICLE VI of this Agreement, Moderna agrees to keep, and to require its Affiliates and Sublicensees to keep, for at least [**] from the end of the Calendar Year to which they pertain, complete and accurate records of transfer and sales by Moderna or its Affiliates or Sublicensees, as the case may be, of each Product, in sufficient detail to allow the accuracy of the payments made thereunder to be confirmed.

6.8.2. Review. Subject to the other terms of this Section 6.8.2, at the request of Carisma, which shall not be made more frequently than [**] during the Term, upon at least [**] prior written notice from Carisma, and at the expense of Carisma, Moderna shall permit an independent, nationally-recognized certified public accountant selected by Carisma and reasonably acceptable to Moderna to inspect (during regular business hours) the relevant records required to be maintained by Moderna under Section 6.8.1. In every case the accountant must have previously entered into a confidentiality agreement with both Parties substantially similar to the provisions of ARTICLE VII and limiting the disclosure and use of such information by such accountant to authorized representatives of the Parties and the purposes germane to Section 6.8.1. Carisma shall treat the results of any such accountant's review of Moderna's records as Confidential Information of Moderna subject to the terms of ARTICLE VII. If any review reveals a deficiency or overpayment in the calculation and/or payment of royalties by Moderna, then (a) Moderna or Carisma as applicable shall promptly pay the other Party the amount of such

deficiency, and (b) if such underpayment is more than [**] percent ([**]%) or $[**], whichever is greater, in any Calendar Year, Moderna shall, within [**] of invoice therefor, pay the reasonable Out-of-Pocket Costs incurred by Carisma in connection with the review.

ARTICLE VII.
CONFIDENTIALITY

7.1. Nondisclosure. Each Party agrees that a Party or its Affiliates (the "**Receiving Party**") receiving Confidential Information of the other Party or its Affiliates (the "**Disclosing Party**") shall (a) maintain in confidence such Confidential Information using not less than the efforts such Receiving Party uses to maintain in confidence its own proprietary information of similar kind and value, but in no event less than a reasonable degree of efforts, (b) not disclose such Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted below, and (c) not use such Confidential Information for any purpose except those permitted by this Agreement (it being understood that this clause (c) shall not create or imply any rights or licenses not expressly granted under this Agreement). The obligations of confidentiality, non-disclosure and non-use under this Section 7.1 shall be in full force during the Term and for a period of [**] thereafter. Each Party, upon the request of the other Party, shall return all copies of or destroy (and certify such destruction in writing) the Confidential Information disclosed or transferred to it by the other Party pursuant to this Agreement, within [**] of such request or, if earlier, the termination or expiration of this Agreement; provided, however, that the Receiving Party may retain (i) Confidential Information of the Disclosing Party to exercise any rights which expressly survive such termination or expiration pursuant to this Agreement, (ii) one (1) copy of all other Confidential Information in archives solely for the purpose of establishing the contents thereof, and (iii) copies remaining on its standard computer back-up devices.

7.2. Exceptions. The obligations in Section 7.1 shall not apply with respect to any portion of the Confidential Information of the Disclosing Party that the Receiving Party can show by competent written proof:

7.2.1. was known to the Receiving Party or any of its Affiliates, without any obligation to keep it confidential or any restriction on its use, prior to disclosure by the Disclosing Party;

7.2.2. is subsequently disclosed to the Receiving Party or any of its Affiliates by a Third Party lawfully in possession thereof and without any obligation to keep it confidential or any restriction on its use;

7.2.3. is published by a Third Party or otherwise becomes publicly available or enters the public domain, either before or after it is disclosed to the Receiving Party, without any breach by the Receiving Party of its obligations hereunder; or

7.2.4. is independently developed by or for the Receiving Party or its Affiliates without reference to or reliance upon the Disclosing Party's Confidential Information.

7.3. Authorized Disclosure.

7.3.1. Disclosure. Notwithstanding Section 7.1, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party, and Confidential Information deemed to belong to both the Disclosing Party and the Receiving Party, to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(a) subject to Section 7.5, complying with Applicable Laws (including the rules and regulations of the U.S. Securities and Exchange Commission ("**SEC**") or any national securities exchange) and with judicial process, if in the reasonable opinion of the Receiving Party's counsel, such disclosure is necessary for such compliance;

(b) disclosure of the other Party's Confidential Information to any of its officers, employees, consultants, agents or Affiliates or sublicensees (and in the case of Moderna, Sublicensees) if and only to the extent necessary to carry out its responsibilities or exercise its rights under this Agreement; provided that each such disclosee is bound by written confidentiality obligations to maintain the confidentiality thereof and not to use such Confidential Information except as expressly permitted by this Agreement;

(c) disclosure, solely on a "need to know basis," to (i) Affiliates, potential or actual research and development collaborators, subcontractors, advisors (including attorneys and accountants), (ii) actual or potential acquirers, investment bankers, investors, lenders, or other potential financial partners, and (iii) in each case of (i) and (ii), their and each of the Parties' respective directors, employees, contractors and agents; provided that in all cases of (i), (ii) and (iii), prior to any such disclosure, each disclosee must be bound by written obligations of confidentiality, non-disclosure and non-use no less restrictive than the obligations set forth in this ARTICLE VII (provided, however, that in the case of prospective investment bankers, investors, lenders or other financial partners, the term of confidentiality may be shortened to [**] from the date of disclosure and in the case of legal advisors, no written agreement shall be required), which for the avoidance of doubt, shall not permit use of such Confidential Information for any purpose except those permitted by this Agreement; provided, however, that, in each of the above situations, the Receiving Party shall remain responsible for any failure by any Person who receives Confidential Information pursuant to this Section 7.3.1(c) to treat such Confidential Information as required under this ARTICLE VII; and

(d) disclosure of the existence and terms of this Agreement by Carisma to [**], to the extent necessary for Carisma to comply with its obligations under the [**] License Agreement, provided that prior to such disclosure, Carisma shall discuss such disclosure with Moderna and redactions to the terms of this Agreement that are permitted by the [**] License Agreement.

7.3.2. Terms of Disclosure. If and whenever any Confidential Information is disclosed in accordance with this Section 7.3, such disclosure shall not cause any such information to cease to be Confidential Information except to the extent that such disclosure results in a public disclosure of such information (other than by breach of this Agreement). Where reasonably possible and subject to Section 7.5, the Receiving Party shall notify the Disclosing Party of the Receiving Party's intent to make any disclosures pursuant to Section 7.3.1(a) sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information, and the Receiving Party

shall provide reasonable assistance to the Disclosing Party with respect thereto; provided that, in such event, the Receiving Party shall use reasonable measures to ensure confidential treatment of such information and shall only disclose such Confidential Information of the Disclosing Party as is necessary to comply with such Applicable Laws or judicial process.

7.4. Terms of this Agreement. The Parties agree that this Agreement and all of the respective terms hereof shall be deemed to be Confidential Information of Carisma and Moderna, and each Party agrees not to disclose any of them without the prior written consent of the other Party, except that each Party may disclose any of them in accordance with the procedures of Section 7.3 (and the provisions related thereto, including, to the extent applicable, the provisions of Section 7.5).

7.5. Securities Filings. Each Party acknowledges and agrees that the other Party may submit this Agreement to the SEC or any national securities exchange in any jurisdiction (collectively the "**Securities Regulators**") if required by Applicable Law, and if a Party is required to submit this Agreement to any Securities Regulators, such Party agrees to consult with the other Party with respect to proposed redactions to this Agreement for confidential treatment. Notwithstanding the foregoing, if a Party is required by Applicable Law or any Securities Regulator to make a disclosure of the terms of this Agreement in a filing with or other submission to such Securities Regulator, and (a) such Party has provided copies of the disclosure to the other Party as far in advance of such filing or other disclosure as is reasonably practicable under the circumstances, (b) such Party has promptly notified the other Party in writing of such requirement and any respective timing constraints, and (c) such Party has given the other Party a reasonable time under the circumstances (and at least [**] if reasonably practicable) from the date of notice by such Party of the required disclosure to comment upon, request confidential treatment or approve such disclosure, then such Party shall have the right to make such public disclosure at the time and in the manner reasonably determined by its counsel to be required by Applicable Law. Notwithstanding anything to the contrary herein, it is hereby understood and agreed that if a Party seeks to make a disclosure to a Securities Regulator as set forth in this Section 7.5, and the other Party provides comments within the respective time periods or constraints specified herein or within the respective notice, the Party seeking to make such disclosure or its counsel, as the case may be, shall in good faith consider incorporating such comments.

7.6. Publications. Neither Party shall publish any Confidential Information of the other Party directly related to the Products (including Product Polypeptides), without the prior written consent of the other Party (which consent may not be unreasonably withheld or delayed), unless such information has already been publicly disclosed either prior to the Effective Date or after the Effective Date in accordance with Section 7.3, Section 7.5, this Section 7.6 or Section 7.7 below. Each Party shall submit to the other Party any publication or presentation (including in any seminars, symposia or otherwise) of the other Party's Confidential Information directly related to the Products for review and approval at least [**] prior to submission for the proposed date of publication or presentation. The Parties shall work together to resolve any comments and objections on a timely basis; provided, however, that each Party may request deletion of any of its Confidential Information from any such proposed publication. The obligations imposed by this Section 7.6 shall not apply to a Party's publication or presentation of information relating to the Development, use or Commercialization of products other than Products .

7.7. Press Release; Publicity. The Parties agree that a public announcement of the execution of this Agreement, as mutually agreed by the Parties, shall be made on or promptly after the Effective Date. Except as provided in Section 7.3, Section 7.5 or Section 7.6, only upon the approval of the other Party, not to be unreasonably withheld, shall additional public disclosures be made, unless public disclosure is required to comply with applicable securities or stock exchange rules and regulations (and in such case only in accordance with Section 7.5). Neither Party shall use the name of the other Party in any publicity, advertising or announcements or for any other commercial purpose without the prior written approval of the Party whose name is to be used, provided that any press release issued by Moderna with respect to a Product shall acknowledge that the Product was developed in collaboration with Carisma.

ARTICLE VIII.
INTELLECTUAL PROPERTY

8.1. License.

8.1.1. Research License.

(a) During the Research Term, Carisma hereby grants to Moderna and its Affiliates the exclusive (except to the extent limited to non-exclusive as set forth in Section 2.10.2.2), worldwide, royalty-free right and license in the Field in the Territory under and to the Licensed Intellectual Property to (i) perform the Moderna Research Activities, (ii) perform additional research and pre-clinical Development activities relating to (A) the Field, (B) Research Targets and Product Polypeptides and (C) Products, and (iii) Manufacture and have Manufactured materials for use in such research and pre-clinical Development Activities. Moderna shall have the right to grant sublicenses under the rights granted to it under this Section 8.1.1 to (x) its Affiliates and (y) Third Party Subcontractors, provided that the foregoing exclusive license in clause (ii)(a) is subject to Carisma's right to conduct Carisma [**] Field Research Programs pursuant to Section 4.1.2(b).

(b) During the Research Term with respect to each Research Program, Moderna hereby grants to Carisma and its Affiliates the non-exclusive, worldwide, royalty-free right and license in the Field in the Territory under and to the Patents and Know-How Controlled by Moderna and its Affiliates that are necessary for Carisma to perform the Carisma Research Activities, solely to perform the Carisma Research Activities.

8.1.2. Commercial License. Effective upon Moderna's designation of a Research Target as a Development Target pursuant to Section 2.9, subject to the termination or expiration of any applicable waiting period or other applicable clearance under the HSR Act if the Parties have determined that filings are required under the HSR Act, Carisma hereby grants to Moderna a worldwide, exclusive (even as to Carisma and its Affiliates), royalty-bearing license, with the right to grant sublicenses (subject to Section 8.1.3), under and to the Licensed Intellectual Property to research, Develop, Manufacture, have Manufactured, use, offer for sale, sell, import or otherwise Commercialize (a) Collaboration Products with respect to such Collaboration Target in the Field in the Territory, and (b) Other Products with respect to such Collaboration Target in all fields in the Territory.

8.1.3. Sublicenses. Moderna shall have the right to grant sublicenses (through multiple tiers) under the rights granted to it under Section 8.1.2 without the prior consent of Carisma, to any (a) Affiliate of Moderna, (b) Third Party Subcontractor engaged by Moderna, and (c) Third Party for the Development, Manufacture or Commercialization of any Product. Each sublicense granted by Moderna under this Section 8.1.3 shall be in writing and subject to and consistent with the terms and conditions of this Agreement. Moderna shall remain fully responsible (at its own cost) for all acts or omissions of any Sublicensees it appoints (including any acts or omissions which result in a breach of the terms of this Agreement), and Moderna shall ensure that each Sublicensee complies with the terms and conditions of this Agreement applicable to such Sublicensee.

8.1.4. Rights Retained by the Parties. For purposes of clarity, each Party retains the rights under all Know-How and Patents Controlled by such Party not expressly granted to the other Party pursuant to this Agreement. Except as explicitly set forth in this Agreement, neither Party shall be deemed by estoppel or implication to have granted the other Party any license or other right to any intellectual property of such Party.

8.1.5. Section 365(n) of the Bankruptcy Code. All licenses granted under this Agreement are deemed to be, for purposes of Section 101(35A) of title 11 of the United States Code and of any similar provisions of Applicable Laws under any other jurisdiction (the "**Bankruptcy Code**"), licenses of rights to "intellectual property". Moderna may fully exercise all of its rights and elections under the Bankruptcy Code. The Parties further agree that if Moderna elects to retain its rights as a licensee under any Bankruptcy Code, Moderna shall be entitled to complete access to any technology licensed to it hereunder and all embodiments of such technology. Such embodiments of the technology shall be delivered to Moderna not later than: (a) the commencement of bankruptcy proceedings against Carisma, upon written request, unless Carisma elects to perform its obligations under this Agreement, or (b) if not delivered under this Section 8.1.5 upon the rejection of this Agreement by or on behalf of Carisma, upon written request. Any agreements supplemental hereto shall be deemed to be "agreements supplementary to" this Agreement for purposes of Section 365(n) of the Bankruptcy Code.

8.1.6. [**] License Agreement Requirements. The rights and licenses sublicensed by Carisma to Moderna with respect to any Patents and Know-How Controlled by Carisma pursuant to the [**] License Agreement (the "**[**] Intellectual Property**"), including, as applicable, in Sections 8.1.1(a), 8.1.2, 8.2, and in ARTICLE IX and ARTICLE X, are subject to the terms and conditions of the [**] License Agreement as applicable to the scope of Moderna's rights and obligations under this Agreement. In furtherance and not in limitation of the foregoing, Moderna acknowledges and agrees that:

(a) the rights and licenses granted by Carisma to Moderna under the [**] Intellectual Property are subject to Sections [**] of the [**] License Agreement;

(b) Moderna agrees to covenants that meet the requirements of Section [**] of the [**] License Agreement;

(c) Moderna agrees to indemnification of [**] that meets the requirements of Section [**] of the [**] License Agreement;

(d) Moderna shall obtain insurance that meets the requirements of Section [**] of the [**] License Agreement;

(e) Moderna agrees to restrictions on Moderna's use of [**]'s names that meets the requirements of Section [**] of the [**] License Agreement;

(f) [**] agrees to a restriction on antidiscrimination that meets the requirements of Section [**] of the [**] License Agreement;

(g) if requested by Carisma, Moderna shall provide information to Carisma regarding its research and Development activities under this Agreement that is required for Carisma to satisfy its obligations under Section [**] of the [**] License Agreement;

(h) in the event [**] provides written notice to Carisma that Moderna has materially failed to perform one or more obligations in the portion of this Agreement relating to the [**] Intellectual Property where Moderna's failure to perform adversely affects the interests of [**] protected by this Agreement, and Carisma fails to address such failure in a commercially reasonable manner after reasonable notice thereof, then [**] shall be considered as a third party beneficiary of this Agreement for the purpose of enforcing such obligation(s) against Moderna;

(i) upon termination of the [**] License Agreement, Carisma shall assign any license granted to Moderna under this Agreement with respect to the [**] Intellectual Property to [**] as provided in Section [**] of the [**] License Agreement; and

(j) each sublicense granted by Moderna with respect to the [**] Intellectual Property shall comply with Section [**] of the [**] License Agreement.

8.2. Ownership.

8.2.1. Carisma Licensed Intellectual Property. Carisma shall retain all of its right, title and interest in, to and under the Licensed Intellectual Property except, in each case, to the extent that any such rights are licensed to Moderna under this Agreement.

8.2.2. Intellectual Property Arising Under This Agreement.

(a) Subject to Section 8.2.2(e), Moderna shall be the sole owner of any Patents and Know-How conceived, discovered, developed, invented or created solely by or on behalf of Moderna or its Affiliates, Sublicensees or Third Parties acting on its or their behalf in the performance of activities under this Agreement (it being understood that any activities carried out by or on behalf of Carisma or its Affiliates under this Agreement shall not be construed or interpreted to be carried out by or on behalf of Moderna or its Affiliates for purposes hereof), and Moderna shall retain all of its right, title and interest thereto, except to the extent that any rights or licenses are granted thereunder by Moderna to Carisma under this Agreement.

(b) Subject to Sections 8.2.2(d) and 8.2.2(f), Carisma shall be the sole owner of any Patents and Know-How conceived, discovered, developed, invented or created solely by or on behalf of Carisma or its Affiliates in the performance of activities under this Agreement (it being understood that any activities carried out by or on behalf of Moderna or its Affiliates

under this Agreement shall not be construed or interpreted to be carried out by or on behalf of Carisma or its Affiliates for purposes hereof), and Carisma shall retain all of its right, title and interest thereto, except to the extent that any rights or licenses are granted thereunder by Carisma to Moderna under this Agreement.

(c) Subject to Sections 8.2.2(d) and 8.2.2(f), (i) any Improvements, inventions, works-of-authorship, and developments conceived, discovered, developed, invented or created jointly by (A) Carisma, its Affiliates or Third Parties acting on its or their behalf and (B) Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, while conducting activities under this Agreement (the "**Joint Know-How**"), and (ii) any and all Patents that claim such Joint Know-How (the "**Joint Patents**", and together with the Joint Know-How and other intellectual property rights with respect thereto, the "**Joint IP**") shall be owned jointly by Moderna and Carisma, and all right, title and interest thereto shall be jointly owned by the Parties, subject to any rights expressly licensed by one Party to the other Party under this Agreement. Except to the extent either Party is restricted by the licenses granted by one Party to the other Party pursuant to this Agreement, or the covenants contained herein, each Party shall be entitled to practice and license the Joint Patents and Joint Know-How without restriction and without consent of, or (subject to the financial provisions of this Agreement) an obligation to account to, the other Party, and each Party hereby waives any right it may have under Applicable Laws to require any such consent or accounting.

(d) Notwithstanding anything to the contrary herein, any Know-How conceived, discovered, developed, invented or created in the performance of activities under this Agreement either (A) jointly by (I) Carisma or its Affiliates or Third Parties acting on its or their behalf and (II) Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, (B) solely by Carisma, its Affiliates or Third Parties acting on its or their behalf, or (C) solely by Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, in each case to the extent [**] ((A)-(C) collectively, the "**Moderna Platform Program Know-How**"), and any and all Patents that claim such Moderna Platform Program Know-How ("**Moderna Platform Program Patents**," and together with the Moderna Platform Program Know-How and other intellectual property rights with respect thereto, the "**Moderna Platform Program Technology**"), shall be owned solely by Moderna, subject to any rights or licenses expressly granted by Moderna to Carisma under this Agreement. Carisma, on behalf of itself and its Affiliates, hereby assigns to Moderna all of Carisma's and its Affiliates' right, title and interest in and to all Moderna Platform Program Technology. Carisma shall promptly disclose to Moderna in writing, the conception, discovery, development, invention or creation of any Moderna Platform Program Know-How. Carisma shall take all actions and provide Moderna with all reasonably requested assistance to effect such assignment and shall execute all documents necessary to perfect such assignment.

(e) Notwithstanding anything to the contrary herein, but subject to Sections 8.2.2(d) and 8.2.2(f), any Know-How conceived, discovered, developed, invented or created in the performance of activities under this Agreement either (A) jointly by (I) Carisma or its Affiliates or Third Parties acting on its or their behalf and (II) Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, (B) solely by Carisma, its Affiliates or Third Parties acting on its or their behalf, or (C) solely by Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, in each case to the extent [**] ((A)-(C) collectively, the "**Carisma Platform Program Know-How**"), and any and all Patents that claim such Carisma

Platform Program Know-How ("**Carisma Platform Program Patents**," and together with the Carisma Platform Program Know-How and other intellectual property rights with respect thereto, the "**Carisma Platform Program Technology**"), shall be owned solely by Carisma, subject to any rights or licenses expressly granted by Carisma to Moderna under this Agreement. Moderna, on behalf of itself and its Affiliates, hereby assigns to Carisma all of Moderna's and its Affiliates' right, title and interest in and to all Carisma Platform Program Technology. Moderna shall promptly disclose to Carisma in writing, the conception, discovery, development, invention or creation of any Carisma Platform Program Know-How. Moderna shall take all actions and provide Carisma with all reasonably requested assistance to effect such assignment and shall execute all documents necessary to perfect such assignment.

(f) Notwithstanding anything to the contrary herein, but subject to Section 8.2.2(d), any Know-How conceived, discovered, developed, invented or created in the performance of activities under this Agreement either (A) jointly by (I) Carisma or its Affiliates or Third Parties acting on its or their behalf and (II) Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, (B) solely by Carisma, its Affiliates or Third Parties acting on its or their behalf, or (C) solely by Moderna, its Affiliates, Sublicensees or Third Parties acting on its or their behalf, in each case to the extent [**] ((A)-(C) collectively, the "**Product-Specific Program Know-How**"), and any and all Patents that claim such Product Specific Program Know-How ("**Product-Specific Program Patents**," and together with the Product-Specific Program Know-How and other intellectual property rights with respect thereto, the "**Product-Specific Program Technology**"), shall be owned solely by Moderna, subject to any rights or licenses expressly granted by Moderna to Carisma under this Agreement. Carisma, on behalf of itself and its Affiliates, hereby assigns to Moderna all of Carisma's and its Affiliates' right, title and interest in and to all Product-Specific Program Technology. Carisma shall promptly disclose to Moderna in writing, the conception, discovery, development, invention or creation of any Product-Specific Program Know-How. Carisma shall take all actions and provide Moderna with all reasonably requested assistance to effect such assignment and shall execute all documents necessary to perfect such assignment.

8.2.3. Inventorship. Inventorship shall be determined by application of U.S. patent law pertaining to inventorship.

8.2.4. Cooperation and Allocation. Each Party shall cause its and its Affiliates' employees, consultants, licensees (and in the case of Moderna, Sublicensees), agents, independent contractors, or any other Person who conceives, discovers, develops or otherwise makes any Improvement, Know-How or other intellectual property by or on behalf of such Party or its Affiliates under this Agreement, to assign to such Party such Person's right, title and interest in and to any such Improvement, Know-How or other intellectual property, as is necessary to enable such Party to fully effect the ownership of such Improvement, Know-How or other intellectual property, as provided for in this Section 8.2. Each Party shall also include provisions in its relevant agreements with Third Parties performing activities on its behalf pursuant to this Agreement, that effect the intent of this Section 8.2. Each Party agrees to provide reasonable cooperation to the other Party, and shall cause its Affiliates, employees, consultants, sublicensees (and in the case of Moderna, Sublicensees), agents, or independent contractors to, cooperate with such Party and take all reasonable additional actions and execute such agreements, instruments and documents as may be reasonably required to perfect such Party's right, title and interest in and to Improvement,

Know-How or other intellectual property, as set forth in this Section 8.2, including by executing and delivering all documents reasonably required to evidence or record any assignment pursuant to this Agreement.

8.3. Product-Specific Program Technology License.

8.3.1. If a Collaboration Target becomes a Discontinued Target pursuant to the terms of this Agreement, then Moderna shall grant, and does hereby grant, effective on the date such Collaboration Target becomes a Discontinued Target pursuant to Section 1.47, a non-exclusive, worldwide, royalty-free and sublicensable (subject to Section 8.1.3, *mutatis mutandis*) license under the Product-Specific Program Technology that is owned by Moderna pursuant to Section 8.2.2(f)(A) or Section 8.2.2(f)(B) to [**]. If Carisma wishes to expand such license with respect to a Discontinued Target to include [**], Carisma may request such an expansion from Moderna not earlier than the later of (a) [**] after the date such Collaboration Target became a Discontinued Target and (b) [**] after expiration of the Research Term, and in such case Moderna agrees it shall grant such royalty-bearing license subject to negotiation in good faith and agreement by the Parties of the terms for such expansion.

8.3.2. If Moderna does not opt-in to a Carisma [**] Field Research Program pursuant to Section 4.1.2, and nominates any Target associated with such Carisma [**] Field Research Program as a Research Target after such Carisma [**] Field Research Program becomes an Internal Carisma Program and Carisma continues to progress such Carisma [**] Field Research Program, then Moderna shall grant, and hereby does grant, to Carisma a non-exclusive, worldwide, royalty-free and sublicensable (subject to Section 8.1.3, *mutatis mutandis*) license under the Product-Specific Program Technology that (a) is owned by Moderna pursuant to Section 8.2.2(e)(A) or Section 8.2.2(e)(B) and (b) is solely related to such Research Target, to [**].

8.4. Carisma Platform Program Technology License. Carisma hereby grants to Moderna a non-exclusive, worldwide, royalty-free and sublicensable (subject to Section 8.1.3) license under the Carisma Platform Program Technology that is owned by Carisma pursuant to Section 8.2.2(e)(A) or (C) to [**].

8.5. In-Licenses.

8.5.1. Generally. Subject to Section 8.5.2, if during the Term, either Party identifies any Third Party Patents, Know-How or Materials that would be necessary or reasonably useful for, in each case either Party's performance of activities set forth in a Research Plan or the Development, Manufacture or Commercialization of a Product, in each case, pursuant to the terms of this Agreement, such Party may independently negotiate and enter into an agreement to obtain a license or other rights to such Patents, Know-How or Materials (collectively, "**New In-License IP**") for use in connection with the performance of such Research Plan activities or the Development, Manufacture or Commercialization of such Product, in each case pursuant to the terms of this Agreement (a "**New In-License**").

8.5.2. Moderna Initial Right to Enter New In- Licenses. Notwithstanding the foregoing Section 8.5.1, to the extent Carisma identifies any Third Party Patents, Know-How or Materials related to any [**], Carisma shall promptly notify Moderna of such Patents, Know-How

or Materials and Moderna shall have the first right to negotiate for and enter into a New In-License with respect to such Patents, Know-How or Materials, provided that Moderna will notify Carisma if Moderna wishes to exercise such right within [**] of Carisma's notice, and such first right will continue for so long as Moderna or its Affiliate is actively negotiating such agreement, and Moderna will keep Carisma reasonably informed as to the status of such negotiations. If Moderna does not notify Carisma of its intent to exercise such right or ceases actively negotiating such agreement (in which case it will so notify Carisma), Carisma shall have the right to negotiate for and enter into a New In-License with respect to such Patents, Know-How or Materials. If Moderna enters into a New In-License with respect to Patents, Know-How or Materials pursuant to this Section 8.5.2 that are related to [**] and also related to any [**] then, if requested by Carisma, the Parties shall discuss in good faith Moderna granting to Carisma a non-exclusive, royalty-bearing sublicense under such Patents, Know-How or Materials for use with such [**] outside of the Field on terms that would be negotiated by the Parties.

