

The information contained in this preliminary prospectus supplement is not complete and may be changed. This prospectus supplement and the accompanying prospectus are part of a registration statement filed with the United States Securities and Exchange Commission. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and neither we nor the underwriter are soliciting offers to buy these securities in any state or jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated June 18, 2019

Preliminary Prospectus Supplement
(To Prospectus dated June 8, 2018)



Sesen Bio, Inc.

shares of Common Stock

and

Warrants to purchase up to shares of Common Stock

We are offering _____ shares of our common stock and warrants to purchase up to _____ shares of our common stock (and the common stock issuable from time to time upon exercise of the offered warrants). The shares of common stock and warrants will be sold together, with each share of common stock to be sold together in a fixed combination with a warrant to purchase one (1) share of common stock. The combined purchase price for each share of common stock and accompanying warrant is \$ _____.

Each warrant will have an exercise price of \$ _____ per share, will become exercisable commencing on the date of issuance, and will expire on the 12-month anniversary of the date of issuance. The shares of common stock and accompanying warrants are immediately separable and will be issued separately, but will be purchased together in this offering.

Our common stock is listed on The Nasdaq Global Market under the symbol "SESN". On June 18, 2019, the last reported sale price of our common stock on The Nasdaq Global Market was \$1.84 per share. There is currently no established trading market for the offered warrants. We do not plan on applying to list the warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

We are an "emerging growth company" as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we are eligible for reduced public company reporting requirements. Please see "Summary—Implications of Being an Emerging Growth Company."

See "Risk Factors" beginning on page S-13 of this prospectus supplement and in Sesen Bio, Inc.'s other filings with the Securities and Exchange Commission incorporated by reference in this prospectus supplement and the accompanying prospectus to read about factors you should consider before making a decision to invest in our securities.

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 supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share and Accompanying Warrant	Total
Public Offering Price	\$	\$
Underwriting Discounts and Commission (1)	\$	\$
Proceeds, before expenses, to us (2)	\$	\$

- (1) In addition to the underwriting discount, we have agreed to reimburse the underwriter for certain expenses. See "Underwriting" for additional information regarding underwriting compensation.
- (2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the warrants being issued in this offering.

Delivery of the shares of common stock and warrants is expected to be made on or about June _____, 2019.

Canaccord Genuity

Prospectus Supplement dated _____, 2019

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Neither we nor the underwriter have authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus together constitute an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement and the accompanying prospectus is current only as of its date. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein when making your investment decision. You should also read and consider the information in the documents we have referred you to in the section of the accompanying prospectus entitled "Incorporation of Certain Documents by Reference."

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a shelf registration statement on Form S-3 (File No. 333-223750), as amended, that we initially filed with the Securities and Exchange Commission, or SEC, on March 19, 2018 and was declared effective on June 8, 2018, pursuant to which we may from time to time offer various securities in one or more offerings.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, including the documents incorporated by reference into the accompanying prospectus, provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to the combined document consisting of this prospectus supplement and the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference into this prospectus, on the other hand, you should rely on the prospectus supplement unless the document incorporated by reference has a later date than this prospectus supplement, in which case you should rely on the document with the later date.

We have not, and the underwriter has not, authorized anyone to provide you with information other than that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. Neither we nor the underwriter takes any responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. You should not assume that the information contained or incorporated in this prospectus supplement and the accompanying prospectus is accurate as of any date other than their respective dates, regardless of the time of delivery. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering when making your investment decision. We are not, and the underwriter is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

This prospectus supplement does not contain all of the information that is important to you. You should read this document together with additional information described under the heading “Incorporation of Certain Documents by Reference” in this prospectus supplement. You should rely only on the information contained or incorporated by reference in this document. Neither we nor the underwriter have authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information in this prospectus supplement and the accompanying prospectus, as well as the information we have filed with the SEC and incorporated by reference in this document, is accurate only as of its date or the date which is specified in those documents.

Unless the context requires otherwise, references in this prospectus supplement to “Sesen,” “we,” “us” and “our” refer to Sesen Bio, Inc. and our subsidiaries.

FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents that we incorporate by reference herein and therein, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. For this purpose, any statements contained herein, other than statements of historical fact, regarding our strategy, future operations, future product research or development, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “goals,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein include, among other things, statements about:

- our expected future loss and accumulated deficit levels;
- our projected financial position and estimated cash burn rate;
- our estimates regarding expenses, future revenues, capital requirements and needs for, and ability to obtain, additional financing;
- our ability to continue as a going concern;
- our need to raise substantial additional capital to fund our operations;
- the potential impairment of our goodwill and our indefinite lived intangible assets;
- the effect of recent changes in our senior management team on our business;
- the success, cost and timing of our pre-clinical studies and clinical trials in the United States, Canada and in other foreign jurisdictions;
- the potential that results of pre-clinical studies and clinical trials indicate our product candidates are unsafe or ineffective;
- the timing and success of meetings with the U.S. Food and Drug Administration, or FDA for Vicinium for high-risk, non-muscle invasive bladder cancer, or NMIBC;
- the timing and success of our regulatory pathway for Vicinium for NMIBC;
- our dependence on third parties, including contract research organizations, or CROs, in the conduct of our pre-clinical studies and clinical trials;
- the difficulties and expenses associated with obtaining and maintaining regulatory approval of our product candidates and companion diagnostics, if any, in the United States, Canada and in other foreign jurisdictions, and the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates;
- our ability to achieve certain future regulatory, development and commercialization milestones under our license agreement, which we refer to as the License Agreement, with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc., or collectively, Roche;
- the timing and costs associated with our manufacturing process and technology transfer to FUJIFILM Diosynth Biotechnologies U.S.A., Inc., or Fujifilm, and our reliance on Fujifilm to perform under our agreement;

- market acceptance of our product candidates, the size and growth of the potential markets for our product candidates, and our ability to serve those markets;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- the successful development of our commercialization capabilities, including sales and marketing capabilities; and
- the success of competing therapies and products that are or become available.

Our product candidates are investigational biologics undergoing clinical development and have not been approved by the FDA, Health Canada, or the European Commission. Our product candidates have not been, nor may they ever be, approved by any regulatory agency or competent authorities nor marketed anywhere in the world.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and our stockholders should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus supplement, particularly in the “Risk Factors” section beginning on page S-13 and those identified under the heading “Risk Factors” in our most recent Annual Report on Form 10-K, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus supplement, the accompanying prospectus and the documents that we have filed as exhibits to the registration statement of which this prospectus supplement forms a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus supplement and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

SUMMARY

This summary contains a general summary of the information contained in this prospectus supplement and the accompanying prospectus. It may not include all the information that is important to you. You should carefully review and consider all of the information contained and incorporated by reference in this prospectus supplement and the accompanying base prospectus, including the information under "Risk Factors" beginning on page S-13 of this prospectus supplement and in our most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q and our future periodic reports and other filings with the SEC, as well as all other information incorporated by reference herein and therein.

Overview

We are a late-stage clinical company developing targeted fusion protein therapeutics, or TFPTs, composed of an anti-cancer antibody fragment tethered to a protein toxin for the treatment of cancer. We genetically fuse the cancer-targeting antibody fragment and the cytotoxic protein payload into a single molecule which is produced through our proprietary one-step manufacturing process. We target tumor cell surface antigens with limited expression on normal cells. Binding of the target antigen by the TFPT allows for rapid internalization into the targeted cancer cell. We have designed our targeted proteins to overcome the fundamental efficacy and safety challenges inherent in existing antibody-drug conjugates, or ADCs, where a payload is chemically attached to a targeting antibody.

Our most advanced product candidate VB4-845, also known as Vicinium[®], is a locally-administered targeted fusion protein composed of an anti-EPCAM, or epithelial cell adhesion molecule, antibody fragment tethered to a truncated form of *Pseudomonas exotoxin A* for the treatment of high-risk NMIBC.

We have an ongoing single-arm, multi-center, open-label Phase 3 clinical trial of Vicinium as a monotherapy in patients with high-risk, bacillus Calmette-Guérin, or BCG, unresponsive NMIBC, called the VISTA Trial. The VISTA Trial completed enrollment in April 2018 with a total of 133 patients across three cohorts based on histology and time to disease recurrence after adequate BCG treatment (at least two courses of BCG with at least five doses in the first course and two in the second):

- Cohort 1 (n=86): Patients with carcinoma *in situ*, or CIS, with or without papillary disease that was determined to be refractory or recurred within six months of their last course of adequate BCG
- Cohort 2 (n=7): Patients with CIS with or without papillary disease that was determined to be refractory or recurred after six months, but less than 11 months, after their last course of adequate BCG
- Cohort 3 (n=40): Patients with high-risk papillary disease without CIS that was determined to be refractory or recurred within six months of their last course of adequate BCG

The primary and secondary endpoints for the VISTA Trial are as follows:

Dose	30 mg of Vicinium (in 50 mL of saline)
Estimated total enrollment	Approximately 134 patients, including 77 CIS patients whose disease is refractory to or relapsed within 6 months of the last dose of adequate BCG treatment
Primary endpoint	<ul style="list-style-type: none">· Complete response rate in patients with CIS (with or without papillary disease) whose disease is refractory or relapsed in six months or less following adequate BCG treatment, which is defined as at least two courses of full dose BCG; and· Duration of response will be estimated (Kaplan-Meier Estimate) for those patients with CIS whose disease is refractory to or relapsed within 6 months of the last dose of adequate BCG treatment (with or without papillary disease) who experience a complete response.

Patients with CIS will be considered to have a complete response if at the time of any disease status evaluation (per protocol every 13 weeks or any unscheduled evaluation) there is no evidence of high-grade disease (CIS, high-grade Ta or high-grade T1 disease) or disease progression (e.g., to muscle invasive disease). Low-grade disease is not considered a treatment failure in these patients and they may remain on study treatment following transurethral resection of bladder tumor, or TURBT.

