

**PROSPECTUS**



**162,336,800 Shares of Common Stock**

This prospectus relates to the proposed resale or other disposition by the selling securityholders identified in this prospectus of up to (i) 129,869,440 shares of our common stock, par value \$0.0001 per share and (ii) up to 32,467,360 shares of common stock issuable upon the exercise of warrants to acquire shares of common stock by the selling securityholders identified in this prospectus, including their transferees, pledgees, donees or successors. The securities being offered were issued and sold to accredited investors in a private placement, which closed on July 19, 2023. We are not selling any shares of common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of common stock by the selling securityholders. However, we will generate proceeds in the event of a cash exercise of some or all of the warrants by the selling securityholders. All expenses of registration incurred in connection with this offering are being borne by us. All selling and other expenses incurred by the selling securityholders will be borne by the selling securityholders.

The selling securityholders may, from time to time, sell, transfer, or otherwise dispose of any or all of their securities on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market, in one or more transactions otherwise than on these exchanges or systems, such as privately negotiated transactions, or using a combination of these methods, and at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. See the disclosure under the heading “Plan of Distribution” elsewhere in this prospectus for more information about how the selling securityholders may sell or otherwise dispose of their securities hereunder. The selling securityholders may sell any, all or none of the securities offered by this prospectus and we do not know when or in what amount the selling securityholders may sell their securities hereunder following the effective date of the registration statement of which this prospectus forms a part.

**INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE “[RISK FACTORS](#)” ON PAGE 6 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.**

Our common stock is listed on the Nasdaq Global Select Market under the symbol “GOSS.” On August 25, 2023, the last reported sale price of our common stock on the Nasdaq Global Select Market was \$1.02 per share.

**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 this prospectus. Any representation to the contrary is a criminal offense.**

**The date of this prospectus is August 28, 2023.**

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
<a href="#">ABOUT THIS PROSPECTUS</a>	<a href="#">3</a>
<a href="#">WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE</a>	<a href="#">3</a>
<a href="#">THE COMPANY</a>	<a href="#">5</a>
<a href="#">RISK FACTORS</a>	<a href="#">6</a>
<a href="#">CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</a>	<a href="#">7</a>
<a href="#">USE OF PROCEEDS</a>	<a href="#">8</a>
<a href="#">DESCRIPTION OF SECURITIES</a>	<a href="#">9</a>
<a href="#">SELLING SECURITYHOLDERS</a>	<a href="#">15</a>
<a href="#">PLAN OF DISTRIBUTION</a>	<a href="#">24</a>
<a href="#">LEGAL MATTERS</a>	<a href="#">26</a>
<a href="#">EXPERTS</a>	<a href="#">26</a>

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a “shelf” registration process. By using a shelf registration statement, the selling securityholders may sell securities from time to time and in one or more offerings as described in this prospectus. We may authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable free writing prospectus, you should rely on the free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and any applicable free writing prospectuses, together with the additional information described under the heading “Where You Can Find More Information; Incorporation by Reference.”

Neither we nor the selling securityholders have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We and the selling securityholders take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The selling securityholders will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

When we refer to “Gossamer,” “we,” “our,” “us” and the “Company” in this prospectus, we mean Gossamer Bio, Inc. and its subsidiaries, unless otherwise specified. When we refer to “you,” we mean the holders of the applicable series of securities.

This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

## WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

### Available Information

We file reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

Our website address is [www.gossamerbio.com](http://www.gossamerbio.com). The information on, or accessible through, our website, however, is not, and should not be deemed to be, a part of this prospectus.

This prospectus is part of a registration statement that we filed with the SEC and does not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement or

documents incorporated by reference in the registration statement. Statements in this prospectus about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC’s website, as provided above.

## **Incorporation by Reference**

The SEC’s rules allow us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus incorporates by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2022, filed with the SEC on March 17, 2023;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023 and June 30, 2023, filed with the SEC on [May 9, 2023](#) and [August 8, 2023](#), respectively;
- the information specifically incorporated by reference into our Annual Report on Form 10-K from our Definitive Proxy Statement on [Schedule 14A](#), as supplemented by the Definitive Additional Materials on Schedule 14A, filed with the SEC on May 9, 2023;
- our Current Reports on Form 8-K filed with the SEC on [April 3, 2023](#), [June 9, 2023](#), [July 20, 2023](#) and [July 20, 2023](#); and
- the description of our common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on February 4, 2019, as updated by [Exhibit 4.3](#) to our Annual Report on Form 10-K for the year ended December 31, 2021, and any amendment or report filed with the SEC for the purpose of updating the description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

Gossamer Bio, Inc.  
Attention: Corporate Secretary  
3013 Science Park Road  
San Diego, CA 92121  
(858) 684-1300

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus.

## THE COMPANY

We are a clinical-stage biopharmaceutical company focused on developing and commercializing seralutinib for the treatment of pulmonary arterial hypertension, or PAH. In December 2022, we announced positive topline results from the Phase 2 TORREY Study in PAH patients. Upon completion of the 24-week blinded portion of the Phase 2 TORREY Study, patients were able to enroll into an open-label extension trial. We reported interim results from this ongoing open-label extension trial in July 2023, and we expect to release updated results from this open-label extension trial in the fourth quarter of 2023 or the first quarter of 2024. We expect to initiate a Phase 3 program in PAH in the third quarter of 2023. We expect to begin clinical development of seralutinib for the treatment of pulmonary hypertension associated with interstitial lung disease in the first half of 2024. We have assembled a deeply experienced and highly skilled group of industry veterans, scientists, clinicians and key opinion leaders from leading biotechnology and pharmaceutical companies, as well as leading academic centers from around the world. Our employees are a team of highly dedicated, passionate individuals who pride themselves on a culture of respect, humility, transparency, inclusion, dedication, collaboration and fun. Our ultimate goal is to enhance and extend the lives of patients.

We were incorporated under the laws of the state of Delaware on October 26, 2015 under the name FSG, Bio, Inc. and changed our name to Gossamer Bio, Inc. in 2017. Our principal executive offices are located at 3013 Science Park Road, San Diego, California 92121, and our telephone number is (858) 684-1300.

## **RISK FACTORS**

Investment in any securities offered pursuant to this prospectus involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in any applicable free writing prospectus before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 21E of the Exchange Act. All statements other than statements of historical facts contained in this prospectus and the documents incorporated by reference herein, including statements regarding our future results of operations and financial position, business strategies and plans, research and development plans, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and planned clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates, timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated products, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. This prospectus and the documents incorporated by reference herein also contain estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus and the documents incorporated by reference herein are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions, which we discuss in greater detail in the documents incorporated by reference herein, including under the heading “Risk Factors” and elsewhere in this prospectus. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained in this prospectus or the documents incorporated by reference herein, whether as a result of any new information, future events, changed circumstances or otherwise. For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

## **USE OF PROCEEDS**

We will not receive any of the proceeds from the sale of shares of our common stock in this offering. We will receive proceeds from the exercise of the warrants for cash, if any, but not from the sale of the shares of common stock issuable upon such exercise. Unless otherwise disclosed in a prospectus supplement, we intend to use any net proceeds from the exercise of warrants to fund the development and potential commercialization of seralutinib and for working capital and general corporate purposes.

The selling securityholders will pay any underwriting discounts and commissions and expenses incurred by the selling securityholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling securityholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the securities covered by this prospectus, including all registration and filing fees, fees and expenses of our counsel and of our independent registered public accountants.



## DESCRIPTION OF SECURITIES

*The following summary describes our securities and the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, the amended and restated investors' rights agreement to which we and certain of our stockholders are parties and of the Delaware General Corporation Law, or the DGCL. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investors' rights agreement, copies of which have been publicly filed with the SEC. See "Where You Can Find More Information; Incorporation by Reference."*

### General

Our authorized capital stock consists of 700,000,000 shares of common stock, par value \$0.0001 per share, and 70,000,000 shares of preferred stock, par value \$0.0001 per share.