8.5.3. Moderna Option to Sublicense New Carisma In-Licensed IP.

8.5.3.1. Subject to Section 8.5.2, if Carisma or any of its Affiliates intends to obtain a license to any Patents or Know-How from a Third Party that, if Controlled by Carisma or its Affiliates, would at the time of such notice constitute Licensed Intellectual Property or potentially would, considering the scope of the Collaboration and the Research Activities contemplated to be conducted hereunder, constitute Licensed Intellectual Property after the date of such notice ("**New Carisma In-Licensed IP**"), then Carisma shall promptly notify Moderna thereof. If requested by Moderna, Carisma shall keep Moderna reasonably apprised of the negotiations of such license, including by providing copies of any draft agreements received from or sent to such Third Party, and Carisma shall reasonably consider any comments or requests provided by Moderna. Carisma agrees that (a) it shall not negotiate for economic terms in any agreement for New Carisma In-Licensed IP in a manner that intentionally results in the fees, royalties, milestones or other remuneration payable thereunder with respect to research, Development, Manufacturing and Commercialization activities contemplated hereunder being disproportionately higher than the amounts payable with respect to research, Development, Manufacturing and Commercialization activities performed outside of the scope of this Agreement, and Carisma shall use Commercially Reasonable Efforts to negotiate target-by-target economic terms and (b) it shall use Commercially Reasonable Efforts to reserve the right in such agreement to disclose the terms of such agreement to Moderna (subject to confidentiality obligations), grant sublicenses to Moderna as contemplated herein and provide for the survival of any sublicenses granted thereunder in the event of termination of such agreement. If Carisma enters into an agreement for New Carisma In-Licensed IP pursuant to which Carisma is granted exclusive rights with respect to the relevant New Carisma In-Licensed IP and such agreement does not contain the right to grant sublicenses to Moderna as contemplated herein, Carisma shall use Commercially Reasonable Efforts to, if such agreement is entered into during the Research Term, exclude the Field from the field of such license, and if such agreement is entered into after the Research Term, exclude the Field from the field of such license with respect to any Product Polypeptide or Collaboration Target.

8.5.3.2. Carisma shall promptly notify Moderna in the event Carisma or any of its Affiliates licenses any New Carisma In-Licensed IP. If Carisma would be required to make any payment or impose any restrictions or conditions in connection with the grant of, or Moderna's

exercise of rights under, a sublicense to such Patent or Know-How hereunder, Carisma's notice shall also inform Moderna of such fact. In such case, Moderna shall have the option to take a sublicense to such Patent or Know-How on the terms and conditions of this Agreement, which option Moderna can exercise by (a) notifying Carisma within [**] of receipt of Carisma's notice under this Section 8.5.3.2 and (b) agreeing in writing to (i) make any such payment, subject to Moderna's right to offset all or a portion of such payments against the royalties payable to Carisma hereunder pursuant to Section 6.5.3 and (ii) adhere to such restrictions or conditions, provided that any such payment (other than royalty payments based on sales by Moderna or its Affiliates or Sublicensees) shall be equitably apportioned to reflect the fair value attributable to the Products as compared to other products or applications. The Parties will negotiate such equitable apportionment in good faith and if the Parties are unable to agree upon such equitable apportionment, either Party may refer the matter for resolution to a mutually agreed independent Third Party expert having at least [**] experience in pharmaceutical licensing matters. Upon exercise of such option, Carisma shall be deemed to "Control" such Patent or Know-How. If Moderna, in its sole discretion, does not exercise such option, then (A) the New Carisma In-Licensed IP shall not be deemed Licensed Intellectual Property and shall not be deemed "Controlled" by Carisma or its Affiliates, and (B) Carisma shall not use any such New Carisma In-Licensed IP in connection with the performance of any Research Program or otherwise in connection with this Agreement, provided that if any Patent in such New Carisma In-Licensed IP Covers [**]. Notwithstanding the foregoing, if Moderna elected to not exercise such option with respect to New Carisma In-Licensed IP within [**] of receipt of Carisma's notice of having obtained a license to such New Carisma In-Licensed IP, Moderna shall have the right at any time thereafter to exercise such option.

8.5.3.3. Moderna shall have the option to take a sublicense to the [**] IP on the terms and conditions of this Agreement, which option Moderna can exercise by (a) notifying Carisma at any time during the Term and (b) agreeing in writing to (i) make any payment that Carisma is required to make in connection with the grant of, or Moderna's exercise of rights under, such sublicense, subject to Moderna's right to offset a portion of such payments against the royalties payable to Carisma hereunder pursuant to Section 6.5.3 and (ii) adhere to any restrictions or conditions that Carisma is required to impose in connection with the grant of, or Moderna's exercise of rights under, such sublicense.

8.6. America Invents Act. The Parties acknowledge and agree that this Agreement is a "joint research agreement" as defined in 35 U.S.C. § 100(h). Notwithstanding anything to the contrary in this ARTICLE VIII, neither Party shall have the right to provide to a court or an agency a statement under 37 C.F.R. §1.104(c)(4)(ii)(A) to disqualify, for purposes of 35 USC § 102(b)(2)(C) or 35 USC § 102(c), prior art under § 102(a)(2) without the prior written consent of the other Party, which shall not be unreasonably withheld, conditioned or delayed. With respect to any such permitted statement, the Parties shall use reasonable efforts to cooperate and coordinate their activities with respect to any submissions, filings or other activities in support thereof. Notwithstanding the foregoing, the other Party's consent under this Section 8.6 shall not be required in connection with an obviousness-type double patenting rejection in any patent application claiming a Product or uses thereof, provided that to the extent that a Party intends to file a terminal disclaimer under 37 C.F.R. § 1.321(d), the Parties shall first agree on terms and conditions under which the Patent subject to such terminal disclaimer and the patent or application

over which such application is disclaimed shall be jointly enforced, to the extent that the Parties have not previously agreed to such terms and conditions.

ARTICLE IX.
PATENT PROSECUTION

9.1. Prosecution and Maintenance of Patents.

9.1.1. Licensed Patents. Subject to the provisions of any Third Party license agreement under which [**] rights in any Licensed Patent are sublicensed to [**] hereunder:

(a) [**] Initial Right. [**] shall have the initial right (but not the obligation), at its expense, to Prosecute and Maintain the Licensed Patents, [**] ("**Product Polypeptide Patents**"). [**] or its patent counsel shall keep [**] informed as to material developments with respect to the Prosecution and Maintenance of such Licensed Patents specifically related to Products licensed to [**] hereunder, including by providing copies of all substantive office actions or any other substantive documents that such patent counsel receives from any patent office, including notice of all interferences, reissues, re-examinations, oppositions or requests for patent term extensions, and shall provide [**] with a reasonable opportunity to comment substantively on the Prosecution and Maintenance of such Licensed Patents prior to taking material actions (including the filing of initial applications), and shall in good faith consider any comments made by and actions recommended by [**], provided however that [**] does so promptly and consistent with any applicable filing deadlines.

(b) [**] Backup Right. If [**] intends to allow a Licensed Patent solely owned by [**] or one of its Affiliates and specifically related to Products licensed to [**] a hereunder to lapse or become abandoned without having first filed a substitute, it shall notify and consult with [**] of such intention at least [**] prior to the date upon which such Patent shall lapse or become abandoned, and [**] shall thereupon have the right (but not the obligation) to assume the Prosecution and Maintenance of such Patent at [**] expense with counsel of its choice.

9.1.2. [**] Patents, Product Polypeptide Patents and Joint Patents. As between the Parties, [**] shall have the sole right (but not the obligation) to Prosecute and Maintain and enforce the [**] Platform Program Patents and any other Patent solely owned by [**] (the "**[**] Patents**"), [**].

9.2. Defense of Claims Brought by Third Parties.

9.2.1. Notice. If a Party becomes aware of any actual or potential claim that the research, Development, Manufacture or Commercialization of any Product in the Field infringes the intellectual property rights of any Third Party, such Party shall promptly notify the other Party. In any such instance, the Parties shall as soon as practicable thereafter meet to discuss in good faith regarding the best response to such notice. [**].

9.2.2. Costs. Subject to any rights to indemnification from [**] hereunder, the costs and expenses incurred by the Parties in connection with defense of any claim described in Section 9.2.1 shall be borne [**], unless otherwise agreed in writing by the Parties, provided that [**] shall not be responsible for any such costs incurred by [**] unless agreed in advance in writing

by [**]. For clarity, this Section 9.2.2 is intended to address the Parties' defense costs in such claim, and if as a result of any such defense of such claim, a Party obtains a license under Third Party intellectual property rights, Section 6.5.3 may apply to the amounts due to any such Third Party pursuant to such license.

9.3. Patent Term Extensions. Subject to the provisions of any Third Party license agreement under which Carisma's rights in any Licensed Patent are sublicensed to Moderna hereunder, Moderna shall have the exclusive right, but not the obligation, to seek, in Carisma's name if so required, patent term extensions, supplemental protection certificates and the like available under Applicable Law, including 35 U.S.C. § 156 and applicable foreign counterparts, in any country in the Territory in relation to [**]. Moderna shall have the right to seek such patent term extensions, supplemental protection certificates and the like in relation to any other [**]. Carisma and Moderna shall cooperate in connection with all such activities. Moderna shall give due consideration to all suggestions and comments of Carisma regarding any such activities, but in the event of a disagreement between the Parties, Moderna shall have the final decision-making authority.

9.4. Recording. If Moderna deems it necessary or desirable to register or record this Agreement or evidence of this Agreement with any patent office or other appropriate Governmental Authority in one or more jurisdictions in the Territory, Carisma shall reasonably cooperate to execute and deliver to Moderna any documents accurately reflecting or evidencing this Agreement that are necessary or desirable, in Moderna's reasonable judgment, to complete such registration or recordation, provided that the Parties first mutually agree on the contents of such documents. Moderna shall reimburse Carisma for all reasonable Out-of-Pocket Costs, including attorneys' fees, incurred by Carisma in complying with the provisions of this Section 9.4.

9.5. Regulatory Data Protection. Moderna shall have the sole authority to determine Patents to list, with the applicable Regulatory Authorities in the Territory during the Term, for any Product that Moderna intends to, or has begun to, Commercialize, such listings to include all so called "Orange Book" listings and "Purple Book" listings and all similar listings in any other relevant countries, regardless of which Party owns such Patent.

9.6. Liability. Subject to the terms and conditions of this Agreement, to the extent that a Party is obtaining and/or Prosecuting and Maintaining a Patent under this Agreement, or otherwise exercising its rights under this ARTICLE IX, neither such Party, nor any of its Affiliates, employees, agents or representatives, shall be liable to the other Party in respect of any act, omission, default or neglect on the part of any such Affiliate, employee, agent or representative in connection with such activities undertaken in good faith.

ARTICLE X.
PATENT ENFORCEMENT

10.1. Enforcement of Patents.

10.1.1. Notice. If any Party learns of an infringement or threatened infringement in the Field by a Third Party with respect to any Licensed Patent, [**] or Joint Patent, including actual or alleged infringement under 35 USC §271(e)(1), that is or would be infringing activity involving the using, making, importing, offering for sale or selling of products that are substantially the same as or otherwise competitive with the Products (including Comparable Third Party Products) ("**Competitive Infringement**"), such Party shall promptly notify the other Party and shall provide such other Party with available evidence of such Competitive Infringement. For any Competitive Infringement, Carisma shall share with Moderna all information reasonably available to it regarding such alleged infringement.

10.1.2. Biosimilar Applications. If either Party receives a copy of an application submitted to the FDA under subsection (k) of Section 351 of the Public Health Service Act ("**PHSA**") (a "**Biosimilar Application**") naming a Product as a reference product or otherwise becomes aware that such a Biosimilar Application has been filed (such as in an instance described in Section 351(1)(9)(C) of the PHSA), such Party shall, within [**], notify the other Party. If the Development, Manufacture or Commercialization of the product described in such Biosimilar Application would amount to Competitive Infringement of a Licensed Patent or Joint Patent, the Parties shall coordinate in good faith, provided that Moderna shall have the first right to determine, implement and control the appropriate course of action or any related proceeding as provided under Section 10.1.3. If such Biosimilar Application would amount to Competitive Infringement of any Moderna Patents, Moderna shall have the sole right to determine, implement and control the appropriate course of action or any related proceeding.

10.1.3. Enforcement of Licensed Patents. Subject to the provisions of any Third Party license agreement under which Carisma's rights in any Licensed Patent are sublicensed to Moderna hereunder:

(a) Initial Enforcement. As between the Parties, Moderna shall have the first right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to any Competitive Infringement of any Licensed Patent and Joint Patent by counsel of its own choice, in Moderna's own name and under Moderna's direction and control. The foregoing right of Moderna shall include the right to perform all actions of a reference product sponsor set forth in the U.S. Hatch-Waxman Act or Public Health Service Act, and any ex-U.S. equivalent of such laws.

(b) Timing. Pursuant to Section 10.1.3(a), Moderna shall have a period of [**] after its receipt or delivery of notice and evidence pursuant to Section 10.1.1 or receipt of written notice from a Third Party that reasonably evidences any action or proceeding with respect to any Competitive Infringement described in Section 10.1.3(a) (an "**Enforcement Proceeding**"), to elect to so enforce such Licensed Patent or Joint Patent in the applicable jurisdiction (or to settle or otherwise secure the abatement of such Competitive Infringement), provided however, that such period shall be (i) more than [**] to the extent Applicable Law prevents earlier enforcement of

such Licensed Patent or Joint Patent, and provided further that if such period is extended because Applicable Law prevents earlier enforcement, Moderna shall have until the date that is [**] following the date upon which applicable Law first permits such Enforcement Proceeding, and (ii) less than [**] to the extent that a delay in bringing such Enforcement Proceeding against such alleged Third Party infringer would limit or compromise the remedies (including monetary relief, and stay of regulatory approval) available against such alleged Third Party infringer. In the event Moderna does not so elect (or settle or otherwise secure the abatement of such Competitive Infringement) before the first to occur of (A) the expiration of the applicable period of time set forth in the preceding subsections (i) and (ii), or (B) [**] before the expiration of any time period under Applicable Law, that would, if an Enforcement Proceeding was not filed within such time period, limit or compromise the remedies available from such Enforcement Proceeding, it shall so notify Carisma in writing and in the case where Carisma then desires to commence a suit or take action to enforce the applicable Licensed Patent (if solely owned by Carisma) or Joint Patent with respect to such Competitive Infringement in the applicable jurisdiction, Carisma shall, subject to Section 10.1.3(a), thereafter have the right to commence such a suit or take such action to enforce the applicable Licensed Patent or Joint Patent (such action, a "**Step-In Proceeding**"), at Carisma's expense.

(c) Right to Participate; Joinder. The non-enforcing Party in relation to any enforcement action or proceeding set forth in Section 10.1.3(a) shall have the right, at its own expense and by counsel of its choice, to be represented in any such action or proceeding. In the case of any Enforcement Proceeding or Step-In Proceeding, at the enforcing Party's written request, and at the enforcing Party's expense (subject to Section 10.1.5), the other Party shall join any such action or proceeding as a party and shall use Commercially Reasonable Efforts to cause any Third Party as necessary to join such action or proceeding as a party if doing so is necessary for the purposes of establishing standing or is otherwise required by Applicable Law to pursue such action or proceeding.

(d) Cooperation. In addition to the obligations set forth in Sections 10.1.3(a) and 10.1.3(c), each Party shall provide to the Party enforcing any such rights under Section 10.1.3(a) reasonable assistance and cooperation in such enforcement, at such enforcing Party's request and expense. The enforcing Party shall keep the other Party regularly informed of the status and progress of such enforcement efforts.

(e) Consent to Enforce. Notwithstanding anything to the contrary in this Section 10.1, if [**].

10.1.4. Settlement. A settlement or consent judgment or other voluntary final disposition of a suit under this Section 10.1 may be entered into without the consent of the Party not bringing suit; provided, however, that any such settlement, consent judgment or other disposition of any action or proceeding by a Party under this ARTICLE X shall not, without the consent of the Party not bringing suit, (a) impose any liability or obligation on the Party not bringing suit, (b) include the grant of any license, covenant or other rights to any Third Party that would conflict with or reduce the scope of the subject matter included under the licenses granted to the Party not bringing suit under this Agreement, (c) conflict with or reduce the scope of the subject matter claimed in any Patent owned by the Party not bringing suit, or (d) adversely affect

the interest of the Party not bringing suit in any material respect, provided that such consent shall not be unreasonably withheld.

10.1.5. Costs and Recoveries. Except as otherwise set forth in this Section 10.1, each Party shall bear all of its own internal costs incurred in connection with its activities under this Section 10.1. If a Party commences a License Enforcement Proceeding or a License Step-In Proceeding, it shall bear all external costs and expenses for such action. Any damages or other monetary awards recovered in any action, suit or proceeding brought under this Section 10.1 shall be shared as follows:

(a) Initial Allocation. Such damages or other sums recovered shall be applied to all Out-of-Pocket Costs incurred by each Party directly in connection with such action (including, for this purpose, a reasonable allocation of expenses of outside counsel). If such recovery is insufficient to cover all such costs and expenses of both Parties, it shall be shared in proportion to the total of such costs and expenses incurred by each Party; and

(b) Remaining Proceeds. The remainder of any recovery or distribution received by a Party under this Section 10.1, after reimbursement of costs and expenses of each Party, shall be distributed as follows: (i) if Moderna is the enforcing Party, Moderna shall receive [**] percent ([**]%) and Carisma shall receive [**] percent ([**]%); and (ii) if Carisma is the enforcing Party, Carisma shall retain [**] percent ([**]%).

10.2. Enforcement of Moderna Patents. As between the Parties, Moderna shall have the sole right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to any Third Party infringement of any Patents owned or Controlled by Moderna (including Moderna Platform Program Patents but excluding, for clarity, Licensed Patents and Joint Patents, the enforcement of which are addressed by Section 10.1), including Competitive Infringement of any Moderna Platform Program Patents by counsel of its own choice, in Moderna's own name and under Moderna's direction and control.

10.3. Other Actions by Third Parties.

10.3.1. Each Party shall promptly notify the other Party in the event of any legal or administrative action by any Third Party involving any Licensed Patent of which it becomes aware, including any nullity, revocation, inter partes review, interference, reexamination or compulsory license proceeding. Subject to the provisions of any Third Party license agreement under which Carisma's rights in any Licensed Patent are sublicensed to Moderna hereunder, Moderna shall have the first right, but no obligation, to defend against any such action involving any Licensed Patent in its own name (to the extent permitted by Applicable Law), and any such defense shall be [**]. Carisma, upon Moderna's request, agrees to join in any such action at Moderna's expense and in any event to cooperate with Moderna [**]. If Moderna fails to defend against any such action involving a Licensed Patent, then Carisma shall have the right, but no obligation, to defend such action, in its own name, and any such defense shall be [**]. In such event, Moderna, upon Carisma's request, shall reasonably cooperate with Carisma in any such action [**].

10.3.2. Moderna shall have the sole right, but not the obligation, to defend any legal or administrative action by any Third Party involving any Patents owned or Controlled by Moderna

(including Moderna Platform Program Patents but excluding, for clarity, Licensed Patents, the enforcement of which are addressed by Section 10.3.1) of which it becomes aware, including any nullity, revocation, interference, inter partes review, reexamination or compulsory license proceeding.

ARTICLE XI.
INDEMNIFICATION; INSURANCE

11.1. Indemnification by Moderna. Moderna shall indemnify, defend and hold harmless Carisma Indemnitees, from and against any and all Third Party Damages to the extent arising out of or relating to, directly or indirectly, any Claim based upon:

(a) [**]; or

(b) [**];

in each case, provided however that, such indemnity shall not apply to the extent Carisma has an indemnification obligation pursuant to Section 11.2 for such Third Party Damages.

11.2. Indemnification by Carisma. Carisma shall indemnify, defend and hold harmless the Moderna Indemnitees, from and against any and all Third Party Damages to the extent arising out of or relating to, directly or indirectly, any Claim based upon:

(a) any breach by Carisma of any representation, warranty, covenant, agreement or obligation under this Agreement; or

(b) any discovery, research or use by Carisma or its Affiliates or licensees of any Product Polypeptide;

in each case, provided however that, such indemnity shall not apply to the extent Moderna has an indemnification obligation pursuant to Section 11.1 for such Third Party Damages.

11.3. Notice of Claims. A Claim to which indemnification applies under Section 11.1 or Section 11.2 shall be referred to herein as an "**Indemnification Claim**." If a Party intends to claim indemnification under this ARTICLE XI, the Party claiming indemnification (the "**Indemnitee**") shall notify the indemnifying Party (the "**Indemnitor**") in writing, reasonably promptly upon becoming aware of an Indemnification Claim, describing in reasonable detail the facts giving rise to the Indemnification Claim; provided, that an Indemnification Claim in respect of any action at law or suit in equity by or against a Third Party as to which indemnification shall be sought shall be given reasonably promptly after the action or suit is commenced (provided that the Indemnitee is aware of such commencement); and provided further, that the failure by an Indemnitee to give such notice shall not relieve the Indemnitor of its indemnification obligation under this Agreement except and only to the extent that the Indemnitor is actually and materially prejudiced as a result of such failure to give notice.

11.4. Indemnification Procedures. If an Indemnitee receives written notice of a Claim that the Indemnitee believes may result in a claim for indemnification under this ARTICLE XI, such Indemnitee shall deliver an Indemnification Claim to the Indemnitor in accordance with the

provisions of Section 11.3. If (but only for so long as) the Litigation Conditions are satisfied, then the Indemnitor shall have the right to assume and control the defense of the Claim, at its own expense with counsel selected by it and reasonably acceptable to the Indemnitee (such acceptance not to be unreasonably withheld, conditioned or delayed), by delivering written notice of its assumption of such defense to the Indemnitee within [**] of its receipt of notice of such Claim from the Indemnitor (but the Indemnitor shall in any event have the right to assume and control the defense of a Claim that initially sought injunctive relief (including a declaratory judgment) from the Indemnitee when the only remaining dispute in such matter is the determination of non-injunctive relief or when the only remaining relief sought by the Third Party in such matter is non-injunctive relief, whichever is first); provided, however, that the Indemnitee shall have the right to retain its own counsel, with the reasonable fees and expenses to be paid by the Indemnitor, if (a) representation of the Indemnitee by the counsel retained by the Indemnitor would be inappropriate due to actual or potential conflict of interests between such Indemnitee and Indemnitor, (b) the Indemnitor has failed within a reasonable time to retain counsel, (c) the Indemnitee shall have reasonably concluded that there may be legal defenses available to it that are different from or in addition to those available to the Indemnitor, or (d) at any time the Litigation Conditions are not satisfied with respect to such Claim. If the Indemnitor assumes and controls the defense of such Claim, the Indemnitor shall keep the Indemnitee reasonably apprised of the status of the Claim and the Indemnitee shall be entitled to otherwise monitor such Claim at its sole cost and expense. If the Claim seeks injunctive relief (including a declaratory judgment) against or from the Indemnitee or if the Indemnitor does not assume the defense of the Claim as described in this Section 11.4, the Indemnitee shall be permitted to assume and control the defense of such Claim (but shall have no obligation to do so) and in such event shall be entitled to settle or compromise the Indemnification Claims in its sole discretion. If the Indemnitor has assumed and controls the defense of the Claim in accordance with this Section 11.4, (i) the Indemnitee shall not settle or compromise the Indemnification Claim without the prior written consent of the Indemnitor, such consent not to be unreasonably withheld, conditioned or delayed and (ii) the Indemnitor shall not settle or compromise the Indemnification Claim unless the terms of such settlement or compromise (x) provide for a legally binding and unconditional and irrevocable release of the Claims that are the subject of such Indemnification Claim in favor of the Indemnitee, (y) do not contain an admission of wrongdoing or liability on behalf of Indemnitee and (z) would not result in the payment of amounts by the Indemnitee, impose any other obligation on the Indemnitee or otherwise have an adverse effect on the Indemnitee's rights or interests (including any rights under this Agreement or the scope or enforceability of any Patents or Know-How licensed by one Party to another Party pursuant to this Agreement), without the prior written consent of the Indemnitee, such consent not to be unreasonably withheld, conditioned or delayed. In each case, the Party that is not controlling the defense of any Claim shall reasonably cooperate with the Party that is controlling the defense of such Claim, at the non-controlling Party's expense and shall make available to the controlling Party all pertinent information under the control of the non-controlling Party, which information shall be subject to ARTICLE VII. Each Party shall use Commercially Reasonable Efforts to avoid production of Confidential Information of the other Party (consistent with Applicable Law and rules of procedure), and to cause all communications among employees, counsel and other representatives of such Party to be made so as to preserve any applicable attorney-client or work-product privileges.

11.5. Insurance. Each Party shall maintain, at its own cost, a program of insurance and/or self-insurance against liability and other risks associated with its activities and obligations under

this Agreement in such amounts, subject to such deductibles and on such terms as are customary for such Party for the activities to be conducted by it under this Agreement.

11.6. LIMITATION OF LIABILITY. EXCEPT (A) FOR A BREACH OF SECTION 14.3 (Assignment), ARTICLE IV (Exclusivity) OR ARTICLE VII (Confidentiality) OR (B) FOR CLAIMS THAT ARE SUBJECT TO INDEMNIFICATION UNDER THIS ARTICLE XI OR (C) FOR DAMAGES DUE TO GROSS NEGLIGENCE, WILLFUL MISCONDUCT OR FRAUD OF THE LIABLE PARTY, NEITHER CARISMA NOR MODERNA, NOR ANY OF THEIR RESPECTIVE AFFILIATES WILL BE LIABLE TO THE OTHER PARTY TO THIS AGREEMENT OR ITS AFFILIATES UNDER THIS AGREEMENT FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE OR EXEMPLARY DAMAGES OR LOST PROFITS OR LOST DATA, WHETHER LIABILITY IS ASSERTED IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), INDEMNITY OR CONTRIBUTION, AND IRRESPECTIVE OF WHETHER THAT PARTY OR ANY REPRESENTATIVE OF THAT PARTY HAS BEEN ADVISED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED THE POSSIBILITY OF, ANY SUCH LOSS OR DAMAGE. Without limiting the generality of the foregoing, "consequential damages" shall be deemed to include, and neither Party shall be liable to the other Party or any of such other Party's representatives or stockholders for, any damages based on or measured by loss of projected or speculative future sales of the Products, any unearned milestones or unearned royalties or any other unearned, speculative or otherwise contingent payments provided for in this Agreement.

ARTICLE XII.
TERM AND TERMINATION

12.1. Term; Expiration.

12.1.1. Term. This Agreement shall become effective on the Effective Date and, unless earlier terminated pursuant to this ARTICLE XII, shall remain in effect until it expires (as applicable, the "**Term**"):

(a) on a Product-by-Product and country-by-country basis, on the date of the expiration of the Royalty Term with respect to such Product in such country; and

(b) in its entirety, upon the expiration of all applicable Royalty Terms under this Agreement with respect to all Products in all countries in the Territory.

12.1.2. Effect of Expiration. After the expiration of the Term pursuant to Section 12.1.1 above, the following terms shall apply:

(a) Licenses after Royalty Term Expiration. After expiration of the Term (but not after early termination) with respect to any Product in a country in the Territory pursuant to Section 12.1.1(a), Moderna shall have an exclusive, fully-paid, royalty-free, irrevocable, non-terminable right and license, with the right to grant sublicenses, under the Licensed Intellectual Property to Develop, Manufacture, have Manufactured, use, offer for sale, sell, import and otherwise Commercialize such Product in the Field in such country in the Territory.

(b) Licenses after Expiration of Agreement. After expiration of the Term (but not after early termination) with respect to this Agreement in its entirety pursuant to Section 12.1.1(b), Moderna shall have an exclusive, fully-paid, royalty-free, irrevocable, non-terminable, worldwide right and license, with the right to grant sublicenses, under the Licensed Intellectual Property to Develop, Manufacture, have Manufactured, use, offer for sale, sell, import and otherwise Commercialize Products in the Field in the Territory.

12.2. Termination Without Cause. At any time during the Term, Moderna shall have the right, in its sole discretion, to terminate this Agreement on a Product-by-Product or Collaboration Target-by-Collaboration Target basis, or in its entirety, without cause, upon ninety (90) days prior written notice to Carisma hereunder. In addition, at any time during the Term, Moderna shall have the right, in its sole discretion, to terminate the sublicense granted to it by Carisma of the [**] Intellectual Property under the [**] License Agreement, upon [**] prior written notice to Carisma.