Secondary endpoints

- Complete response rate and duration of response in patients with CIS whose disease is refractory to or relapsed within 6 months of the last dose of adequate BCG treatment (with or without papillary disease) whose disease is refractory or relapsed from six months to 11 months following adequate BCG treatment;
- Complete response rate and duration of response in all patients with CIS (with or without papillary disease) following adequate BCG treatment;
- Event-free survival, or EFS, in all patients;
- Complete response rate in patients at three, six, nine, 12, 15, 18, 21, and 24 months in patients with CIS whose disease is refractory to or relapsed within 6 months of the last dose of adequate BCG treatment;
- Time to cystectomy in all patients;
- Time to disease recurrence in all patients;
- Progression-free survival in all patients;
- Overall survival in all patients; and
- Safety and tolerability of Vicinium therapy in all patients.

Exploratory endpoint

To evaluate biomarkers that may be associated with response or disease progression or treatment failure, which may include, for example, EpCAM status, tumor subtype morphology, furin levels in tumor cell endosomes, presence of a glycosaminoglycan coat, and presence of receptors that could impede a host anti-tumor immune response such as PD-L1.

As of a March 1, 2019 data cutoff date, preliminary primary and secondary endpoint data for each of the trial cohorts were as follows:

Cohort 1 (n=86) Complete Response Rate

Time point	Evaluable Patients	Complete Response Rate
3-months	n=86	37%
6-months	n=86	26%
9-months	n=85	19%
12-months	n=84	15%

Cohort 2 (n=7) Complete Response Rate

Time point	Evaluable Patients	Complete Response Rate
3-months	n=7	57%
6-months	n=7	57%
9-months	n=7	43%
12-months	n=7	14%

Pooled Cohorts 1 and 2 (n=93) Complete Response Rate

Time point	Evaluable Patients	Complete Response Rate (95% Confidence Interval)
3-months	n=93	39% (29%-49)%
6-months	n=93	28% (19%-38)%
9-months	n=92	21% (13%-30)%
12-months	n=91	15% (9%-24)%

- *Duration of Response:* The median duration of response for patients in Cohort 1 (n=86) is 287 days (95% confidence interval, or CI, 127-NA), using the Kaplan-Meier method. The Kaplan-Meier method is a non-parametric statistical analysis used to estimate survival times and times to event when incomplete observations in data exist. Additional ad hoc analysis of pooled data for all patients with CIS (Cohorts 1 and 2, n=93) shows that among patients who achieved a complete response at 3 months, 54% had a complete response for a total of 12 months or longer after starting therapy, using the Kaplan-Meier method.
- *Time to Disease Recurrence:* High-grade papillary (Ta or T1) NMIBC is associated with higher rates of progression and recurrence. Therefore, time to disease recurrence is a key secondary endpoint for patients with high-risk papillary-only NMIBC. The median time to disease recurrence for patients in Cohort 3 (n=40) is 436 days (95% CI, 224-648), using the Kaplan-Meier method.
- *Time to Cystectomy:* The first FDA guidance on treatment of BCG-unresponsive NMIBC patients states that the goal of therapy in such patients is to avoid cystectomy. Therefore, time to cystectomy is a key secondary endpoint in the VISTA Trial. Across all 133 patients treated with Vicinium in the VISTA Trial, greater than 75% of all patients are estimated to remain cystectomy-free at 2.5 years, using the Kaplan-Meier method. Additional ad hoc analysis of responders and non-responders for all patients shows that responders are approximately 15 times more likely to remain cystectomy-free at 2.5 years compared to non-responders.
- *Progression-Free Survival:* Greater than 85% of all 133 patients treated with Vicinium in the VISTA Trial are estimated to remain progression-free at 2 years, using the Kaplan-Meier method. Progression-free is

defined as the time from the date of first dose of study treatment to disease progression (e.g. T2 or more advanced disease) or death as a first event.

- *Event-Free Survival:* Approximately 30% of all 133 patients treated with Vicinium in the VISTA Trial are estimated to remain event-free at 12 months, using the Kaplan-Meier method. Event-free survival is defined as the time from the date of first dose of study treatment to disease recurrence, progression, or death as a first event.
- *Overall Survival:* Approximately 90% of all 133 patients treated with Vicinium in the VISTA Trial have an overall survival of greater than 2.5 years, using the Kaplan-Meier method. Overall survival is defined as the time from the date of first dose of study treatment to death from any cause.

Preliminary Safety Results

As of the March 1, 2019 data cut off, in patients across all cohorts (n=133), 78% of adverse events were Grade 1 or 2. The most commonly reported treatment-related adverse events were dysuria (13%), hematuria (12%) and urinary tract infection (11%) - all of which are consistent with the profile of bladder cancer patients and the use of catheterization for treatment delivery. These adverse events were determined by the clinical investigators to be manageable and reversible, and only five patients (4%) discontinued treatment due to an adverse event. Serious adverse events, regardless of treatment attribution, were reported in 14% of patients. There were four treatment-related serious adverse events reported in three patients including acute kidney injury (Grade 3), pyrexia (Grade 2), cholestatic hepatitis (Grade 4) and renal failure (Grade 5). There were no age-related increases in adverse events observed in the Phase 3 VISTA trial.

We expect to report final 12-month topline efficacy and safety data during the third quarter of 2019.

Other Vicinium Development Activity

On June 6, 2019, we met with the FDA for a Type B Pre-Biologics License Application, or BLA, meeting regarding the approval path for Vicinium for the treatment of patients with high-risk, BCG-unresponsive NMIBC. At the meeting, we reached alignment with the FDA on an Accelerated Approval Pathway for Vicinium along with Rolling Review, and we expect to initiate submission of the BLA in the fourth quarter of 2019. The FDA also indicated that the nonclinical data, the clinical pharmacology data, and the safety database are sufficient to support a BLA submission, and that no additional clinical trials are necessary for a BLA submission.

Rolling Review of the BLA enables individual modules to be submitted and reviewed on an ongoing basis, rather than waiting for all sections to be completed before submission. The final module submission for the BLA will be chemistry, manufacturing, and controls, or CMC. In addition, the FDA communicated that they expect that a meeting with the FDA's Oncologic Drug Advisory Committee will be required as part of the Accelerated Approval Pathway. If Vicinium receives marketing approval for treatment of NMIBC, a post-marketing confirmatory trial will also be required. We expect to schedule two additional meetings with the FDA in the second half of 2019, a Type C meeting to discuss the details of a post-marketing confirmatory trial in support of the Accelerated Approval Pathway for Vicinium, and a Type B CMC meeting to discuss the content and timing of the CMC module.

We had a Type C CMC in late May 2019 and reached agreement with the FDA on the analytical comparability plan, and confirmed, subject to final comparability data to be provided in a Biologics License Application, or BLA, submission, that no additional clinical trials were deemed necessary to establish comparability.

In our Phase 2 and 3 clinical trials, we manufactured Vicinium in our Winnipeg, Manitoba facility. Based on our assessment of the global demand potential for Vicinium, we sought a commercial manufacturer with outstanding manufacturing quality, a proven track record with regulatory agencies, and the capacity to meet global demand forecasts. In October 2018, we entered our Master Bioprocessing Services Agreement with Fujifilm, for the manufacturing process and technology transfer of Vicinium production. In April 2019, the first full, commercial-scale GMP run was completed at Fujifilm. Preliminary indicators of success, including the bacterial growth and purification profiles, support Fujifilm's ability to produce the bulk drug substance form of Vicinium for commercial purposes if we receive regulatory approval to market Vicinium. The final bulk drug substance produced in this first run met all release specifications.

In August 2018, we received Fast Track designation from the FDA for Vicinium for the treatment of high-risk NMIBC.

In June 2017, we entered into a Cooperative Research and Development Agreement, or CRADA, with the National Cancer Institute, or NCI, for the development of Vicinium in combination with AstraZeneca's immune checkpoint inhibitor, durvalumab, for the treatment of NMIBC. Under the terms of the CRADA, the NCI will conduct a Phase 1 clinical trial in patients with high-risk NMIBC to evaluate the safety, efficacy and biological correlates of Vicinium in combination with durvalumab. This Phase 1 clinical trial is open and is actively recruiting patients.

Vicinium has also been evaluated for the treatment of squamous cell carcinoma of the head and neck, or SCCHN. Vicinium for the treatment of SCCHN had previously been designated as Proxinium™ to indicate its different fill volume and vial size as well as its different route for local administration via intratumoral injection.

In addition to our locally-administered TFPTs, our pipeline also includes systemically-administered TFPTs in development that are built around our proprietary de-immunized variant of the plant-derived cytotoxin bouganin, or deBouganin. One of these products, VB6-845d, is a TFPT consisting of an EpCAM targeting Fab genetically linked to deBouganin, a novel plant derived cytotoxic payload that we have optimized for minimal immunogenic potential and is administered by intravenous infusion.

We have deferred further development of Vicinium for the treatment of SCCHN and VB6-845d in order to focus our efforts and our resources on our ongoing development of Vicinium for the treatment of high-risk NMIBC. We are also exploring collaborations for Vicinium for the treatment of SCCHN and VB6-845d.

We maintain global development, marketing and commercialization rights for all of our TFPT-based product candidates. We intend to explore various commercialization strategies to market our approved products. If we obtain regulatory approval for Vicinium for the treatment of high-risk NMIBC, we may build a North American specialty urology sales force to market the product or seek commercialization partners. If we obtain regulatory approval for Vicinium for the treatment of SCCHN or for our other product candidates, including VB6-845d, we may seek partners with oncology expertise in order to maximize the commercial value of each asset or a portfolio of assets. We also own or exclusively license worldwide intellectual property rights for all of our TFPT-based product candidates, covering our key patents with protection ranging from 2018 to 2036.

On June 10, 2016, we entered into the License Agreement with Roche pursuant to which we licensed our monoclonal antibody EBI-031 and all other IL-6 antagonistic anti-IL-6 monoclonal antibody technology owned by us. Under the License Agreement, Roche is required to continue developing EBI-031 and pursue ongoing patent prosecution at its cost. At the time of the License Agreement, EBI-031, which was derived using our previous AMP-Rx platform, was in pre-clinical development as an intravitreal injection for diabetic macular edema and uveitis. We have received \$30.0 million in payments from Roche pursuant to the License Agreement, including a \$7.5 million

upfront payment and a \$22.5 million milestone payment as a result of the investigational new drug application for EBI-031 becoming effective. We are also entitled to receive up to an additional \$240.0 million upon the achievement of other specified regulatory, development and commercial milestones, as well as royalties based on net sales of potential future products containing EBI-031 or any other potential future products containing other IL-6 compounds.