### Common Stock

Under the terms of our amended and restated certificate of incorporation, holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the outstanding shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose, other than any directors that holders of any preferred stock we may issue may be entitled to elect. Subject to the supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our amended and restated certificate of incorporation.

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared by the board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the assets legally available for distribution to stockholders after the payment of or provision for all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking funds provisions applicable to the common stock. All outstanding shares of common stock are, and the common stock to be outstanding upon the closing of this offering will be, duly authorized, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

### Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

### Preferred Stock

We currently have no outstanding shares of preferred stock. Under the terms of our amended and restated certificate of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 70,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the dividend, voting and other rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a

change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Prior to the issuance of shares of each series, the board of directors is required by the General Corporation Law of the State of Delaware, or the DGCL, and our amended and restated certificate of incorporation to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation fixes for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions, including dividend rights, conversion rights, redemption privileges and liquidation preferences.

When we issue shares of preferred stock, the shares will be fully paid and nonassessable and will not have any preemptive or similar rights. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock.

## **Warrants**

On July 19, 2023, we entered into a securities purchase agreement with certain purchasers named therein, pursuant to which we sold 129,869,440 shares of our common stock and warrants to purchase up to 32,467,360 shares of our common stock.

*The material terms and provisions of the warrants are summarized below. This summary is subject to and qualified in its entirety by the form of warrant, which was filed with the SEC as Exhibit 4.1 to our Current Report on Form 8-K on July 20, 2023.*

The warrants have an exercise price of \$2.04 per share of common stock and are exercisable until July 24, 2028. The exercise price and number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting shares of common stock. However, the exercise price of the warrants will not be adjusted below the par value of the common stock.

We issued the warrants in certificated form. A holder of a warrant certificate may exercise such warrant, in whole or in part, with the notice of exercise form attached to the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price for the number of warrants being exercised.

Under the terms of the warrants, we may not effect the exercise of any warrant, and a holder will not be entitled to exercise any portion of any warrant, which, upon giving effect to such exercise, would cause the holder (together with its affiliates) to beneficially own a number of shares of our common stock in excess of 4.99%, 9.99%, 14.99% or 19.99% (the percentage that was elected by each holder prior to the issuance of the warrants) of the number of shares of our stock then outstanding after giving effect to such exercise, or the Warrant Beneficial Ownership Limitation; provided, however, that upon notice to us, the holder may increase or decrease the Warrant Beneficial Ownership Limitation to any other percentage not in excess of 19.99% (or, upon election by a holder delivered to us prior to the issuance of any warrants, 9.99%) and any increase in the Warrant Beneficial Ownership Limitation will not be effective until 61 days after such notice is delivered by the holder to us.

The holders of the warrants must pay the exercise price by wire transfer upon exercise of the warrants. If at any time there is no effective registration statement registering, or the prospectus contained therein is not available for, the resale of the shares of common stock underlying the warrants by the holder, then the warrants may be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the holder of such warrants shall be entitled to receive that number of warrant shares determined according to the following formula:

$$\frac{[(A - B) * (X)]}{(A)}$$

Where:

A = as applicable: (i) the VWAP (as defined below) on the trading day immediately preceding the date of such exercise if the applicable notice of exercise is (1) both executed and delivered on a day that is not a trading day or (2) both executed and delivered on a trading day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS under the federal securities laws) on such trading day, (ii) at the option of the holder, either (y) the VWAP on the trading day immediately preceding the date of such exercise or (z) the bid price of the common stock on the Trading Market (as defined below) as reported by Bloomberg as of the time of the holder’s execution of the applicable notice of exercise if such notice of exercise is executed during “regular trading hours” on a trading day and is delivered within two hours thereafter (including until two hours after the close of “regular trading hours” on a trading day) or (iii) the VWAP on the date of exercise if the date of the applicable notice of exercise is a trading day and such notice of exercise is both executed and delivered after the close of “regular trading hours” on such trading day;

B = the exercise price then in effect; and

X = the number of shares of common stock that would be issuable upon exercise of the warrant in accordance with the terms of the warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

As used above, the “VWAP” means, for any date, the price determined by the first of the following clauses that applies: (i) if our common stock is then listed on the Nasdaq Global Select Market, the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the New York Stock Exchange, QTCQB or OTCQX (or any of the successors to any of the foregoing) (such market, the “Trading Market”), the daily volume-weighted average price of our common stock for such date (or the nearest preceding date) on the Trading Market as reported by Bloomberg (based on a “Trading Day” from 9:30 a.m. New York City time to 4:02 p.m. New York City time), (ii) if OTCQB or OTCQX is not a Trading Market, the volume-weighted average price of our common stock for such date (or the nearest preceding date) on OTCQB or OTCQX, as applicable, (iii) if our common stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for our common stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of our common stock so reported or (iv) in all other cases, the fair market value of a share of our common stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the warrants then outstanding and reasonably acceptable to us, the fees and expenses of which shall be paid by us.

In the event of certain fundamental transactions (as described in the warrants), a holder of warrants will be entitled to receive, upon exercise of the warrants, the kind and amount of securities, cash or other property that such holder would have received had they exercised the warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the warrants.

We do not intend to apply for listing of the warrants on any securities exchange or other trading system.

## **Registration Rights**

Pursuant to the amended and restated investor rights agreement by and among us and certain of our stockholders, certain of such stockholders are entitled to the following rights with respect to the registration of their shares for public resale under the Securities Act. The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

### *Demand Registration Rights*

*Form S-1.* If at any time investors holding at least 666,667 shares of our common stock, which we refer to as major investors, who also hold at least 30% of the registrable securities request in writing that we effect a registration with respect to at least 50% of the registrable securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of selling expenses, would exceed \$10 million) in an offering, we may be required to register their shares. We are obligated to effect at most two registrations for the holders of registrable securities in response to these demand registration rights, subject to certain exceptions.

*Form S-3.* If at any time we are entitled under the Securities Act to register our shares on Form S-3, major investors holding at least 20% of the registrable securities request in writing that we register their shares for public resale on Form S-3 and the price to the public of the offering is \$5.0 million or more, we will be required to provide notice to all holders of registrable securities and to use all reasonable efforts to effect such registration; provided, however, that we will not be required to effect such a registration if, within the preceding 12 months, we have already effected two registrations on Form S-3 for the holders of registrable securities.

If the holders requesting registration intend to distribute their shares by means of an underwriting, the underwriter of such offering will have the right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

#### *Piggyback Registration Rights*

If at any time we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

#### *Indemnification*

Our investor rights agreement contains customary cross indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

#### *Expenses*

Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling stockholders, blue sky fees and expenses and the expenses of any special audits incident to the registration.

#### *Termination of Registration Rights*

The registration rights terminate upon the earlier of (1) February 12, 2024, (2) upon the closing of an acquisition of our company or (3) with respect to a particular holder, such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all shares by such holder without limitation during a three-month period without registration.

#### **Private Placement Registration Rights**

We have also agreed to use commercially reasonable efforts to file a registration statement with the SEC by no later than August 23, 2023 to register for resale under the Securities Act all of the shares of our common stock issued and shares of our common stock issuable upon exercise of the warrants issued, pursuant to a securities purchase agreement dated July 19, 2023, and we have further agreed to use commercially reasonable efforts to cause such registration statement to be declared effective within the earlier of (i) 45 days (or 60 days if the SEC reviews the registration statement) of the initial filing of the registration statement of which this prospectus forms a part and (ii) the fifth business day after we are notified by the SEC that the registration statement will not be reviewed or will not be subject to further comments from the SEC. This registration statement on Form S-3 is being filed with the SEC in accordance with the aforementioned obligations.

#### **Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws**

Some provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that

stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

#### *Undesignated Preferred Stock*

The ability of our board of directors, without action by the stockholders, to issue up to 70,000,000 shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

#### *Stockholder Meetings*

Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board, chief executive officer or president, or by a resolution adopted by a majority of our board of directors.

#### *Requirements for Advance Notification of Stockholder Nominations and Proposals*

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

#### *Elimination of Stockholder Action by Written Consent*

Our amended and restated certificate of incorporation and amended and restated bylaws eliminate the right of stockholders to act by written consent without a meeting.