12.3. Termination for Breach.

12.3.1. Termination by Either Party for Breach. Subject to Section 12.3.2, this Agreement and the rights granted herein may be terminated by either Party for the material breach by the other Party of this Agreement, provided, that the breaching Party has not cured such breach within [**] (or [**], in the case of Moderna's payment obligations under this Agreement, or the time period provided in Section 12.3.2 with respect to a material breach by Moderna of its obligation to use Commercially Reasonable Efforts, each as applicable) (the "**Cure Period**") after the date of written notice to the breaching Party of such breach, which notice shall describe such breach in reasonable detail and shall state the non-breaching Party's intention to terminate this Agreement pursuant to this Section 12.3.1. Any such termination of this Agreement under this Section 12.3.1 shall become effective at the end of the Cure Period, unless the breaching Party has cured any such breach or default prior to the expiration of such Cure Period, or, if such breach is not susceptible to cure within the Cure Period, then, the non-breaching Party's right of termination shall be suspended only if and for so long as the breaching Party has provided to the non-breaching Party a written plan that is reasonably calculated to effect a cure and such plan is acceptable to the non-breaching Party, and the breaching Party commits to and carries out such plan as provided to the non-breaching Party. The Parties understand and agree that the totality of this Agreement and the totality of the circumstances with respect to this Agreement shall be taken into account and assessed as a whole for purposes of determining whether a breach is material under this Agreement.

12.3.2. Additional Procedures for Termination by Carisma for Failure of Moderna to Use Commercially Reasonable Efforts. If Carisma wishes to exercise its right to terminate this Agreement pursuant to Section 12.3.1 for Moderna's material breach of its obligations to use Commercially Reasonable Efforts under Section 3.1.1 as to a specific Collaboration Target or Product, (a) Carisma shall provide to Moderna a written notice of its intent to exercise such right, which notice shall be labelled as a "notice of material breach of diligence obligations under Section 3.1.1," and shall state the reasons and justification for such termination and recommending steps which Carisma believes Moderna should take to cure such alleged breach, and (b) such termination right shall be limited to termination of this Agreement solely with respect to the applicable Collaboration Target(s) and Product(s) for which Moderna has allegedly materially breached its obligations under Section 3.1.1. For any such notice of breach provided by Carisma, the Cure Period shall be [**], and shall become effective in accordance with Section 12.3.1.

12.3.3. Disagreement as to Material Breach. If the Parties reasonably and in good faith disagree as to whether there has been a material breach pursuant to either Section 12.3.1 or 12.3.2, then the Party that disputes that there has been a material breach may contest the allegation by referring such matter, within [**] following such notice of alleged material breach for resolution to the Executive Officers, who shall meet promptly to discuss the matter, and determine, within [**] following referral of such matter, whether or not a material breach has occurred pursuant to Section 12.3.1 or 12.3.2, as applicable. If the Executive Officers are unable to resolve a dispute within such [**] period after it is referred to them, the matter shall be resolved as provided in Section 14.5.

12.4. Termination for Bankruptcy. If either Party makes a general assignment for the benefit of creditors, appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, files a petition under any bankruptcy or insolvency act or has any such petition filed against it which is not dismissed, discharged, bonded or stayed within [**] after the filing thereof, the other Party may terminate this Agreement in its entirety, effective immediately upon written notice to such Party.

12.5. Effects of Termination.

12.5.1. Termination by Moderna Pursuant to Section 12.2, by Carisma Pursuant to Section 12.3 or by Carisma Pursuant to 12.4.

(a) In the event this Agreement is terminated by Moderna pursuant to Section 12.2, by Carisma pursuant to Section 12.3 or by Carisma pursuant to Section 12.4, then notwithstanding anything contained in this Agreement to the contrary, upon the effective date of such termination:

(i) Termination. All licenses granted to Moderna under this Agreement shall terminate in their entirety;

(ii) Collaboration Targets. All Collaboration Targets shall become Discontinued Targets; and

(iii) Return of Confidential Information. Each Party shall return or destroy (and certify such destruction in writing) all Confidential Information of the other Party with respect to the terminated Products being Developed or Commercialized under this Agreement, pursuant to Section 7.1, unless such information is practiced by the Receiving Party pursuant to licenses retained after any such termination under this Agreement.

(b) In the event Moderna terminates its sublicense to the [**] Intellectual Property under the [**] License Agreement pursuant to Section 12.2, then Moderna shall have no further rights or obligations with respect to the [**] License Agreement or [**] Intellectual Property, including under Section 6.6.

12.5.2. Termination by Moderna Pursuant to Section to 12.3 or 12.4. In the event Moderna terminates this Agreement pursuant to Section 12.3 or Section 12.4, then notwithstanding anything contained in this Agreement to the contrary, upon the effective date of such termination:

(a) Termination. All licenses granted to Moderna under this Agreement (other than pursuant to Section 8.4), and all licenses granted to Carisma under this Agreement, shall terminate in their entirety;

(b) Collaboration Targets. Carisma's obligations under ARTICLE IV shall continue for [**] after the termination of this Agreement, and on the expiration of such [**] period all Collaboration Targets shall become Discontinued Targets; and

(c) Return of Confidential Information. Each Party shall return or destroy (and certify such destruction in writing) all Confidential Information of the other Party with respect to the terminated Products being Developed or Commercialized under this Agreement, pursuant to Section 7.1, unless such information is practiced by the Receiving Party pursuant to licenses retained after any such termination under this Agreement.

12.5.3. Payments. In the event this Agreement is terminated by Moderna pursuant to Section 12.3 or Section 12.4, then no milestone payments by Moderna under ARTICLE VI shall be due on milestones achieved during the period between the notice of termination under this ARTICLE XII and the effective date of termination; provided, however, if either Party provides notice of a dispute regarding a proposed termination pursuant to this ARTICLE XII or otherwise and such dispute is resolved in a manner in which no termination of this Agreement occurs with respect to such breach or the breaching Party cures the applicable breach during the Cure Period, then upon such resolution or cure Moderna shall within [**] pay to Carisma the applicable milestone payment for each milestone achieved during the period between the notice of termination under this ARTICLE XII and the resolution of such dispute or cure of such breach, and if it was determined that Moderna wrongly asserted breach by Carisma under Section 12.3.1, then Moderna shall also pay interest on such amount at an annual rate equal to the lesser of: (a) [**] points ([**]%) above the prime rate as published by Citibank, N.A., New York, New York, or any successor thereto, at 12:01 a.m. on the first day of each Calendar Quarter in which such payments are overdue or (b) the maximum rate permitted by Applicable Law; in each case calculated on the number of days such payment is withheld, compounded monthly. In the event Moderna terminates this Agreement pursuant to Section 12.2, Moderna shall pay any non-cancellable expenses of Carisma committed to by Carisma pursuant to any Research Plans that are payable after the effective date of termination, but excluding any non-cancellable expenses committed to by Carisma after Moderna sent written notice of such termination to Carisma pursuant to Section 12.2.

12.5.4. Partial Termination. If this Agreement is terminated in part as to a Product or Collaboration Target, then the terms of this Section 12.5 shall apply solely with respect to such terminated Product or Collaboration Target.

12.6. Survival of Sublicensees. Notwithstanding the foregoing, termination of this Agreement shall be construed as a termination of any sublicense of any Sublicensee hereunder, provided however that such Sublicensee shall have the right to request that Carisma grants to such Sublicensee a direct license. Carisma shall not unreasonably withhold, condition or delay its consent to any such request.

12.7. Optional Reduction of Royalties. In the event Moderna has the right to terminate this Agreement pursuant to Section 12.3 due to Carisma's breach of [**] or [**], then at Moderna's option in its sole discretion (a) this Agreement shall continue but all payments due to Carisma pursuant to ARTICLE VI shall be reduced by [**] percent ([**]%), provided that if the material breach by Carisma giving rise to such termination right pertains to one or more, but not all, Collaboration Targets, then such payment reduction shall apply only to the payments under ARTICLE VI for Products that incorporate or are directed to such Collaboration Target(s), or (b) Moderna may terminate this Agreement and Section 12.5.2 shall otherwise apply. If Moderna elects option (a), then such reduction of royalties shall serve as Moderna's exclusive remedy for any monetary damages that Moderna suffers as a result of Carisma's breach under Section 12.3, but shall not, for clarity, preclude Moderna from seeking any non-monetary equitable relief for such breach, including injunctive relief.

12.8. Surviving Provisions.

12.8.1. Accrued Rights; Remedies. Termination, relinquishment or expiration of this Agreement for any reason shall be without prejudice to any rights that shall have accrued to the benefit of any Party prior to such termination, relinquishment or expiration, including the payment obligations under ARTICLE VI hereof, and any and all damages or remedies (whether in law or in equity) arising from any breach hereunder. Such termination, relinquishment or expiration shall not relieve any Party from obligations which are expressly indicated to survive termination of this Agreement. Except as otherwise expressly set forth in this Agreement, the termination provisions of this ARTICLE XII are in addition to any other relief and remedies available to either Party under this Agreement and at Applicable Law.

12.8.2. Survival. The rights and obligations of the Parties set forth in the following Sections and Articles shall survive the expiration or termination of this Agreement, in addition to those other terms and conditions that are expressly stated to survive termination or expiration of this Agreement: Sections 2.6.1 (with respect to a final reconciliation of Research Costs), 2.13 (last two sentences), 6.5.2, 6.7, 6.8, 8.1.5, 8.1.6, 8.2, 8.6, 9.6, 12.1.2, 12.5, 12.6, 12.8 and 13.3 and ARTICLE I, ARTICLE VII, ARTICLE XI and ARTICLE XIV, provided that such survival shall be limited to any specific time periods set forth in such Articles and Sections. For the avoidance of doubt, in the event notice of termination of this Agreement is given prior to achievement of any milestone set forth in ARTICLE VI of this Agreement, Moderna shall not be obligated to make any milestone payment to Carisma with respect to any milestone with respect to the applicable Collaboration Target or Product achieved following the notice of such termination, provided that if such termination does not subsequently occur such milestone payment shall become payable.

ARTICLE XIII.
REPRESENTATIONS AND WARRANTIES; COVENANTS

13.1. Warranties; Disclaimer of Warranties.

13.1.1. Mutual Representations and Warranties. Each Party represents and warrants to the other Party that as of the Effective Date: (i) it has the full right, power and authority to enter into this Agreement and to perform its obligations hereunder; (ii) this Agreement has been duly executed by it and is legally binding upon it, enforceable against such Party in accordance

with its terms; and (iii) the execution and delivery by such Party of this Agreement does not conflict with the terms of any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any Applicable Law.

13.1.2. Additional Representations and Warranties of Carisma. Carisma represents and warrants to Moderna, as of the date hereof, that:

(a) except for Licensed Intellectual Property licensed under the [**] License Agreement, Carisma is the sole and exclusive owner of the Licensed Intellectual Property, all of which is free and clear of any claims, liens, charges or encumbrances (other than liens, charges or encumbrances for taxes not yet due or being contested in good faith);

(b) it has and shall have the full right, power and authority to grant all of the rights and licenses granted or to be granted to Moderna, Moderna's Affiliates or Moderna's Sublicensees under this Agreement;

(c) it has complied in all material respects with all Applicable Laws, including any disclosure requirements, in connection with the Prosecution and Maintenance of the Licensed Patents;

(d) Carisma has independently developed all Carisma Know-How or otherwise has a valid right to use, and to permit Moderna, Moderna's Affiliates and Moderna's Sublicensees to use Carisma's Know-How for all permitted purposes under this Agreement;

(e) it has obtained from all inventors of Licensed Intellectual Property owned by Carisma or its Affiliates existing as of the Effective Date, valid and enforceable agreements assigning to Carisma each such inventor's entire right, title and interest in and to all such Licensed Intellectual Property unless such assignment occurs automatically by virtue of Applicable Laws;

(f) except for Licensed Intellectual Property licensed under the [**] License Agreement, no Licensed Intellectual Property existing as of the Effective Date is subject to any funding agreement with any government or Governmental Authority;

(g) as of the Effective Date, Exhibit A sets forth a true and complete list of all Licensed Patents (including those pending before any patent office which have not been withdrawn or abandoned), indicating the owner, Carisma and/or co-owner(s), if applicable;

(h) as of the Effective Date, Carisma has disclosed any known Third Party challenges or threats to challenge the ownership, scope, validity or enforceability of any Licensed Intellectual Property;

(i) Schedule 13.1.2(i) sets forth a complete and accurate list of all agreements relating to the licensing, sublicensing or other granting of rights with respect to the Licensed Intellectual Property ("**Carisma Agreements**"), and Carisma has provided complete and accurate copies of all such agreements to Moderna. Except under the Carisma Agreements, Carisma and its Affiliates are not subject to any payment obligations to Third Parties as a result of the execution or performance of this Agreement. Carisma and its Affiliates are not in material

breach of any Carisma Agreement pursuant to which Carisma and/or its Affiliates receive a license or sublicense to any Licensed Intellectual Property;

(j) there are no claims, judgments, settlements, litigations, suits, actions, disputes, arbitration, judicial or legal, administrative or other proceedings or governmental investigations pending or, to the knowledge of Carisma, threatened against Carisma which would (i) be reasonably expected to affect or restrict the ability of Carisma to consummate the transactions under this Agreement and to perform its obligations under this Agreement, and (ii) affect in any manner the Licensed Intellectual Property, or Carisma's Control thereof;

(k) except as set forth in Exhibit A, neither Carisma nor any of its Affiliates has received any notice of any claim that any Patent, Know-How or other intellectual property owned or controlled by a Third Party would be infringed or misappropriated by the production, use, research, Development, Manufacture or Commercialization of any Product incorporating or based on the Carisma Technology pursuant to this Agreement, and to the knowledge of Carisma, there are no Patents owned by a Third Party and not included in the Licensed Intellectual Property that Cover the Carisma Technology or the manufacture, use or sale thereof (i) as the Carisma Technology is used and practiced by Carisma and its Affiliates as of the Effective Date and (ii) as currently contemplated to be used and practiced by the Parties pursuant to this Agreement, excluding in the case of (ii), Patents owned by a Third Party that Cover any Binder, mRNA Technology, or Target;

(l) to the knowledge of Carisma, no Third Party is conducting or engaging in any activity that would constitute infringement or misappropriation of the Carisma Technology or Licensed Intellectual Property in the Field in the Territory; and

(m) Carisma shall have sufficient resources and FTEs to perform its obligations under this Agreement.

13.2. Covenants.

13.2.1. Neither Carisma nor any of its Affiliates shall (a) assign, transfer, convey, encumber (including any liens or charges) or dispose of, or enter into any agreement with any Third Party to assign, transfer, convey, encumber (including any liens or charges) or dispose of any Product Polypeptide or any Licensed Intellectual Property that claims or is used or incorporated in any then-existing Product or relates to any Collaboration Target except subject to the terms of this Agreement or pursuant to a permitted assignment of this Agreement pursuant to Section 14.3, (b) license or grant to any Third Party, or agree to license or grant to any Third Party, any Product Polypeptide or Licensed Intellectual Property if such license or grant would conflict with any of the rights granted to Moderna hereunder, or (c) except as permitted under ARTICLE VII, disclose any Confidential Information relating to the Product Polypeptides or any Licensed Intellectual Property specific to any Product to any Third Party.

13.2.2. Carisma shall not amend or agree to amend, waive or modify any terms or conditions of any Carisma Agreement in any manner that would, or terminate any Carisma Agreement if such termination would, adversely affect the rights granted to Moderna under this Agreement without the prior written consent of Moderna. Carisma shall comply with all material

terms of the Carisma Agreements in all material respects, and shall timely make all payments required to be made thereunder. Except as provided in Section 6.6 or Section 8.5.3, Carisma shall be solely responsible for any payment obligations under or pursuant to any Carisma Agreement. Carisma shall promptly notify Moderna if it receives any notice from any Third Party that is a party to a Carisma Agreement stating that such Third Party intends to terminate or is terminating or intends to materially amend or modify any of the Carisma Agreements. Carisma shall further notify Moderna of any issue of which Carisma is aware that has given or could reasonably be expected to give rise to a material dispute under any Carisma Agreement.

13.3. Disclaimer. Except as otherwise expressly set forth in this Agreement, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY THAT ANY PATENTS ARE VALID OR ENFORCEABLE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

ARTICLE XIV.
MISCELLANEOUS

14.1. Severability. If any one or more of the terms or provisions of this Agreement is held by a court of competent jurisdiction or arbitrator to be void, invalid or unenforceable in any situation in any jurisdiction, such holding shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the invalid, void or unenforceable term or provision in any other situation or in any other jurisdiction and the term or provision shall be considered severed from this Agreement, unless the invalid or unenforceable term or provision is of such essential importance to this Agreement that it is to be reasonably assumed that the Parties would not have entered into this Agreement without the invalid or unenforceable term or provision. If the final judgment of such court or arbitrator declares that any term or provision hereof is invalid, void or unenforceable, the Parties agree to (a) reduce the scope, duration, area or applicability of the term or provision or to delete specific words or phrases to the minimum extent necessary to cause such term or provision as so reduced or amended to be enforceable, and (b) make a good faith effort to replace any invalid or unenforceable term or provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering this Agreement may be realized.

14.2. Force Majeure. No Party shall be liable for delay or failure in the performance of any of its obligations hereunder if such delay or failure is due to a cause beyond the reasonable control of a Party, including acts of God, fires, earthquakes, acts of war, terrorism, or civil unrest, or hurricane or other inclement weather, or epidemic, pandemic, or government action in response thereto ("**Force Majeure**"); provided, however, that the affected Party promptly notifies the other Party and further provided that the affected Party shall use its Commercially Reasonable Efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and shall continue performance with the utmost dispatch whenever such causes are removed. When such circumstances arise, the Parties shall negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution.

14.3. Assignment.

14.3.1. Generally. This Agreement may not be assigned by any Party, nor may any Party delegate its obligations or otherwise transfer licenses or other rights created by this Agreement, except as expressly permitted hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld, delayed or conditioned.

14.3.2. Successors. Notwithstanding the limitations in Section 14.3.1, each Party may assign this Agreement, together with its rights and obligations hereunder, to (a) an Affiliate or (b) its successor in interest in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business pertaining to the subject matter of this Agreement.

14.3.3. All Other Assignments Null and Void. The terms of this Agreement shall be binding upon and shall inure to the benefit of the successors, heirs, administrators and permitted assigns of the Parties. Any purported assignment in violation of this Section 14.3 shall be null and void *ab initio.*

14.4. Dispute Resolution by Executive Officers. Except as otherwise provided in this Agreement, in the event of any dispute between the Parties in connection with this Agreement, the construction hereof, or the rights, duties, or liabilities of either Party hereunder, the Parties shall first attempt in good faith to resolve such dispute by negotiation and consultation between themselves. If such dispute is not resolved on an informal basis within [**], either Party may, by written notice to the other Party, refer the dispute to the Chief Executive Officer of the other Party (or a designee of such Chief Executive Officer) for attempted resolution by good faith negotiation within [**] after such notice is received. Such officers, or their designees, shall attempt in good faith to promptly resolve such dispute. If any matter is not resolved under the foregoing provisions, each Party may, at its sole discretion, seek resolution of such matter in accordance with Section 14.5.

14.5. Governing Law; Jurisdiction; Venue; Waiver of Jury Trial.

14.5.1. Governing Law. This Agreement, and all disputes relating to this Agreement, shall be governed by the laws of the State of Delaware, USA, notwithstanding any conflicts of laws provisions thereof.

14.5.2. Jurisdiction; Venue. The sole jurisdiction, venue and dispute resolution procedure for all disputes, controversies or claims (whether in contract, tort or otherwise) arising out of, relating to or otherwise by virtue of, this Agreement, breach of this Agreement or the transactions contemplated by this Agreement shall be the United States District Court for the District of Delaware or, if such court does not have jurisdiction, the State courts located in the State of Delaware, and the Parties to this Agreement hereby consent to the jurisdiction of such court and waive any objection to the venue of such proceeding. Each of the Parties agrees that process may be served upon it in the manner specified in Section 14.6 and irrevocably waives and covenants not to assert or plead any objection which it might otherwise have to such jurisdiction, or to such manner of service of process.

14.5.3. **WAIVER OF JURY TRIAL**. EXCEPT AS LIMITED BY APPLICABLE LAW, EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT HEREOF.

14.6. Notices. Any notice required or permitted to be given by this Agreement shall be in writing and in English and shall be (a) delivered by hand or by overnight courier with tracking capabilities, (b) mailed postage prepaid by first class, registered, or certified mail, or (c) electronic mail (subject to non-automated confirmation of receipt), in each case, in each case, addressed as set forth below unless changed by notice so given:

If to Moderna:

Moderna TX, Inc.
200 Technology Square
Cambridge, Massachusetts 02139
Attention: [**]

Email: [**]

with a copy to:

Moderna TX, Inc.
200 Technology Square
Cambridge, Massachusetts 02139
Attention: Deputy General Counsel
Email: [**]

If to Carisma:

Carisma Therapeutics Inc.
3675 Market Street, Suite 200
Philadelphia, Pennsylvania 19104
Attention: President
Email: [**]

With a copy to (which shall not constitute notice):

WilmerHale
60 State Street
Boston, MA 02109
Attention: Steven D. Barrett

Any such notice shall be deemed given on the date received, except any notice received after 5:30 p.m. (in the time zone of the receiving party) on a Business Day or received on a non-Business

Day shall be deemed to have been received on the next Business Day. A Party may add, delete, or change the person or address to which notices should be sent at any time upon written notice delivered to the other Parties in accordance with this Section 14.6.

14.7. Export Control. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States of America or other countries which may be imposed upon or related to Carisma or Moderna from time to time. Each Party agrees that it shall not export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other governmental entity.

14.8. Third Party Rights and Obligations. Except as provided in Section 8.1.6(h), no provision of this Agreement shall be deemed or construed in any way to result in the creation of any rights or obligation in any Person not a Party to this Agreement. However, Moderna may decide, in its sole discretion, to use one or more of its Affiliates to perform its obligations and duties hereunder, provided that Moderna shall remain liable hereunder for the performance by any such Affiliates of any such obligations.

14.9. Entire Agreement. This Agreement, together with the attached Exhibits and Schedules, including their Exhibits and Schedules, contains the entire agreement by the Parties with respect to the subject matter hereof and supersedes any prior express or implied agreements, understandings and representations, either oral or written, which may have related to the subject matter hereof in any way, and any and all term sheets relating to the transactions contemplated by this Agreement and exchanged between the Parties prior to the Effective Date.

14.10. English Language. This Agreement is written in the English language, which shall be controlling for all purposes. No translation of this Agreement into any other language shall be of any force or effect in the interpretation of this Agreement or in a determination of the intent of the parties hereto.

14.11. Independent Contractors. It is expressly agreed that Carisma and Moderna shall be independent contractors and that the relationship between the two Parties shall not constitute a partnership, joint venture or agency or other fiduciary relationship. Neither Carisma nor Moderna shall have the authority to make any statements, representations or commitments of any kind, or to take any action, which shall be binding on the other Party, without the prior written consent of the other Party to do so.

14.12. Equitable Relief. Notwithstanding anything to the contrary herein, the Parties shall be entitled to seek equitable relief, including injunction and specific performance, as a remedy for any breach of this Agreement. Such remedies shall not be deemed to be the exclusive remedies for a breach of this Agreement but shall be in addition to all other remedies available at law or equity. The Parties further agree not to raise as a defense or objection to the request or granting of such relief that any breach of this Agreement is or would be compensable by an award of money damages.

14.13. References. Unless otherwise specified, (a) references in this Agreement to any Article, Section or Schedule means references to such Article, Section or Schedule of this Agreement, (b) references in any Section to any clause are references to such clause of such Section and (c) references to any agreement, instrument or other document in this Agreement refer to such agreement, instrument or other document as originally executed or, if subsequently amended, replaced or supplemented from time to time, as so amended, replaced or supplemented and in effect at the relevant time of reference thereto.

14.14. Construction. Except where the context otherwise requires, wherever used, the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). Whenever this Agreement refers to a number of days, unless otherwise specified, such number refers to calendar days. The captions of this Agreement are for convenience of reference only and in no way define, describe, extend or limit the scope or intent of this Agreement or the intent of any provision contained in this Agreement. The term "including," "include," or "includes" as used herein means including, without limiting the generality of any description preceding such term. The language of this Agreement shall be deemed to be the language mutually chosen by the Parties and no rule of strict construction shall be applied against either Party. Any reference to any Party to this Agreement shall include such Party's successors and permitted assigns.

14.15. Waiver; Amendment. A term of this Agreement may be waived only by a written instrument executed by a duly authorized representative of the Party waiving compliance. The delay or failure of any Party at any time to require performance of any provision of this Agreement shall in no manner affect such Party's rights at a later time to enforce the same. This Agreement may be amended, and any term of this Agreement may be modified, only by a written instrument executed by a duly authorized representative of each Party.

14.16. Further Assurances. Each Party shall execute, acknowledge and deliver such further instructions, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

14.17. Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Electronically scanned signatures shall have the same effect as their originals.

[Signature Page Follows]

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Parties have caused this Agreement to be executed by their respective duly authorized officers as of the Effective Date.

CARISMA THERAPEUTICS INC.	**MODERNATX, INC.**
By: /s/ Steven Kelly	By: /s/ Stephen Hoge
Name: Steven Kelly	Name: Stephen Hoge
Title: President & Chief Executive Officer	Title: President

EXHIBIT 10.33

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

LICENSE AGREEMENT

DATED AS OF NOVEMBER 10, 2017

BY AND BETWEEN

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA

AND

CARMA THERAPEUTICS INC.

TABLE OF CONTENTS

	Page
ARTICLE 1 DEFINITIONS	1
ARTICLE 2 LICENSES AND OTHER RIGHTS	7
ARTICLE 3 DILIGENCE	9
ARTICLE 4 FINANCIAL PROVISIONS	12
ARTICLE 5 INTELLECTUAL PROPERTY	17
ARTICLE 6 REPRESENTATIONS, WARRANTIES AND COVENANTS	22
ARTICLE 7 INDEMNIFICATION; INSURANCE AND LIMITATION OF LIABILITY	23
ARTICLE 8 TERM AND TERMINATION	25
ARTICLE 9 ADDITIONAL PROVISIONS	27

EXHIBIT A	PENN PATENT RIGHTS
EXHIBIT B	CERTAIN FINANCIAL TERMS
EXHIBIT C	KNOW-HOW

APPENDIX I	FORM OF FINANCIAL REPORT
APPENDIX II	CLIENT & BILLING AGREEMENT
APPENDIX III	DEVELOPMENT PLAN
APPENDIX IV	SUBLICENSE DEVELOPMENT REPORT

LICENSE AGREEMENT

This License Agreement (this "**Agreement**") is dated as of November 10, 2017 (the "**Effective Date**") by and between The Trustees of the University of Pennsylvania, a Pennsylvania nonprofit corporation ("**Penn**"), and CARMA Therapeutics Inc., a Delaware corporation having a place of business at 3001 Market Street, Ste 140, Philadelphia, PA 19104 ("**Licensee**"). Penn and Licensee may be referred to herein as a "**Party**" or, collectively, as "**Parties**".

RECITALS:

WHEREAS, Penn owns and controls certain innovative technology for modified monocytes, macrophages and dendritic cells expressing chimeric antigen receptors and uses thereof, Penn Ref. [**], as further defined herein, that was developed in the course of research at Penn by Saar Gill and Michael Klichinsky (the "**Inventor(s)**");

WHEREAS, Penn filed a provisional patent application on [**] and a PCT application on [**] claiming priority to the provisional patent application covering the technology as set forth in Exhibit A below;

WHEREAS, Penn desires to license, to Licensee, Penn's intellectual property rights in such technology, in a manner that will benefit the public and best facilitate the distribution of useful products and the utilization of new technology, consistent with Penn's educational and research missions and goals; and

WHEREAS, Licensee desires to license, from Penn, Penn's intellectual property rights in such technology, to develop, manufacture and commercialize such technology, all on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the various promises and undertakings set forth herein, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

Unless otherwise specifically provided herein, the following terms shall have the following meanings:

1.1 "**Affiliate**" means a Person that controls, is controlled by or is under common control with a Party, but only for so long as such control exists. For the purposes of this Section 1.1, the word "control" (including, with correlative meaning, the terms "controlled by" or "under the common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct the management and policies of such Person or entity, whether by the ownership of more than fifty percent (50%) of the voting stock of such entity, or by contract or otherwise.