Corporate Information

We were incorporated under the laws of the state of Delaware on February 25, 2008 under the name NewCo LS14, Inc. We subsequently changed our name to DeNovo Therapeutics, Inc. in September 2008, to Eleven Biotherapeutics, Inc. in February 2010 and again to Sesen Bio, Inc. in May 2018. Our principal executive offices are located at 245 First Street, Suite 1800, Cambridge, Massachusetts 02142, and our telephone number is (617) 444-8550. Our website address is www.sesenbio.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.

Sesen Bio, Viventia Bio and the Viventia and Sesen logos are our trademarks. The other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

Implications of Being an Emerging Growth Company

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until December 31, 2019.

For as long as we remain an “emerging growth company,” we may take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not “emerging growth companies” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation and financial statements in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote to approve executive compensation and shareholder approval of any golden parachute payments not previously approved. We may take advantage of one or more of these reporting exemptions until we are no longer an “emerging growth company.”

The JOBS Act provides that an “emerging growth company” can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not “emerging growth companies.”

The Offering

The following is a brief summary of some of the terms of this offering. It does not contain all of the information that you need to consider in making your investment decision. To understand all of the terms of the offering of our common stock and warrants, you should carefully read this prospectus supplement and the accompanying prospectus.

Common stock offered by us	shares.
Warrants offered by us	Warrants to purchase up to shares of our common stock. Each warrant will have an exercise price of \$ per share, will be exercisable commencing on the date of issuance and will expire on the 12-month anniversary of the date of issuance. The shares of common stock and warrants will be sold together, with each share of common stock to be sold together in a fixed combination with a warrant to purchase one (1) share of common stock. For additional information regarding the warrants, see “Description of the Securities We are Offering” beginning on page S-19 of this prospectus supplement.
Common stock to be outstanding after this offering	shares (assuming no exercise of the warrants offered hereby).
Use of proceeds	We intend to use the net proceeds from this offering for the clinical development and FDA regulatory submission of Vicinium for the treatment of high-risk NMIBC, the continued development of commercial-scale manufacturing capabilities for Vicinium for the treatment of high-risk NMIBC by our third-party contract manufacturers (including the manufacturing process and technology transfer of Vicinium production to Fujifilm to support such efforts), the development of commercial capabilities for a potential launch of Vicinium, if approved, for the treatment of high-risk NMIBC, including investment to establish and continue to build our commercial infrastructure and supply chain, and general corporate purposes, which may include capital expenditures and other operating expenses. See “Use of Proceeds.”
Risk factors	An investment in our common stock involves a high degree of risk. See “Risk Factors” beginning on page S-13 of this prospectus supplement and the similarly titled sections in the documents incorporated by reference into this prospectus supplement.
Nasdaq Global Market symbol	SESN

Market for the warrants

There is currently no established public trading market for the offered warrants. We do not plan on applying to list the warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

Outstanding Shares

The number of shares of our common stock to be outstanding after this offering is based on 77,464,781 shares of our common stock outstanding as of March 31, 2019 plus 3,341,513 shares of common stock issued upon the exercise of stock options and certain of our previously-issued warrants subsequent to March 31, 2019 through June 17, 2019 (with such exercise resulting in our receipt of approximately \$3.4 million in proceeds), and excludes:

- 5,688,562 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2019 at a weighted-average exercise price of \$1.62 per share less (30,000 shares of our common stock issued upon stock option exercises subsequent to March 31, 2019 through June 17, 2019);
- 9,257,632 shares of our common stock issuable upon the exercise of common stock warrants outstanding as of March 31, 2019 at a weighted-average exercise price of \$1.17 per share less (3,311,513 shares of our common stock issued upon warrant exercises subsequent to March 31, 2019 through June 17, 2019 at a weighted-average exercise price of \$1.02 per share);
- 1,319,184 shares of our common stock available for future issuance under our 2014 Stock Incentive Plan, or the 2014 Plan, as of March 31, 2019;
- 29,868 shares of our common stock available for future issuance under our employee stock purchase plan as of March 31, 2019; and
- shares of common stock issuable upon the exercise of warrants offered hereby.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before purchasing our securities, you should carefully read and consider the following risk factors, as well as all other information contained and incorporated by reference in this prospectus supplement and the accompanying base prospectus, including our consolidated financial statements and the related notes and our disclosures under “Risk Factors” in our most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q and our future periodic reports and other filings with the SEC. Each of these risk factors, either alone or taken together, could adversely affect our business, operating results and financial condition, as well as the value of an investment in our securities. There may be additional risks that we do not presently know of or that we currently believe are immaterial, which could also impair our business and financial position. If any of the events described below were to occur, our financial condition, our ability to access capital resources, our results of operations and/or our future growth prospects could be materially and adversely affected and the market price of our common stock could decline. As a result, you could lose some or all of any investment you may make in our securities.

Risks Related to this Offering

You will experience immediate and substantial dilution in the net tangible book deficit per share of the common stock you purchase.

The offering price per share of our common stock and accompanying warrant being offered is substantially higher than the net tangible book deficit per share of our outstanding common stock. As a result, investors purchasing shares of our common stock and accompanying warrants in this offering will incur immediate dilution of \$ per share of our common stock, after giving effect to the sale of an aggregate of shares of our common stock and accompanying warrants at an offering price of \$ per share and accompanying warrant, and after deducting underwriting fees and estimated offering expenses payable by us. See “Dilution” on page S-17 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase shares of our common stock and accompanying warrants in this offering.

Issuances of shares of common stock or securities convertible into or exercisable for shares of common stock following this offering, as well as the exercise of options and warrants outstanding, will dilute your ownership interests and may adversely affect the future market price of our common stock.

The issuance of additional shares of our common stock or securities convertible into or exchangeable for our common stock could be dilutive to stockholders if they do not invest in future offerings. We intend to use the net proceeds from this offering for the clinical development and FDA regulatory submission of Vicinium for the treatment of high-risk NMIBC, the continued development of commercial-scale manufacturing capabilities for Vicinium for the treatment of high-risk NMIBC by our third-party contract manufacturers (including the manufacturing process and technology transfer of Vicinium production to Fujifilm to support such efforts), the development of commercial capabilities for a potential launch of Vicinium, if approved, for the treatment of high-risk NMIBC, including investment to establish and continue to build our commercial infrastructure and supply chain, and general corporate purposes, which may include capital expenditures and other operating expenses. We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements, which may cause your ownership interest to be diluted.

In addition, we have a significant number of options and warrants to purchase shares of our common stock outstanding, as well as the warrants being offered in this offering. If these securities are exercised, you may incur further dilution. Moreover, to the extent that we issue additional options or warrants to purchase, or securities

convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience further dilution.

Our management will have broad discretion in the use of the net proceeds from this offering and may use the proceeds in a manner that does not increase the value of your investment.

Our management will have broad discretion as to the use of the net proceeds from this offering. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds will be used appropriately. These net proceeds could be applied in ways that do not improve our operating results or increase the value of your investment. See “Use of Proceeds” on page S-16 of this prospectus supplement for a description of our proposed use of proceeds from this offering.

We may require additional capital funding, the receipt of which may impair the value of our common stock.

Our future capital requirements depend on many factors, including our research, development, sales and marketing activities. We may need to raise additional capital through public or private equity or debt offerings or through arrangements with strategic partners or other sources in order to continue to develop our product candidates. There can be no assurance that additional capital will be available when needed or on terms satisfactory to us, if at all. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution and the new equity securities may have greater rights, preferences or privileges than our existing common stock.

A substantial number of shares of our common stock may be sold in this offering, which could cause the price of our common stock to decline.

In this offering we are selling _____ shares of common stock and accompanying warrants, which represents approximately _____ % of our outstanding common stock (_____ % if the warrants being offered hereby are exercised in full) as of the date of this prospectus supplement after giving effect to the sale of the shares of our common stock and accompanying warrants in this offering. This sale and any future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the price of our common stock on the Nasdaq Global Market. We cannot predict the effect, if any, that market sales of those shares of our common stock or the availability of those shares of our common stock for sale will have on the market price of our common stock.

Risks Related to the Warrants

If an active, liquid trading market for our warrants does not develop, you may not be able to sell your warrants quickly or at or above the price you paid for it.

The warrants issued in this offering will be exercisable commencing on the date of issuance and expire on the 12-month anniversary of the date of issuance. The warrants will have an initial exercise price equal to \$ _____. In the event that our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

There is no established trading market for the warrants to be sold in this offering, and the market for the warrants may be highly volatile or may decline regardless of our operating performance. We do not plan on applying to list the warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system. Accordingly, we do not expect an active market for our warrants to develop or be sustained and it may be difficult for you to sell your warrants at the time you wish to sell them, at a price that is attractive to you, or at all.

If we do not maintain a current and effective registration statement or resale registration statement registering the shares of common stock issuable upon exercise of the warrants, public holders will only be able to exercise such warrants on a “cashless basis.”

If a registration statement registering the shares of common stock issuable upon exercise of the warrants under the Securities Act is not effective or available at the time that holders wish to exercise such warrants, and if a resale registration statement registering the shares of common stock issuable upon exercise of the warrants under the Securities Act is also not effective or available at the time that holders wish to exercise such warrants, holders will only be able to exercise the warrants on a “cashless basis.” As a result, the number of shares of common stock that holders will receive upon exercise of the warrants will be fewer than it would have been had such holders exercised their warrants for cash.

Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, you will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of _____ shares of common stock and accompanying warrants in this offering will be approximately \$ _____ million after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us and excluding any proceeds we may receive upon exercise of the warrants being offered.