#### *Staggered Board*

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders. This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

#### *Removal of Directors*

Our amended and restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two thirds of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

#### *Stockholders Not Entitled to Cumulative Voting*

Our amended and restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

#### *Delaware Anti-Takeover Statute*

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed to be “interested stockholders” from engaging in a “business combination” with a publicly held Delaware corporation for three

years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an “interested stockholder” is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation’s voting stock. Generally, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

#### *Choice of Forum*

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our securityholders, creditors or other constituents; (3) any action asserting a claim against us arising pursuant to any provision of the General Corporation Law of the State of Delaware or our amended and restated certificate of incorporation or amended and restated bylaws; (4) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws; or (5) any action asserting a claim governed by the internal affairs doctrine. The provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Our amended and restated bylaws provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. In any case, securityholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. The enforceability of similar choice of forum provisions in other companies’ certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. Our amended and restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to this choice of forum provision.

#### *Amendment of Charter Provisions*

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least two thirds of the total voting power of all of our outstanding voting stock.

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that securityholders may otherwise deem to be in their best interests.

## SELLING SECURITYHOLDERS

This prospectus covers the resale or other disposition from time to time by the selling securityholders identified in the table below of up to an aggregate of 162,336,800 shares of our common stock, which consists of (i) 129,869,440 shares of common stock and (ii) warrants to purchase up to 32,467,360 shares of common stock issued and sold to the selling securityholders in a private placement transaction, or the 2023 Private Placement.

On July 19, 2023, we entered into a securities purchase agreement with the selling securityholders, or the Purchase Agreement, pursuant to which we sold in a private placement 129,869,440 shares of common stock and accompanying warrants to purchase up to 32,467,360 shares of common stock, at a combined price of \$1.63125 per share of common stock and accompanying warrant (or a combined price of \$1.85125 per share and accompanying warrant for participating officers and directors), for an aggregate price of approximately \$212.0 million. The warrants have an exercise price of \$2.04 per share of common stock and are exercisable until 5:00 p.m., New York City time, on July 24, 2028.

This prospectus covers the resale or other disposition by the selling securityholders or their transferees of up to the total number of shares of common stock and common stock underlying the warrants issued to the selling securityholders pursuant to the Purchase Agreement.

We are registering the above-referenced shares to permit the selling securityholders and their pledgees, donees, transferees or other successors-in-interest that receive their shares after the date of this prospectus to resell or otherwise dispose of the shares in the manner contemplated under “Plan of Distribution” herein.

The following table sets forth information concerning the shares of common stock that may be offered from time to time by each selling securityholder. The number of shares beneficially owned by each selling securityholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which the selling securityholder has sole or shared voting power or investment power. Percentage ownership is based on 225,322,142 shares of our common stock outstanding as of August 3, 2023. In computing the number of shares beneficially owned by a selling securityholder and their percentage ownership, shares of common stock subject to options, warrants or other rights held by such selling securityholder that are currently exercisable or will become exercisable within 60 days of August 3, 2023 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other selling securityholder. For purposes of this table, we have assumed that the selling securityholders will have sold all of the securities covered by this prospectus upon the completion of the offering (including all shares of common stock issuable upon exercise of the warrants). Each of the selling securityholders listed has sole voting and investment power with respect to the shares beneficially owned by the selling securityholder unless noted otherwise.

The information in the following table has been provided to us by or on behalf of the selling securityholders and the selling securityholders may have sold, transferred or otherwise disposed of all or a portion of their securities after the date on which they provided us with information regarding their securities. A selling securityholder may sell all, some or none of its securities in this offering. See the section titled “Plan of Distribution.”

Name of Selling Securityholder	Shares Beneficially Owned before this Offering		Maximum Number of Shares to be Sold Pursuant to this Prospectus	Shares Beneficially Owned after this Offering <sup>(1)</sup>	
	Shares	Percentage		Shares	Percentage
Growth Equity Opportunities 18 VGE, LLC <sup>(2)</sup>	18,793,076	8.3 %	15,325,670	3,467,406	1.5 %
Entities affiliated with EcoR1 Capital, LLC <sup>(3)</sup>	11,494,255	5.1 %	11,494,255	—	—
Octagon Investments Master Fund LP <sup>(4)</sup>	10,088,339	4.5 %	6,130,270	3,958,069	1.8 %
Boxer Capital, LLC <sup>(5)</sup>	9,084,053	4.0 %	5,747,125	3,336,928	1.5 %
Alyeska Master Fund, L.P. <sup>(6)</sup>	8,036,067	3.6 %	7,662,835	373,232	*
Entities affiliated with Great Point Partners, LLC <sup>(7)</sup>	7,762,840	3.4 %	7,662,840	100,000	*

Entities affiliated with Farallon Capital Management, L.L.C. <sup>(8)</sup>	7,662,840	3.4 %	7,662,840	—	—
Entities affiliated with Nantahala Capital Management, LLC <sup>(9)</sup>	7,662,840	3.4 %	7,662,840	—	—
Armistice Capital, LLC <sup>(10)</sup>	7,662,835	3.4 %	7,662,835	—	—
Madison Avenue International LP <sup>(11)</sup>	7,662,835	3.4 %	7,662,835	—	—
Samsara BioCapital, LP <sup>(12)</sup>	7,662,835	3.4 %	7,662,835	—	—
Entities affiliated with SilverArc Capital Management <sup>(13)</sup>	7,662,835	3.4 %	7,662,835	—	—
Invus Public Equities, L.P. <sup>(14)</sup>	7,242,731	3.2 %	4,214,560	3,028,171	1.3 %
Citadel CEMF Investments Ltd. <sup>(15)</sup>	6,513,410	2.9 %	6,513,410	—	—
Entities affiliated with Monashee Investment Management <sup>(16)</sup>	6,130,265	2.7 %	6,130,265	—	—
Eversept Global Healthcare Fund, LP <sup>(17)</sup>	5,208,177	2.3 %	4,597,700	610,477	*
Federated Hermes Kaufmann Small Cap Fund <sup>(18)</sup>	3,831,420	1.7 %	3,831,420	—	—
Entities affiliated with Highbridge Capital Management, LLC <sup>(19)</sup>	3,831,420	1.7 %	3,831,420	—	—
Micro Cap Partners, L.P. <sup>(20)</sup>	3,831,420	1.7 %	3,831,420	—	—
Velan Capital Master Fund, L.P. <sup>(21)</sup>	3,831,420	1.7 %	3,831,420	—	—
Entities affiliated with Rock Springs Capital <sup>(22)</sup>	3,784,508	1.7 %	2,587,740	1,196,768	*
Altman Family Trust Dated 8/21/92 <sup>(23)</sup>	3,561,766	1.6 %	1,532,570	2,029,196	*
Entities affiliated with Empery Asset Management LP <sup>(24)</sup>	3,065,135	1.4 %	3,065,135	—	—
CVI Investments, Inc. <sup>(25)</sup>	3,065,135	1.4 %	3,065,135	—	—
Stonepine Capital, LP <sup>(26)</sup>	2,847,873	1.3 %	2,298,850	549,023	*
Entities affiliated with Platinum Investment Management Limited <sup>(27)</sup>	2,298,855	1.0 %	2,298,855	—	—
683 Capital Partners, LP <sup>(28)</sup>	1,915,710	*	1,915,710	—	—
Sphera Biotech Master Fund LP <sup>(29)</sup>	1,915,710	*	1,915,710	—	—
Entities affiliated with DAFNA Capital Management LLC <sup>(30)</sup>	1,532,565	*	1,532,565	—	—
Allostery Master Fund LP <sup>(31)</sup>	1,116,285	*	766,285	350,000	*
ADAR1 Partners, LP <sup>(32)</sup>	766,285	*	766,285	—	—
Entities affiliated with Shaolin Capital Management LLC <sup>(33)</sup>	766,285	*	766,285	—	—
Special Situations Life Sciences Fund, L.P. <sup>(34)</sup>	766,285	*	766,285	—	—
Woodline Master Fund LP <sup>(35)</sup>	766,285	*	766,285	—	—
Faheem Hasnain <sup>(36)</sup>	5,920,477	2.6 %	675,220	5,245,257	2.3 %