1.2 "**Biosimilar Product**" means, with respect to a Product in any country in the Territory, any CARMA product sold by a Third Party not authorized by or on behalf of Licensee, its Affiliates or Sublicensees, that is approved by the applicable Governmental Body in such country pursuant to an abbreviated regulatory approval process that relies on the regulatory approval for a Product for one or more of the same indications as the applicable Product.

1.3 "**Biosimilar Product Competition**" means, with respect to a Product in a country in the Territory in a given calendar quarter, that, during such calendar quarter, one or more Biosimilar Product(s) is commercially available in such country and such Biosimilar Product(s) have a market share of [**] percent ([**]%) or more of the aggregate market in such country of such Product and the Biosimilar Product(s) (based on sales of units of such Product and such Biosimilar Product(s), as reported by IMS International, or if such data are not available, such other reliable data source as reasonably agreed by the Parties).

1.4 "**CARMA**" means macrophages, monocytes or dendritic cells comprising a chimeric antigen receptor (CAR), wherein the CAR comprises an antigen binding domain, a transmembrane domain and an intracellular domain of a stimulatory and/or co-stimulatory molecule.

1.5 "**Commercially Reasonable Efforts**" means the efforts and resources that a similarly situated biotechnology company would use for its own internally discovered technology of similar commercial potential and similar stage of development, the likely timing of the technology's entry into the market, any patent and other proprietary position. Without limiting the foregoing, Commercially Reasonable Efforts requires, with respect to such obligations, that the Party (itself or with or through its Affiliate(s) and Sublicensee(s)): (a) promptly assign responsibility for such obligation to specific employee(s) or consultants who are accountable for progress and monitor such progress on an on-going basis; (b) set annual objectives for carrying out such obligations; and (c) allocate resources designed to advance progress with respect to such objectives. For clarity, Commercially Reasonable Efforts will not mean that a Party guarantees that it will actually accomplish the applicable task or objective.

1.6 "**Compulsory License**" means a compulsory license under Penn Patent Rights obtained by a Third Party through the order, decree, or grant of a competent Governmental Body or court, authorizing such Third Party to develop, make, have made, use, sell, offer to sell or import a Product in any country in the Territory.

1.7 "**Confidential Information**" of a Party, means: (i) information relating to the business, operations or products of a Party or any of its Affiliates, including any Know-How, that such Party discloses to the other Party under this Agreement, or otherwise becomes known to the other Party by virtue of this Agreement; and (ii) the terms of this Agreement; provided that Confidential Information shall not include information that:

(a) is or becomes generally available to the public other than as a result of disclosure by the recipient;

(b) is already known by or in the possession of the recipient at the time of disclosure by the disclosing Party;

(c) is independently developed by recipient without use of or reference to the disclosing Party's Confidential Information; or

(d) is obtained by recipient from a Third Party that has not breached any obligations of confidentiality.

1.8 "**Control**" or "**Controlled**" means, with respect to intellectual property rights, that a Party or one of its Affiliates owns or has a license or sublicense to such intellectual property rights and has the ability to provide to, grant a license or sublicense to, or assign its right, title and interest in and to, such intellectual property rights as provided for in this Agreement without violating the terms of any agreement or other arrangement with any Third Party.

1.9 "**Development Plan**" means the development plan provided by Licensee to Penn, as amended from time to time, that provides a summary of the activities, and the associated timelines of when such activities shall be conducted (including in reasonable detail the activities that shall be conducted in the calendar year following the submission of such Development Plan to Penn), in order to develop a Product for commercialization through marketing approval thereof. The initial Development Plan is attached hereto as **Appendix III**.

1.10 "**Diligence Minimums**" means the amounts of resources that Licensee is expected to expend in the development of Products as provided in Section 3.3.

1.11 "**Field of Use**" means use of CARMA, CARMA manufacturing and CARMA cell therapies: (a) for oncology indications ("**Oncology Subfield**"); or (b) for indications other than oncology indications ("**Other Program Subfield**"). The subfields described in clauses (a) and (b) above shall together be the "**Subfields**" and each a "**Subfield**".

1.12 "**First Commercial Sale**" means, on a country-by-country basis, the first commercial transfer or disposition for value of Product in such country to a Third Party by Licensee, or any of its Affiliates or Sublicensees, in each case, after all Governmental Approvals have been obtained for such country.

1.13 "**FPFD**" means, with respect to a clinical trial, the first patient, first dose in such clinical trial.

1.14 "**FRA Patent Rights**" means the Patent Rights that may be included in Exhibit A after the Effective Date of the Agreement pursuant to Licensee's exercise of an option set forth in a Funded Research Agreement.

1.15 "**Funded Research Agreement**" or "**FRA**" means an agreement between the Parties whereby Licensee funds certain projects to be conducted by Penn or its Affiliates, including that certain Master Sponsored Research Agreement dated as of May 31, 2017 between the Parties.

1.16 "**GAAP**" means United States generally accepted accounting principles applied on a consistent basis.

1.17 "**Governmental Approval**" means, with respect to a Product in a country or region, all approvals, licenses, registrations and authorizations of the relevant Governmental Body, if applicable, required for the commercialization of such Product in such country.

1.18 "**Governmental Body**" means any: (a) nation, principality, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, provincial, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, officer, official, representative, organization, unit, body or entity and any court or other tribunal); (d) multi-national or supranational organization or body; or (e) individual, entity, or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

1.19 "**Initial Penn Patent Rights**" means any Penn Patent Rights that are included in **Exhibit A** as of the Effective Date.

1.20 "**Know-How**" means any know-how, technical information, data, methods and other information: (a) developed or generated in the laboratory of Saar Gill or under an FRA; (b) that is necessary for the development, commercialization, application, use or practice, as applicable, of the Penn Patent Rights or FRA Patent Rights or any Product; (c) Controlled by Penn; and (d) listed in **Exhibit C** to this Agreement as may be amended by the Parties to include know-how, technical information, data, methods and other information, including but not limited to such know-how, technical information, data, methods and other information contained in laboratory notebooks, laboratory reports, laboratory presentations and protocols, generated prior to the Effective Date and/or under a Funded Research Agreement and meets the conditions of 1.20 (a)-(c) above.

1.21 "**Law**" or "**Laws**" means all applicable laws, statutes, rules, regulations, ordinances and other pronouncements having the binding effect of law of any Governmental Body.

1.22 "**Net Sales**" means the gross consideration invoiced or received by Licensee or any of its Affiliates or Sublicensees for Sales of Product (including any cash amounts plus the fair market value of any other forms of consideration), less the following deductions (to the extent included in and not already deducted from the gross amounts invoiced or otherwise charged) to the extent reasonable and customary and solely related to the Sale of the Product(s):

[**].

Sales or transfers between or among Licensee and its Affiliates and Sublicensees shall be excluded from the computation of Net Sales except where such Affiliates or Sublicensees are end users, but Net Sales shall include the subsequent final Sales to Third Parties by such Affiliates or Sublicensees.

For further clarity, a Sale excludes any Product supplied at or below cost: (a) for use in clinical trials; (b) for research or for other non-commercial uses; or (c) as part of a compassionate use program (or similar program for providing Product before it has received marketing approval in a country), provided that, the amounts described in the foregoing clauses (b) and (c) (determined on an annual basis) in excess of [**] percent ([**]%) of Sales in any calendar year commencing after the [**] anniversary of the First Commercial Sale of such Product, shall not be deductible from Sales unless Penn has approved such uses, such approval not to be unreasonably withheld.

[**].

1.23 "**Patent Rights**" means any of the following, whether existing now or in the future anywhere in the world: issued patents and pending patent applications, including inventor's certificates, substitutions, extensions, confirmations, reissues, re-examinations, renewals or any like governmental grant for protection of inventions, and any extensions for any of the foregoing.

1.24 "**Penn Patent Rights**" means (a) the Patent Rights listed in **Exhibit A** Controlled by Penn as of the Effective Date, which may be amended from time to time after the Effective Date by the Parties to include FRA Patent Rights, to the extent such rights are Controlled by Penn and, in such event, such included FRA Patent Rights shall thereupon become Penn Patent Rights, subject to the terms of the FRA; (b) any issued patents or patent applications arising out of the Patent Rights listed in Exhibit A, including, but not limited to, any continuations, provisionals, continued prosecution applications, substitutions, extensions, term restorations and adjustments, registrations, confirmations, reexaminations, renewals or reissues thereof, including divisionals, but excluding continuations-in-part except to the extent of claims entirely supported by the specification and entitled to the priority date of the parent application; and (c) any corresponding foreign counterparts to the foregoing. Notwithstanding the above, following such time as a Penn Patent Right becomes a Carve-Out Patent Right, the Penn Patent Rights shall not include such Carve-Out Patent Right.

1.25 "**Person**" means any natural person, corporation, firm, business trust, joint venture, association, organization, company, partnership or other business entity, or any government or agency or political subdivision thereof.

1.26 "**Primary Target**" means the protein, including all its isoforms, containing the epitope for which a Product has highest binding affinity.

1.27 "**Product**" means any: (a) process, service or method covered by a Valid Claim or whose use or practice would, absent the License, constitute an infringement, inducement of infringement or contributory infringement of any Valid Claim ("**Method**"); (b) process, service, method, article, composition, formulation, apparatus, substance, chemical, compound, protein, peptide, oligonucleotide, DNA, RNA, cell or any other material, or use thereof, covered by a Valid Claim or whose manufacture, import, use offer for sale or sale would, absent the License, constitute an infringement, inducement of infringement or contributory infringement of any Valid Claim; (c) process, service, method, article, composition, formulation, apparatus, substance, chemical, compound, protein, peptide, oligonucleotide, DNA, RNA, cell or any other material made, used or sold by or utilizing or practicing a Method; or (d) process, service, method, article, composition, formulation, apparatus, substance, chemical, compound, protein, peptide, oligonucleotide, DNA, RNA, cell or any other material, or use thereof, that incorporates or makes use of or is made through use of Know-How.

1.28 "**Sale**" means any transaction for which consideration is received or expected by Licensee, its Affiliates or Sublicensees for sale, use, lease, transfer or other disposition of a Product to or for the benefit of a Third Party. For clarity, sale, use, lease, transfer or other disposition of a Product by Licensee or any of its Affiliates or Sublicensees to another of these entities for resale by such entity to a Third Party shall not be deemed a Sale.

1.29 "**Sublicensee**" means a Person (including any Affiliate) to which a Sublicense is granted pursuant to the terms of Section 2.4.

1.30 "**Sublicense Documents**" means any and all agreements, amendments or written understandings entered into with a Sublicensee (including any of its Affiliates) that are directly or indirectly related to a Sublicense, Penn Patent Rights or Product. For clarity, a development agreement or distribution agreement for a Product is a Sublicense Document.

1.31 "**Tax**" means all taxes, duties, fees, premiums, assessments, imposts, levies, rates, withholdings, dues, government contributions and other charges of any kind whatsoever, whether direct or indirect, together with all interest, penalties, fines, additions to tax or other additional amounts, imposed by any Governmental Body.

1.32 "**Territory**" means worldwide.

1.33 "**Third Party**" means any Person other than Penn, Licensee or any of their respective Affiliates.

1.34 "**United States**" or "**US**" means the United States of America, its territories and possessions.

1.35 "**USD**" or "**$**" means the lawful currency of the United States of America.

1.36 "**Valid Claim**" means a claim of: (a) an issued and unexpired patent in Penn Patent Rights which claim has not been revoked or held unenforceable or invalid by a decision of a court of governmental agency of competent jurisdiction from which no further appeal can be taken or has been taken within the time allowed for appeal, and has not been abandoned, disclaimed, denied or admitted to be invalid or unenforceable through reissue or disclaimer; or (b) a pending patent application that is included in Penn Patent Rights which was filed and is being prosecuted in good faith, and has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application.

1.37 **Other Terms**. The definition of each of the following terms is set forth in the section of the Agreement indicated below:

Defined Term	Section
Advance Payment	5.2.3
Agreement	Preamble
Bankruptcy Action	8.3.3
BLA	3.3.6
Carve-Out Patent Rights	5.1.2
Effective Date	Preamble
EU	3.1.2
Excess Resources	3.3.1
Financial Report	4.6
Funding Commitment	3.4.3
Historic Patent Costs	5.2.1
Infringement Notice	5.4.1
Inventor(s)	Recitals
License	2.1
Licensee	Preamble
BLA	4.1
Method	1.27
Milestone	4.2.1
Milestone Payment	4.2.1
Minimum Annual Royalty	4.3.7
NDA	3.3.6
Oncology Subfield	1.11
Ongoing Patent Costs	5.2.2
Other Program Subfield	1.11
Parties	Preamble
Party	Preamble
Patent Costs	5.2.1
Patent Counsel	5.1.1
Patent Termination Notice	5.3
Penn	Preamble
Penn Indemnitees	7.1.1
Penn Sublicense Income	4.4
Product Bundle	1.22.6
Progress Reports	3.4.1

Pro Rata Share	5.2.2
Prosecution Request	5.1.2
Royalty	4.3.1
Royalty Term	4.3.1
SDR	2.4.4
Subfield or Subfields	1.11
Sublicense	2.4.1
Sublicense Income	4.4
Term	8.1
Third Party Requestor	3.3.2

ARTICLE 2
LICENSES AND OTHER RIGHTS

2.1 **Grant of License**. Subject to the terms and conditions of this Agreement, Penn hereby grants to Licensee: (a) an exclusive, worldwide, royalty-bearing (during the applicable Royalty Term) right and license (with the right to sublicense as provided in, and subject to, the provisions of Section 2.4) under Penn Patent Rights to make, have made, use, sell, offer for sale, import and have imported Product(s) in the Field of Use during the Term; and (b) a non-exclusive worldwide, royalty-bearing (during the applicable Royalty Term) right and license, with the limited right to sublicense only in combination with Product(s) or the Penn Patent Rights, under Know-How to make, have made, use, sell, offer for sale, import and have imported Products in the Field of Use (the "**License**").

2.2 **Retained Rights**. Notwithstanding the License, Penn retains the right under Penn Patent Rights to: (a) conduct research and non-commercial clinical patient care activities itself and (b) authorize non-commercial Third Parties to conduct research and non-commercial clinical patient care activities for themselves.

2.3 **U.S. Government Rights**. The License is expressly subject to all applicable provisions of any license to the United States Government executed by Penn and is subject to any overriding obligations to the United States Federal Government under 35 U.S.C. §§200-212, applicable governmental implementing regulations, and the U.S. Government sponsored research agreement or other guidelines, including that products that result from intellectual property funded by the United States Federal Government that are sold in the United States be substantially manufactured in the United States. In the event that Licensee believes in good faith that substantial manufacture of such product is not commercially feasible in the United States and makes a request to Penn in writing to assist in obtaining a waiver of such requirement from the United States Government, then Penn shall, at the expense of Licensee, use reasonable efforts to assist in obtaining such waiver.

2.4 **Grant of Sublicense by Licensee**.

2.4.1 Penn grants to Licensee the right to grant sublicenses, in whole or in part, under the License (each, a "**Sublicense**") subject to the terms and conditions of this Agreement and specifically this Section 2.4. The term Sublicense shall include any grant of rights under the License by a Sublicensee to any downstream Third Party, such downstream Third Party shall also be considered a Sublicensee for purposes of this Agreement.

2.4.2 All Sublicenses will be: (a) issued in writing; (b) to the extent applicable, include all of the rights of Penn and require the performance of obligations due to Penn (and, if applicable, the U.S. Government under 35 U.S.C. §§200-212) contained in this Agreement; and (c) shall include no less than the following terms and conditions:

(a) Reasonable record keeping, audit and reporting obligations sufficient to enable Licensee and Penn to reasonably verify the payments due to Licensee and Penn under such Sublicense and to reasonably monitor such Sublicensee's progress in developing and/or commercializing Product(s), provided that such obligations shall be no less stringent that those provided in this Agreement for Licensee.

(b) Infringement and enforcement provisions that do not conflict with the restrictions and procedural requirements imposed on Licensee and do not provide greater rights to Sublicensee than as provided in Section 5.4.

(c) Confidentiality provisions with respect to Confidential Information of Penn substantially consistent with the restrictions on Licensee in Section 5.6 of this Agreement.

(d) Covenants by Sublicensee that are equivalent to those made by Licensee in Section 6.4.

(e) A requirement of indemnification of Penn by Sublicensee that is equivalent to the indemnification of Penn by Licensee under Section 7.1 of this Agreement.

(f) A requirement of obtaining and maintaining insurance by Sublicensee that is equivalent to the insurance requirements of Licensee under Section 7.2 of this Agreement, including coverage under such insurance of Penn as provided in Section 7.2.

(g) Restriction on use of Penn's names etc. consistent with Section 9.4 of this Agreement.

(h) A requirement of antidiscrimination by Sublicensee no less stringent than that provided in Section 9.5 of this Agreement.

(i) A requirement that, in the event Penn provides written notice to Licensee that a Sublicensee has materially failed to perform one or more obligations in the portion of any Sublicense Document relating to the Penn Patent Rights or Know-How where the Sublicensee's failure to perform adversely affects the interests of Penn protected by the Sublicense Document, and Licensee fails to address such failure in a commercially reasonable manner after reasonable notice thereof, then Penn shall be considered as a third party beneficiary of such Sublicense for the purpose of enforcing such obligation(s) against the Sublicensee.

Any Sublicense that does not include all of the terms and conditions set forth in this Section 2.4.2 or which is not issued in accordance with the terms and conditions set forth in this Section 2.4, shall be considered null and void with no further notice from Penn.

2.4.3 Within [**] after of the execution of a Sublicense Document to which Licensee or any Affiliate of Licensee is a party, Licensee shall provide [**] copy of such Sublicense Document to Penn, in which copy financial terms may be redacted only to the extent that such financial terms would not be required for Penn to determine amounts owed to Penn under such Sublicense Document, in the English Language. Penn's receipt of a Sublicense Document, however, will constitute neither an approval nor disapproval of the Sublicense Document nor a waiver of any right of Penn or obligation of Licensee under this Agreement.

2.4.4 Licensee shall provide an annual sublicense development report on or before [**] of each year during the Term ("**SDR**") a form of which is attached hereto as **Appendix IV**.

2.5 **No Implied License**. Each Party acknowledges that the rights and licenses granted in this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by either Party to the other Party. All rights with respect to any know-how, patent or other intellectual property right rights that are not specifically granted herein are reserved to the owner thereof.

ARTICLE 3
DILIGENCE

3.1 **Development Plan**.

3.1.1 The initial Development Plan is attached hereto and made a part hereof as **Appendix III.**

3.1.2 No later than [**] of each calendar year during the Term, Licensee shall submit an updated Development Plan, which shall be updated annually and may be amended from time to time as necessary in order to accommodate any unforeseen technical, regulatory or other delays concerning Product development, provided that such updated and/or amended Development Plan for a given Product shall not be due after the First Commercial Sale of that Product in the United States or the European Union ("**EU**").

3.1.3 The Development Plan shall include: (i) a timeline and budget for detailed activities to be conducted concerning Product development for at least [**] in each Subfield (with the Development Plans for 2019 and calendar years thereafter to provide for Product development in the Other Program Subfield); (ii) non-refundable, non-creditable funding commitments to Penn to fund mutually agreed upon projects, including but not limited to, research in the laboratory of Dr. Saar Gill, Product development, clinical trials, cell manufacturing or other activities for the purpose of developing Products; and (iii) an outline of the plan to progress at least [**] in each Subfield to regulatory approval and sale.

3.1.4 Subject to the terms and conditions of this Agreement, Licensee (together with its Affiliates and Sublicensees) shall have sole decision-making authority over the development, manufacture and commercialization of Products, including when and whether to seek regulatory approvals therefor.

3.2 **General Diligence**.

3.2.1 Licensee shall use Commercially Reasonable Efforts to develop at least [**] in each Subfield (for clarity, at least [**] in the Oncology Subfield and at least [**] for an indication in the Other Program Subfield).

3.2.2 Licensee shall raise at least $[**] in equity or other financing within [**] of the Effective Date (including amounts raised prior to the Effective Date).

3.3 **Diligence Minimums**.

3.3.1 On a Subfield-by-Subfield basis, until the First Commercial Sale of the first Product in such Subfield in a country of the Territory, Licensee will expend resources in accordance with the Development Plan toward the development and commercialization of at least [**] in such Subfield in amounts not less than the applicable Diligence Minimum amount specified in Table I below in each 12-month period following the Effective Date. For such purposes, FRA funding provided prior to the Effective Date shall count toward the Diligence Minimum amount specified in Table I below for Resources Expended by the First Anniversary. If Licensee's expenditures for development and commercialization of Product(s) in a Subfield in any such 12-month period exceed the applicable amount specified in Table I ("**Excess Resources**"), then Licensee may apply such Excess Resources solely to the immediately following year's Diligence Minimum obligation for such Subfield. If Licensee's expenditures for development and commercialization of Products in a Subfield in any such 12-month period do not meet or exceed the applicable Diligence Minimum obligation for such period, then Licensee may elect to pay to Penn the shortfall amount the first time such Diligence Minimum obligation is missed for a Subfield in order to maintain its exclusive license with respect to such Subfield. If Licensee does not elect to pay to Penn the shortfall amount the first time such Diligence Minimum obligation is missed for a Subfield or if Licensee misses more than one Diligence Minimum obligation for a Subfield, the License to the Initial Penn Patent Rights with respect to such Subfield will become non-exclusive, provided that, if Licensee retains its exclusive license in the other Subfield following such conversion to non-exclusive, Licensee shall retain its exclusive license for both Subfields with respect to: (i) any individual Products (and any compositions of matter comprised by such Products) that are described in the then current Development Plan and for which Licensee has demonstrated Primary Target-specific activity in a relevant assay; and (ii) any additional Products directed to the Primary Target of such Product.

	TABLE I		
DILIGENCE MINIMUM FOR:	Resources Expended by [**] Anniversary	Resources Expended by [**] Anniversary	Resources Expended by [**] Anniversary and each Anniversary Thereafter until First Commercial Sale
Oncology Subfield	[**]	[**]	[**]
Other Program Subfield	[**]	[**]	[**]
Total	[**]	[**]	[**]

3.3.2 In accordance with and subject to Section 3.3.1, in the event the License to the Initial Penn Patent Rights in a Subfield becomes non-exclusive, Penn may market the Initial Penn Patent Rights for such Subfield to Third Parties on a non-exclusive basis. If Penn receives a request to license the Initial Penn Patent Rights to a Third Party ("**Third Party Requestor**") for such Subfield, Penn shall notify Licensee of such sublicensing interest, and Licensee shall work diligently with such Third Party Requestor to non-exclusively license such requested rights to the Third Party Requestor on commercially reasonable terms. If Licensee and such Third Party Requestor are unable to complete a Sublicense Document within [**] after Penn notifies Licensee of such sublicensing interest, Penn may non-exclusively license such Initial Penn Patent Rights in such Subfield to the Third Party Requestor under terms no more favorable to the Third Party Requestor than those granted to Licensee in this Agreement, including but not limited to terms related to milestone and royalty payments.

3.3.3 The initial focus of Licensee's development efforts shall be in the Oncology Subfield. In the Development Plan for 2019, Licensee shall provide a preliminary assessment of the use of the licensed technology in at least one indication in the Other Program Subfield, which assessment shall address technical feasibility, probability of technical success, regulatory pathway and/or commercial opportunity among other factors. As reflected in Table I above, Licensee shall spend at least $[**] in conducting research in support of such assessment, including in conducting discovery research, market research and/or the generation of other supporting information, and such amount shall be considered toward Licensee's Diligence Minimum obligation for the [**] anniversary for the Other Program Subfield.

3.3.4 Licensee may satisfy up to [**] percent ([**]%) of its Diligence Minimum obligations for the Other Program Subfield in each 12-month period set forth in Table I above by applying resources to general CARMA platform research and development activities.

3.3.5 For purposes of determining Licensee's satisfaction of its Diligence Minimum obligations set forth in Table I and Section 3.3.4 above, the aggregate resources expended by Licensee, its Affiliates and its Sublicensees shall be counted.

3.3.6 Penn shall provide reasonable cooperation requested by Licensee, at Licensee's expense, regarding Licensee's interactions with any regulatory agencies, including the U.S. Food and Drug Administration and the European Medicines Agency, in all matters regarding any pre-IND, Biologics License Application ("**BLA**") and/or New Drug Application ("**NDA**") studies and clinical trial(s).

3.4 **Progress Reports**.

3.4.1 During the period specified in Section 3.1.2, Licensee on a [**] basis, but in no event later than [**] and [**] of each calendar year, shall submit to Penn a progress report (each, a "**Progress Report**") covering Licensee's (and any Affiliates' and Sublicensees') achievements and activities under the Development Plans and such progress reports shall include the actual dollar amount spent in support of the Development Plans for the applicable calendar year.

3.4.2 Each Progress Report will include the following for each [**] period as applicable:

(a) Summary of work completed, including against the Development Plan for such period;

(b) Key scientific discoveries;

(c) Summary of work in progress;

(d) Plans for the market introduction of Product(s) following regulatory approval;

(e) A summary of resources (dollar value) spent in the reporting period;

(f) An updated SDR listing of any and all Sublicenses granted by Licensee;

(g) The names and addresses of all Sublicensees to which Licensee has granted a Sublicense, and a current and valid phone number and e-mail address for a principal point of contact at each such Sublicensee who is responsible for administering the Sublicensee; and

(h) Number of Licensee employees.

3.4.3 **Sponsored Research**. Within [**] following the execution of this Agreement, Licensee, its Affiliates or Sublicensees shall provide $[**] in committed, non-refundable, non-creditable funding ("**Funding Commitment**") to Penn under FRA(s) executed by the Parties to fund mutually agreed projects, including but not limited to, research, Product development, clinical trials, cell manufacturing or other activities for the purpose of developing Product(s). No less than $[**], in the aggregate, of the Funding Commitment shall be provided to Penn within [**] following the execution of this Agreement. For such purposes, the FRA funding provided by Licensee to Penn prior to the Effective Date shall count toward the Funding Commitment for such first [**]. The Funding Commitment shall be subject to the terms of the FRAs and such funding shall be used by Penn in accordance with the FRAs to conduct the activities set forth in the Development Plan for the then current contract year. The FRAs may be amended from time to time by mutual agreement of the Parties as necessary in order to accommodate any unforeseen technical, regulatory or other delays concerning Product development. Notwithstanding the above, in the event Penn is unwilling or unable to conduct one or more activities set forth in the Development Plan, then the Parties will discuss and negotiate in good faith amending the amounts of the Funding Commitment and the timeframe for Licensee to provide the Funding Commitment.

ARTICLE 4
FINANCIAL PROVISIONS

4.1 **License Maintenance Fee**. As consideration for the License, Licensee will pay a non-refundable, non-creditable annual maintenance fee of $[**] per year ("**Maintenance Fee**") payable on or before the [**] and [**] anniversary of the Effective Date. Such annual Maintenance Fee shall increase to $[**] per year beginning with the [**] anniversary of the Effective Date. The annual Maintenance Fee obligation shall terminate upon Licensee's first payment of a Royalty. For clarity, the Maintenance Fee is not an advance against Royalties due to Penn or any other amounts due to Penn.

4.2 **Milestone Payments**.

4.2.1 As additional consideration for the License, subject to Section 4.2.2 below, Licensee will pay Penn the milestone payments (each, a "**Milestone Payment**") provided in **Exhibit B** attached hereto for each Product to achieve the corresponding milestone (each, a "**Milestone**"), whether achieved by Licensee or an Affiliate or Sublicensee. Licensee shall promptly notify Penn in writing of the achievement of any such Milestone and Licensee shall pay Penn in full the corresponding Milestone Payment within [**] of such achievement or, with respect to sales milestones, when Royalties are paid for the applicable calendar quarter in which the Milestone is achieved. For clarity, each Milestone Payment is non-refundable and non-creditable against Royalties due to Penn or any other amounts due to Penn.