We intend to use the net proceeds from this offering for:

- the clinical development and FDA regulatory submission of Vicinium for the treatment of high-risk NMIBC;
- the continued development of commercial-scale manufacturing capabilities for Vicinium for the treatment of high-risk NMIBC by our third-party contract manufacturers (including the manufacturing process and technology transfer of Vicinium production to Fujifilm to support such efforts);
- the development of commercial capabilities for a potential launch of Vicinium, if approved, for the treatment of high-risk NMIBC, including investment to establish and continue to build our commercial infrastructure and supply chain; and
- general corporate purposes, which may include capital expenditures and other operating expenses.

These expected uses represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials, and any unforeseen cash needs. As a result, our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds from this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business.

DILUTION

If you invest in our securities in this offering, you will experience immediate dilution to the extent of the difference between the price per share of our common stock and accompanying warrant in this offering and the net tangible book deficit per share of our common stock immediately after this offering. Our net tangible book deficit per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of a particular date. Our historical net tangible book deficit as of March 31, 2019 was \$(21.4) million, or \$(0.28) per share of our common stock. Historical net tangible book deficit per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of March 31, 2019.

After giving effect to the assumed sale of our shares of common stock and accompanying warrants in this offering at a public offering price of \$ per share and accompanying warrant, and after deducting the underwriting discounts and commissions and estimated offering expenses, our adjusted net tangible book deficit as of March 31, 2019 would have been approximately \$ million, or approximately \$ per share of our common stock. This represents an immediate decrease in net tangible book deficit of \$ per share to our existing stockholders and immediate dilution of \$ per share of our common stock to purchasers in this offering. The following table illustrates this calculation on a per share basis:

Public offering price per share of common stock and accompanying warrant		\$
Net tangible book (deficit) per share of common stock as of March 31, 2019	\$	(0.280)
Decrease in net tangible book (deficit) per share of common stock attributable to investors purchasing our common stock and accompanying warrants in this offering, as well as option and warrant exercises through June 17, 2019		
Adjusted net tangible book value (deficit) per share of common stock immediately after this offering		
Dilution per share of common stock to investors purchasing shares of our common stock and warrants to purchase shares of our common stock in this offering		

The number of shares of our common stock to be outstanding after this offering is based on 77,464,781 shares of our common stock outstanding as of March 31, 2019 plus 3,341,513 shares of common stock issued upon the exercise of stock options and certain of our previously-issued warrants subsequent to March 31, 2019 through June 17, 2019 (with such exercise resulting in our receipt of approximately \$3.4 million in proceeds), and excludes:

- 5,688,562 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2019 at a weighted-average exercise price of \$1.62 per share less (30,000 shares of our common stock issued upon stock option exercises subsequent to March 31, 2019 through June 17, 2019);
- 9,257,632 shares of our common stock issuable upon the exercise of common stock warrants outstanding as of March 31, 2019 at a weighted-average exercise price of \$1.17 per share less (3,311,513 shares of our common stock issued upon warrant exercises subsequent to March 31, 2019 through June 17, 2019 at a weighted-average exercise price of \$1.02 per share);

- 1,319,184 shares of our common stock available for future issuance under the 2014 Plan, as of March 31, 2019;
- 29,868 shares of our common stock available for future issuance under our employee stock purchase plan as of March 31, 2019; and
- shares of our common stock issuable upon the exercise of warrants offered hereby.

To the extent that options or warrants are exercised, new options are issued under the 2014 Plan or pursuant to inducement awards, or we issue additional shares of common stock in the future, there may be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

The following description of our common stock and accompanying warrant summarizes the material terms and provisions thereof, including the material terms of the common stock and accompanying warrant we are offering under this prospectus supplement and the accompanying prospectus.

Common Stock

The material terms and provisions of our common stock are described under the caption “Description of our Capital Stock” starting on page 14 of the accompanying prospectus.

Our common stock is listed on The Nasdaq Global Market under the symbol “SESN.”

Our transfer agent for our common stock is Computershare Trust Company, N.A.

Warrants

The following is a brief summary of certain terms and conditions of the warrants and is subject in all respects to the provisions contained in the warrants.

Form. The warrants will be issued as individual warrant agreements to the investors. We will file a copy of the form of warrant with the SEC as an exhibit to a Current Report on Form 8-K in connection with this offering.

Exercisability. The warrants will be exercisable at any time following their original issuance and will expire on the 12-month anniversary of the date of issuance.

The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not then effective or available, and if a resale registration statement registering the resale of the shares of common stock underlying the warrants under the Securities Act is also not then effective or available, the holder may exercise the warrant through a cashless exercise, in whole or in part, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

Exercise Limitation. A holder will not have the right to exercise any portion of a warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or on election of the holder, 9.99%) of the number of shares of our stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Exercise Price. The initial exercise price per share of common stock purchasable upon exercise of the warrants is \$. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent. There is currently no trading market for the warrants and a trading market is not expected to develop.

Exchange Listing. We do not intend to list the warrants on any securities exchange or nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant. The holder of a warrant will be entitled to participate, on an as-exercised basis, in any rights offering in which all holders of our common stock are entitled to participate.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated _____, 2019, between Canaccord Genuity LLC, as the underwriter, and us, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase from us the respective number of shares of common stock and accompanying warrants shown opposite its name below:

<u>Underwriter</u>	<u>Number of Shares</u>	<u>Number of Shares Underlying Accompanying Warrants</u>
Canaccord Genuity LLC		
Total		

The underwriting agreement provides that the obligations of the underwriter are subject to certain conditions precedent such as the receipt by the underwriter of officers' certificates and legal opinions and approval of certain legal matters by its counsel. The underwriting agreement provides that the underwriter will purchase all of the shares of common stock and accompanying warrants if any of them are purchased. If the underwriter defaults, the underwriting agreement provides that the underwriting agreement may be terminated. We have agreed to indemnify the underwriter and certain of its controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make in respect of those liabilities.

The underwriter has advised us that, following the completion of this offering, it currently intends to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriter is not obligated to do so, and the underwriter may discontinue any market-making activities at any time without notice in its sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriter is offering the shares of common stock and accompanying warrants subject to its acceptance of the shares of common stock and accompanying warrants from us and subject to prior sale. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commission and Expenses

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriter and the proceeds, before expenses, to us in connection with this offering.

	Per Share and Accompanying Warrant	Total
Public offering price	\$	\$
Underwriting discounts and commissions paid by us	\$	\$
Proceeds to us, before expenses	\$	\$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$. We have agreed to reimburse the underwriter for (i) up to \$100,000 of certain of its expenses incurred in connection with the offering, and (ii) up to \$15,000 for its Financial Industry Regulation Authority, Inc. counsel fee.

Listing

Our common stock is listed on The Nasdaq Global Market under the trading symbol “SESN.” We do not intend to list the warrants on any national securities exchange or other trading market.

No Sales of Similar Securities

We, our officers, directors and certain other holders of our outstanding capital stock have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open “put equivalent position” within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended, or
- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially, or
- publicly announce an intention to do any of the foregoing for a period of 120 days after the date of this prospectus supplement without the prior written consent of Canaccord Genuity LLC.

Canaccord Genuity LLC may, in its sole discretion and at any time or from time to time before the termination of the 120-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriter and any of our shareholders who will execute a lock-up agreement, providing consent to the sale of securities prior to the expiration of the lock-up period.

Stabilization

The underwriter has advised us that, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market.

A stabilizing bid is a bid for the purchase of securities on behalf of the underwriter for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of securities on behalf of the underwriter to reduce a short position incurred by the underwriter in connection with the offering. Similar to other purchase transactions, the underwriter's purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriter to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the securities originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

The underwriter does not make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriter is not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriter may also engage in passive market making transactions in our common stock on The Nasdaq Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of securities in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriter or its affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriter may agree with us to allocate a specific number of securities for sale to online brokerage account holders. Any such allocation for

online distributions will be made by the underwriter on the same basis as other allocations. Other than the prospectus supplement and the accompanying prospectus in electronic format, the information on the underwriter's web sites and any information contained in any other web site maintained by the underwriter is not part of this prospectus supplement and the accompanying prospectus has not been approved and/or endorsed by us or the underwriter and should not be relied upon by investors.

Other Activities and Relationships

The underwriter and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriter and certain of its affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of its various business activities, the underwriter and certain of its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriter or its affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriter and its affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the securities offered hereby. The underwriter and certain of its affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Disclaimers About Non-U.S. Jurisdictions

Australia

Neither this prospectus supplement nor the accompanying prospectus is a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus supplement and accompanying prospectus in Australia:

A. You confirm and warrant that you are either:

a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;

a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the Company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;

a person associated with the Company under Section 708(12) of the Corporations Act; or

a “professional investor” within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this prospectus supplement and accompanying prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus supplement and accompanying prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Canada

(A) Resale Restrictions. The distribution of securities in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the securities in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

(B) Representations of Canadian Purchasers. By purchasing the securities in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the securities without the benefit of a prospectus qualified under those securities laws as it is an “accredited investor” as defined under National Instrument 45-106 - *Prospectus Exemptions*,
- the purchaser is a “permitted client” as defined in National Instrument 31-103 - *Registration Requirements, Exemptions and Ongoing Registrant Obligations*,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

(C) Conflicts of Interest. Canadian purchasers are hereby notified that Canaccord Genuity LLC is relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 - *Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

(D) Statutory Rights of Action. Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus supplement and accompanying prospectus (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

(E) Enforcement of Legal Rights. All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of

process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

(F) Taxation and Eligibility for Investment. Canadian purchasers of securities should consult their own legal and tax advisors with respect to the tax consequences of an investment in the securities in their particular circumstances and about the eligibility of the securities for investment by the purchaser under relevant Canadian legislation.

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive, each referred to herein as a Relevant Member State, an offer to the public of any securities which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a “qualified investor” as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the underwriter; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall require us or the underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer securities to the public” in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe to the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or CO, or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or

advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made under that Ordinance.