Trusts for the benefit of Mr. Hasnain's family <sup>(37)</sup>	4,724,743	2.1 %	675,220	4,049,523	1.8 %
Bryan Giraudo <sup>(38)</sup>	1,164,781	*	67,525	1,097,256	*
Christian Waage <sup>(39)</sup>	904,954	*	16,880	888,074	*
Lou Giraudo <sup>(40)</sup>	89,130	*	76,630	12,500	*

\* Less than 1%

- (1) Assumes the selling securityholders sell all of their shares of our common stock (including all shares of common stock issuable upon exercise of the warrants) offered pursuant to this prospectus.
- (2) Consists of 15,727,942 shares of common stock and 3,065,134 shares of our common stock issuable upon the exercise of warrants held by Growth Equity Opportunities 18 VGE, LLC ("GEO 18 VGE"). GEO 18 VGE is wholly owned by NEA 18 Venture Growth Equity, L.P. ("NEA 18 VGE"). The sole general partner of NEA 18 VGE is NEA Partners 18 VGE, L.P. ("NEA Partners 18 VGE"). The sole general partner of NEA Partners 18 VGE is NEA VGE 18 GP, LLC ("NEA VGE 18 LLC"). The managers of NEA VGE 18 LLC are Scott D. Sandell, Anthony A. Florence, Jr., Mohamad Makhzoumi, Ali Behbahani, Carmen Chang, Edward T. Mathers, Paul E. Walker and Rick C. Yang. NEA VGE 18 LLC and its managers may be deemed to beneficially own the securities held by Growth Equity Opportunities 18 VGE, LLC. Each of NEA VGE 18 and its managers disclaims beneficial ownership of any of the shares of our Common Stock they may be deemed to beneficially own except to the extent of their respective pecuniary interest therein. The address of Growth Equity Opportunities 18 VGE, LLC, NEA 18 VGE, NEA Partners 18 VGE, NEA VGE 18 and Scott Sandell is New Enterprise Associates, 1954 Greenspring Drive, Suite 600, Timonium, MD 21093. The address of the principal business office of Ali Behbahani and Edward Mathers is New Enterprise Associates, 5425 Wisconsin Avenue, Suite 800, Chevy Chase, MD 20815. The address of the principal business office of Carmen Chang, Mohamad Makhzoumi, Paul Walker and Rick Yang is New Enterprise Associates, 2855 Sand Hill Road, Menlo Park, California 94025. The address of the principal business office of Florence is New Enterprise Associates, 104 5th Avenue, 19th Floor, New York, NY 10001.
- (3) Consists of (i) 8,671,264 shares of common stock and 2,167,816 shares of our common stock issuable upon the exercise of warrants held by EcoR1 Capital Fund Qualified, L.P. ("Qualified Fund") and (ii) 524,140 shares of common stock and 131,035 shares of our common stock issuable upon the exercise of warrants held by EcoR1 Capital Fund, L.P. ("Capital Fund"). EcoR1 Capital, LLC ("EcoR1") is the general partner of Capital Fund and Qualified Fund. Oleg Nodelman is the control person of EcoR1 and may be deemed to share voting dispositive power over the shares held by Capital Fund and Qualified Fund. The address of the above person and entities is 357 Tehama Street #3, San Francisco, CA 94103.
- (4) Consists of 8,862,285 shares of our common stock and 1,226,054 shares of our common stock issuable upon the exercise of warrants held by Octagon Investments Master Fund LP (the "Master Fund"). The Master Fund, directly holds such shares of common stock. Octagon Capital Advisors LP ("Octagon") serves as the investment manager of the Master Fund. Mr. Ting Jia is the managing member of Octagon. By virtue of these relationships, each of Octagon and Mr. Jia may be deemed to beneficially own the Company's shares directly owned by the Master Fund. The address of Octagon is 645 Madison Avenue 21st Floor, New York, NY 10065.
- (5) Consists of 7,934,628 shares of our common stock and 1,149,425 shares of our common stock issuable upon the exercise of warrants held by Boxer Capital, LLC ("Boxer Capital"). Boxer Capital, Boxer Asset Management Inc. ("Boxer Management") and Joseph C. Lewis hold shared voting power and shared dispositive power over the shares. Boxer Management and Joseph C. Lewis disclaim beneficial ownership of such securities, except to the extent of their pecuniary interest therein. The principal address for Boxer Capital is 12860 El Camino Real, Suite 300, San Diego, CA 92130. The principal address for Boxer Management and Joseph C. Lewis is Cay House, EP Taylor Drive N7776, Lyford Cay, New Providence, Bahamas.
- (6) Consists of 6,503,500 shares of our common stock and 1,532,567 shares of our common stock issuable upon the exercise of warrants held by Alyeska Master Fund, L.P. Alyeska Investment Group, L.P., the investment manager of Alyeska Master Fund, L.P. (the "Selling Securityholder"), has voting and investment control of the shares held by the Selling Securityholder. The general partner of the Selling Securityholder is Alyeska Fund GP, LLC. Anand Parekh is the Chief Executive Officer of Alyeska Investment Group, L.P. and may be deemed to be the beneficial owner of such shares. Mr. Parekh, however, disclaims any beneficial ownership of the shares held by the Selling Securityholder. The registered address of Alyeska Master Fund, L.P. is at c/o Maples Corporate Services Limited,

P.O. Box 309, Uglund House, South Church Street George Town, Grand Cayman, KY1-1104, Cayman Islands. Alyeska Investment Group, L.P. is located at 77 W. Wacker, Suite 700, Chicago IL 60601