4.2.2 The Milestone Payments set forth on Exhibit B shall be reduced by [**] percent ([**]%) for the [**] Product directed to a given Primary Target that achieves a Milestone previously achieved by a Product directed to the same Primary Target. Milestone Payments shall be waived for the [**] Product directed to a given Primary Target that achieves a Milestone previously achieved by [**] Products directed to such target.

4.2.3 With the exception of the Milestones owed for "[**]" and "[**]" set forth on Exhibit B, each time a Milestone is achieved, then any Milestone Payments with respect to earlier Milestones that have not yet been paid for such Product shall be due and payable together with the triggered Milestone irrespective of whether such earlier Milestone was actually achieved.

4.2.4 For clarity, Milestone Payments are due and payable, when the corresponding Milestone is achieved, as to Products, even if such Milestone Payments become payable with respect to activities that are exempted from infringement liability in accordance with Section 271(e)(1) of the United States Patent Act or comparable provisions of laws in other jurisdictions.

4.3 **Royalties**.

4.3.1 As further consideration for the License, Licensee shall pay to Penn on a quarterly basis a non-refundable and non-creditable Royalty on a Product-by-Product basis, until the later of: (a) the expiration of the last to expire Valid Claim covering such Product in the country of sale or in the country of manufacture; provided that, Royalties shall not be payable on claims that remain pending without issuing more than seven (7) years after the national phase filing date for the applicable patent application; provided further that, if such a pending claim later issues, Royalties shall be reinstated and, if not previously paid, become due retroactively; or (b) the expiration of regulatory exclusivity covering such Product granted by a regulatory authority (e.g. FDA, EMA or any corresponding national or regional regulatory authority) in the country of sale ("**Royalty Term**"), on Net Sales of the applicable Product in the applicable country ("**Royalty**") as follows:

Royalty Rate (% of Net Sales of Product)	For Portion of Annual Net Sales
[**]%	< $[**]
[**]%	$[**] to $[**]
[**]%	$[**] to $[**]
[**]%	> $[**]

4.3.2 For a particular Product in a particular country on a country-by-country basis, during any period during the Royalty Term if [**] or more Biosimilar Product(s) with respect to such Product receives regulatory approval in such country and such approval results in Biosimilar Product Competition with respect to such Product in such country, then the applicable Royalty under this Section 4.3 shall be reduced by [**] percent ([**]%) for such Product in such country.

4.3.3 Notwithstanding anything in this Section 4.4, in the event that Penn or Licensee receives a request for a Compulsory License anywhere in the world, it shall promptly notify the other Party. If any Third Party obtains a Compulsory License in any country, then Penn or Licensee (whoever has first notice) shall promptly notify the other Party. Thereafter, as of the date the Third Party obtained such Compulsory License in such country, the royalty rate payable under this Section 4.3 to Penn for Net Sales in such country will be adjusted to equal any lower royalty rate granted to such Third Party for such country with respect to the Sales of such Product therein.

4.3.4 If Licensee, its Affiliates or its Sublicensees are required to pay license fees or royalties to one or more Third Parties in order to commercialize a Product in a jurisdiction without infringing the intellectual property rights of Third Party(ies), the Royalty otherwise due to Penn shall be reduced by [**] percent ([**]%) of the amount of royalties and license fees paid to such Third Party(ies), provided that in no event shall the royalty due to Penn be reduced to less than [**] percent ([**]%) of the percentage Royalty rate otherwise payable on Net Sales of such Product in such jurisdiction.

4.3.5 Notwithstanding the foregoing, under no circumstances shall Royalty reductions resulting from Third Party royalties and license fees or from Biosimilar Product Competition reduce the Royalty due to Penn to less than [**] percent ([**]%) of Net Sales.

4.3.6 Licensee must pay Royalties owed to Penn on a calendar quarter basis on or before the following dates:

(a) [**] for any Sales that took place on or before the last day of the calendar quarter ending December 31, of the prior year;

(b) [**] for any Sales that took place on or before the last day of the calendar quarter ending March 31 of such calendar year;

(c) [**] for any Sales that took place on or before the last day of the calendar quarter ending June 30 of such calendar year; and

(d) [**] for any Sales that took place on or before the last day of the calendar quarter ending September 30 of such calendar year.

4.3.7 Licensee shall pay to Penn a minimum annual royalty ("**Minimum Annual Royalty**") of $[**] on or before [**] of each calendar year after the year in which a First Commercial Sale of the first Product occurred in the first country in the Territory. Licensee will pay the Minimum Annual Royalty on or before [**] of each calendar year in which it is due, and such Minimum Annual Royalty shall be credited toward Royalties that become payable solely for such Product on Net Sales thereof during such calendar year.

4.4 **Penn Sublicense Income**. Licensee will pay to Penn a percentage of any one-time up-front lump-sum payments, milestone payments or other consideration (except for royalty payments and [**]) received by Licensee or its Affiliates from a Third Party Sublicensee in consideration for the grant of a Sublicense under any Penn Patent Rights ("**Sublicense Income**"), which payment amount to Penn shall be as provided in **Exhibit B** attached hereto ("**Penn Sublicense Income**"). [**]. In cases where any Penn Patent Right is sublicensed in combination with any non-Penn Patent Right, the obligation to pay a percentage of Sublicense Income will not apply to the portion of up-front lump-sum payments, milestone payments or other consideration reasonably allocated to the pro-rata contribution of the non-Penn Patent Right as reasonably determined by the Parties in good faith. Licensee will make such payment to Penn on or before the following dates:

4.4.1 [**] for any Sublicense Income received by Licensee on or before the last day of the calendar quarter ending December 31, of the prior year;

4.4.2 [**] for any Sublicense Income received by Licensee on or before the last day of the calendar quarter ending March 31 of such calendar year;

4.4.3 [**] for any Sublicense Income received by Licensee on or before the last day of the calendar quarter ending June 30 of such calendar year; and

4.4.4 [**] for any Sublicense Income received by Licensee on or before the last day of the calendar quarter ending September 30 of such calendar year.

4.5 **Mode of Payment and Currency**. All payments to Penn hereunder shall be made by deposit of USD in the requisite amount to the "The Trustees of the University of Pennsylvania" and will be made by delivery to any one of the following:

By ACH/Wire:	**By Check (direct mail):**	**By Check (lockbox):**
[**]	The Trustees of the c/o Penn Center for Innovation Attention: [**] 3160 Chestnut Street, Suite 200 Philadelphia, PA 19104-6283	The Trustees of the University of Pennsylvania c/o Penn Center for Innovation PO Box [**] Philadelphia, PA 19178-5546

Payments under this Agreement shall be made in USD. All Royalties payable shall be calculated first in the currency of the jurisdiction in which payment was made, and if not in the United States, then converted into USD. The exchange rate for such conversion shall be the average of the rate quoted in The Wall Street Journal for the last business day of each month in the calendar quarter for such Royalty payment made.

4.6 **Royalty and Penn Sublicense Income Reports**. Within [**] after the end of each calendar quarter (i.e. [**]), Licensee shall deliver to Penn a report ("**Financial Report**") setting out all details necessary to calculate the Royalty and Penn Sublicense Income due under this Article 4 for such calendar quarter, including:

4.6.1 Number of each Product sold by Licensee, its Affiliates and Sublicensees in each country, the corresponding name of each such Product;

4.6.2 Gross sales and Net Sales of each Product made by Licensee, its Affiliates and Sublicensees;

4.6.3 Royalties (as reduced by applicable Minimum Annual Royalties);

4.6.4 Sublicense Income and the calculation of Penn Sublicense Income (if any);

4.6.5 The method and currency exchange rates (if any) used to calculate the Royalties and Penn Sublicense Income;

4.6.6 A summary of deductions by deduction category and the aggregate dollar value thereof that were taken to calculate Net Sales;

4.6.7 A list of all countries in which Product is being manufactured (on a Product-by-Product basis); and

4.6.8 Date of First Commercial Sale in the United States or the EU (this need only be reported in the first royalty report following such First Commercial Sale in the United States or the EU).

Each Financial Report shall be in the form of the sample report attached hereto as **Appendix I**.

4.7 **Late Payments**. In addition to any other remedies available to Penn, including the right to terminate this Agreement, any failure by Licensee to make a payment within [**] after the date when due (or, if the amount of a payment is disputed in good faith, the date when the amount due is finally determined) shall obligate Licensee to pay interest, the interest period commencing on the due date and ending on the actual payment date, to Penn at a rate per annum equal to [**] percent ([**]%) per month, or the highest rate allowed by Law, whichever is lower.

4.8 **Default Payment**. In the event of default in payment of any payment owing to Penn under the terms of this Agreement (other than a good faith dispute by Licensee of the amount of a payment), if it becomes necessary for Penn to undertake legal action to collect said payment, Licensee shall pay reasonable, documented legal fees and costs incurred in connection therewith.

4.9 **Accounting**. Each Party shall calculate all amounts, and perform other accounting procedures required, under this Agreement and applicable to it in accordance with GAAP.

4.10 **Books and Records**. Licensee will keep accurate books and records of all Products developed, manufactured, used or sold and all Sublicenses, collaboration agreements and joint venture agreements entered into by Licensee that involve Penn Patent Rights. Licensee will preserve these books and records for at least [**] from the date of the Financial Report to which they pertain. Upon reasonable notice, key personnel, books and records will be made reasonably available and will be open to examination by representatives or agents of Penn during regular office hours to determine their accuracy and assess Licensee's compliance with the terms of this Agreement, provided that Licensee shall not have an obligation to provide access more than [**] with respect to any given Financial Report period or more than [**] period.

4.11 **Audits**. In addition to the right of Penn to examine the books and records and interview key personnel as provided in Section 4.10 above, Penn, at its own cost, through an independent auditor reasonably acceptable to Licensee (and who has executed an appropriate confidentiality agreement reasonably acceptable to Licensee that requires the auditor to keep any information learned by it confidential except as needed to report its audit conclusions to Penn), may inspect and audit the relevant records of Licensee pertaining to the calculation of any Milestones, Royalties and Penn Sublicense Income due to Penn under this Agreement. Licensee shall provide such auditors with access to the records during reasonable business hours. Such access need not be given to any such set of records more often than [**] or more than [**] after the date of any report to be audited. Penn shall provide Licensee with written notice of its election to inspect and audit the records related to the Milestones, Royalties or Penn Sublicense Income due hereunder not less than [**] prior to the proposed date of review of Licensee's records by Penn's auditors. Should the auditor find any underpayment of Milestones, Royalties or Penn Sublicense Income by Licensee, Licensee shall: (a) promptly pay Penn the amount of such underpayment; and (b) shall reimburse Penn for the reasonable cost of the audit, if such underpayment equals or exceeds the higher of (i) [**] United States dollars ($[**]) or (ii) [**] percent ([**]%) of Milestones, Royalties or Penn Sublicense Income paid during the time period audited; and (c) provide such auditors with an audit right exercisable within [**] after Penn receives the audit report. If the auditor finds overpayment by Licensee, then Licensee shall have the right to deduct the overpayment from any future Milestones, Royalties or Penn Sublicense Income due to Penn by Licensee or, if no such future Milestones, Royalties or Penn Sublicense Income are payable, then Penn shall refund the overpayment to Licensee within [**] after Penn receives the audit report. Licensee may designate competitively sensitive information which such auditor may see and review but which it may not disclose to Penn; provided, however, that such designation shall not restrict the auditor's investigation or conclusions.

4.12 **Taxes**. All payments made by Licensee to Penn under the Agreement shall be made free and clear of and without any deduction for or on account of any Taxes on or with respect to such payments.

ARTICLE 5
INTELLECTUAL PROPERTY

5.1 **Patent Filing Prosecution and Maintenance**.

5.1.1 Penn Patent Rights and FRA Patent Rights will be held in the name of Penn and obtained with counsel selected by Penn and reasonably acceptable to Licensee ("**Patent Counsel**"). Penn shall control all actions and decisions with respect to the filing, prosecution and maintenance of Penn Patent Rights, will instruct Patent Counsel to provide a copy of all relevant documents and correspondence related to the Penn Patent Rights, and will direct Patent Counsel to reasonably consider any reasonable comments, advice or suggestions by Licensee with respect to same. Penn will instruct Patent Counsel to copy Licensee on all correspondence related to Penn Patent Rights (including, but not limited to, copies of each patent application, office action, response to office action, request for terminal disclaimer, and request for reissue or reexamination of any patent or patent application) and to interact with Licensee with respect to the preparation, filing, prosecution and maintenance of Penn Patent Rights. Penn has the right to take action to preserve rights and minimize cost whether or not Licensee has commented, and will use reasonable efforts to not allow any Penn Patent Rights for which Licensee is licensed and is underwriting the costs to lapse or become abandoned without Licensee's written authorization under this Agreement, except for filing of continuations, divisionals, or the like that substitute for the lapsed application, provided that, Penn shall have no requirement to file, prosecute, or maintain Penn Patent Rights if Licensee is not current with the Patent Cost obligations as set forth in this Agreement. For the purposes of this Agreement, "maintenance" of the Penn Patent Rights includes inter partes patent review and post grant review proceedings before the USPTO or a similar patent administration outside the US. For further clarity, validity challenges raised in infringement litigation will be handled per Section 5.4, Infringement.

5.1.2 Licensee has the right to request a country or jurisdiction filing via a written request to Penn at least [**] prior to the deadline set by the patent office in the territory in which filing is to take place ("**Prosecution Request**"), provided that the Parties will use good faith efforts to communicate regarding such deadlines in order to ensure that filings are made where Licensee desires them to be made. Provided that Penn or Patent Counsel has notified Licensee of such deadline in writing at least [**] in advance of such deadline, the absence of a given Prosecution Request by such deadline will be considered an election not to secure the Patent Rights associated with the specific phase of patent prosecution in such country or jurisdiction, and such patent application(s) and patent(s) ("**Carve-Out Patent Rights**") will cease to be part of the Penn Patent Rights and therefore cease to be subject to this Agreement, including the License, and Licensee will have no further rights or license thereto.

5.1.3 If, and during such time that: (i) Licensee is the only party to which Penn Patent Rights have been licensed by Penn; (ii) there are no unpaid Historic Patent Costs or Ongoing Patent Costs; and (iii) Licensee requests to manage the filing, prosecution and maintenance of Penn Patent Rights, then Penn and Licensee will use reasonable efforts to enter into a mutually agreeable Client and Billing Agreement with Patent Counsel in substantially the form attached hereto as **Appendix II**, which agreement upon execution shall, determine the management of Penn Patent Rights, in lieu of Section 5.1.1, provided that upon the termination of such agreement, the management of Penn Patent Rights shall be in accordance with Section 5.1.1.

5.2 **Patent Costs**.

5.2.1 Within [**] of the Effective Date, Licensee will reimburse Penn for all documented, previously unpaid out-of pocket costs for the filing, prosecution and maintenance of Penn Patent Rights, including all accrued attorney fees, expenses, official and filing fees ("**Patent Costs**"), incurred by Penn prior to the Effective Date ("**Historic Patent Costs**"), provided that Penn submits a detailed invoice for such Patent Costs to Licensee and such amount shall not exceed $[**].

5.2.2 Licensee will bear a Pro Rata Share of all Patent Costs for Penn Patent Rights incurred during the Term ("**Ongoing Patent Costs**"). The "**Pro Rata Share**" will be calculated by dividing total Ongoing Patent Costs by the total number of commercial licensees for the Penn Patent Rights at the time the expenses are incurred, if applicable.

5.2.3 At any time, at Penn's request, Licensee shall pay in advance the Patent Counsel's estimated costs for undertaking material patent actions before Penn authorizes the Patent Counsel to proceed ("**Advance Payment**"). Notwithstanding whether Licensee makes an Advance Payment for any patent action, Licensee shall bear its share of all Patent Costs incurred during the Term and shall pay such amounts within [**] of receipt of detailed invoices for such Patent Costs. For clarity, the term "Patent Costs" means and includes Historic Patent Costs and Ongoing Patent Costs. For clarity, this Section 5.2.3 shall not apply during any period during the Term where a Client and Billing Agreement is in effect.

5.3 **Termination of Rights in, and Obligations with respect to, Certain Penn Patent Rights** . In the event Licensee elects not to reimburse Penn for any such Patent Costs on a patent-by-patent and country-by-country or jurisdiction-by jurisdiction basis, then Penn, may prepare, file, prosecute and maintain such patents and/or patent applications at its sole discretion and expense. In such case, such patents and/or patent applications will no longer be subject to this Agreement, including the License, and Licensee will have no further rights or license to them. In addition, Licensee may terminate its rights in, and obligations with respect to any or all of Penn Patent Rights on a patent-by-patent and country-by-country or jurisdiction-by-jurisdiction basis by providing written notice to Penn ("**Patent Termination Notice**"). Termination of Licensee's rights in and obligation with respect to such Patent Right will be effective [**] after receipt of such Patent Termination Notice by Penn. Penn will use reasonable efforts to curtail such Patent Costs chargeable to Licensee under this Agreement after the receipt of the Patent Termination Notice is received. Penn may continue prosecution and maintenance of such Penn Patent Rights at its sole discretion and expense, and such Penn Patent Rights will then be deemed to be Carve-Out Patent Rights and will no longer be subject to this Agreement, including the License, and Licensee will have no further rights or license to them.

5.4 **Infringement**.

5.4.1 If either Party believes that an infringement by a Third Party with respect to any Penn Patent Right is occurring or may potentially occur, the knowledgeable Party will provide the other Party with: (a) written notice of such infringement or potential infringement; and (b) evidence of such infringement or potential infringement (the "**Infringement Notice**"). During the period in which, and in the jurisdiction where, Licensee has exclusive rights under this Agreement, neither Penn or Licensee will notify such a Third Party (including the infringer) of infringement or put such Third Party on notice of the existence of Penn Patent Rights without first providing an Infringement Notice and otherwise complying with this Section 5.4; provided that, Licensee shall be entitled to take such actions (including notifying Third Parties of infringement) as are reasonably necessary to timely comply with and preserve all rights under the Biologics Price Competition and Innovation Act in the United States and comparable laws in other applicable countries. Without limiting Licensee's right to take actions as described above, both Penn and Licensee will use reasonable efforts to cooperate with each other to terminate such infringement without litigation if the Parties mutually agree that such avoidance is appropriate under the circumstances.

5.4.2 If infringing activity of potential commercial significance, as reasonably determined by Licensee, has not been abated within [**] following the date the Infringement Notice for such activity was provided or, if Licensee determines that an earlier institution of suit is reasonably necessary to timely comply with and preserve all rights under the Biologics Price Competition and Innovation Act in the United States or comparable laws in other applicable countries, then during the period in which, and in the jurisdiction where, Licensee has exclusive rights under this Agreement, Licensee may institute suit for patent infringement against the infringer at such earlier time. Penn may voluntarily join (but not control) such suit at Licensee's expense (provided that, if Penn joins such suit voluntarily and, absent a bona fide conflict of interest of the Parties, does not agree to be represented by Licensee's counsel in such suit, Penn and not Licensee shall pay the costs and expenses of such representation by Penn's counsel), but Penn may not thereafter commence suit against the infringer for the acts of infringement that are the subject of Licensee's suit or any judgment rendered in such suit. Licensee may not join Penn in a suit initiated by Licensee without Penn's prior written consent, such consent not to be unreasonably withheld, unless Penn's joinder is reasonably necessary for Licensee to bring, maintain or establish damages in such suit, in which case Licensee may join Penn in such suit at Licensee's expense. If in a suit initiated by Licensee, Penn is involuntarily joined other than by Licensee, then Licensee will pay any costs incurred by Penn arising out of such suit, including any legal fees of counsel that Penn selects and retains to represent it in the suit that is reasonably acceptable to Licensee. Licensee shall be free to enter into a settlement, declaratory judgment, consent judgment or other voluntary disposition, provided that any settlement, declaratory judgment, consent judgment or other voluntary disposition that: (i) limits the scope, validity or enforcement of Penn Patents; or (ii) admits fault or wrongdoing on the part of Penn must be approved in advance by Penn in writing. Licensee's request for such approval shall include complete copies of final settlement documents, a detailed summary of such settlement, and any other information material to such settlement. Penn shall provide Licensee notice of its approval or denial within [**] of any request for such approval by Licensee, provided that: (x) in the event Penn wishes to deny such approval, such notice shall include a detailed written description of Penn's reasonable objections to the proposed settlement, consent judgment, or other voluntary disposition; and (y) Penn shall be deemed to have approved of such proposed settlement, declaratory judgment, consent judgment, or other voluntary disposition in the event it fails to provide such notice within such [**] period in accordance herewith.

5.4.3 If, within [**] following the date the Infringement Notice was provided, infringing activity of potential commercial significance has not been abated and if Licensee has not brought suit against the infringer, then Penn may institute suit for patent infringement against the infringer, provided that, if the appropriate action(s) under the Biologics Price Competition and Innovation Act in the United States or comparable laws in other applicable countries reasonably should be taken at later date(s), Penn shall not institute suit for patent infringement against the infringer. If Penn institutes such suit, then Licensee may not join such suit without the prior written consent of Penn and may not thereafter commence suit against the infringer for the acts of infringement that are the subject of Penn's suit or any judgment rendered in such suit.

5.4.4 Notwithstanding Sections 5.4.2 and 5.4.3, in the event that any Penn Patent Rights are infringed by a Third Party: (a) prior to the First Commercial Sale of a Product in the United States; or (b) if any of the infringed Penn Patent Rights are also licensed by Penn to a Third Party prior to any enforcement action being taken by either Party regarding such infringement, the Parties shall discuss, and will mutually agree, in writing, as to how to handle such infringement by such Third Party.

5.4.5 Any recovery or settlement received in connection with any suit will first be shared by Penn and Licensee equally to cover any litigation costs each incurred and next shall be paid to Penn or Licensee to cover any litigation costs it incurred in excess of the litigation costs of the other. Any remaining recoveries shall be allocated as follows:

For any portion of the recovery or settlement, other than for amounts attributable and paid as enhanced damages for willful infringement:

(a) for any suit that is initiated by Licensee and in which Penn was not a party in the litigation, Penn shall receive [**] percent ([**]%) of the recovery and the Licensee shall receive the remainder; and

(b) for any suit that is initiated by the Licensee or Penn and that the other Party joins voluntarily (but only to the extent such voluntary joining is allowed under this Agreement or expressly by the other Party in a separate agreement) or involuntarily, the non-initiating party shall receive its percentage of the total litigation costs incurred by Penn and Licensee, but in no event shall the non-initiating Party receive less than [**] percent ([**]%) of such recovery, while the initiating party shall receive the remainder.

For any portion of the recovery or settlement paid as enhanced damages for willful infringement:

(c) for any suit that is initiated by Licensee or Penn and the other Party joins voluntarily (but only to the extent such voluntary joining is allowed under this Agreement or expressly by the other Party in a separate agreement) or involuntarily, Penn shall receive [**] percent ([**]%) and Licensee shall receive the remainder; and

(d) for any suit that is initiated by Licensee and in which Penn was not a party in the litigation, Penn shall receive [**] percent ([**]%) and Licensee shall receive the remainder.

For any portion of the recovery or settlement received in connection with any suit that is initiated by Penn and in which Licensee was not a party in the litigation, any recovery in excess of litigation costs will belong to Penn.

5.4.6 Each Party will reasonably cooperate and assist with the other in litigation proceedings instituted hereunder but at the expense of the Party who initiated the suit (unless such suit is being jointly prosecuted by the Parties). For any suit that is initiated by Licensee, if Penn is subjected to third party discovery related to the Penn Patent Rights or Products licensed to Licensee hereunder, Licensee will pay Penn's documented out of pocket expenses with respect to same.

5.5 **Patent Marking**. Licensee shall place in a conspicuous location on any Product (or its packaging where appropriate and practicable) made or sold under this Agreement a patent notice in accordance with the Laws concerning the marking of patented articles where such Product is made or sold, as applicable.

5.6 **Confidentiality**.

5.6.1 Each Party agrees that, for the Term and for [**] thereafter, such Party shall: (a) use the same degree of care to maintain the secrecy of the Confidential Information of the other Party that it uses to maintain the secrecy of its Confidential Information of like kind; (b) use the Confidential Information only to accomplish the purpose of this Agreement (including, in the case of Licensee, to exercise its License rights hereunder) or for audit or management purposes; and (c) ensure that any employees, customers, and distributors are bound to it by similar obligations of confidence and to make sure such disclosure only as required to accomplish the purposes of this Agreement.

5.6.2 A Party may disclose the Confidential Information of the other Party with the prior written consent of the other Party or to the extent required by Law or court order; provided, however, that the recipient Party promptly provides to the disclosing Party prior written notice of such disclosure and, if applicable, provides reasonable assistance in obtaining an order or other remedy protecting the Confidential Information from public disclosure.

5.6.3 Licensee may disclose the Confidential Information of Penn, including the contents of this Agreement, to potential or actual investors, acquirers, Sublicensees, contractors and collaborators who are under confidentiality obligations at least as stringent as those set forth herein. Licensee will be legally responsible for any breach of such confidentiality obligations by the parties receiving the Confidential Information from Licensee.

ARTICLE 6
REPRESENTATIONS, WARRANTIES AND COVENANTS

6.1 **Mutual Representations and Warranties**. Each Party represents and warrants to the other Party that, as of the Effective Date:

6.1.1 such Party is duly organized and validly existing under the Laws of the jurisdiction of its incorporation or organization;

6.1.2 such Party has taken all action necessary to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement;

6.1.3 this Agreement is a legal and valid obligation of such Party, binding upon such Party and enforceable against such Party in accordance with the terms of this Agreement, except as enforcement may be limited by applicable bankruptcy, fraudulent conveyance, insolvency, reorganization, moratorium and other laws relating to or affecting creditors' rights generally and by general equitable principles; and

6.1.4 such Party has all right, power and authority to enter into this Agreement, to perform its obligations under this Agreement.

6.2 **Penn Representations and Warranties**. Penn represents and warrants to Licensee that:

6.2.1 As of the Effective Date, [**];

6.2.2 As of the Effective Date, [**]; and

6.2.3 As of the Effective Date, [**].

6.3 **Disclaimer of Representations and Warranties**.

6.3.1 Other than the representations and warranties provided in Section 6.1 and 6.2 above, **PENN AND LICENSEE MAKE NO REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND EXPLICITLY DISCLAIM ANY REPRESENTATION AND WARRANTY, INCLUDING WITH RESPECT TO ANY ACCURACY, COMPLETENESS, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COMMERCIAL UTILITY, NON-INFRINGEMENT OR TITLE FOR THE INTELLECTUAL PROPERTY, PATENT RIGHTS, LICENSE AND ANY PRODUCT**.

6.3.2 Furthermore, nothing in this Agreement will be construed as:

(a) A representation or warranty by Penn as to the validity or scope of any Patent Right;

(b) A representation or warranty that anything made, used, sold or otherwise disposed of under the License is or will be free from infringement of patents, copyrights, trademarks or any other forms of intellectual property rights or tangible property rights of Third Parties;

(c) Obligating either Party to bring or prosecute actions or suits against Third Parties for patent, copyright or trademark infringement; or

(d) Conferring by implication, estoppel or otherwise any license or rights under any patent rights or know-how of Penn other than the Penn Patent Rights and Know-How as defined herein, regardless of whether such patent rights or know-how are dominant or subordinate to the Penn Patent Rights or Know-How.

(e) Obligating Penn to furnish any know-how other than the Know-How.

6.4 **Covenant of Licensee**. Licensee and its Affiliates will not, directly or indirectly (including where such is done by a Third Party on behalf of Licensee or its Affiliates, at the urging of Licensee or its Affiliates or with the assistance of the Licensee or its Affiliates) challenge the validity, scope, or enforceability of or otherwise oppose any Penn Patent Right, provided that if any Penn Patent Right is asserted against Licensee or its Affiliate for activities authorized under this Agreement, then such Licensee or its Affiliates is entitled to all and any defenses available to it including challenging the validity or enforceability of such Penn Patent Right. Licensee will comply in all material respects with all Laws that apply to its activities or obligations under this Agreement. For example, Licensee will comply in all material respects with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the applicable agency of the United States government and/or written assurances by Licensee that Licensee will not export data or commodities to certain foreign countries without prior approval of the agency.