Neither this prospectus supplement nor the accompanying prospectus has been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement and the accompanying prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and the accompanying prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the securities is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

Neither this prospectus supplement nor the accompanying prospectus has been and neither will be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and the accompanying prospectus summary and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities may not be circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to

Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:

- (i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (ii) where no consideration is or will be given for the transfer;
- (iii) where the transfer is by operation of law;
- (iv) as specified in Section 276(7) of the SFA; or
- (v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement and the accompanying prospectus have been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement, the accompanying prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement, the accompanying prospectus nor any other offering or marketing material relating to the offering, us or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement and the accompanying prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

This prospectus supplement and the accompanying prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the Order, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated. Each such person being referred to as a Relevant Person.

This prospectus supplement and the accompanying prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

LEGAL MATTERS

The validity of the securities offered hereby is being passed upon for us by Hogan Lovells US LLP. Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. is acting as counsel for the underwriter in connection with this offering.

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, 2018, as set forth in their report, which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company’s ability to continue as a going concern as described in Note 1 to the consolidated financial statements, included therein, 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.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

This prospectus supplement “incorporates by reference” certain information we file with the SEC. The information incorporated by reference is an important part of this prospectus supplement. The incorporated documents contain significant information about us, our business and our finances. Any statement contained in a document which is incorporated by reference in this prospectus supplement is automatically updated and superseded if information contained in this prospectus supplement, or information that is later filed with the SEC, modifies or replaces this information. We incorporate by reference the documents listed below and any future filings that we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is completed:

- our Annual Report on Form 10-K for the year ended December 31, 2018, filed on March 1, 2019;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed on May 10, 2019;
- those portions of our Definitive Proxy Statement on Schedule 14A filed on April 30, 2019 that are deemed “filed” with the SEC;
- our Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items) filed with the SEC on January 3, 2019, January 4, 2019, February 25, 2019, March 4, 2019, April 30, 2019, May 13, 2019 and June 10, 2019; and
- the description of our capital stock contained in Form 8-A filed with the SEC on February 3, 2014, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus supplement additional documents that we may file with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act from the date of this prospectus supplement until we have sold all of the common stock to which this prospectus supplement relates or the offering is otherwise terminated; provided, however that we are not incorporating any information furnished under either Item 2.02 or Item 7.01 of any Current Report on Form 8-K, unless otherwise indicated therein.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: Sesen Bio, Inc., Attn: Chief Financial Officer, 245 First Street, Suite 1800, Cambridge, MA 02142. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at <http://www.sesenbio.com>. The information on such website is not incorporated by reference and is not a part of this prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the securities offered hereby. The registration statement, including the exhibits and schedules attached thereto and the information incorporated by reference therein, contains additional relevant information about the securities and our company, which we are allowed to omit from this prospectus supplement pursuant to the rules and regulations of the SEC. In addition, we file annual, quarterly and current reports and proxy statements and other information with the SEC. You may read and copy any document that we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. In addition, the SEC maintains an Internet website, which is located at <http://www.sec.gov>, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus supplement is a part at the SEC's Internet website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at <http://www.sesenbio.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus supplement.

PROSPECTUS

\$150,000,000



Debt Securities
Common Stock
Preferred Stock
Depository Shares
Warrants
Units

We may offer and sell up to \$150,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides a general description of the securities that we may offer. Each time that we offer securities under this prospectus, we will provide the specific terms of the securities offered, including the public offering price, in a supplement to this prospectus. Any prospectus supplement may add to, update or change information contained in this prospectus. You should read this prospectus and any applicable prospectus supplement together with additional information described under the heading “Where You Can Find More Information” before you make your investment decision.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus and the comparable section of any applicable prospectus supplement. If any underwriters are involved in the sale of the securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in the applicable prospectus supplement. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement.

Our common stock trades on the Nasdaq Global Market, or Nasdaq, under the ticker symbol “EBIO.” On May 15, 2018, the last reported sale price per share of our common stock was \$2.65 per share.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. RISKS ASSOCIATED WITH AN INVESTMENT IN OUR SECURITIES WILL BE DESCRIBED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND CERTAIN OF OUR FILINGS WITH THE SECURITIES AND EXCHANGE COMMISSION INCORPORATED BY REFERENCE INTO THIS PROSPECTUS, AS DESCRIBED UNDER “RISK FACTORS” ON PAGE 5.

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 June 8, 2018.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. Under this shelf registration process, we may offer to sell any of the securities, or any combination of the securities, described in this prospectus, in each case in one or more offerings, up to a total dollar amount of \$150,000,000.

This prospectus provides you only with a general description of the securities that we may offer. Each time securities are sold under the shelf registration statement, we will provide a prospectus supplement or free writing prospectus that will contain specific information about the terms of those securities and the terms of that offering. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement or free writing prospectus, including all documents incorporated by reference herein and therein, together with the additional information described under “Where You Can Find More Information” below.

The registration statement that contains this prospectus, including the exhibits to the registration statement and the information incorporated by reference, contains additional information about the securities offered under this prospectus. That registration statement can be read at the SEC website or at the SEC offices mentioned below under the heading “Where You Can Find More Information.” You should read the exhibits carefully for provisions that may be important to you.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or free writing prospectus. This prospectus and the accompanying prospectus supplement or free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement or free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement or free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement or free writing prospectus is delivered or securities are sold on a later date.

References in this prospectus to the terms “the Company,” “Eleven,” “we,” “our” and “us” or other similar terms mean Eleven Biotherapeutics, Inc. and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference herein, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. For this purpose, any statements contained herein, other than statements of historical fact, regarding our strategy, future operations, future product research or development, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “goals,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- our expected future loss and accumulated deficit levels;
- our projected financial position and estimated cash burn rate;
- our estimates regarding expenses, future revenues, capital requirements and needs for, and ability to obtain, additional financing;
- our ability to continue as a going concern;
- our need to raise substantial additional capital to fund our operations;
- the potential impairment of our goodwill and indefinite lived intangible assets;
- the effect of recent changes in our senior management team on our business;
- the success, cost and timing of our pre-clinical studies and clinical trials in the United States, Canada and in other foreign jurisdictions;
- the potential that results of pre-clinical studies and clinical trials indicate our product candidates are unsafe or ineffective;
- our dependence on third parties, including contract research organizations, or CROs, in the conduct of our pre-clinical studies and clinical trials;
- the difficulties and expenses associated with obtaining and maintaining regulatory approval of our product candidates and companion diagnostics, if any, in the United States, Canada and in other foreign jurisdictions, and the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates;
- our ability to achieve certain future regulatory, development and commercialization milestones under our license agreement, which we refer to as the License Agreement, with F. Hoffmann-La Roche Ltd and Hoffmann La-Roche Inc., or collectively, Roche;
- market acceptance of our product candidates, the size and growth of the potential markets for our product candidates, and our ability to serve those markets;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- the successful development of our commercialization capabilities, including sales and marketing capabilities; and
- the success of competing therapies and products that are or become available.

Our product candidates are investigational biologics undergoing clinical development and have not been approved by the U.S. Food and Drug Administration, or FDA, Health Canada, or the European Commission. Our product candidates have not been, nor may they ever be, approved by any regulatory agency or competent authorities nor marketed anywhere in the world.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and our stockholders should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the “Risk Factors” section beginning on page 5 and those identified under the heading “Risk Factors” in our most recent annual report on Form 10-K, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus and the documents that we have filed as exhibits to the registration statement of which this prospectus forms a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

THE COMPANY

Overview

We are a biologics oncology company focused primarily on designing, engineering and developing targeted next generation antibody drug conjugates, or ADCs. Our next generation ADCs are single protein therapeutics composed of targeting moieties genetically fused via a peptide linker domain to cytotoxic protein payloads that are produced through our proprietary one-step manufacturing process. We target tumor cell surface antigens that allow for rapid internalization into the targeted cancer cell while having limited expression on normal cells. We have designed our next generation ADCs to overcome the fundamental efficacy and safety challenges inherent in existing ADCs, where a payload is chemically attached to a targeting antibody.

Our most advanced product candidate is VB4-845, also known as Vicinium™ for the treatment of high-grade non-muscle invasive bladder cancer, or NMIBC, which is a locally-administered next generation ADC. In a completed Phase 2 clinical trial, of the 45 evaluable subjects treated with Vicinium, 40% achieved a complete response or no evidence of disease at three months while 16% remained disease-free for at least 18 months. In the third quarter of 2015, we, through our subsidiary Viventia Bio Inc., or Viventia, commenced in the United States and Canada a Phase 3 clinical trial of Vicinium for the treatment of subjects with high-grade non-muscle invasive bladder cancer, or NMIBC. We completed enrollment in this clinical trial of the primary endpoint population, subjects with carcinoma in situ, in March 2018 and anticipate reporting three-month data in May 2018 and twelve-month data in mid-2019. In June 2017, we entered into a Cooperative Research and Development Agreement, or CRADA, with the National Cancer Institute, or NCI, for the development of Vicinium in combination with AstraZeneca's immune checkpoint inhibitor, durvalumab, for the treatment of NMIBC. Under the terms of the CRADA, the NCI will conduct a Phase 1 clinical trial in subjects with high-grade NMIBC to evaluate the safety, efficacy and biological correlates of Vicinium in combination with durvalumab. This Phase 1 trial is open and actively recruiting patients.

Vicinium has also been evaluated as a locally-administered next generation ADC for the treatment of squamous cell carcinoma of the head and neck, or SCCHN. Vicinium, or VB4-845, for the treatment of SCCHN had been previously designated as Proxinium™ to indicate its different fill volume and vial size for local administration via intratumoral injection. In our two Phase 1 clinical trials, 53% of evaluable subjects treated with Vicinium demonstrated antitumor activity with epithelial cell adhesion molecule, or EpCAM-expressing tumors as assessed by the investigators' clinical measurements, the investigators' overall assessment including qualitative changes, and assessment of available radiologic data. In addition, three out of the four subjects with complete responses of injected tumors had regression or complete resolution of adjacent non injected lesions. In a Phase 2 clinical trial, we observed tumor shrinkage in 10 of the 14 evaluable subjects (71.4%). We intend to initiate a Phase 1/2a clinical trial that will explore the potential of Vicinium in combination with a checkpoint inhibitor for the treatment of SCCHN and are actively seeking partners for a combination program. In addition to our locally-administered next generation ADCs, our pipeline also includes systemically-administered next generation ADCs in development. Our systemically-administered next generation ADCs are built around our proprietary de-immunized variant of the plant-derived cytotoxin bouganin, or deBouganin. Our lead systemically-administered product candidate, VB6-845d, is being developed for the treatment of multiple types of EpCAM-positive solid tumors. VB6-845d is administered by intravenous infusion. A Phase 1 clinical trial conducted with VB6-845, the prior version of VB6-845d, revealed no clinically relevant immune response to the deBouganin payload.