- (7) Consists of (i) 3,488,952 shares of common stock and 858,238 shares of our common stock issuable upon the exercise of warrants held by Biomedical Value Fund, L.P. (“BMVF”), (ii) 2,305,200 shares of common stock and 567,050 shares of our common stock issuable upon the exercise of warrants held by Biomedical Offshore Value Fund, Ltd. (“BMOV”) and (iii) 436,120 shares of common stock and 107,280 shares of our common stock issuable upon the exercise of warrants held by Cheyne Select Master Fund ICAV - Cheyne Global Equity Fund (“Cheyne”). Great Point Partners, LLC is the investment manager for BMVF, BMOV and Cheyne and, accordingly, may be deemed to beneficially own the securities held by BMVF, BMOV and Cheyne. Each of Dr. Jeffrey R. Jay, M.D. and Mr. Ortav Yehudai, as Co-Portfolio Managers of Great Point, LLC, has voting and investment power with respect to the securities, and therefore may be deemed to be the beneficial owner of the securities. The business address for Great Point Partners, LLC, BMVF, BMOV and Cheyne is 165 Mason Street, 3rd Floor, Greenwich, CT 06830.
- (8) The shares and the warrants that are the subject of this resale registration statement are held directly by the Farallon Funds (as defined below), as follows: (i) Farallon Capital Partners, L.P. (“FCP”) holds 1,020,692 shares and a warrant exercisable for up to 255,173 shares; (ii) Farallon Capital Institutional Partners, L.P. (“FCIP”) holds 1,422,836 shares and a warrant exercisable for up to 355,709 shares; (iii) Farallon Capital Institutional Partners II, L.P. (“FCIP II”) holds 413,180 shares and a warrant exercisable for up to 103,295 shares; (iv) Farallon Capital Institutional Partners III, L.P. (“FCIP III”) holds 115,864 shares and a warrant exercisable for up to 28,966 shares; (v) Four Crossings Institutional Partners V, L.P. (“FCIP V”) holds 167,968 shares and a warrant exercisable for up to 41,992 shares; (vi) Farallon Capital Offshore Investors II, L.P. (“FCOI II”) holds 2,333,792 shares and a warrant exercisable for up to 583,448 shares; (vii) Farallon Capital (AM) Investors, L.P. (“FCAMI”) holds 155,708 shares and a warrant exercisable for up to 38,927 shares; and (viii) Farallon Capital F5 Master I, L.P. (“F5 MI”) and, together with FCP, FCIP, FCIP II, FCIP III, FCIP V, FCOI II, and FCAMI, the “Farallon Funds”) holds 500,232 shares and a warrant exercisable for up to 125,058 shares. Farallon Partners, L.L.C., a Delaware limited liability company (the “Farallon General Partner”), as the general partner of each of FCP, FCIP, FCIP II, FCIP III, FCOI II and FCAMI, may be deemed a beneficial owner of the shares held by, and the shares acquirable upon the exercise of the warrants held by, FCP, FCIP, FCIP II, FCIP III, FCOI II and FCAMI. Farallon Institutional (GP) V, L.L.C., a Delaware limited liability company (the “FCIP V General Partner”), as the general partner of FCIP V, may be deemed a beneficial owner of the shares held by, and the shares acquirable upon the exercise of the warrant held by, FCIP V. Farallon F5 (GP), L.L.C. (the “F5 General Partner”), a Delaware limited liability company, as the general partner of F5 MI, may be deemed a beneficial owner of the shares held by, and the shares acquirable upon the exercise of the warrant held by, F5 MI. Each of Joshua J. Dapice, Philip D. Dreyfuss, Hannah E. Dunn, Richard B. Fried, Varun N. Gehani, Nicolas Giauque, David T. Kim, Michael G. Linn, Rajiv A. Patel, Thomas G. Roberts, Jr., Edric C. Saito, William Seybold, Daniel S. Short, Andrew J. M. Spokes, John R. Warren and Mark C. Wehrly (collectively, the “Farallon Managing Members”), as a senior managing member or managing member, as the case may be, of the Farallon General Partner, and a manager or senior manager, as the case may be, of the FCIP V General Partner and the F5 General Partner, in each case with the power to exercise investment discretion, may be deemed a beneficial owner of all such shares held by, and all such shares acquirable upon the exercise of the warrants held by, the Farallon Funds. Each of the Farallon General Partner, the FCIP V General Partner, the F5 General Partner, and the Farallon Managing Members hereby disclaims any beneficial ownership of such shares. The address of each of the entities and individuals referenced in this note is c/o Farallon Capital Management, L.L.C., One Maritime Plaza, Suite 2100, San Francisco, CA 94111.
- (9) Consists of (i) 3,284,036 shares of common stock and 821,009 shares of our common stock issuable upon the exercise of warrants held by Blackwell Partners LLC - Series A, (ii) 1,039,284 shares of common stock and 259,821 shares of our common stock issuable upon the exercise of warrants held by NCP RFM LP, (iii) 919,540 shares of common stock and 229,885 shares of our common stock issuable upon the exercise of warrants held by Pinehurst Partners, L.P., (iv) 604,112 shares of common stock and 151,028 shares of our common stock issuable upon the exercise of warrants held by Nantahala Capital Partners Limited Partnership and (v) 283,300 shares of common stock and 70,825 shares of our common stock issuable upon the exercise of warrants held by Nantahala Capital Partners II Limited Partnership. Nantahala Capital Management, LLC is a Registered Investment Adviser and has been delegated the legal power to vote and/or direct the disposition of such securities on behalf of the above entities as a General Partner, Investment Manager, or Sub-Advisor and would be considered the beneficial owner of such securities. The above shall not be deemed to be an admission by the record owners or the above entities that they are themselves beneficial owners of these securities for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or any other purpose. Wilmot Harkey and Daniel Mack are managing

members of Nantahala Capital Management, LLC and may be deemed to have voting and dispositive power over the shares held by the selling securityholder. The address of Blackwell Partners LLC – Series A is 280 South Mangum Street, Suite 210, Durham, NC 27701. The address of NCP RFM LP, Nantahala Capital Partners Limited Partnership and Nantahala Capital Partners II Limited Partnership is 130 Main Street, 2nd Floor, New Canaan, CT 06840. The address of Pinehurst Partners, L.P. is c/o Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801.

- (10) Consists of 6,130,268 shares of our common stock and 1,532,567 shares of our common stock issuable upon the exercise of warrants held by Armistice Capital Master Fund Ltd. (the “Master Fund”). The securities are directly held by the Master Fund, a Cayman Islands exempted company, and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC (“Armistice Capital”), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The warrants are subject to a beneficial ownership limitation of 4.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (11) Consists of 6,130,268 shares of our common stock and 1,532,567 shares of our common stock issuable upon the exercise of warrants held by Madison Avenue International LP (the “Madison Fund”). Madison Avenue Partners, LP (“Madison”) is the investment manager with sole investment discretion over the Madison Fund, including the authority to vote shares. Eli Samaha is the controlling ultimate beneficial owner (99%) of Madison with equivalent voting power over Madison. The address for Madison and the Madison Fund is 150 East 58th St., Ste 1403, New York, NY 10155.
- (12) Consists of 6,130,268 shares of our common stock and 1,532,567 shares of our common stock issuable upon the exercise of warrants held by Samsara BioCapital, LP. (“Samsara LP”). Shares are held by Samsara LP. Samsara BioCapital GP, LLC (“Samsara LLC”) is the general partner of Samsara LP and may be deemed to beneficially own the shares held by Samsara LP. Dr. Srinivas Akkaraju, MD, Ph.D. has voting and investment power over the shares held by Samsara GP and, accordingly, may be deemed to beneficially own the shares held by Samsara LP. Samsara LLC disclaims beneficial ownership in these shares except to the extent of its respective pecuniary interest therein. The address for Samsara LP is 628 Middlefield Road, Palo Alto, CA 94031.
- (13) Consists of (i) 4,337,344 shares of common stock and 1,084,336 shares of our common stock issuable upon the exercise of warrants held by SilverArc Capital Alpha Fund II, L.P. (“Fund II”), (ii) 1,548,992 shares of common stock and 387,248 shares of our common stock issuable upon the exercise of warrants held by Squarepoint Diversified Partners Fund Limited (“Squarepoint”) and (iii) 243,932 shares of common stock and 60,983 shares of our common stock issuable upon the exercise of warrants held by SilverArc Capital Alpha Fund I, L.P. (“Fund I”). SilverArc Capital Management, LLC is the controlling entity of Fund I, Fund II and Squarepoint, and is solely owned by Devesh Gandhi. Mr. Gandhi may be deemed to have shared voting and investment power of the securities managed by SilverArc Capital Management, LLC. Mr. Gandhi disclaims beneficial ownership of such securities, except to the extent of his pecuniary interest therein. The address for Fund I, Fund II and Squarepoint is 20 Park Plaza, 4th Floor, Boston, MA 02116.
- (14) Consists of 6,399,819 shares of our common stock and 842,912 shares of our common stock issuable upon the exercise of warrants held by Invus Public Equities, L.P. (“Invus PE”). Invus Public Equities Advisors, LLC (“Invus PE Advisors”) controls Invus PE, as its general partner and accordingly, may be deemed to beneficially own the shares held by Invus PE. The Geneva branch of Artal International S.C.A. (“Artal International”) controls Invus PE Advisors, as its managing member and accordingly, may be deemed to beneficially own the shares held by Invus PE. Artal International Management S.A. (“Artal International Management”), as the managing partner of Artal International, controls Artal International and accordingly, may be deemed to beneficially own the shares that Artal International may be deemed to beneficially own. Artal Group S.A. (“Artal Group”), as the sole stockholder of Artal International Management, controls Artal International Management and accordingly, may be deemed to beneficially own the shares that Artal International Management may be deemed to beneficially own. Westend S.A. (“Westend”), as the parent company of Artal Group, controls Artal Group and accordingly, may be deemed to beneficially own the shares that Artal Group may be deemed to beneficially own. Stichting Administratiekantoor Westend (the “Stichting”), as majority shareholder of Westend, controls Westend and accordingly, may be deemed to beneficially own the shares that Westend may be deemed to beneficially own. Mr. Amaury Wittouck, as the sole member of the board of the Stichting, controls the Stichting and accordingly, may be deemed to beneficially own the shares that the Stichting may be deemed to beneficially own. The address for Invus PE and Invus PE Advisors is 750 Lexington Avenue, 30th Floor, New York, NY 10022. The address for Artal International, Artal International

Management, Artal Group, Westend and Mr. Wittouck is Valley Park, 44, Rue de la Vallée, L-2661, Luxembourg. The address for the Stichting is Claude Debussylaan, 46, 1082 MD Amsterdam, The Netherlands.