6.4.1 Licensee will not grant a security interest in the License or this Agreement.

ARTICLE 7
INDEMNIFICATION; INSURANCE AND LIMITATION OF LIABILITY

7.1 **Indemnification by Licensee**.

7.1.1 Licensee shall defend, indemnify and hold Penn and its respective trustees, officers, faculty, students, employees, contractors and agents (the "**Penn Indemnitees**") harmless from and against any and all liability, damage, loss, cost or expense (including reasonable attorneys' fees), including, without limitation, bodily injury, risk of bodily injury, death and property damage to the extent arising out of Third Party claims or suits related to: (a) this Agreement or any Sublicense, including: (i) the development, testing, use, manufacture, promotion, sale or other disposition of any Product (including any product liability claim) that is subject to this Agreement or any Sublicense by Licensee or any Affiliate or Sublicensee; (ii) any enforcement action or suit brought by Licensee against a Third Party for infringement of Patent Rights; (iii) any claim by a Third Party that the practice of Patent Rights by Licensee or any of its Affiliates or Sublicensees or the design, composition, manufacture, use, sale or other disposition of any Product by Licensee or any of its Affiliates or Sublicensees infringes or violates any patent, copyright, trade secret, trademark or other intellectual property right of such Third Party; (iv) any breach of this Agreement or Laws by Licensee, its Affiliates or Sublicensees; and (b) Licensee's gross negligence, omissions or willful misconduct, provided that Licensee's obligations pursuant to this Section 7.1 shall not apply to the extent such claims or suits result from the gross negligence or willful misconduct of any Penn Indemnitee as determined by a court of law.

7.1.2 As a condition to a Penn Indemnitee's right to receive indemnification under this Section 7.1, Penn shall: (a) promptly notify Licensee as soon as it becomes aware of a claim or suit for which indemnification may be sought pursuant hereto; (b) reasonably cooperate, and cause the individual Penn Indemnitees to reasonably cooperate, with Licensee in the defense, settlement or compromise of such claim or suit; and (c) permit the Licensee to control the defense, settlement or compromise of such claim or suit, including the right to select defense counsel. In no event, however, may Licensee compromise or settle any claim or suit in a manner which: (i) admits fault or negligence on the part of Penn or any other Penn Indemnitee; (ii) commits Penn or any other Penn Indemnitee to take, or forbear to take, any action, without the prior written consent of Penn; or (iii) grants any rights under the Patent Rights except for Sublicenses permitted under Article 2. Penn shall reasonably cooperate with Licensee and its counsel in the course of the defense of any such suit, claim or demand, such cooperation to include without limitation using reasonable efforts to provide or make available documents, information and witnesses.

7.1.3 Notwithstanding Section 7.1.2 above, in the event that a bona fide legal conflict exists between Licensee and Penn or any other Penn Indemnitee with respect to a claim or suit subject to indemnification hereunder that makes the defense of such claim or suit by counsel for Licensee inappropriate, then Penn or any other Penn Indemnitee shall have the right to be separately represented in such claim or suit, including by selecting its own counsel, with the reasonable attorney's fees and litigation expenses of a single law firm representing Penn and the Penn Indemnitees in such matter being paid for by Licensee. Licensee will pay such fees and expenses either directly or will reimburse Penn within [**] of Licensee's receipt of invoices for such fees and expenses.

7.2 **Insurance**.

7.2.1 Licensee, at its sole cost and expense, must insure its activities in connection with the exercise of its rights under this Agreement and obtain, and keep in force and maintain Commercial Form General Liability Insurance (contractual liability included) with limits as follows:

(a) Each occurrence $[**];

(b) General aggregate $[**]

Prior to the commencement of clinical trials, if applicable, involving Product:

(c) Clinical trials liability insurance $[**]

Prior to the First Commercial Sale of a Product:

(d) Products liability insurance $[**]

Penn may review periodically the adequacy of the minimum amounts of insurance for each coverage required by this Section 7.2.1, and has the right to request Licensee to adjust the limits in Penn's reasonable discretion.

7.2.2 If the above insurance is written on a claims-made form, it shall continue for [**] following termination or expiration of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date of this Agreement.

7.2.3 Licensee expressly understands, however, that the coverages and limits in Section 7.2.1 do not in any way limit Licensee's liability or indemnification obligations. Licensee's insurance will:

(a) Be issued by an insurance carrier with an A.M. Best rating of "A" or better;

(b) Provide for [**] advance written notice to Penn of any modification;

(c) State that Penn is endorsed as an additional insured with respect to the coverages in Section 7.2.1; and

(d) Include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self- insurance carried or maintained by Penn.

7.2.4 Licensee must furnish to Penn with: (a) valid certificate of insurance evidencing compliance with all insurance requirements of this Agreement; and (b) additional insured endorsements for Licensee's applicable policies naming "The Trustees of the University of Pennsylvania" as an additional insured. At the request of Penn, Licensee will furnish both documents within [**] of the Effective Date, [**] thereafter and at any time there is a modification in such insurance.

7.3 **LIMITATION OF LIABILITY**. IN NO EVENT SHALL EITHER PARTY OR ANY OF ITS AFFILIATES BE LIABLE TO THE OTHER PARTY OR ANY OF ITS AFFILIATES FOR SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING LOSS OF PROFITS, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREIN OR ANY BREACH HEREOF. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS AGREEMENT SHALL LIMIT LICENSEE'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 7.1 ABOVE.

ARTICLE 8
TERM AND TERMINATION

8.1 **Term**. The term of this Agreement (the "**Term**") shall commence on the Effective Date and, unless terminated sooner as provided below, shall continue in full force and effect until the later of: (a) expiration or abandonment of the last Penn Patent Right; or (b) loss of regulatory exclusivity in the Territory. The License granted to Know-How hereunder shall survive expiration, but not earlier termination, of this Agreement.

8.2 **Termination of the Agreement for Convenience**. At any time during the Term, Licensee may, at its convenience, terminate this Agreement upon providing at least thirty (30) days prior written notice to Penn of such intention to terminate, provided that, upon such termination, Licensee shall no longer have a License hereunder.

8.3 **Termination for Cause**

8.3.1 If Licensee materially breaches any of its material obligations under this Agreement, Penn may give to Licensee a written notice specifying the nature of the default, requiring it to cure such breach, and stating its intention to terminate this Agreement. If such breach is not cured within [**] in the case of payment breaches, provided that in the case of good faith payment disputes, such cure period shall be tolled during the pendency of any dispute resolution proceeding between the Parties in which the amount due is being disputed in good faith, until the resolution of the amount due) of such notice and Licensee fails to provide Penn with a plan to cure such breach that is reasonably acceptable to Penn, such termination shall become effective upon a notice of termination by Penn thereafter. Notwithstanding the foregoing, as to any breach of Licensee's obligations under Section 3.2.1, this Section 8.3.1 shall not apply and the consequences set forth in Section 3.3.1 shall constitute Penn's sole and exclusive remedies for such breach. For clarity, a breach of a material obligation includes:

(a) failure by Licensee to satisfy its diligence obligations under Section 3.2.2 or 3.4.3 in any material respect;

(b) failure to possess and maintain insurance as set forth in Section 7.2 in any material respect;

(c) grant of a sublicense under the Penn Patent Rights that is not in accordance with the terms of this Agreement in any material respect;

(d) failure to provide reports substantially as set forth in Sections 3.4.1. and 4.6;

(e) failure to terminate a Sublicense where Sublicensee is in material breach of the obligations on it pursuant to (i) Sections 2.4.2(a), 2.4.2(c), 2.4.2(e), 2.4.2(f) and 2.4.2(g) and fails to cure such breach within [**] of being notified of such breach and (ii) Section 2.4.2(d).

8.3.2 In addition to all other remedies available to it, Penn may terminate this Agreement as to the applicable Penn Patent Right(s), upon written notice, with immediate effect, upon a breach of Section 6.4 (Covenant of Licensee).

8.3.3 Penn may terminate this Agreement, upon written notice, with immediate effect if, at any time, Licensee is adjudicated bankrupt, or files in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement for the appointment of a receiver or trustee of Licensee for substantially all of its assets, or if Licensee is served with an involuntary petition against it, filed in any insolvency proceeding, and such petition is not dismissed within [**] after the filing thereof, or if Licensee proposes or is a party to any dissolution or liquidation that is not dismissed or abandoned within [**], or if Licensee makes an assignment for the benefit of its creditors of all or substantially all its assets (in each case, "**Bankruptcy Action**").

8.4 **Effects of Termination**.

8.4.1 Notwithstanding the termination of this Agreement, the following provisions shall survive: Sections 4.6-4.11, inclusive, 5.6, 8.3 and 8.4 and Articles 6, 7 and 9.

8.4.2 Termination of this Agreement shall not relieve the Parties of any obligation or liability that, at the time of termination, has already accrued hereunder, or which is attributable to a period prior to the effective date of such termination. Termination of this Agreement shall not preclude either Party from pursuing all rights and remedies it may have hereunder or at Law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation.

8.4.3 If this Agreement is terminated for any reason, the portion of all outstanding Sublicenses relating to the Penn Patent Rights and Know-How not in default will be assigned by Licensee to Penn, and such assignment will be accepted by Penn. The portion of each Sublicense so assigned will remain in full force and effect with Penn as the licensor or sublicensor instead of Licensee, but the duties and obligations of Penn under such assigned portions of such Sublicenses will not be greater than the duties of Penn under this Agreement, and the rights of Penn under such assigned portions will not be less than the rights of Penn under this Agreement, including all financial consideration and other rights of Penn hereunder. Penn may, at its sole discretion, amend such outstanding Sublicenses to contain the terms and conditions found in this Agreement.

ARTICLE 9
ADDITIONAL PROVISIONS

9.1 **Relationship of the Parties**. Nothing in this Agreement is intended or shall be deemed, for financial, tax, legal or other purposes, to constitute a partnership, agency, joint venture or employer-employee relationship between the Parties. The Parties are independent contractors and at no time will either Party make commitments or incur any charges or expenses for or on behalf of the other Party.

9.2 **Expenses**. Except as otherwise provided in this Agreement, each Party shall pay its own expenses and costs incidental to the preparation of this Agreement and to the consummation of the transactions contemplated hereby

9.3 **Third Party Beneficiary**. The Parties agree that each Sublicensee is a third party beneficiary of this Agreement with respect to Section 8.4.3.

9.4 **Use of Names**. Licensee, its Affiliates and Sublicensees may not use the name, logo, seal, trademark, or service mark (including any adaptation of them) of Penn or any Penn school, organization, employee, student or representative, without the prior written consent of Penn. Notwithstanding the foregoing, Licensee may use the name of Penn in a non-misleading and factual manner solely in: (a) executive summaries, business plans, offering memoranda and other similar documents used by Licensee for the purpose of raising financing for the operations of Licensee as related to Product, or entering into commercial contracts with Third Parties, but in such case only to the extent necessary to inform a reader that the Penn Patent Rights have been licensed by Licensee from Penn, and to inform a reader of the identity and published credentials of Inventors of the Penn Patent Rights; (b) any securities reports required to be filed with the Securities and Exchange Commission; and (c) as may be required by Law.

9.5 **No Discrimination**. Neither Penn nor Licensee will discriminate against any employee or applicant for employment because of race, color, sex, sexual or affectional preference, age, religion, national or ethnic origin, handicap, or veteran status.

9.6 **Successors and Assignment**.

9.6.1 The terms and provisions hereof shall inure to the benefit of, and be binding upon, the Parties and their respective successors and permitted assigns.

9.6.2 Licensee may not assign or transfer this Agreement or any of Licensee's rights or obligations created hereunder, by operation of law or otherwise, without the prior written consent of Penn, provided that Penn shall not unreasonably withhold, condition or delay its consent. Notwithstanding anything to the contrary herein, however, it shall [**] to the assignment of this Agreement in its entirety in connection with the sale or transfer of all or substantially all of Licensee's business or assets relating to the subject matter of this Agreement, whether by merger, sale of assets or otherwise, provided that: (a) [**]; (b) if [**] of this Agreement, including those [**], the assignee agrees [**], subject to [**], and agrees that such assignment or transfer [**]; (c) within [**] of the assignment or transfer, [**]; and (d) the assignee agrees [**]. Any permitted assignment will [**] at the time of the assignment. Licensee will not [**] this Agreement during the term. [**].

9.6.3 Any assignment not in accordance with this Section 9.6 shall be void.

9.7 **Further Actions**. Each Party agrees to execute, acknowledge and deliver such further instruments and to do all such other acts as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

9.8 **Entire Agreement of the Parties; Amendments**. This Agreement, the Exhibits and Appendices or Schedules hereto and, to the extent entered into, the Client & Billing Agreement constitute and contain the entire understanding and agreement of the Parties respecting the subject matter hereof and cancel and supersede any and all prior negotiations, correspondence, understandings and agreements between the Parties, whether oral or written, regarding such subject matter. No waiver, modification or amendment of any provision of this Agreement shall be valid or effective unless made in a writing referencing this Agreement and signed by a duly authorized officer of each Party.

9.9 **Governing Law**. This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Pennsylvania, excluding application of any conflict of laws principles that would require application of the law of a jurisdiction outside of the Commonwealth of Pennsylvania.

9.10 **Dispute Resolution**. If a dispute arises between the Parties concerning this Agreement, then the Parties will confer, as soon as practicable, in an attempt to resolve the dispute. If the Parties are unable to resolve such dispute amicably, then the Parties will submit to the exclusive jurisdiction of, and venue in, the state and Federal courts located in the Eastern District of Pennsylvania.

9.11 **Notices and Deliveries**. Any notice, request, approval or consent required or permitted to be given under this Agreement shall be in writing and directed to a Party at its address or facsimile number shown below or such other address or facsimile number as such Party shall have last given by notice to the other Party. A notice will be deemed received: if delivered personally, on the date of delivery; if mailed, five (5) days after deposit in the United States mail; if sent via courier, one (1) business day after deposit with the courier service; or if sent via facsimile, upon receipt of confirmation of transmission provided that a confirming copy of such notice is sent by certified mail, postage prepaid, return receipt requested.

For Penn

Penn Center for Innovation
University of Pennsylvania
3160 Chestnut Street, Suite 200
Philadelphia, PA 19104-6283
Attention: Managing Director

with a copy to:

University of Pennsylvania
Office of General Counsel
2929 Walnut Street, Suite 400
Philadelphia, PA 19104-5509
Attention: General Counsel

For Licensee:

CARMA Therapeutics Inc.
3001 Market Street, Ste 140
Philadelphia, PA 19104

Fax:
Attention: President

with a copy to:

WilmerHale LLP
60 State Street
Boston, MA 02109

Fax: (617) 526-5000
Attention: Steven D. Barrett, Esq.

9.12 **Waiver**. A waiver by either Party of any of the terms and conditions of this Agreement in any instance shall not be deemed or construed to be a waiver of such term or condition for the future, or of any other term or condition hereof. All rights, remedies, undertakings, obligations and agreements contained in this Agreement shall be cumulative and none of them shall be in limitation of any other remedy, right, undertaking, obligation or agreement of either Party.

9.13 **Severability**. When possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under law, but if any provision of this Agreement is held to be prohibited by or invalid under law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement. The Parties shall make a good faith effort to replace the invalid or unenforceable provision with a valid one which in its economic effect is most consistent with the invalid or unenforceable provision.

9.14 **Interpretation**. The words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." All references herein to Articles, Sections, Schedules and Exhibits shall be deemed references to Articles and Sections of, Schedules and Exhibits to, this Agreement unless the context shall otherwise require. Except as otherwise expressly provided herein, all terms of an accounting or financial nature shall be construed in accordance with GAAP, as in effect from time to time. Unless the context otherwise requires, countries shall include territories. References to any specific Law or article, section or other division thereof, shall be deemed to include the then-current amendments or any replacement Law thereto.

9.15 **Counterparts**. This Agreement may be executed in counterparts, each of which will be deemed an original, and all of which together will be deemed to be one and the same instrument. A facsimile or a portable document format (PDF) copy of this Agreement, including the signature pages, will be deemed an original.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, duly authorized representatives of the Parties have executed this Agreement as of the Effective Date.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA		**CARMA THERAPEUTICS INC.**	
By:	/s/ John S. Swartley, PhD	By:	/s/ Bruce Peacock
Name:	John S. Swartley, PhD	Name:	Bruce Peacock
Title:	Associate Vice Provost for Research and Managing Director, Penn Center for Innovation	Title:	Chairman

[Signature Page to License Agreement]

Exhibit B
Certain Financial Terms

CERTAIN FINANCIAL TERMS

- **Milestone Payments**.

Milestone	Milestone Payment
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
Cumulative worldwide Net Sales in a calendar year of the applicable Product reach $[**]	[**]
Cumulative worldwide Net Sales in a calendar year of the applicable Product reach $[**]	[**]
Cumulative worldwide Net Sales in a calendar year of the applicable Product reach $[**]	[**]

- **Penn Sublicense Income.**

Stage at which Sublicense is granted	% of income
[**]	[**]%
[**]	[**]%
[**]	[**]%
[**]	[**]%

UNIVERSITY *of* PENNSYLVANIA

First Amendment to License Agreement

This First Amendment to the License Agreement effective as of February 21st, 2018 (this "*First Amendment*"), is made by and between The Trustees of the University of Pennsylvania ("*Penn*") and CARMA Therapeutics Inc. ("Licensee") and amends the certain License Agreement between the parties, dated effective November 10, 2017 (the "*License Agreement*").

BACKGROUND

The License Agreement relates to certain intellectual property developed by Dr. Saar Gill and others of Penn's School of Medicine, which intellectual property, *inter alia*, is the subject of patents and/or patent applications (the "*Penn Dockets*"). Penn and Licensee desire to add Penn docket [**] (including US Provisional Patent Application No. [**]) to the Penn Patent Rights as that term is defined in the License Agreement. The parties wish to amend the License Agreement to reflect these changes.

Now, therefore, the parties hereby agree as follows:

1) Exhibit A to the License Agreement is hereby amended and restated in its entirety, and is replaced by Exhibit A attached to this First Amendment and incorporated into, and made part of, the License Agreement.

2) This First Amendment, together with the License Agreement, constitute the entire agreement between the parties. Except as provided in this First Amendment, all terms used in this First Amendment that are not otherwise defined herein shall have the respective meanings ascribed to such terms in the License Agreement. In the event of any conflict or inconsistency between the terms and provisions of the License Agreement and this First Amendment, the terms and provisions of this First Amendment shall control and govern. All other terms and provisions of the License Agreement, except as expressly modified and amended by this First Amendment, remain in full force and effect. Except as otherwise expressly provided herein, the parties do not intend to, and the execution of this First Amendment shall not, in any manner impair the License Agreement, the purpose of this First Amendment being simply to amend and ratify the License Agreement, as hereby amended and ratified, and to confirm and carry forward the License Agreement, as hereby amended and ratified, in full force and effect.

3) This First Amendment may be executed in two or more counterparts, each of which shall be deemed an original and together shall be deemed one and the same instrument.

IN WITNESS WHEREOF, the parties, intending to be legally bound, have caused this First Amendment to be executed by their duly authorized representatives.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA

By: /s/ Benjamin Dibling
Name: Benjamin Dibling, Ph.D.
Title: Executive Director of Licensing, Penn Center for Innovation
Date: February 28, 2018

CARMA Therapeutics, Inc.

By: /s/ Bruce Peacock
Name: Bruce Peacock
Title: Chairman
Date: March 5, 2018

UNIVERSITY *of* PENNSYLVANIA

Second Amendment to License Agreement

This Second Amendment to the License Agreement effective as of January 2nd, 2019 (this "*Second Amendment*"), is made by and between The Trustees of the University of Pennsylvania ("*Penn*") and CARISMA Therapeutics Inc., formerly CARMA Therapeutics Inc., ("*Licensee*") and amends the certain License Agreement between the parties, dated effective November 10, 2017, as amended by the First Amendment to License Agreement on February 21st, 2018 (together the "*License Agreement*").

BACKGROUND

WHEREAS, the License Agreement relates to certain intellectual property developed by Dr. Saar Gill and others of Penn's Perelman School of Medicine for modified monocytes, macrophages and dendritic cells expressing chimeric antigen receptors and uses thereof;

WHEREAS, Dr. Gill and others developed intellectual property subject of Penn docket [**] (including US Provisional Patent Application No. [**], entitled "[**]") (the "*Penn Docket*") subject to the Option Agreement by and between Penn and Licensee with an Effective Date of November 13, 2017 (the "*Option*");

WHEREAS, the parties agree that the Penn Docket is a Patent Right, as defined in the Option, and that Penn and Licensee have agreed that Licensee will pay Penn a flat fee of [**] dollars ($[**]) to exercise its option to license the Penn Docket; and

WHEREAS, Penn and Licensee desire to add the Penn Docket to the Penn Patent Rights as defined in the License Agreement. The parties wish to amend the License Agreement to reflect these changes.

Now, therefore, the parties hereby agree as follows:

1) Exhibit A to the License Agreement is hereby amended and restated in its entirety and is replaced by Exhibit A attached to this Second Amendment and incorporated into, and made part of, the License Agreement.

2) Licensee will pay Penn a flat fee of [**] dollars ($[**]) as consideration for the additional Penn Dockets within [**] of the execution date of this Second Amendment.

3) This Second Amendment, together with the License Agreement, constitute the entire agreement between the parties. Except as provided in this Second Amendment, all terms used in this Second Amendment that are not otherwise defined herein shall have the respective meanings ascribed to such terms in the License Agreement. In the event of any conflict or inconsistency between the terms and provisions of the License Agreement and this Second Amendment, the terms and provisions of this Second Amendment shall control and govern. All other terms and provisions of the License Agreement, except as expressly modified and amended by this Second Amendment, remain in full force and effect. Except as otherwise expressly provided herein, the parties do not intend to, and the execution of this Second Amendment shall not, in any manner impair the License Agreement, the purpose of this Second Amendment being simply to amend and ratify the License Agreement, as hereby amended and ratified, and to confirm and carry forward the License Agreement, as hereby amended and ratified, in full force and effect.

4) This Second Amendment may be executed in two or more counterparts, each of which shall be deemed an original and together shall be deemed one and the same instrument.

IN WITNESS WHEREOF, the parties, intending to be legally bound, have caused this Second Amendment to be executed by their duly authorized representatives.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA

By: /s/ Benjamin Dibling
Name: Benjamin Dibling, Ph.D.
Title: Executive Director of Licensing, Penn Center for Innovation
Date: June 18, 2019

CARISMA THERAPEUTICS INC.

By: /s/ Steven Kelly
Name: Steven Kelly
Title: Chief Executive Officer
Date: June 20, 2019

UNIVERSITY *of* PENNSYLVANIA

Third Amendment to License Agreement

This Third Amendment to the License Agreement effective as of March 1, 2020 (this "*Third Amendment*"), is made by and between The Trustees of the University of Pennsylvania ("*Penn*") and CARISMA Therapeutics Inc., formerly CARMA Therapeutics Inc., ("*Licensee*") and amends the certain License Agreement between the parties, dated effective November 10, 2017, as amended by the First Amendment to License Agreement effective February 21st, 2018 and the Second Amendment to License Agreement effective January 2nd, 2019 (together the "*License Agreement*"). Except as otherwise defined herein, capitalized terms will have the meanings given them in the License Agreement. Penn and Licensee may be referred to in this Third Amendment individually as a "Party" and collectively as the "Parties."

BACKGROUND

WHEREAS, the License Agreement relates to certain intellectual property developed by Dr. Saar Gill and others of Penn's Perelman School of Medicine for modified monocytes, macrophages and dendritic cells expressing chimeric antigen receptors and uses thereof; and

WHEREAS, the Parties now desire to amend the License Agreement to change the Funding Commitment.

Now, therefore, the parties hereby agree as follows:

1) Sponsored Research. The Parties hereby agree to amend and restate Section 3.4.3 in its entirety as follows:

> **Sponsored Research**. Within [**] following the execution of this Agreement, Licensee, its Affiliates or Sublicensees shall provide $[**] in committed, non-refundable, non-creditable funding ("**Funding Commitment**") to Penn under FRA(s) executed by the Parties to fund mutually agreed projects, including but not limited to, research, Product development, clinical trials, cell manufacturing or other activities for the purpose of developing Product(s). No less than $[**], in the aggregate, of the Funding Commitment shall be provided to Penn within [**] following the execution of this Agreement. For such purposes, the FRA funding provided by Licensee to Penn prior to the Effective Date shall count toward the Funding Commitment for such first [**]. The Funding Commitment shall be subject to the terms of the FRAs and such funding shall be used by Penn in accordance with the FRAs to conduct the activities set forth in the Development Plan for the then current contract year. The FRAs may be amended from time to time by mutual agreement of the Parties as necessary in order to accommodate any unforeseen technical, regulatory or other delays concerning Product development. Notwithstanding the above, in the event Penn is unwilling or unable to conduct one or more activities set forth in the Development Plan, then the Parties will discuss and negotiate in good faith amending the amounts of the Funding Commitment and the timeframe for Licensee to provide the Funding Commitment.

2) This Third Amendment, together with the License Agreement, constitute the entire agreement between the parties. Except as provided in this Third Amendment, all terms used in this Third Amendment that are not otherwise defined herein shall have the respective meanings ascribed to such terms in the License Agreement. In the event of any conflict or inconsistency between the terms and provisions of the License Agreement and this Third Amendment, the terms and provisions of this Third Amendment shall control and govern. All other terms and provisions of the License Agreement, except as expressly modified and amended by this Third Amendment, remain in full force and effect. Except as otherwise expressly provided herein, the parties do not intend to, and the execution of this Third Amendment shall not, in any manner impair the License Agreement, the purpose of this Third Amendment being simply to amend and ratify the License Agreement, as hereby amended and ratified, and to confirm and carry forward the License Agreement, as hereby amended and ratified, in full force and effect.

3) This Third Amendment may be executed in two or more counterparts, each of which shall be deemed an original and together shall be deemed one and the same instrument.

IN WITNESS WHEREOF, the parties, intending to be legally bound, have caused this Third Amendment to be executed by their duly authorized representatives.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA

By: /s/ Benjamin Dibling
Name: Benjamin Dibling, Ph.D.
Title: Deputy Managing Director, Penn Center for Innovation
Date: 11/2/2020

CARISMA THERAPEUTICS INC.

By: /s/ Steven Kelly
Name: Steven Kelly
Title: Chief Executive Officer
Date: 11/3/20

UNIVERSITY *of* PENNSYLVANIA

Fourth Amendment to License Agreement

This Fourth Amendment to the License Agreement effective as of June 22, 2021 (this "*Fourth Amendment*"), is made by and between The Trustees of the University of Pennsylvania ("*Penn*") and CARISMA Therapeutics, Inc., formerly CARMA Therapeutics, Inc., ("*Licensee*") and amends the License Agreement between the parties, dated November 10, 2017 and as previously amended by the first amendment effective February 21, 2018, the second amendment effective January 2, 2019 and the third amendment effective March 1, 2020 (the "*Agreement*").