We have deferred further development of VB6-845d and of Vicinium for the treatment of SCCHN in order to focus our efforts and our resources on our ongoing development of Vicinium for the treatment of high-grade NMIBC. We

are also exploring collaborations for Vicinium for the treatment of SCCHN and VB6-845d, and plan on submitting an Investigational New Drug application, or IND, with VB6-845d once funding or a partner is secured for this program.

We maintain global development, marketing and commercialization rights for all of our next generation ADC-based product candidates. We intend to explore various commercialization strategies to market our approved products. If we obtain regulatory approval for Vicinium for the treatment of high-grade NMIBC, we may build a North American specialty urology sales force to market the product or seek commercialization partners. If we obtain regulatory approval for Vicinium for the treatment of SCCHN or for our other product candidates, including VB6-845d, we may seek partners with oncology expertise in order to maximize the commercial value of each asset or a portfolio of assets. We also own or exclusively license worldwide intellectual property rights for all of our next generation ADC-based product candidates, covering our key patents with protection ranging from 2018 to 2036.

Our locally-administered next generation ADCs contain a targeting moiety that is designed to bind to EpCAM, which is a protein over expressed in many cancers. This targeting moiety is genetically fused to a truncated form of ETA, which is an immunogenic cytotoxic protein payload that is produced by the bacterial species, *Pseudomonas*. These product candidates are designed to bind to EpCAM on the surface of cancer cells. The next generation ADC-EpCAM complex is subsequently internalized into the cell and, once inside the cell, the next generation ADC is cleaved by a cellular enzyme to release the cytotoxic protein payload, thus enabling cancer cell-killing. We believe that our next generation ADCs designed for local administration may not only directly kill cancer cells through a targeted delivery of a cytotoxic protein payload, but also potentiate an anti-cancer therapeutic immune response in cancer cells near the site of administration. This immune response is believed to be triggered by both the immunogenic cell death of the cancer cells due to our payload's mechanism of action and the subsequent release of tumor antigens and the immunologically active setting created by the nature of the cytotoxic protein payloads.

Our early pipeline product candidate, VB6-845d, was being developed for systemic administration as a treatment for multiple types of EpCAM-positive solid tumors. VB6-845d is a next generation ADC consisting of an EpCAM targeting Fab genetically linked to deBouganin, a novel plant derived cytotoxic payload that we have optimized for minimal immunogenic potential.

On June 10, 2016, we entered into a License Agreement, or the License Agreement, with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc., or collectively, Roche, pursuant to which we licensed our monoclonal antibody EBI-031 and all other IL-6 antagonist antibody technology owned by us. Under the License Agreement, Roche is required to continue developing EBI-031 at its cost. At the time of the License Agreement, EBI-031, which was derived using our previous AMP-Rx platform, was in pre-clinical development as an intravitreal injection for diabetic macular edema and uveitis. We have received \$30.0 million in payments from Roche pursuant to the License Agreement, including a \$7.5 million upfront payment and a \$22.5 million milestone payment as a result of the IND application for EBI-031 becoming effective. We are also entitled to receive up to an additional \$240.0 million upon the achievement of other specified regulatory, development and commercial milestones, as well as royalties based on net sales of potential future products containing EBI-031 or any other potential future products containing other IL-6 compounds.

We also previously invested a significant portion of our efforts and financial resources in the development of our product candidate isunakinra (EBI-005) for the treatment of subjects with dry eye disease and allergic conjunctivitis. Based on negative results from our completed Phase 3 clinical trials in dry eye disease and allergic conjunctivitis, we do not plan to pursue further development of isunakinra.

Corporate Information

We were incorporated under the laws of the state of Delaware on February 25, 2008 under the name NewCo LS14, Inc. We subsequently changed our name to DeNovo Therapeutics, Inc. in September 2008 and again to Eleven Biotherapeutics, Inc. in February 2010. Our principal executive offices are located at 245 First Street, Suite 1800, Cambridge, Massachusetts 02142, and our telephone number is (617) 444-8550. Our website address is www.elevenbio.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Eleven Biotherapeutics, Viventia Bio and the Viventia and Eleven logos are our trademarks. The other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

Implications of Being an Emerging Growth Company

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earliest of (1) the last day of the fiscal year following the fifth anniversary of our initial public offering, or December 31, 2019, (2) the last day of the fiscal year after our annual gross revenue is \$1.07 billion or more, (3) the date on which we have, during the previous three-year period, issued more than \$1.0 billion in non-convertible debt securities and (4) the last day of any fiscal year in which the market value of our common stock held by non-affiliates exceeded \$700 million as of the end of the second quarter of that fiscal year.

For as long as we remain an “emerging growth company,” we may take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not “emerging growth companies” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation and financial statements in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote to approve executive compensation and shareholder approval of any golden parachute payments not previously approved. We may take advantage of one or more of these reporting exemptions until we are no longer an “emerging growth company.”

The JOBS Act provides that an “emerging growth company” can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not “emerging growth companies.”

RISK FACTORS

Our business is influenced by many factors that are difficult to predict, and that involve uncertainties that may materially affect actual operating results, cash flows and financial condition. Before making an investment decision, you should carefully consider these risks, including those set forth in the “Risk Factors” section of our most recent Annual Report on Form 10-K filed with the SEC, as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, each of which is incorporated by reference into this prospectus. You should also carefully consider any other information we include or incorporate by reference in this prospectus or include in any applicable prospectus supplement. Each of the risks described in these sections and documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement or free writing prospectus, we anticipate that the net proceeds from our sale of any securities will be used to fund the ongoing clinical development of Vicinium and for general corporate purposes, which may include capital expenditures and funding our working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions. Pending such uses, we may invest the net proceeds in investment grade interest-bearing securities.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from any sale of securities. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities.

RATIO OF EARNINGS TO FIXED CHARGES

Any time debt securities are offered pursuant to this prospectus, we will provide a table setting forth our ratio of earnings to fixed charges on a historical basis in the applicable prospectus supplement, if required.

DESCRIPTION OF OUR DEBT SECURITIES

We may offer debt securities which may be senior or subordinated. We refer to the senior debt securities and the subordinated debt securities collectively as debt securities. The following description summarizes the general terms and provisions of the debt securities. We will describe the specific terms of the debt securities and the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered. When we refer to “the Company,” “we,” “our,” and “us” in this section, we mean Eleven Biotherapeutics, Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, our subsidiaries.

We may issue senior debt securities from time to time, in one or more series under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures. The following summary of the material provisions of the indentures is qualified in its entirety by the provisions of the indentures, including definitions of certain terms used in the indentures. Wherever we refer to particular sections or defined terms of the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are incorporated by reference to the registration statement of which this prospectus forms a part for additional information.

None of the indentures will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us or in amounts determined by reference to an index.

General

The senior debt securities will constitute our unsecured and unsubordinated general obligations and will rank pari passu with our other unsecured and unsubordinated obligations. The subordinated debt securities will constitute our unsecured and subordinated general obligations and will be junior in right of payment to our senior indebtedness (including senior debt securities), as described under the heading “—Certain Terms of the Subordinated Debt Securities—Subordination.” The debt securities will be structurally subordinated to all existing and future indebtedness and other liabilities of our subsidiaries unless such subsidiaries expressly guarantee such debt securities.

The debt securities will be our unsecured obligations. Any secured debt or other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations.

The applicable prospectus supplement and/or free writing prospectus will include any additional or different terms of the debt securities of any series being offered, including the following terms:

- the title and type of the debt securities;
- whether the debt securities will be senior or subordinated debt securities, and, with respect to debt securities issued under the subordinated indenture the terms on which they are subordinated;
- the aggregate principal amount of the debt securities;
- the price or prices at which we will sell the debt securities;
- the maturity date or dates of the debt securities and the right, if any, to extend such date or dates;
- the rate or rates, if any, per year, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates and the related record dates;
- the right, if any, to extend the interest payment periods and the duration of that extension;
- the manner of paying principal and interest and the place or places where principal and interest will be payable;
- provisions for a sinking fund, purchase fund or other analogous fund, if any;
- any redemption dates, prices, obligations and restrictions on the debt securities;
- the currency, currencies or currency units in which the debt securities will be denominated and the currency, currencies or currency units in which principal and interest, if any, on the debt securities may be payable;
- any conversion or exchange features of the debt securities;
- whether and upon what terms the debt securities may be defeased;
- any events of default or covenants in addition to or in lieu of those set forth in the indenture;

- whether the debt securities will be issued in definitive or global form or in definitive form only upon satisfaction of certain conditions;
- whether the debt securities will be guaranteed as to payment or performance;
- any special tax implications of the debt securities; and
- any other material terms of the debt securities.

When we refer to “principal” in this section with reference to the debt securities, we are also referring to “premium, if any.”

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further debt securities or (2) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indenture.

Debt securities may bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (original issue discount securities) may be sold at a discount below their stated principal amount. U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending on the value on such dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain related tax considerations will be set forth in the applicable prospectus supplement.

Certain Terms of the Senior Debt Securities

Covenants. Unless we indicate otherwise in a prospectus supplement, the senior debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries’ property or capital stock, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets. Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, in either case, unless:

- the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust (subject to certain exceptions provided for in the senior indenture);
- the successor entity assumes our obligations on the senior debt securities and under the senior indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions are met.