- (15) Consists of 5,210,728 shares of our common stock and 1,302,682 shares of our common stock issuable upon the exercise of warrants held by Citadel CEMF Investments Ltd. Citadel Advisors LLC is the portfolio manager of Citadel CEMF Investments Ltd. Citadel Advisors Holdings LP is the sole member of Citadel Advisors LLC. Citadel GP LLC is the General Partner of Citadel Advisors Holdings LP. Kenneth Griffin owns a controlling interest in Citadel GP LLC. Mr. Griffin, as the owner of a controlling interest in Citadel GP LLC, may be deemed to have shared power to vote and/or shared power to dispose of the securities held by Citadel CEMF Investments Ltd. This disclosure shall not be construed as an admission that Mr. Griffin or any of the Citadel related entities listed above is the beneficial owner of any of our securities other than the securities actually owned by such person (if any). The address of Citadel CEMF Investments Ltd. is c/o Citadel Enterprise Americas, Southeast Financial Center, 200 S. Biscayne Blvd., Suite 3300, Miami, FL 33131.
- (16) Consists of (i) 1,765,516 shares of our common stock and 441,379 shares of our common stock issuable upon the exercise of warrants held by DS Liquid Div RVA MON LLC (“DS”), (ii) 1,029,884 shares of our common stock and 257,471 shares of our common stock issuable upon the exercise of warrants held by Blackstone CSP-MST FMAP Fund (“FMAP”), (iii) 931,800 shares of our common stock and 232,950 shares of our common stock issuable upon the exercise of warrants held by Monashee Pure Alpha SPV I LP (“Pure Alpha”), (iv) 882,760 shares of our common stock and 220,690 shares of our common stock issuable upon the exercise of warrants held by BEMAP Master Fund Ltd (“BEMAP”) and (v) 294,252 shares of our common stock and 73,563 shares of our common stock issuable upon the exercise of warrants held by Mission Pura Alpha LP (“Mission”). DS, FMAP, Pure Alpha, BEMAP and Mission are managed by Monashee Investment Management, LLC (“Monashee Management”). Jeff Muller is CCO of Monashee Management and has voting and investment control over Monashee Management and, accordingly, may be deemed to have beneficial ownership of the shares held by DS, FMAP, Pure Alpha, BEMAP and Mission. Jeff Muller, however, disclaims any beneficial ownership of the shares held by these entities. The business address of DS, FMAP, Pure Alpha, BEMAP, Mission and Mr. Muller is c/o Monashee Investment Management, LLC, 75 Park Plaza, 4th Floor, Boston, Massachusetts 02116.
- (17) Consists of 4,288,637 shares of our common stock and 919,540 shares of our common stock issuable upon the exercise of warrants held by Eversept Global Healthcare Fund, LP (the “Eversept Fund”). Eversept Partners, LP (“Eversept”) is the investment manager with sole investment discretion over the Eversept Fund, and may be deemed to indirectly beneficially own securities owned by the Eversept Fund. Eversept GP, LLC (the “Eversept GP”) is the general partner to the Eversept Fund and may be deemed to indirectly beneficially own securities owned by the Eversept Fund. Kamran Moghtaderi is the sole manager of and may be deemed to beneficially own securities beneficially owned by Eversept, Eversept GP, and Eversept Fund. Kamran Moghtaderi holds the power to vote and dispose of such shares, as well as an additional 139,220 shares of common stock held by an entity that is not a selling securityholder. Each of Eversept, Eversept Fund, Kamran Moghtaderi and Eversept GP disclaims beneficial ownership of any of the shares except to the extent of their respective pecuniary interest therein. The address of the Eversept Fund is 444 Madison Avenue, 22nd Floor, New York, New York 10022.
- (18) Consists of 3,065,136 shares of our common stock and 766,284 shares of our common stock issuable upon the exercise of warrants held by Federated Hermes Kaufmann Small Cap Fund. Federated Hermes Kaufmann Small Cap Fund, a portfolio of Federated Hermes Equity Funds (the “Federated Hermes Fund”), is managed by Federated Equity Management Company of Pennsylvania and subadvised by Federated Global Investment Management Corp., which are wholly-owned subsidiaries of FII Holdings, Inc., which is a wholly-owned subsidiary of Federated Hermes, Inc. (the “Federated Hermes Parent”). All of the Federated Hermes Parent’s outstanding voting stock is held in the Voting Shares Irrevocable Trust (the “Federated Trust”) for which Thomas R. Donahue, Ann C. Donahue and J. Christopher Donahue, who are collectively referred to as Federated Trustees, act as trustees. The Federated Hermes Parent’s subsidiaries have the power to direct the vote and disposition of the securities held by the Federated Hermes Fund. The business address of each Federated Trustee is 4000 Ericsson Drive, Warrendale, PA 15086-7561.
- (19) Consists of (i) 2,372,416 shares of common stock and 593,104 shares of our common stock issuable upon the exercise of warrants held by Highbridge Tactical Credit Master Fund, L.P. (“TCF”), (ii) 599,540 shares of common stock and 149,885 shares of our common stock issuable upon the exercise of warrants held by Highbridge Tactical Credit Institutional Fund, Ltd. (“TCIF”) and (iii) 93,180 shares of common stock and 23,295 shares of our common stock issuable upon the exercise of warrants held by 1992 Master Fund Co-Invest SPC – Series 4 (“Series 4”). Highbridge Capital Management, LLC is the trading manager of TCF, TCIF and Series 4. Each of TCF, TCIF and Series 4 disclaims beneficial ownership over these shares. The address of Highbridge Capital Management, LLC is 277 Park Avenue, 23rd Floor, New York, NY 10172, and the address of TCF, TCIF and Series 4 is c/o Maples

Corporate Services Limited #309 Uglan House, South Church Street, George Town, Grand Cayman KY1-1104, Cayman Islands.