BACKGROUND

WHEREAS, the Agreement relates to certain intellectual property developed by Dr. Saar Gill and others of Penn's Perelman School of Medicine, relating to modified monocytes, macrophages and dendritic cells expressing chimeric antigen receptors and uses thereof; and

WHEREAS, Penn and [**] jointly own certain patent rights, the Mesothelin CAR Patent Rights as defined in Section 1.2 below, arising from Penn docket [**] co-developed by Penn and [**] for mesothelin chimeric antigen receptors (including Patent Cooperation Treaty Application No. [**], entitled "[**]") set forth in Attachment 1 to this Fourth Amendment; and

WHEREAS, [**] has exclusively licensed [**] interest in the Mesothelin CAR Patent Rights to Penn to make, have made, use sell, offer to sell, import, export, and otherwise research products and therapies directed against mesothelin; and

WHEREAS, the Mesothelin CAR Patent Rights are exclusively licensed to third parties in one case to make, have made, use, sell, offer for sale and import products in a field that does not include engineered CAR-modified macrophages, monocytes or dendritic cells and in another case to make, have made, use sell, offer to sell, import, export, and otherwise research products in a field which does not include products targeting mesothelin; and

WHEREAS, Penn and Licensee desire to add Mesothelin CAR Patent Rights to the Penn Patent Rights as defined in the Agreement. The parties wish to amend the Agreement to reflect these changes;

Now, therefore, the Parties hereby agree as follows:

1. Certain Amendments to the Agreement

1.1 The following WHEREAS clauses shall be added to the Preamble of the Agreement:

> WHEREAS, Penn and [**] jointly own certain patent rights arising from Penn docket [**] co-developed by Penn and [**] for mesothelin chimeric antigen receptors (including Patent Cooperation Treaty Application No. [**], entitled "[**]") set forth in Exhibit A-2; and

WHEREAS, [**] has exclusively licensed [**] interest in the Mesothelin CAR Patent Rights to Penn to make, have made, use sell, offer to sell, import, export, and otherwise research products and therapies directed against mesothelin; and

WHEREAS, the Mesothelin CAR Patent Rights are exclusively licensed to third parties in one case to make, have made, use, sell, offer for sale and import products in a field that does not include engineered CAR-modified macrophages, monocytes or dendritic cells and in another case to make, have made, use sell, offer to sell, import, export, and otherwise research products in a field which does not include products targeting mesothelin; and

1.2 The following definitions are hereby added to Article 1 of the Agreement:

"Mesothelin CAR Patent Rights" means (a) the Penn Patent Rights set forth in Exhibit A-2 Controlled by Penn as of the Effective Date; (b) any issued patents or patent applications arising out of the Patent Rights listed Exhibit A-2, including, but not limited to, any continuations, provisionals, continued prosecution applications, substitutions, extensions, term restorations and adjustments, registrations, confirmations, reexaminations, renewals or reissues thereof, including divisionals, but excluding continuations-in-part except to the extent of claims entirely supported by the specification and entitled to the priority date of the parent application; and (c) any corresponding foreign counterparts to the foregoing. For clarity, [**] interest in the Mesothelin CAR Patent Rights to make, have made, use sell, offer to sell, import, export, and otherwise research products and therapies directed against mesothelin are exclusively licensed to and Controlled by Penn and is therefore included in Penn Patent Rights.

"Original Penn Patent Rights" means (a) the Penn Patent Rights set forth in Exhibit A-l Controlled by Penn as of the Effective Date, which may be amended from time to time after the Effective Date by the Parties to include FRA Patent Rights, to the extent such rights are Controlled by Penn and, in such event, such included FRA Patent Rights shall thereupon become Penn Patent Rights, subject to the terms of the FRA; (b) any issued patents or patent applications arising out of the Patent Rights listed in Exhibit A-1, including, but not limited to, any continuations, provisionals, continued prosecution applications, substitutions, extensions, term restorations and adjustments, registrations, confirmations, reexaminations, renewals or reissues thereof, including divisionals, but excluding continuations-in-part except to the extent of claims entirely supported by the specification and entitled to the priority date of the parent application; and (c) any corresponding foreign counterparts to the foregoing.

"Mesothelin CARMA Product" means a Product that is a CARMA directed to mesothelin containing the complement of [**] CDRs from any one of the scFvs set forth in Exhibit D.

"[**] Affiliates" means any Person that controls, is controlled by, or is under common control with [**]. For the purpose of this definition of [**] Affiliates, "control," "controls," or "controlled" means, direct or indirect, ownership of fifty percent (50%) or more of the shares of stock entitled to vote for the election of directors in the case of a corporation or fifty percent (50%) or more of the equity interest in the case of any other type of legal entity; status as a general partner in any partnership; or any other arrangement whereby the Person controls or has the right to control the board of directors or equivalent governing body of a corporation or other entity or the ability to cause the direction of the management or policies of a corporation or other entity, or otherwise has the control over the relevant entity as set forth in applicable accounting standards, as amended, from time to time. The Parties acknowledge that in the case of entities organized under the Laws of certain countries where the maximum percentage ownership permitted by Law for a foreign investor is less than fifty percent (50%), such lower percentage shall be substituted in the preceding sentence; *provided,* that such foreign investor has the power to direct the management and policies of such entity. For the purposes of the definition of "[**] Affiliates", "Person" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

1.3 The definition of Penn Patent Rights in Section 1.24 of the Agreement is hereby amended and restated in its entirety and replaced with the following:

"**Penn Patent Rights**" means the Original Penn Patent Rights and the Mesothelin CAR Patent Rights. Notwithstanding the above, following such time as a Penn Patent Right becomes a Carve-Out Patent Right, the Penn Patent Rights shall not include such Carve-Out Patent Right.

1.4 Section 2.1 of the Agreement is hereby amended and restated in its entirety and replaced with the following:

Grant of License. Subject to the terms and conditions of this Agreement, Penn hereby grants to Licensee: (a) an exclusive, worldwide, royalty-bearing (during the applicable Royalty Term) right and license (with the right to sublicense as provided in, and subject to, the provisions of Section 2.4) under Original Penn Patent Rights to make, have made, use, sell, offer for sale, import and have imported Product(s) in the Field of Use during the Term; (b) an exclusive, worldwide, royalty-bearing (during the applicable Royalty Term) right and license (with the right to sublicense as provided in, and subject to, the provisions of Section 2.4) under Mesothelin CAR Patent Rights to make, have made, use, sell, offer for sale, import and have imported Mesothelin CARMA Product(s) in the Field of Use during the Term; and (c) a non-exclusive worldwide, royalty-bearing (during the applicable Royalty Term) right and license, with the limited right to sublicense only in combination with Product(s) or the Penn Patent Rights, under Know-How to make, have made, use, sell, offer for sale, import and have imported Products in the Field of Use (the "**License**").

1.5 A new Section 3.2.3 is hereby added to the Agreement as follows:

Licensee shall use Commercially Reasonable Efforts to develop and commercialize a Mesothelin CARMA Product in the Field of Use. License shall include development activities for the Mesothelin CARMA Product in its annual Development Plan under Section 3.1 of the Agreement. In addition to the Development Plan, and the other diligence requirements set forth in Article 3 of the Agreement, Licensee shall have the following Diligence Events achieved by the corresponding Achievement Date for a Mesothelin CARMA Product:

Diligence Event	**Achievement Date**
[**]	[**]
[**]	[**]
[**]	[**]

Licensee may extend any Achievement Date for a Diligence Event by [**] increments, but by making a $[**] payment to Penn prior to the expiration of such Achievement Date for such Diligence Event. Licensee may not elect more than [**] extensions in the aggregate for all Diligence Events per Product, provided that the subsequent Diligence Events shall be updated to reflect the extension of time sought.

1.6 A new Section 4.3.8 is hereby added to the Agreement as follows:

4.3.8 **Alliance Management Fee**. Licensee shall pay Penn's Penn Center for Innovation an annual alliance management fee of $[**] per calendar year (the "Alliance Management Fee"). The first Alliance Management Fee payment will be due [**], and will be for the period commencing on January 1, 2021 and ending on December 31, 2021. Subsequent Alliance Management Fee payments will be made within [**] following January 1st, [**] in accordance with invoices provided by Penn. No further annual Alliance Management Fees will be payable by Licensee to Penn under this Agreement after the first [**] payments have been received unless Licensee provides binding to Penn for research and development activities that extend beyond Dec. 31, [**] under the Master Sponsored Research Agreement (effective date of May 31, 2017) or otherwise under a separate agreement, in which case the annual Alliance Management Fee will continue to be payable on January 1st for each subsequent calendar year after [**] in which such funding is being provided to Penn by Licensee.

1.7 Section 4.2.1 of the Agreement is hereby deleted in its entirety and replaced with the following:

As additional consideration for the License, subject to Section 4.2.2 below, Licensee will pay Penn (a) the milestone payments provided in Exhibit B attached hereto for each Product to achieve the corresponding milestone in Exhibit B (for clarity including each Mesothelin CARMA Products) and (b) the Additional Mesothelin CARMA Product Milestone Payments the first time a Mesothelin CARMA Product achieves a milestone set forth in the table in this Section 4.2.1, in each of (a) and (b) whether achieved by Licensee or an Affiliate or Sublicensee (each milestone in (a) and (b), a "Milestone" and each milestone payment in (a) and (b) a "Milestone Payment"). Licensee shall promptly notify Penn in writing of the achievement of any such Milestone and Licensee shall pay Penn in full the corresponding Milestone Payment within [**] of such achievement or, with respect to sales milestones, when Royalties are paid for the applicable calendar quarter in which the Milestone is achieved. For clarity, each Milestone Payment is non-refundable and non-creditable against Royalties due to Penn or any other amounts due to Penn.

Milestone	**Additional One-Time Mesothelin CARMA Product Additional Milestone Payment (For clarity Exhibit B milestones are also payable for the same Mesothelin CARMA Product)**
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

1.8 Section 5.1 of the Agreement is hereby deleted in its entirety and replaced with the following:

Penn Patent Rights including FRA Patent Rights will be held in the name of Penn and obtained with counsel selected by Penn, except that for the Penn Patent Rights where the Licensee is the only licensee, such selection of counsel shall be reasonably acceptable to Licensee ("**Patent Counsel**"). Penn shall control all actions and decisions with respect to the filing, prosecution and maintenance of Penn Patent Rights, will instruct Patent Counsel to provide a copy of all relevant documents and correspondence related to the Penn Patent Rights (including, but not limited to, copies of each patent application, office action, response to office action, request for terminal disclaimer, and request for reissue or reexamination of any patent or patent application), to interact with Licensee with respect to the preparation, filing, prosecution and maintenance of Penn Patent Rights and will direct Patent Counsel to reasonably consider any reasonable comments, advice or suggestions by Licensee with respect to same. Licensee acknowledges that the Mesothelin CAR Patent Rights currently are and may in the future be licensed to third parties in fields outside of the Field of Use and that comments, advice or suggestions from Licensee with respect to the preparation, filing, prosecution and maintenance of the Mesothelin CAR Patent Rights will need to be considered in coordination with comments, advice or suggestions from Penn's third party licensees. Penn has the right to take action to preserve rights and minimize cost whether or not Licensee has commented, and will use reasonable efforts to not allow any Penn Patent Rights for which Licensee is licensed and is underwriting the costs to lapse or become abandoned without Licensee's written authorization under this Agreement, except for filing of continuations, divisionals, or the like that substitute for the lapsed application, provided that, Penn shall have no requirement to file, prosecute, or maintain Pern Patent Rights if Licensee is not current with the Patent Cost obligations as set forth in this Agreement. For the purposes of this Agreement, "maintenance" of the Penn Patent Rights includes inter partes patent review and post grant review proceedings before the USPTO or a similar patent administration outside the US. For farther clarity, validity challenges raised in infringement litigation will be handled per Section 5.4, Infringement.

1.9 Section 5.4.4 of the Agreement is hereby deleted in its entirety and replaced with the following:

Notwithstanding Sections 5.4.2 and 5.4.3, in the event that any Penn Patent Rights are infringed by a Third Party: (a) prior to the First Commercial Sale of a Product in the United States; or (b) if any of the infringed Penn Patent Rights are also licensed by Penn to a Third Party prior to any enforcement action being taken by Licensee regarding such infringement, the Parties shall discuss, and will mutually agree, in writing, as to how to handle such infringement by such Third Party.

1.10 A new Section 7.1.4 is hereby added to the Agreement as follows:

Licensee shall defend [**] Affiliates and its licensees and sublicensees and each of their respective officers, directors, agents, representatives and employees (collectively, "**[**] Indemnitees**") from and against all charges, allegations, notices, civil, criminal or administrative claims, demands, complaints, causes of action, proceedings, judgements, decisions or other orders of a governmental authority, or investigations of any Person other than Penn or [**] and [**] Affiliates (collectively, "**Claims**"), and indemnify and hold harmless such [**] Indemnitees from and against any and all losses, liabilities, obligations, awards, settlements, penalties, fines, sanctions, damages and reasonable costs (including awards of court costs and reasonable attorneys' fees) (collectively, "**Losses**") that result from any such Claims, where and to the extent that such Claims are made or brought against any [**] Indemnitee by or on behalf of any Person other than Penn or [**] and [**] Affiliates, and solely to the extent such Claim is based on or arises out of any matter related to the research, development, manufacturing or any and all activities directed toward marketing, promoting, detailing, distributing, importing, having imported, exporting, having exported, selling or offering to sell a product or therapy, including commercial manufacturing, packaging and labeling, of any Mesothelin CARMA Product (including, for clarity, any product liability Losses). For the purposes of this Section 7.1.4, "Person" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual. As a condition to a [**] Indemnitee's right to receive indemnification under this Section 7.1.4, [**] shall: (a) inform Licensee of any Third Party Claim as soon as reasonably practicable after it receives notice of the Claim, it being understood and agreed that the failure to give notice of a Claim as provided in this Section 7.1.4 will not relieve Licensee of its indemnification obligation raider this Agreement except and only to the extent that Licensee is actually and materially prejudiced as a result of such failure to give notice; (b) at Licensee's expense, cooperate as reasonably requested in the defense of the Claim; and (c) permit the Licensee to assume the defense direction and control of the defense of the Third Party Claim, including the right to select defense counsel. In no event, however, may Licensee settle such Claim, or otherwise consent to an adverse judgement in such Claim without [**] prior consent, not to be unreasonably withheld or delayed; provided, that Licensee shall not require such consent with respect to the settlement of any Claim under which the sole relief provided is for monetary damages that are paid in full by the Licensee, which would not materially diminish or limit or otherwise adversely affect the rights, activities or financial interests of [**], and which does not result in any finding or admission of fault by the [**]. If the Licensee does not assume direction and control of the defense of the Third Party Claim, [**] may not settle such Claim, or otherwise consent to an adverse judgment in such Claim without the Licensee's prior written consent, not to be unreasonably withheld or delayed.

1.11 A new Section 8.3.4 is hereby added to the Agreement as follows:

In the event Licensee fails to achieve any Diligence Event by the corresponding Achievement Date, subject to the paid extensions provided, Penn has the right and option to terminate this Agreement with respect to a Mesothelin CARMA Product, upon written notice, with immediate effect. Exhibit A to the Agreement is hereby deleted in its entirety and is replaced by Exhibits A-1 and A-2 as set forth in Attachment 1 to this Fourth Amendment.

1.12 Attachment 2 is hereby added to the Agreement as new Exhibit D.

2. <u>Certain New Obligations</u>

2.1 Licensee will pay Penn a flat fee of [**] dollars ($[**]) as partial consideration for the license to the Mesothelin CAR Patent Rights within [**] of receipt of an invoice from Penn.

3. Miscellaneous

3.1 This Forth Amendment, together with the Agreement, constitute the entire agreement between the Parties. All other terms and provisions of the Agreement, except as expressly amended by this Fourth Amendment, remain in fill force and effect.

3.2 This Fourth Amendment may be executed in two or more counterparts, each of which shall be deemed an original and together shall be deemed one and the sane instrument.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties, intending to be legally bound, have caused this Fourth Amendment to be executed by their duly authorized representatives.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA		CARISMA THERAPEUTICS INC.	
By:	/s/ Benjamin C. Dibling	By:	/s/ Steven Kelly
Name:	Benjamin C. Dibling, Ph.D.	Name:	Steven Kelly
Title:	Deputy Managing Director, Penn Center for Innovation	Title:	President and CEO
Date:	6/23/2021	Date:	6/24/2021

EXHIBIT 10.34

Certain identified information has been excluded from the exhibit because it is both (i) notmaterial and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

LICENSE AGREEMENT

This LICENSE AGREEMENT (the "Agreement"), made and effective as of July 24th, 2020 (the "Effective Date"), is by and between:

NEW YORK UNIVERSITY (hereinafter "NYU"), a corporation organized and existing under the laws of the State of New York and having a place of business at 70 Washington Square South, New York, New York 10012;

AND

Carisma Therapeutics Inc (hereinafter "CORPORATION"), a corporation organized and existing under the laws of the State of Delaware having its principal office at 3675 Market Street, Ste 200, Philadelphia, PA, 19104.

RECITALS

WHEREAS, Dr. Nathaniel Landau of NYU (hereinafter "the NYU Scientist") has made certain inventions relating to lentiviral vectors and methods of use thereof, all as more particularly described in a U.S. patent owned by NYU and identified in annexed Appendix I and forming an integral part hereof ("the Pre-Existing Inventions"); and WHEREAS, NYU and CORPORATION are parties to a Research and Option Agreement dated November 1st, 2019 ("Option Agreement"), under which CORPORATION is funding a research project at NYU under the direction of the NYU Scientist (the "NYU Research Project), and NYU granted CORPORATION an option to obtain the rights and licenses granted herein, and CORPORATION has exercised such option;

WHEREAS, subject to the terms and conditions hereinafter set forth, NYU is willing to grant to CORPORATION and CORPORATION is willing to accept from NYU the License (as hereinafter defined);

NOW, THEREFORE, in consideration of the mutual promises and agreements contained herein, the parties hereto hereby agree as follows:

1. Definitions.

Whenever used in this Agreement, the following terms shall have the following meanings:

1.01. "Affiliate" shall mean any company or other legal entity which controls, or is controlled by, or is under common control with, CORPORATION; control means the holding of twenty five and one tenth percent (25.1%) or more of (i) the capital and/or (ii) the voting rights and/or (iii) the right to elect or appoint directors.

1.02. "Calendar Year" shall mean any consecutive period of twelve months commencing on the first day of January of any year.

1.03. “Date of First Commercial Sale” shall mean the date on which a Licensed Product is first offered for sale by CORPORATION or an Affiliate or sublicensee of CORPORATION.

1.04. “Field” shall mean all indications for human use.

1.05. “License” shall mean the exclusive worldwide license to practice NYU’s rights in the NYU Patents and the non-exclusive worldwide license to practice NYU’s rights in the NYU Know-How (as hereinafter defined) for the development, manufacture, use and sale of the Licensed Products (as hereinafter defined) in the Field.

1.06. “Licensed Products” shall mean all products and services, which (i) are covered by a claim of any unexpired NYU Patent (as hereinafter defined) which has not been disclaimed or held invalid by a court of competent jurisdiction from which no appeal can be taken, or (ii) incorporate or are developed using NYU Know-How.

1.07. “Net Sales” shall mean the total amount invoiced in connection with sales of the Licensed Products by CORPORATION and each Affiliate and sublicensee of CORPORATION to any person or entity that is not an Affiliate or a sublicensee of CORPORATION under the License, after deduction of all the following to the extent applicable to such sales:

i) all trade, case and quantity credits, discounts, refunds or rebates;

ii) allowances or credits for returns; and

iii) sales taxes (including value-added tax).

1.08. “NYU Know-How” shall mean [**].

1.09. “NYU Patents” shall mean the patent applications, and any divisions, continuations, in whole or in part, and foreign counterparts thereof, and patents issuing thereon, and any reissues, renewals and extensions thereof:

(1) which claim Pre-Existing Inventions and which are identified on annexed Appendix I; or

(2) which claim inventions that are made, in whole or in part, by students or employees of NYU during the term and in the course of the NYU Research Project under the Option Agreement, for which CORPORATION notified NYU in accordance with the terms of the Option Agreement that CORPORATION wished NYU to file a patent application at CORPORATION’s expense.

1.10. “NYU Technology” shall mean all NYU Patents and NYU Know-How.

1.11. “Sublicense Date” shall mean the date that a sublicense of any NYU Technology is granted, or if earlier, the date that an option to acquire such a sublicense is granted.

1.12. "Sublicense Revenue" shall mean all consideration, monetary or otherwise (not based on Net Sales), received by CORPORATION from a sublicensee of CORPORATION (not being an Affiliate) under the terms of, or as a consideration for the grant of, a sublicense of any rights in the NYU Technology or for grant of an option to acquire such a sublicense, other than (i)

payments for CORPORATION equity at fair market value, (ii) reimbursement of expenses for future research and development of Licensed Products under a written agreement with a detailed research plan and budget, and (iii) reimbursement of future patent expenses for NYU Patents.

2. Effective Date.

This Agreement shall be effective as of the Effective Date and shall remain in full force and effect until it expires or is terminated in accordance with Section 13 hereof.

3. Title.

3.01. Subject to the License granted to CORPORATION hereunder, all right, title and interest, in and to the NYU Technology shall vest solely in NYU. At the request of NYU, CORPORATION shall take all steps as may be necessary to give full effect to said right, title and interest of NYU including, but not limited to, the execution of any documents that may be required to record such right, title and interest with the appropriate agency or government office.

3.02. For so long as the NYU Scientist is employed by NYU, any and all inventions made solely by the NYU Scientist shall be owned solely by NYU. CORPORATION shall notify NYU in writing prior to engaging the NYU Scientist as a consultant, advisory board member or in any other capacity and shall report to NYU [**] on such engagement, including the nature of the engagement and the amount of any compensation (including equity) paid to the NYU Scientist. For the avoidance of doubt, any inventions created under a consulting agreement between the NYU Scientist and CORPORATION and approved by NYU shall be owned as specified in the consulting agreement, subject to any NYU policies in effect as of the effective date of such agreement.

4. Patents and Patent Applications.

4.01. CORPORATION shall, simultaneously with the signing of this Agreement pay NYU the sum of [**] dollars ($[**]), being the amount of all costs and fees incurred by NYU up to the date hereof in connection with the NYU Patents.

4.02. All patents and proceedings with respect to the NYU Patents shall be filed, prosecuted and maintained by NYU at the expense of CORPORATION. Against the submission of invoices, CORPORATION shall reimburse NYU for all costs and fees incurred by NYU during the term of this Agreement, in connection with the filing, maintenance, prosecution, post-grant proceedings, protection and the like of the NYU Patents, payable with in [**] after receipt of an invoice from NYU. At any time following the Effective Date, NYU shall have the right at NYU's discretion by written notice to require CORPORATION to provide reasonable advanced payment of any specific patent expenses for a particular NYU Patent prior to NYU incurring such expenses, and to abandon such NYU Patent if CORPORATION does not provide such advanced payment.

4.03. If at any time during the term of this Agreement CORPORATION decides that it is undesirable, to maintain any NYU Patents, it shall give prompt written notice thereof to NYU, and upon receipt of such notice CORPORATION shall be released from its obligations to bear all of the expenses to be incurred thereafter in conjunction with such NYU Patents(s) and such NYU Patent shall be deleted from the NYU Technology and NYU shall be free to grant rights in and to such NYU Patent(s) to third parties, without further notice or obligation to CORPORATION, and CORPORATION shall have no rights whatsoever to exploit such NYU Patent.

4.04. Nothing herein contained shall be deemed to be a warranty by NYU that: (i) any of the NYU Patents will afford adequate or commercially worthwhile protection, or (ii) the manufacture, use, or sale of any element of the NYU Technology or any Licensed Product will not infringe any patent(s) of a third party.

4.05. CORPORATION and any Affiliates and sublicensees of CORPORATION shall insure that they apply patent markings that meet all requirements of U.S. law, 35 U.S.C. § 287, with respect to all Licensed Products.

4.06. CORPORATION shall take all appropriate steps to ensure that, if eligible and commercially appropriate, NYU will be able to obtain patent term extension(s) for Licensed Patents pursuant to 35 U.S.C.156 et seq., as appropriate. CORPORATION shall keep NYU fully informed with respect to its submissions to governmental authorities for regulatory review for Licensed Products which may be eligible for patent term extension. CORPORATION acknowledges that time is of the essence with respect to submission of the application for patent term extension. CORPORATION shall send written notice of the Approval Date to NYU within [**] of the date a Licensed Product receives permission under the provision of the law under which the applicable regulatory review period occurred for commercial marketing or use ("Approval Date"). Within [**] after the Approval Date (and provided the relevant Licensed Patent is eligible for extension under 35 U.S.C.§156 et seq.) CORPORATION shall provide NYU with all necessary information in its possession (or under its control) and with reasonable assistance in preparing an application for patent term extension in compliance with 35 U.S.C. 156 et. seq. and any applicable governmental regulations. , if commercially appropriate. Provided CORPORATION and NYU agree to proceed, CORPORATION agrees to cooperate fully with NYU, at no cost to NYU, in preparing such application for patent term extension. If eligible, NYU shall file, in their own name, such application for patent term extension. Upon request by NYU or its designee, CORPORATION will join in such application for patent term extension. CORPORATION shall fully support such application and shall promptly provide such information as may reasonably be requested in support of the application by NYU or by the government.

5. Grant of License.

5.01. Subject to the terms and conditions hereinafter set forth, NYU hereby grants to CORPORATION and CORPORATION hereby accepts from NYU the License.

5.02. NYU reserves the right to use, and to permit other non-commercial entities to use, the NYU Technology for educational and research purposes.

5.03. The parties acknowledge that the United States government retains rights in intellectual property funded under any grant or similar contract with a Federal agency. The License is expressly subject to all applicable United States government rights, including, but not limited to, any applicable requirement that products, which result from such intellectual property and are sold in the United States, must be substantially manufactured in the United States.

5.04. The License granted to CORPORATION in Section 5.01 hereto shall commence upon the Effective Date and shall remain in force on a country-by-country basis, if not previously terminated under the terms of this Agreement, for twelve (12) years from the Date of First Commercial Sale in such country or until the expiration date of the last to expire of the NYU Patents whichever shall be later. CORPORATION shall inform NYU in writing of the Date of First Commercial Sale with respect to each Licensed Product in each country as soon as practicable after the making of each such first commercial sale.

5.05. CORPORATION shall be entitled to grant sublicenses under the License on terms and conditions in compliance and not inconsistent with the terms and conditions of this Agreement (except that the rate of royalty may be at higher rates than those set forth in this Agreement) (i) to an Affiliate or (ii) to other third parties, in each case for consideration and in an arms-length transaction. All sublicenses shall only be granted by CORPORATION under a written agreement, a copy of which shall be provided by CORPORATION to NYU as soon as practicable after the signing thereof, provided that any such copy may be redacted to remove any confidential, proprietary or competitive information of CORPORATION or its sublicensee, but such copy shall not be redacted to the extent it impairs NYU's ability to ensure compliance with this Agreement. Each sublicense granted by CORPORATION hereunder shall be subject and subordinate to the terms and conditions of this License Agreement and shall contain (inter-alia) the following provisions:

(1) the sublicense shall survive termination of the License provided that:

a) the sublicensee is in compliance with all terms of the sublicense, and

b) the sublicensee agrees in writing to assume all of the obligations of this Agreement, and

c) NYU shall have no obligations beyond those in this Agreement;

(2) the sublicense shall not be assignable, in whole or in part;

(3) the sublicensee shall not grant further sublicenses; and

(4) both during the term of the sublicense and thereafter the sublicensee shall agree to a confidentiality obligation similar to that imposed on CORPORATION in Section 9 below, and that the sublicensee shall impose on its employees, both during the terms of their employment and thereafter, a similar undertaking of confidentiality; and

(5) the sublicense agreement shall include the text of Sections 11 and 12 of this Agreement and shall state that NYU is an intended third party beneficiary of such sublicense agreement for the purpose of enforcing such indemnification and insurance provisions.

5.06. In the event that NYU identifies a potential Licensed Product that CORPORATION is not developing, and provides written notification to CORPORATION of such lack of development, then provided such Licensed Product does not address the same market as another Licensed Product which CORPORATION is commercializing, then:

i) CORPORATION may present to NYU within [**] a development plan, reasonably acceptable to NYU, to commercialize such Licensed Product, where the development plan brings such Licensed Product to market within a mutually agreed upon date, and thereafter executes the plan using commercially reasonable efforts.

ii) If CORPORATION does not provide NYU with and execute a development plan as described in i) above, then NYU may identify potential sublicensees to develop such Licensed Product and upon written notification to CORPORATION, CORPORATION shall negotiate in good faith and enter into a mutually acceptable sublicense with the potential sublicensee within [**] of such request; and

iii) If CORPORATION does not provide NYU with and execute a development plan as described in i) above or negotiate a sublicense agreement as described in ii) above, then the aforesaid Licensed Product shall thereafter be deleted from the Field, and NYU shall have the sole right to grant licenses to third parties to commercialize such Licensed Product.