No Protection in the Event of a Change in Control. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the following are events of default under the senior indenture for any series of senior debt securities:

- failure to pay interest on any senior debt securities of such series when due and payable, if that default continues for a period of 30 days (or such other period as may be specified for such series);
- failure to pay principal on the senior debt securities of such series when due and payable whether at maturity, upon redemption, by declaration or otherwise (and, if specified for such series, the continuance of such failure for a specified period);
- default in the performance of or breach of any of our covenants or agreements in the senior indenture applicable to senior debt securities of such series, other than a covenant breach which is specifically dealt with elsewhere in the senior indenture, and that default or breach continues for a period of 90 days after we receive written notice from the trustee or from the holders of 25% or more in aggregate principal amount of the senior debt securities of such series;
- certain events of bankruptcy or insolvency, whether or not voluntary; and
- any other event of default provided for in such series of senior debt securities as may be specified in the applicable prospectus supplement.

The default by us under any other debt, including any other series of debt securities, is not a default under the senior indenture.

If an event of default other than an event of default specified in the fourth bullet point above occurs with respect to a series of senior debt securities and is continuing under the senior indenture, then, and in each such case, either the trustee or the holders of not less than 25% in aggregate principal amount of such series then outstanding under the senior indenture (each such series voting as a separate class) by written notice to us and to the trustee, if such notice is given by the holders, may, and the trustee at the request of such holders shall, declare the principal amount of and

accrued interest on such series of senior debt securities to be immediately due and payable, and upon this declaration, the same shall become immediately due and payable.

If an event of default specified in the fourth bullet point above occurs and is continuing, the entire principal amount of and accrued interest on each series of senior debt securities then outstanding shall become immediately due and payable.

Unless otherwise specified in the prospectus supplement relating to a series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default, each series voting as a separate class. Furthermore, subject to various provisions in the senior indenture, the holders of a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of or interest on such senior debt securities or in respect of a covenant or provision of the senior indenture which cannot be modified or amended without the consent of the holders of each such senior debt security. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto.

The holders of a majority in aggregate principal amount of a series of senior debt securities may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture, that may involve the trustee in personal liability or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder may not pursue any remedy with respect to the senior indenture or any series of senior debt securities unless:

- the holder gives the trustee written notice of a continuing event of default;
- the holders of at least 25% in aggregate principal amount of such series of senior debt securities make a written request to the trustee to pursue the remedy in respect of such event of default;
- the requesting holder or holders offer the trustee indemnity satisfactory to the trustee against any costs, liability or expense;
- the trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and
- during such 60-day period, the holders of a majority in aggregate principal amount of such series of senior debt securities do not give the trustee a direction that is inconsistent with the request.

These limitations, however, do not apply to the right of any holder of a senior debt security to receive payment of the principal of and interest on such senior debt security in accordance with the terms of such debt security, or to bring

suit for the enforcement of any such payment in accordance with the terms of such debt security, on or after the due date for the senior debt securities, which right shall not be impaired or affected without the consent of the holder.

The senior indenture requires certain of our officers to certify, on or before a fixed date in each year in which any senior debt security is outstanding, as to their knowledge of our compliance with all covenants, agreements and conditions under the senior indenture.

Satisfaction and Discharge. We can satisfy and discharge our obligations to holders of any series of debt securities if:

- we pay or cause to be paid, as and when due and payable, the principal of and any interest on all senior debt securities of such series outstanding under the senior indenture; or
- all senior debt securities of such series have become due and payable or will become due and payable within one year (or are to be called for redemption within one year) and we deposit in trust a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.

Under current U.S. federal income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us. Purchasers of the debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. federal income tax law.

Defeasance. Unless the applicable prospectus supplement provides otherwise, the following discussion of legal defeasance and discharge and covenant defeasance will apply to any series of debt securities issued under the indentures.

Legal Defeasance. We can legally release ourselves from any payment or other obligations on the debt securities of any series (called “legal defeasance”) if certain conditions are met, including the following:

- We deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- There is a change in current U.S. federal income tax law or an IRS ruling that lets us make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due. Under current U.S. federal income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us.
- We deliver to the trustee a legal opinion of our counsel confirming the tax law change or ruling described above.
- If we accomplish legal defeasance, as described above, you would have to rely solely on the trust deposit for repayment of the debt securities. You could not look to us for repayment in the event of any shortfall.

Covenant Defeasance. Without any change of current U.S. federal tax law, we can make the same type of deposit described above and be released from some of the covenants in the debt securities (called “covenant defeasance”). In that event, you would lose the protection of those covenants but would gain the protection of having money and securities set aside in trust to repay the debt securities. In order to achieve covenant defeasance, we must do the following (among other things):

- We must deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- We must deliver to the trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due.

If we accomplish covenant defeasance, you could still look to us for repayment of the debt securities if there were a shortfall in the trust deposit. In fact, if one of the events of default occurred (such as our bankruptcy) and the debt securities become immediately due and payable, there may be such a shortfall. Depending on the events causing the default, you may not be able to obtain payment of the shortfall.

Modification and Waiver. We and the trustee may amend or supplement the senior indenture or the senior debt securities without the consent of any holder:

- to convey, transfer, assign, mortgage or pledge any assets as security for the senior debt securities of one or more series;
- to evidence the succession of a corporation, limited liability company, partnership or trust to us, and the assumption by such successor of our covenants, agreements and obligations under the senior indenture or to otherwise comply with the covenant relating to mergers, consolidations and sales of assets;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the senior indenture under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default;
- to cure any ambiguity, defect or inconsistency in the senior indenture or in any supplemental indenture or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or any applicable prospectus supplement;
- to provide for or add guarantors with respect to the senior debt securities of any series;
- to establish the form or forms or terms of the senior debt securities as permitted by the senior indenture;

- to evidence and provide for the acceptance of appointment under the senior indenture by a successor trustee, or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;
- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms, purposes of issue, authentication and delivery of any series of senior debt securities;
- to make any change to the senior debt securities of any series so long as no senior debt securities of such series are outstanding; or
- to make any change that does not adversely affect the rights of any holder in any material respect.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting together as a single class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

- extends the final maturity of any senior debt securities of such series;
- reduces the principal amount of any senior debt securities of such series;
- reduces the rate or extends the time of payment of interest on any senior debt securities of such series;
- reduces the amount payable upon the redemption of any senior debt securities of such series;
- changes the currency of payment of principal of or interest on any senior debt securities of such series;
- reduces the principal amount of original issue discount securities payable upon acceleration of maturity or the amount provable in bankruptcy;
- waives an uncured default in the payment of principal of or interest on the senior debt securities (except in the case of a rescission of acceleration as described above);
- changes the provisions relating to the waiver of past defaults or changes or impairs the right of holders to receive payment or to institute suit for the enforcement of any payment or conversion of any senior debt securities of such series on or after the due date therefor;
- modifies any of the provisions of these restrictions on amendments and modifications, except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the holder of each senior debt security of such series affected by the modification; or
- reduces the above-stated percentage of outstanding senior debt securities of such series whose holders must consent to a supplemental indenture or modifies or amends or waives certain provisions of or defaults under the senior indenture.

It shall not be necessary for the holders to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if the holders' consent approves the substance thereof. After an amendment, supplement or waiver of the senior indenture in accordance with the provisions described in this section becomes

effective, the trustee must give to the holders affected thereby certain notice briefly describing the amendment, supplement or waiver. Any failure by the trustee to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such amendment, supplemental indenture or waiver.

No Personal Liability of Incorporators, Stockholders, Officers, Directors. The senior indenture provides that no recourse shall be had under any obligation, covenant or agreement of ours in the senior indenture or any supplemental indenture, or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any of our incorporators, stockholders, officers or directors, past, present or future, or of any predecessor or successor entity thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

Concerning the Trustee. The senior indenture provides that, except during the continuance of an event of default, the trustee will not be liable except for the performance of such duties as are specifically set forth in the senior indenture. If an event of default has occurred and is continuing, the trustee will exercise such rights and powers vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The senior indenture and the provisions of the Trust Indenture Act incorporated by reference therein contain limitations on the rights of the trustee thereunder, should it become a creditor of ours or any of our subsidiaries, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee is permitted to engage in other transactions, provided that if it acquires any conflicting interest (as defined in the Trust Indenture Act), it must eliminate such conflict or resign.

We may have normal banking relationships with the senior trustee in the ordinary course of business.

Unclaimed Funds. All funds deposited with the trustee or any paying agent for the payment of principal, premium, interest or additional amounts in respect of the senior debt securities that remain unclaimed for two years after the date upon which such principal, premium or interest became due and payable will be repaid to us. Thereafter, any right of any holder of senior debt securities to such funds shall be enforceable only against us, and the trustee and paying agents will have no liability therefor.

Governing Law. The senior indenture and the senior debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination. The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any

of our senior indebtedness, we may not make any payment of principal of or interest on the subordinated debt securities (except for certain sinking fund payments). In addition, upon any payment or distribution of our assets upon any dissolution, winding-up, liquidation or reorganization, the payment of the principal of and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term “senior indebtedness” of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

- all of the indebtedness of that person for money borrowed;
- all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;
- all of the lease obligations that are capitalized on the books of that person in accordance with generally accepted accounting principles;
- all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above that the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and
- all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

unless, in the case of any particular indebtedness, renewal, extension or refunding, the instrument creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute senior indebtedness for purposes of the subordinated debt indenture.

DESCRIPTION OF OUR CAPITAL STOCK

The following description of our capital stock and provisions of our certificate of incorporation, bylaws and the Delaware General Corporate Law, or DGCL, are summaries and are qualified in their entirety by reference to the certificate of incorporation and the bylaws. We have filed copies of these documents with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

Our authorized capital stock consists of 200,000,000 shares of our common stock, par value \$0.001 per share, and 5,000,000 shares of our preferred stock, par value \$0.001 per share, all of which preferred stock is undesignated. As of May 10, 2018, we had 48,390,072 shares of our common stock issued and outstanding held by 35 stockholders of record. This number does not include beneficial owners whose shares were held in street name.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Each election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of then outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of our common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any of our then outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Preferred Stock

We are authorized to issue “blank check” preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval. The specific terms of any series of preferred stock offered pursuant to this prospectus will be described in the prospectus supplement relating to that series of preferred stock.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue preferred shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;

- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- a discussion of any material U.S. federal income tax considerations applicable to the preferred stock;
- any conversion provisions;
- whether we have elected to offer depositary shares as described under “Description of Depositary Shares”; and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

As described under “Description of Depositary Shares,” we may, at our option, with respect to any series of preferred stock, elect to offer fractional interests in shares of preferred stock, and provide for the issuance of depositary receipts representing depositary shares, each of which will represent a fractional interest in a share of the series of preferred stock. The fractional interest will be specified in the prospectus supplement relating to a particular series of preferred stock.