- (20) Consists of 3,065,136 shares of our common stock and 766,284 shares of our common stock issuable upon the exercise of warrants held by Micro Cap Partners, L.P. PAI, LLC, a California limited liability company, is the general partner of Micro Cap Partners, LP, Palo Alto Investors, LP, a California limited partnership, is the investment adviser to Micro Cap Partners, LP and Dr. Anthony Joonkyoo Yun, MD and Dr. Patrick Lee, MD are co-managers of PAI, LLC, each of which may also be deemed to beneficially own the shares. The address of the selling securityholder is 470 University Avenue, Palo Alto, CA 94301. In addition, affiliates of Micro Cap Partners, LP hold the following company securities not beneficially owned by Micro Cap Partners, LP: 1,175,802 shares held by Palo Alto Healthcare Master Fund, LP, 2,251,600 shares held by Palo Alto Healthcare Master Fund II, LP and 37,750 shares held by Palo Alto PE Fund, LP.
- (21) Consists of 3,065,136 shares of our common stock and 766,284 shares of our common stock issuable upon the exercise of warrants held by Velan Capital Master Fund, L.P. Velan Capital Holdings LLC (“Velan GP”), as the general partner of Velan Capital Master Fund, L.P., may be deemed to beneficially own the shares beneficially owned by Velan Capital Master Fund, L.P. Velan Capital Investment Management LP (“Velan Capital”), as the investment manager of Velan Capital Master Fund, L.P., may be deemed to beneficially own the shares beneficially owned by Velan Capital Master Fund, L.P. Velan Capital Management LLC (“Velan IM GP”), as the general partner of Velan Capital, may be deemed to beneficially own the shares beneficially owned by Velan Capital Master Fund, L.P.. Balaji Venkataraman, as a Managing Member of each of Velan GP and Velan IM GP, may be deemed to beneficially own the shares beneficially owned by Velan Capital Master Fund, L.P.. Adam Morgan, as a Managing Member of each of Velan GP and Velan IM GP, may be deemed to beneficially own the shares beneficially owned by Velan Capital Master Fund, L.P.. The address of the Velan Capital Master Fund, L.P. is c/o Velan Capital Investment Management LP, 1055b Powers Place, 2nd Floor, Alpharetta, Georgia 30009.
- (22) Consists of (i) 2,875,000 shares of our common stock and 459,770 shares of our common stock issuable upon the exercise of warrants held by Rock Springs Capital Master Fund LP (“Master Fund”) and (ii) 391,960 shares of our and 57,778 shares of our common stock issuable upon the exercise of warrants held by Four Pines Master Fund LP (“Four Pines”). Rock Springs General Partner LLC (“RSGP”) is the general partner of Rock Springs Capital Management LP (“RSCM”) which is the investment manager to Master Fund and Four Pines. RSGP and RSCM may therefore be deemed to have or share beneficial ownership of the shares held directly by Master Fund and Four Pines. The address for RSGP and RSCM is 650 South Exeter St., Suite 1070, Baltimore, Maryland 21202.
- (23) Consists of 3,255,252 shares of common stock and 306,514 shares of common stock issuable upon the exercise of warrants held by the Altman Family Trust Dated 8/21/92. Steven Altman and Lisa Altman are trustees of the Altman Family Trust Dated 8/21/92 and in such capacity each have the sole power to vote and dispose of such shares.
- (24) Consists of (i) 1,492,528 shares of common stock and 373,132 shares of our common stock issuable upon the exercise of warrants held by Empery Asset Master, Ltd (“EAM”), (ii) 550,968 shares of common stock and 137,742 shares of our common stock issuable upon the exercise of warrants held by Empery Tax Efficient III, LP (“ETE III”) and (iii) 408,612 shares of common stock and 102,153 shares of our common stock issuable upon the exercise of warrants held by Empery Tax Efficient, LP (“ETE”). Empery Asset Management LP, the authorized agent of EAM, ETE III and ETE, has discretionary authority to vote and dispose of the shares held by EAM, ETE III and ETE and may be deemed to be the beneficial owner of these shares. Martin Hoe and Ryan Lane, in their capacity as investment managers of Empery Asset Management LP, may also be deemed to have investment discretion and voting power over the shares held by EAM, ETE III and ETE. EAM, ETE III, ETE, Mr. Hoe and Mr. Lane each disclaim any beneficial ownership of these shares. The address of EAM, ETE III and ETE is c/o Empery Asset Management, LP, One Rockefeller Plaza, Suite 1205, New York, NY 10020.
- (25) Consists of 2,452,108 shares of our common stock and 613,027 shares of our common stock issuable upon the exercise of warrants held by CVI Investments, Inc. (“CVI”), By: Heights Capital Management, Inc., its authorized agent. Heights Capital Management, Inc., the authorized agent of CVI, has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares. CVI Investments, Inc. is affiliated with one or more FINRA member, none of whom are currently expected to participate in the sale pursuant to the prospectus contained in the Registration Statement of Shares purchased by CVI in this Offering. The address of CVI is c/o Heights Capital Management, Inc., 101 California Street, Suite 3250, San Francisco, CA 94111.

- (26) Consists of 2,388,103 shares of common stock and 459,770 shares of common stock issuable upon the exercise of warrants held by Stonepine Capital, LP (“Stonepine”). Stonepine Capital Management, LLC is the general partner of Stonepine. Jon Plexico and Timothy Lynch, the managing members of Stonepine Capital Management, LLC, have voting and investment power over all of the shares held by Stonepine and disclaim beneficial ownership of such shares, except to the extent of their pecuniary interest in such shares. The address for Stonepine Capital Management, LLC is 919 NW Bond St., Suite 204, Bend OR 97703.
- (27) Consists of (i) 1,777,780 shares of our common stock and 444,445 shares of our common stock issuable upon the exercise of warrants held by Platinum International Health Care Fund and (ii) 61,304 shares of our and 15,326 shares of our common stock issuable upon the exercise of warrants held by Platinum World Portfolios Plc – Platinum World Portfolios Health Sciences Fund. Represents securities beneficially owned by Platinum Investment Management Limited (“Platinum”) solely in its capacity as responsible entity and agent for Platinum International Health Care Fund and Platinum World Portfolios Plc – Platinum World Portfolios Health Sciences Fund, respectively. Platinum is a Sydney, Australia-based investment advisory firm and a fully owned subsidiary of Platinum Asset Management Limited, a company listed on the Australian Securities Exchange. The address for Platinum is Level 8, 7 Macquarie Place, Sydney NSW 2000, Australia.
- (28) Consists of 1,532,568 shares of common stock and 383,142 shares of common stock issuable upon the exercise of warrants held by 683 Capital Partners, LP. The shares held by 683 Capital Partners, LP are indirectly held by 683 Capital Management, LLC and Ari Zweiman, the managing member of 683 Capital Management, LLC. 683 Capital Management, LLC, 683 Capital Partners, LP and Mr. Zweiman share voting and dispositive power with respect to the shares held by 683 Capital Partners, LP. The address for 683 Capital Partners, LP is 1700 Broadway, Suite 4200, New York, NY 10019.
- (29) Consists of 1,532,568 shares of common stock and 383,142 shares of common stock issuable upon the exercise of warrants held by Sphera Biotech Master Fund LP. Sphera Biotech Master Fund LP has delegated its investment management authority to Sphera Global Healthcare Management LP (the “Investment Manager”). The Investment Manager is managed, controlled and operated by its general partner, Sphera Global Healthcare GP Ltd, the shares of which are owned 90% by Sphera Funds Management Ltd. The address for Sphera Biotech Master Fund LP is 4 Yitzhak Sadeh, Entrance A, 29th Floor, Tel Aviv 6777520, Israel.
- (30) Consists of (i) 929,348 shares of our common stock and 232,337 shares of our common stock issuable upon the exercise of warrants held by DAFNA Life Science LP and (ii) 296,704 shares of our and 74,176 shares of our common stock issuable upon the exercise of warrants held by DAFNA Life Science Select LP. DAFNA Capital Management LLC is the sole general partner of DAFNA Life Science LP and DAFNA Life Science Select LP. The Chief Executive Officer and Chief Investment Officer of DAFNA Capital Management LLC are Dr. Nathan Fischel and Dr. Fariba Ghodsian, respectively. These individuals may be deemed to have shared voting and investment power of the shares held by DAFNA Life Science LP and DAFNA Life Science Select LP. Each of Dr. Fischel and Dr. Ghodsian disclaim beneficial ownership of such shares, except to the extent of his or her pecuniary interest therein. The address for DAFNA Capital Management LLC is 10990 Wilshire Boulevard, Suite 1400, Los Angeles, California.
- (31) Consists of 613,028 shares of our common stock, 153,257 shares of our common stock issuable upon the exercise and 350,000 shares underlying currently exercisable options held by Allosterly Master Fund LP. Allosterly Master Fund LP may be deemed the beneficial owner of the shares of common stock held by it. Allosterly Funds GP LLC may be deemed the beneficial owner of the shares of common stock held by Allosterly Master Fund LP because it is the general partner of Allosterly Master Fund LP. Allosterly Investments LP may be deemed the beneficial owner of the shares of common stock held by Allosterly Master Fund LP because it is the investment manager of Allosterly Master Fund LP. Allosterly Investments GP LLC may be deemed the beneficial owner of the shares of common stock beneficially held by Allosterly Investments LP because it is the general partner of Allosterly Investments LP. Christopher Staral and David Modest may be deemed the beneficial owners of the shares of common stock beneficially held by each of Allosterly Investments GP LLC and Allosterly Funds GP LLC by virtue of their positions as managing members of Allosterly Investments GP LLC and Allosterly Funds GP LLC. The address for Allosterly Master Fund LP is One Stamford Center, 263 Tresser Boulevard, 9th Floor, Stamford, CT 06901.
- (32) Consists of 613,028 shares of our common stock and 153,257 shares of our common stock issuable upon the exercise of the warrants held by ADAR1 Partners, LP. The warrants are subject to a beneficial ownership limitation that prevents ADAR1 Partners, LP from exercising the warrants to the extent such exercise would result in ADAR1 Partners, LP beneficially owning in excess of 4.99% of our common stock. Daniel Schneeberger is the Managing Member of the General Partner of ADAR1 Partners, LP and thereby may be deemed to beneficially own the

securities held by ADAR1 Partners, LP. The address for ADAR1 Partners, LP is 3503 Wild Cherry Drive, Building 9, Austin, TX 78738, Attn: Daniel Schneeberger.