6. Payments for License.

6.01. In consideration for the grant and during the term of the License with respect to each Licensed Product, CORPORATION shall pay to NYU:

(a) non-refundable license fees of [**] dollars ($[**]) on the Effective Date less a credit for the option fee of [**] dollars ($[**]) paid under the Option Agreement, [**] dollars ($[**]) each on each of the [**] anniversaries of the Effective Date, [**] dollars ($[**]) on the [**] anniversary of the Effective Date, [**] dollars ($[**]) on the [**] anniversary of the Effective Date, and [**] dollars ($[**]) each on the [**] and each succeeding anniversary of the Effective Date, which shall be creditable against royalties on sales due to NYU under Section 6.01(c) below for sales during the respective Calendar Year in which each such license fee payment is due.

(b) upon the first achievement of each of the following technical milestones, with respect to any Licensed Product, the payments as indicated below:

Milestone Payments

[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

(c) a royalty of

(i) (a) [**] percent ([**]%) of Net Sales in each Calendar Year up to [**] dollars ($[**]) and (b) [**] percent ([**]%) of Net Sales in each Calendar Year in excess of [**] dollars ($[**]) for Licensed Products which are covered under Section 1.06(i); and

(ii) [**] percent ([**]%) of all Net Sales for Licensed Products which are covered under Section 1.06(ii) but are not covered under Section 1.06(i).

(d) A percentage of any Sublicense Revenue according to the following schedule:

(i) [**] percent ([**]%) if the Sublicense Date is prior to the [**]; and

(ii) [**] percent ([**] %) if the Sublicense Date is after the [**];

(iii) [**] percent ([**] %) if the Sublicense Date is after [**]; and

(iv) [**] percent ([**]%) if the Sublicense Date is after [**].

6.02. For the purpose of computing the royalties due to NYU hereunder, the year shall be divided into four parts ending on March 31, June 30, September 30, and December 31. Not later than [**] after each December, March, June, and September in each Calendar Year during the term of the License, CORPORATION shall submit to NYU a full and detailed report of royalties or payments due NYU under the terms of this Agreement for the preceding quarter year (hereinafter "the Quarter-Year Report"), setting forth the Net Sales and/or lump sum payments and all other payments or consideration from sublicensees upon which such royalties are computed and including at least:

i) the quantity of Licensed Products used, sold, transferred or otherwise disposed of;

ii) the selling price of each Licensed Product;

iii) the deductions permitted under Section 1.07 to arrive at Net Sales; and

iv) the royalty computations and subject of payment.

If no royalties or other payments are due, a statement shall be sent to NYU stating such fact. Payment of the full amount of any royalties or other payments due to NYU for the preceding quarter year shall accompany each Quarter-Year Report on royalties and payments. CORPORATION shall keep for a period of at least [**] after the date of entry, full, accurate and compete books and records consistent with sound business and accounting practices and in such form and in such detail as to enable the determination of the amounts due to NYU from CORPORATION pursuant to the terms of this Agreement.

6.03. Within [**] after the end of each Calendar Year, commencing on the Date of First Commercial Sale CORPORATION shall furnish NYU with a report (hereinafter "the Annual Report"), certified by an independent certified public accountant, relating to the royalties and other payments due to NYU pursuant to this Agreement in respect of the Calendar Year covered by such Annual Report and containing the same details as those specified in Section 6.02 above in respect of the Quarter-Year Report.

6.04. On reasonable notice and during regular business hours, NYU or the authorized professional accounting representative of NYU shall each have the right to inspect the books of accounts, records and other relevant documentation of CORPORATION or of Affiliate and the sublicensees of CORPORATION insofar as they relate to the production, marketing and sale of the Licensed Products, in order to ascertain or verify the amount of royalties and other payments due to NYU hereunder, and the accuracy of the information provided to NYU in the aforementioned reports. The cost of such inspection shall be borne by NYU, unless it is determined in such inspection that NYU has been underpaid in any period by more than [**] percent ([**]%) of the amount which NYU should have been paid, in which case the cost of such inspection shall be reimbursed to NYU by CORPORATION.

7. Method of Payment.

7.01. Royalties and other payments due to NYU hereunder shall be paid to NYU in United States dollars. Any such royalties on or other payments relating to transactions in a foreign currency shall be converted into United States dollars based on the closing buying rate for buying United States dollars listed on www.oanda.com for the particular currency on the last business day of the accounting period for which such royalty or other payment is due.

7.02. CORPORATION shall be responsible for payment to NYU of all royalties due on sale, transfer or disposition of Licensed Products by each Affiliate and sublicensee of CORPORATION.

7.03. Any amount payable hereunder by one of the parties to the other, which is not reasonably disputed and which has not been paid by the date on which such payment is due, shall bear interest from such date until the date on which such payment is made, at the rate of [**] percent ([**]%) per annum in excess of the prime rate prevailing at the Citibank, N.A., in New York, New York, during the period of arrears and such amount and the interest thereon may be set off against any amount due, whether in terms of this Agreement or otherwise, to the party in default by any non-defaulting party.

8. Development and Commercialization.

8.01. CORPORATION undertakes to use reasonable diligence to carry out the Development Plan (annexed hereto as Appendix II and which is an integral part of this Agreement), including but not limited to, the performance of all efficacy, pharmaceutical, safety, toxicological and clinical tests, trials and studies and all other activities necessary in order to obtain the approval of the FDA for the production, use and sale of the Licensed Products, all as set forth in the Development Plan and within all timetables set forth therein. CORPORATION further undertakes to exercise due diligence and to employ its reasonable diligence to obtain or to cause its sublicensees to obtain, the appropriate approvals of the health authorities for the production, use and sale of the Licensed Products, in each of the other countries of the world in which CORPORATION or its sublicensees intend to produce, use, and/or sell Licensed Products.

8.02. Provided that applicable laws, rules and regulations require that the performance of the tests, trials, studies and other activities specified in Section 8.01 above shall be carried out in accordance with FDA Good Laboratory Practices and in a manner acceptable to the relevant health authorities, CORPORATION shall carry out such tests, trials, studies and other activities in accordance with FDA Good Laboratory Practices and in a manner acceptable to the relevant health authorities. Furthermore, the Licensed Products shall be produced in accordance with FDA Good Manufacturing Practice ("GMP") procedures in a facility which has been certified by the FDA as complying with GMP, provided that applicable laws, rules and regulations so require.

8.03. CORPORATION undertakes to begin the regular commercial production, use, and sale of the Licensed Products in good faith in accordance with the Development Plan and to continue diligently thereafter to commercialize the Licensed Products.

8.04. CORPORATION shall provide NYU with written reports on all significant activities and actions undertaken by CORPORATION to develop and commercialize the Licensed Products; such reports shall be made within [**] after each [**] of the duration of this Agreement, commencing [**] after the Effective Date.

8.05. If CORPORATION shall not commercialize the Licensed Products within a reasonable time frame, unless such delay is necessitated by FDA or other regulatory agencies or unless NYU and CORPORATION have mutually agreed to amend the Development Plan because of unforeseen circumstances, NYU shall notify CORPORATION in writing of CORPORATION's failure to commercialize and shall allow CORPORATION [**] to cure its failure to commercialize. CORPORATION's failure to cure such delay to NYU's reasonable satisfaction within such [**] period shall be a material breach of this Agreement.

9. Confidential Information.

9.01. Except as otherwise provided in Sections 9.02 and 9.03 below, each party shall maintain any and all confidential information of the other party in confidence, including, in the case of CORPORATION, the NYU Technology and in the case of NYU, limited to the reports provided by CORPORATION to NYU hereunder (collectively, the "Confidential Information"), and shall not release or disclose any tangible or intangible component thereof to any third party without first receiving the prior written consent of the other party to said release or disclosure.

9.02. The obligation of confidentiality set forth in Section 9.01 shall not apply to any component of the Confidential Information which was part of the public domain prior to the Effective Date or which becomes a part of the public domain not due to some unauthorized act by or omission of the receiving party after the Effective Date or which is disclosed to the receiving party by a third party who has the right to make such disclosure, or is independently developed by personnel of the receiving party without access to the Confidential Information of the disclosing party.

9.03. The provisions of Section 9.01 notwithstanding, CORPORATION may disclose the NYU Technology to third parties who need to know the same in order to secure regulatory approval for the sale of Licensed Products, provided however, that such third parties are bound by written agreement by obligations of confidentiality at least as restrictive as those contained herein.

10. Infringement of NYU Patent.

10.01. In the event a party to this Agreement acquires information that a third party is infringing one or more of the NYU Patents, the party acquiring such information shall promptly notify the other party to the Agreement in writing of such infringement.

10.02. In the event of an infringement of an NYU Patent, CORPORATION shall be privileged but not required to bring suit against the infringer. Should CORPORATION elect to bring suit against an infringer and NYU is joined as a party plaintiff in any such suit, NYU shall have the right to approve the counsel selected by CORPORATION to represent CORPORATION and NYU. The expenses of such suit or suits that CORPORATION elects to bring, including any expenses of NYU incurred in conjunction with the prosecution of such suit or the settlement thereof, shall be paid for entirely by CORPORATION and CORPORATION shall hold NYU free, clear and harmless from and against any and all costs of such litigation, including attorneys' fees. CORPORATION shall not compromise or settle such litigation without the prior written consent of NYU, which shall not be unreasonably withheld.

10.03. In the event CORPORATION exercises the right to sue herein conferred, it shall have the right to first reimburse itself out of any sums recovered in such suit or in settlement thereof for all costs and expenses of every kind and character, including reasonable attorneys' fees, necessarily involved in the prosecution of any such suit, and if after such reimbursement, any funds shall remain from said recovery, CORPORATION shall promptly pay to NYU an amount equal to [**] percent ([**]%) of such remainder and CORPORATION shall be entitled to receive and retain the balance of the remainder of such recovery.

10.04. If CORPORATION does not bring suit against said infringer pursuant to Section 10.02 herein, or has not commenced negotiations with said infringer for discontinuance of said infringement, within [**] after receipt of such notice, NYU shall have the right, but shall not be obligated, to bring suit for such infringement. Should NYU elect to bring suit against an infringer and CORPORATION is joined as a party plaintiff in any such suit, CORPORATION shall have the right to approve the counsel selected by NYU to represent NYU and CORPORATION, and NYU shall hold CORPORATION free, clear and harmless from and against any and all costs and expenses of such litigation, including attorneys' fees. If CORPORATION has commenced negotiations with an alleged infringer of the NYU Patent for discontinuance of such infringement within such [**] period, CORPORATION shall have an additional [**] from the termination of such initial [**] period to conclude its negotiations before NYU may bring suit for such infringement. In the event NYU brings suit for infringement of any NYU Patent, NYU shall have the right to settle any such suit by licensing the alleged infringer. In the event NYU brings suit for infringement of any NYU Patent, NYU shall have the right to first reimburse itself out of any sums recovered in such suit or settlement thereof for all costs and expenses of every kind and character, including reasonable attorneys' fees necessarily involved in the prosecution of such suit, and if after such reimbursement, any funds shall remain from said recovery, NYU shall promptly pay to CORPORATION an amount equal to [**] percent ([**]%) of such remainder and NYU shall be entitled to receive and retain the balance of the remainder of such recovery.

10.05. Each party shall always have the right to be represented by counsel of its own selection in any suit for infringement of the NYU Patents instituted by the other party to this Agreement under the terms hereof. The expense of such counsel shall be borne by the party initiating such infringement suit.

10.06. CORPORATION agrees to cooperate fully with NYU at the request of NYU, including, by giving testimony and producing documents lawfully requested in the prosecution of any suit by NYU for infringement of the NYU patents; provided, NYU shall pay all reasonable expenses (including attorneys' fees) incurred by CORPORATION in connection with such cooperation. NYU shall cooperate and shall endeavor to cause the NYU Scientist to cooperate with CORPORATION at the request of CORPORATION, including by giving testimony and producing documents lawfully requested, in the prosecution of any suit by CORPORATION for infringement of the NYU Patents; provided, that CORPORATION shall pay all reasonable expenses (including attorneys' fees) incurred by NYU in connection with such cooperation.

11. Liability and Indemnification.

11.01. CORPORATION shall indemnify, defend and hold harmless NYU and its trustees, officers, medical and professional staff, employees, students and agents and their respective successors, heirs and assigns (the "Indemnitees"), against any liability, damage, loss or expense (including reasonable attorneys' fees and expenses of litigation) incurred by or imposed upon the Indemnitees or any one of them in connection with any claims, suits, actions, demands or judgments (i) arising out of the design, production, manufacture, sale, use in commerce or in human clinical trials, lease, or promotion by CORPORATION or by a licensee, Affiliate or agent of CORPORATION of any Licensed Product, process or service relating to, or developed pursuant to, this Agreement or (ii) arising out of any other activities to be carried out pursuant to this Agreement.

11.02. With respect to an Indemnitee, CORPORATION's indemnification under subsection 11.01(i) shall apply to any liability, damage, loss or expense whether or not it is attributable to the negligent activities of such Indemnitee, however, such indemnification shall not apply to any liability, damage, loss or expense to the extent it results from the gross negligence or willful misconduct of any Indemnitee. CORPORATION's indemnification obligation under subsection 11.01(ii) shall not apply to any liability, damage, loss or expense to the extent that it is attributable to the negligent activities of any such Indemnitee.

11.03. CORPORATION agrees, at its own expense, to provide attorneys reasonably acceptable to NYU to defend against any actions brought or filed against any Indemnitee with respect to the subject of indemnity to which such Indemnitee is entitled hereunder, whether or not such actions are rightfully brought.

12. Security for Indemnification.

12.01. At such time as any Licensed Product, process or service relating to, or developed pursuant to, this Agreement is being commercially distributed or sold or tested in clinical trials by CORPORATION or by a licensee, Affiliate or agent of CORPORATION, CORPORATION shall at its sole cost and expense, procure and maintain policies of comprehensive general liability insurance in amounts not less than (i) $[**] per incident and $[**] annual aggregate during the period that such Licensed Product, process, or service is being tested in clinical trials prior to commercial sale, and (ii) $[**] per incident and $[**] annual aggregate during the period that such Licensed Product, process, or service is being commercially distributed or sold, and in each case naming the Indemnitees as additional insureds. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for CORPORATION's indemnification under Section 11 of this Agreement.

The minimum amounts of insurance coverage required under this Section 12 shall not be construed to create a limit of CORPORATION's liability with respect to its indemnification under Section 11 of this Agreement.

12.02. CORPORATION shall provide NYU with written evidence of such insurance upon request of NYU. CORPORATION shall provide NYU with written notice at least [**] prior to the cancellation, non-renewal or material change in such insurance; if CORPORATION does not obtain replacement insurance providing comparable coverage within such [**] period, NYU shall have the right to terminate this Agreement effective at the end of such [**] period without notice or any additional waiting periods.

12.03. CORPORATION shall maintain such comprehensive general liability insurance beyond the expiration or termination of this Agreement during (i) the period that any product, process or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold or tested in clinical trials by CORPORATION or by a sublicensee, Affiliate or agent of CORPORATION and (ii) a reasonable period after the period referred to in (i) above which in no event shall be less than [**].

13. Expiry and Termination

13.01. Unless earlier terminated pursuant to this Section 13, this Agreement shall expire upon the expiration of the period of the License in all countries as set forth in Section 5.04 above.

13.02. At any time prior to expiration of this Agreement, either party may terminate this Agreement forthwith for cause, as "cause" is described below, by giving written notice to the other party. Cause for termination by one party of this Agreement shall be deemed to exist if the other party materially breaches or defaults in the performance or observance of any of the provisions of this Agreement and such breach or default is not cured within [**] or, in the case of failure to pay any amounts due hereunder, [**] (unless otherwise specified herein) after the giving of notice by the other party specifying such breach or default, or if either NYU or CORPORATION discontinues its business or becomes insolvent or bankrupt.

13.03. Upon termination of this Agreement for any reason and prior to expiration as set forth in Section 13.01 hereof, all rights in and to the NYU Technology shall revert to NYU, and (i) CORPORATION shall not be entitled to make any further use of the NYU Technology; (ii) CORPORATION shall not be entitled to develop, manufacture, use or sell the Licensed Products; and (iii) CORPORATION shall terminate any license or conveyance of rights to third parties to make any use of the NYU Technology or to develop, manufacture, use or sell the Licensed Products, with the exception of any sublicenses in good standing, which shall be treated in accordance with Section 5.05(1) of this Agreement, and CORPORATION shall not subsequently enter into any such license or conveyance with a third party.

13.04. Termination of this Agreement shall not relieve either party of any obligation to the other party incurred prior to such termination.

13.05. Sections 3, 6.02, 6.03, 6.04, 9, 11, 12, 13, 16, 18 and 19 hereof shall survive and remain in full force and effect after any termination, cancellation or expiration of this Agreement.

14. Representations and Warranties by CORPORATION.

CORPORATION hereby represents and warrants to NYU as follows:

(1) CORPORATION is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. CORPORATION has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. The execution, delivery and performance of this Agreement have been duly authorized by the Board of Directors of CORPORATION.

(2) There is no pending or, to CORPORATION's knowledge, threatened litigation involving CORPORATION which would have any effect on this Agreement or on CORPORATION's ability to perform its obligations hereunder; and

(3) There is no indenture, contract, or agreement to which CORPORATION is a party or by which CORPORATION is bound which prohibits or would prohibit the execution and delivery by CORPORATION of this Agreement or the performance or observance by CORPORATION of any term or condition of this Agreement.

15. Representations and Warranties by NYU.

NYU hereby represents and warrants to CORPORATION as follows:

(1) NYU is a corporation duly organized, validly existing and in good standing under the laws of the State of New York. NYU has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. The execution, delivery and performance of this Agreement have been duly authorized by the Board of Trustees of NYU.

(2) There is no pending or, to NYU's knowledge, threatened litigation involving NYU which would have any effect on this Agreement or on NYU's ability to perform its obligations hereunder; and

(3) There is no indenture, contract, or agreement to which NYU is a party or by which NYU is bound which prohibits or would prohibit the execution and delivery by NYU of this Agreement or the performance or observance by NYU of any term or condition of this Agreement.

16. Fair Market Value.

The parties agree and acknowledge that the compensation provided under the terms of this Agreement is consistent with the fair market value of the license contemplated by this Agreement negotiated in arm's-length transactions, is not given in exchange for any implicit or explicit agreement to provide favorable procurement decisions with regard to the CORPORATION's products or services, and has not been determined in any manner which takes into account the value or volume of any business generated between the parties, including any of their affiliates.

17. No Assignment.

Neither CORPORATION nor NYU shall have the right to assign, delegate or transfer at any time to any party, in whole or in part, any or all of the rights, duties and interest herein granted without first obtaining the written consent of the other to such assignment, such consent not to be unreasonably withheld, delayed, or conditioned. Further, either party may, without consent of the other party, assign its rights and obligations under this Agreement to any legal entity to which it transfers all or substantially all of its assets or business to which this Agreement relates, provided that the assignee undertakes to the other party to be bound by and perform the obligations of the assignor under this Agreement. NYU shall receive a percentage of any consideration received by CORPORATION for any permitted assignment as if such consideration was sublicensing consideration pursuant to Section 6.01.d.

18. Use of Name.

Without the prior written consent of the other party, neither CORPORATION nor NYU shall use the name of the other party or any adaptation thereof or of any staff member, employee or student, of the other party: (i) in any product labeling, advertising, promotional or sales literature; or (ii) in connection with any public offering or private placement documentation or prospectus or in conjunction with any application for regulatory approval, unless disclosure is otherwise required by law, in which case either party may make factual statements concerning the Agreement or file copies of the Agreement after providing the other party with an opportunity to comment and reasonable time within which to do so on such statement in draft.

Except as provided herein, neither NYU nor CORPORATION will issue public announcements about this Agreement without prior written approval of the other party.

19. Miscellaneous.

19.01. In carrying out this Agreement the parties shall comply with all local, state and federal laws and regulations including but not limited to, the provisions of Title 35 United States Code §200 et seq. and 15 CFR §§730-774.

19.02. If any provision of this Agreement is determined to be invalid or void, the remaining provisions shall remain in effect.

19.03. This Agreement shall be governed by and construed in accordance with the laws of New York, without regard to principles relating to conflicts of law. The courts of the State of New York in New York County and the United States District Court for the Southern District of New York shall have exclusive jurisdiction over the parties with respect to any dispute or controversy between them arising under or in connection with this Agreement and, by execution and delivery of this Agreement, the parties to this Agreement submit to the jurisdiction of those courts, including, but not limited to, the in personam and subject matter jurisdiction of those courts, waive any objection to such jurisdiction on the grounds of venue or forum non conveniens, the absence of in personam or subject matter jurisdiction and any similar grounds, consent to service of process by mail in accordance with Section 19.04 or any other manner permitted by law and irrevocably agree to be bound by any such judgment rendered thereby in connection with this Agreement. These consents to jurisdiction shall not be deemed to confer rights on any person other than the parties to this Agreement.

19.04. All payments or notices required or permitted to be given under this Agreement shall be given in writing and shall be effective when either personally delivered or deposited, postage prepaid, in the United States registered or certified mail, or sent via a recognized national overnight delivery service (e.g., Federal Express or DHL), addressed as follows:

To NYU: New York University
Office of Industrial Liaison
One Park Avenue, 6th Floor
New York, NY 10016

Attention: Abram M. Goldfinger
Executive Director,
Industrial Liaison/Technology Transfer

With a copy of notices to:

Annette B. Johnson, Esq.
Senior Counsel, NYU School of Medicine
NYU Langone Health
550 First Ave. HCC 15
New York, NY 10016

To CORPORATION:

3675 Market Street,
Ste 200, Philadelphia, PA, 19104
Attention: Dr. Tom Wilton CEO

or such other address or addresses as either party may hereafter specify by written notice to the other. Such notices and communications shall be deemed effective on the date of delivery or fourteen (14) days after having been sent by registered or certified mail, whichever is earlier.

19.05. This Agreement (and the annexed appendices) constitute the entire Agreement between the parties relating to the subject matter hereof, and no variation, modification or waiver of any of the terms or conditions hereof shall be deemed valid unless made in writing and signed by both parties hereto. This Agreement supersedes any and all prior agreements or understandings, whether oral or written, between CORPORATION and NYU relating to the subject matter hereof.

19.06. No waiver by either party of any non-performance or violation by the other party of any of the covenants, obligations or agreements of such other party hereunder shall be deemed to be a waiver of any subsequent violation or non-performance of the same or any other covenant, agreement or obligation, nor shall forbearance by either party be deemed to be a waiver by such party of its rights or remedies with respect to such violation or non-performance.

19.07. The descriptive headings contained in this Agreement are included for convenience and reference only and shall not be held to expand, modify or aid in the interpretation, construction or meaning of this Agreement.

19.08. It is not the intent of the parties to create a partnership or joint venture or to assume partnership responsibility or liability. The obligations of the parties shall be limited to those set out herein and such obligations shall be several and not joint.

19.09. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, and all of which will constitute one and the same instrument. Each party may execute this Agreement by facsimile transmission or in Portable Document Format sent by electronic means. Signatures of authorized signatories of the parties transmitted by facsimile or sent by electronic means in Portable Document Format shall be deemed to be original signatures, shall be valid and binding, and, upon delivery, shall constitute due execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective as of the date and year first above written.

NEW YORK UNIVERSITY	**CORPORATION**
By: /s/ Abram M. Goldfinger	By: /s/ Steven Kelly
Abram M. Goldfinger	Name: Steven Kelly
Executive Director,	Title: President and CEO
Industrial Liaison/Technology Transfer	
Date: July 24, 2020	Date: July 27, 2020

EXHIBIT 21.1

Subsidiaries of Sesen Bio, Inc.

Subsidiary	Jurisdiction of Incorporation
Viventia Bio Inc.	Province of Ontario, Canada
Viventia Bio USA Inc.	Province of Ontario, Canada
Seahawk Merger Sub, Inc.	Delaware

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated October 14, 2022, with respect to the consolidated financial statements of CARISMA Therapeutics Inc., included herein and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ KPMG LLP

Philadelphia, Pennsylvania
October 14, 2022

EXHIBIT 23.3

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated February 28, 2022, included in the Proxy Statement of Sesen Bio, Inc. that is made part of the Registration Statement (Form S-4) and Prospectus of Sesen Bio, Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Boston, Massachusetts
October 14, 2022

EXHIBIT 99.4

CONSENT OF SVB SECURITIES LLC

We hereby consent to the use of our opinion letter dated September 20th, 2022 to the Board of Directors of Sesen Bio, Inc., included as Annex B to the proxy statement/prospectus which forms a part of the Registration Statement on Form S-4 of Sesen Bio, Inc. to be filed on the date hereof, and to the references to such opinion in such proxy statement/prospectus under the captions: "Prospectus Summary – Opinion of Sesen Bio's Financial Advisor," "The Merger – Background of the Merger," "The Merger – Sesen Bio Reasons for the Merger" and "The Merger – Opinion of Sesen Bio's Financial Advisor". In giving such consent, we do not admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission thereunder, nor do we thereby admit that we are experts with respect to any part of such Registration Statement within the meaning of the term "expert" as used in the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission thereunder. Additionally, such consent does not cover any amendments to the Registration Statement.

/s/ SVB SECURITIES LLC

New York, New York
October 14, 2022

EXHIBIT 99.5

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Sanford Zweifach
Sanford Zweifach

EXHIBIT 99.6

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Regina Hodits, Ph.D.

Regina Hodits, Ph.D.

EXHIBIT 99.7

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Steven Kelly

Steven Kelly

EXHIBIT 99.8

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Briggs Morrison, M.D.

Briggs Morrison, M.D.

EXHIBIT 99.9

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Björn Odlander, M.D., Ph.D.

Björn Odlander, M.D., Ph.D.

EXHIBIT 99.10

CONSENT OF PERSON NAMED AS ANTICIPATED TO BECOME A DIRECTOR

October 14, 2022

Pursuant to Rule 438 promulgated under the Securities Act of 1933, as amended, I hereby consent to my being named in the registration statement on Form S-4 of Sesen Bio, Inc. (the "**Company**"), and all amendments thereto (the "**Registration Statement**") and any related prospectus filed pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, or related proxy statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934, as amended (including any amendments or supplements thereto), as a person anticipated to become a director of the Company upon completion of the merger described therein, and to the filing of this consent as an exhibit to the Registration Statement.

Sincerely,

/s/ Chidozie Ugwumba
Chidozie Ugwumba

Exhibit 107

Calculation of Filing Fee Tables

Form S-4
(Form Type)

SESEN BIO, INC.
(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to Be Paid	Equity	Common Stock, $0.001 par value per share	Other	440,794,480 (1)	—	$584.10 (2)	$0.00011020	$0.06				
Fees Previously Paid	—	—	—	—	—	—		—				
Carry Forward Securities												
Carry Forward Securities	—	—	—	—		—			—	—	—	—
	Total Offering Amounts					$584.10 (2)	—	$0.06				
	Total Fees Previously Paid							—				
	Total Fee Offsets							—				
	Net Fee Due							$0.06				

(1) Relates to common stock, $0.001 par value per share, of Sesen Bio, Inc., a Delaware corporation, or Sesen Bio, issuable to holders of common stock, $0.0001 par value per share, and preferred stock, $0.0001 par value per share, of CARISMA Therapeutics Inc., a Delaware corporation, or Carisma, in the proposed merger of Seahawk Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of Sesen Bio, with and into Carisma, with Carisma surviving as a wholly-owned subsidiary of Sesen Bio, or the merger. The amount of Sesen Bio common stock to be registered reflects the estimated maximum number of shares of Sesen Bio common stock that are expected to be issued pursuant to the merger, without taking into account the effect of a reverse stock split of Sesen Bio common stock, assuming a pre-split exchange ratio (which is subject to adjustment prior to the closing of the merger) of 24.5844 shares of Sesen Bio common stock for each outstanding share of Carisma common stock and share of Carisma preferred stock.

(2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(f)(2) of the Securities Act of 1933, as amended. Carisma is a private company, no market exists for its securities, and Carisma has an accumulated capital deficit. Therefore, the proposed maximum aggregate offering price is equal to one-third of the aggregate par value of the Carisma securities expected to be exchanged in the proposed merger.