- (33) Consists of (i) 247,052 shares of our common stock and 61,763 shares of our common stock issuable upon the exercise of warrants held by Shaolin Capital Partners Master Fund Ltd. (“Master Fund”), (ii) 121,380 shares of our common stock and 30,345 shares of our common stock issuable upon the exercise of warrants held by MAP 214 Segregated Portfolio, a segregated portfolio of LMA SPC (“MAP 214”), (iii) 136,704 shares of our common stock and 34,176 shares of our common stock issuable upon the exercise of warrants held by DS Liquid DIV RVA SCM LLC (“DS Liquid”) and (iv) 107,892 shares of our common stock issuable upon the exercise of warrants held by Shaolin Capital Partners SP, a segregated portfolio of PC MAP SPC (“PC MAP”). Shaolin Capital Management LLC serves as investment manager to Master Fund, MAP 214, DS Liquid and PC MAP. David Puritz, in his position as CIO at Shaolin Capital Management LLC and Michael Jester in his position as Co-founder and Head of Research at Shaolin Capital Management LLC may be deemed to have voting and investment control with respect to the securities owned by such entities. The address for Shaolin Capital Management LLC is 230 NW 24th Street, Suite 603, Miami, FL 33127.
- (34) Consists of 613,028 shares of our common stock and 153,257 shares of our common stock issuable upon the exercise of the warrants held by Special Situations Life Sciences Fund, L.P. (“Life Sciences”). AWM Investment Company, Inc., a Delaware corporation (“AWM”), is the investment adviser to Life Sciences. David M. Greenhouse and Adam C. Stettner are the principal owners of AWM. Through their control of AWM, Greenhouse and Stettner share voting and investment control over the portfolio securities of each of the AWM funds. The address for AWM is 527 Madison Avenue, Suite 2600, New York, NY 10022.
- (35) Consists of 613,028 shares of our common stock and 153,257 shares of our common stock issuable upon the exercise of the warrants held by Woodline Master Fund LP. Woodline Partners LP serves as the investment manager of Woodline Master Fund LP and may be deemed to be the beneficial owner of the shares. Woodline Partners LP disclaims any beneficial ownership of these shares. The address of Woodline Master Fund LP is 4 Embarcadero Center, Suite 3450, San Francisco, CA 94111.
- (36) Consists of (i) 5,125,372 shares of our common stock, including 5,036,073 shares held by a family trust, and 89,299 shares held directly by Mr. Hasnain, (ii) 135,044 shares of our common stock issuable upon the exercise of the warrants held by a family trust and (iii) 660,061 shares of common stock underlying options held by Mr. Hasnain that are exercisable as of August 3, 2023 or that will become exercisable within 60 days after such date. The 675,220 shares being offered pursuant to this prospectus are held through a family trust. Mr. Hasnain is the trustee of such family trust and in such capacity has the sole power to vote and dispose of such shares. Mr. Hasnain is our Chairman, President and Chief Executive Officer.
- (37) Consists of 4,589,699 shares of our common stock and 135,044 shares of our common stock issuable upon the exercise of the warrants held by the trusts. Eric I. Weitzen is the trustee of the trusts for the benefit of Mr. Hasnain’s family, and in such capacity has the sole power to vote and dispose of such shares. Mr. Weitzen disclaims beneficial ownership of the shares held by these trusts. Mr. Weitzen’s address, as the trustee of the trusts holding voting and dispositive power, is 12750 High Bluff Drive, Suite 400, San Diego, CA 92130.
- (38) Consists of (i) 264,177 shares of our common stock, including 180,010 shares held by a family trust and 84,167 shares held directly by Mr. Giraud, (ii) 13,505 shares of our common stock issuable upon the exercise of the warrants held by a family trust and (iii) 887,099 shares of common stock underlying options held by Mr. Giraud that are exercisable as of August 3, 2023 or that will become exercisable within 60 days after such date. The 67,525 shares being offered pursuant to this prospectus are held through a family trust. Mr. Giraud is a trustee of such family trust and in such capacity has the power to vote and dispose of such shares. Mr. Giraud is our Chief Operating Officer and Chief Financial Officer.
- (39) Consists of (i) 635,592 shares of our common stock, including 68,114 shares of common stock held by family trusts and 567,478 shares held directly by Mr. Waage, (ii) 3,376 shares of our common stock issuable upon the exercise of the warrants held by a family trust and (iii) 265,986 shares of common stock underlying options held by Mr. Waage that are exercisable as of August 3, 2023 or that will become exercisable within 60 days after such date. The 16,880 shares being offered pursuant to this prospectus are held through a family trust. Mr. Waage is a trustee of such family trusts and in such capacity has the power to vote and dispose of such shares. Mr. Waage is our Executive Vice President, Technical Operations and Administration.
- (40) Consists of 73,804 shares of our common stock and 15,326 shares of our common stock issuable upon the exercise of warrants held by Lou Giraud.

## PLAN OF DISTRIBUTION

The selling securityholders and any of their pledgees, donees, transferees, assignees or other successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling securityholders may use one or more of the following methods when disposing of the shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through brokers, dealers or underwriters that may act solely as agents;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- distributions to the selling securityholders' employees, partners, members or stockholders;
- through the writing or settlement of options or other hedging transactions entered into after the effective date of the registration statement of which this prospectus is a part, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling securityholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of disposition; and
- any other method permitted pursuant to applicable law.

The selling securityholders may also sell shares under Rule 144 or Rule 904 under the Securities Act of 1933, as amended, or Securities Act, if available, or Section 4(a)(1) under the Securities Act, rather than under this prospectus.

Broker-dealers engaged by the selling securityholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling securityholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated.

The selling securityholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under a supplement or amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling securityholders to include the pledgee, transferee or other successors in interest as selling securityholders under this prospectus.

Upon being notified in writing by a selling securityholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus, if required, pursuant to Rule



424(b) under the Securities Act, disclosing (i) the name of each such selling securityholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In addition, upon being notified in writing by a selling securityholder that a donee or pledgee intends to sell more than 500 shares of common stock, we will file a supplement to this prospectus if then required in accordance with applicable securities law.

The selling securityholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of the shares of common stock or interests in shares of common stock, the selling securityholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling securityholders may also sell shares of common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling securityholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling securityholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales (it being understood that the selling securityholders shall not be deemed to be underwriters solely as a result of their participation in this offering). In such event, any profits realized by such selling securityholders or compensation received by such broker-dealers or agents may be deemed to be underwriting commissions or discounts under the Securities Act. The maximum commission or discount to be received by any member of the Financial Industry Regulatory Authority (FINRA) or independent broker-dealer will not be greater than 8% of the initial gross proceeds from the sale of any security being sold.

We have advised the selling securityholders that they are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended, during such time as they may be engaged in a distribution of the shares. The foregoing may affect the marketability of the common stock.

The aggregate proceeds to the selling securityholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling securityholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

We are required to pay all fees and expenses incident to the registration of the shares. We have agreed to indemnify the selling securityholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act or otherwise.

We have agreed with the selling securityholders to keep the registration statement of which this prospectus constitutes a part effective until the earliest of (a) the third anniversary of the effective date of the registration statement, (b) such time as all of the shares and the warrant shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement and (c) such time as the shares and warrant shares become eligible for resale by non-Affiliates without any volume limitations or other restrictions and without the current public information requirement pursuant to Rule 144(b)(1)(i) or any other rule of similar effect.

## **LEGAL MATTERS**

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP, San Diego, California.

## **EXPERTS**

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2022, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.