Rank. Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;
- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and
- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

Dividends. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

Liquidation Preference. Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Redemption. If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends

will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then current dividend period; or
- if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or
- if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

- the redemption date;
- the number of shares and series of preferred stock to be redeemed;
- the redemption price;

- the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;
- that dividends on the shares to be redeemed will cease to accrue on such redemption date;
- the date on which the holder's conversion rights, if any, as to such shares shall terminate; and
- the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Voting Rights. Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

Conversion Rights. The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Common Stock Warrants

As of May 10, 2018, we had outstanding:

- warrants held by Silicon Valley Bank, or the SVB warrants, to purchase up to an aggregate of 55,000 shares of our common stock, at a weighted-average exercise price of \$11.44 per share;
- warrants held by certain of our investors issued in connection with a publicly registered follow-on offering, or the November 2017 warrants, to purchase up to aggregate of 4,349,875 shares of our common stock, at a weighted-average exercise price of \$0.80 per share; and
- warrants held by certain of our investors issued in connection with a private placement made in reliance on the exemption provided by Section 4(a)(2) of the Securities Act and Rule 506(b) promulgated thereunder as transactions not involving a public offering, or the March 2018 warrants, to purchase up to an aggregate 7,968,128 shares of our common stock, at a weighted-average exercise price of \$1.20 per share.

These warrants provide for adjustments in the event of specified mergers, reorganizations, reclassifications, stock dividends, stock splits or other changes in our corporate structure. The SVB warrants are exercisable until November 24, 2024 and will be exercised automatically on a net issuance basis if not exercised prior to the expiration date and if the then-current fair market value of one share of our common stock is greater than the exercise price then in effect. The November 2017 warrants are exercisable until November 1, 2022 and as of May 10, 2018, 5,650,125 of the November 2017 warrants had been exercised. The March 2018 warrants are exercisable until March 23, 2023 and as of May 10, 2018, none of the March 2018 warrants had been exercised.

Options to Purchase our Common Stock

As of May 10, 2018, options to purchase an aggregate of 3,564,770 shares of our common stock, at a weighted-average exercise price of \$2.72 per share, were outstanding.

Delaware Anti-Takeover Law and Certain Charter and Bylaw provisions

The following summary of certain provisions of Delaware law and of our certificate of incorporation and bylaws does not purport to be complete and is subject to and qualified in its entirety by reference to Delaware law and to our certificate of incorporation and bylaws, copies of which are filed with the SEC as exhibits to the registration statement of which this prospectus forms a part.

Delaware Law. We are subject to Section 203 of the DGCL. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a “business combination” with any “interested stockholder” for three years following the date that the person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. A “business combination” includes, among other things, a merger or consolidation involving us and the “interested stockholder” and the sale of more than 10% of our assets. In general, an “interested stockholder” is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

The restrictions in Section 203 do not apply to corporations that have elected, in the manner provided in Section 203, not to be subject to Section 203 of the DGCL or, with certain exceptions, which do not have a class of voting stock that is listed on a national securities exchange or held of record by more than 2,000 stockholders. Our certificate of incorporation and bylaws do not opt out of Section 203.

Section 203 could delay or prohibit mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Staggered Board; Removal of Directors. Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of our shares of common stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and bylaws, any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office. Furthermore, our certificate of incorporation provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change

the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder Action; Special Meeting of Stockholders; Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our certificate of incorporation and our bylaws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by the chairman of our board of directors, our chief executive officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock because even if the third party acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-Majority Voting. The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Registration Rights

Prior Holders of Series B Redeemable Convertible Preferred Stock. On February 9, 2010, we entered into an investors' rights agreement, subsequently amended on April 23, 2012, which we refer to as the Investor Rights Agreement, with holders of our then-outstanding preferred stock. Under the Investor Rights Agreement, if holders of at least 25% of shares of common stock under the agreement request that we register their shares which represent an anticipated net aggregate offering price of at least \$5 million, then we shall file a registration statement under the Securities Act covering such shares. In addition, if we propose to register for our own account any of our securities under the Securities Act, holders of at least 10% of shares of common stock under the agreement have the right to require us to use our best efforts to register all or a portion of their shares subject to the agreement and still held by them in such registration statement. If not otherwise exercised, the rights under the Investor Rights Agreement will expire on February 6, 2019, the fifth anniversary of the closing of our IPO.

2014 Private Placement. On December 2, 2014, we entered into a registration rights agreement with certain holders of our common stock in connection with a private placement transaction. Under the registration rights agreement for the private placement, we were required to file a registration statement with the SEC, covering the resale of the 1,743,680 shares of common stock issued in the private placement and the 871,840 shares of common stock issuable

upon exercise of the warrants issued in the private placement. A registration statement relating to such shares was filed on December 19, 2014 and declared effective by the SEC on December 31, 2014.

Shares Issued in our Acquisition of Viventia Bio Inc. In connection with our acquisition of Viventia, we entered into a registration rights agreement dated September 20, 2016, or the Registration Rights Agreement, with Clairmark Investments Ltd., or Clairmark, a former stockholder of Viventia and an affiliate of Leslie Dan, one of our directors, which acquired shares of our common stock in the acquisition. Under the Registration Rights Agreement, if Clairmark requests that we register at least 1,791,164 shares of our common stock which represent an anticipated net aggregate offering price of at least \$5 million, then we shall file a registration statement under the Securities Act covering such shares. In addition, if we propose to register for our own account any of our securities under the Securities Act, Clairmark has the right to require us to use our best efforts to register all or a portion of the shares acquired in the acquisition and still held by it in such registration statement. If not otherwise exercised, the rights under the Registration Rights Agreement described below will expire on September 20, 2021.

2018 Private Placement. On March 21, 2018, we entered into a Securities Purchase Agreement with the selling stockholders pursuant to which we sold, among other securities, 7,968,128 common stock purchase warrants in a private placement. On April 27, 2018, we amended the Securities Purchase Agreement to allow us to satisfy our obligation to register the shares of common stock issuable upon exercise of the warrants by filing a registration statement on Form S-3. We refer to the Securities Purchase Agreement, as amended, as the “2018 Purchase Agreement.” Under the 2018 Purchase Agreement, we were required to file a registration statement on Form S-3 with the SEC no later than May 5, 2018 covering the resale of the 7,968,128 shares of our common stock issuable upon exercise of the warrants sold in the private placement. A registration statement relating to such shares was filed on May 4, 2018 and declared effective by the SEC on May 11, 2018.

Expenses. Pursuant to the Investor Rights Agreement, the Registration Rights Agreement and the 2018 Purchase Agreement, we are required to pay all registration expenses, including the fees and expenses of one counsel to represent such holders of our common stock, other than any underwriting discounts, selling commissions and fees and expenses of such holder’s own counsel related to any demand or incidental registration. We are not required to pay registration expenses if the registration request under the Investor Rights Agreement or the Registration Rights Agreement is withdrawn at the request of such holders, unless the withdrawal is due to discovery of a materially adverse change in our business after the initiation of such registration request.

The Investor Rights Agreement and the Registration Rights Agreement contain customary cross-indemnification provisions, pursuant to which we are obligated to indemnify such holders in the event of material misstatements or omissions in the registration statement attributable to us or any violation or alleged violation whether by action or inaction by us under the Securities Act, the Exchange Act, any state securities or Blue Sky law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities or Blue Sky law in connection with such registration statement or the qualification or compliance of the offering, and such holders are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to it.

All applicable registration rights with respect to the registration statement of which this prospectus forms a part have been waived.

Transfer Agent and Registrar

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

Stock Market Listing

Our common stock is listed for trading on the Nasdaq Global Market under the symbol “EBIO.”

DESCRIPTION OF OUR DEPOSITARY SHARES

General

We may, at our option, elect to offer fractional shares of preferred stock, which we call depositary shares, rather than full shares of preferred stock. If we do, we will issue to the public receipts, called depositary receipts, for depositary shares, each of which will represent a fraction, to be described in the applicable prospectus supplement, of a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence and paying certain charges.

The summary of terms of the depositary shares contained in this prospectus is not a complete description of the terms of the depositary shares. You should refer to the form of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions, if any, received in respect of the preferred stock underlying the depositary shares to the record holders of depositary shares in proportion to the numbers of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the underlying preferred stock.

If there is a distribution other than in cash, the depositary will distribute property (including securities) received by it to the record holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, adopt another method for the distribution, including selling the property and distributing the net proceeds from the sale to the holders.

Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of us, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

Withdrawal of Stock

Unless the related depositary shares have been previously called for redemption, upon surrender of the depositary receipts at the office of the depositary, the holder of the depositary shares will be entitled to delivery, at the office of the depositary to or upon his or her order, of the number of whole shares of the preferred stock and any money or other property represented by the depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. In no event will the depositary deliver fractional shares of preferred stock upon surrender of depositary receipts. Holders of preferred stock thus withdrawn may not thereafter deposit those shares under the deposit agreement or receive depositary receipts evidencing depositary shares therefor.

Redemption of Depositary Shares

Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of the preferred stock so redeemed, so long as we have paid in full to the depositary the redemption price of the preferred stock to be redeemed plus an amount equal to any accumulated and unpaid dividends on the preferred stock to the date fixed for redemption. The redemption price per depositary share will be equal to the redemption price and any other amounts per share payable on the preferred stock multiplied by the fraction of a share of preferred stock represented by one depositary share. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata or by any other equitable method as may be determined by the depositary.

After the date fixed for redemption, depositary shares called for redemption will no longer be deemed to be outstanding and all rights of the holders of depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon redemption upon surrender to the depositary of the depositary receipts evidencing the depositary shares.

Voting the Preferred Stock

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts relating to that preferred stock. The record date for the depositary receipts relating to the preferred stock will be the same date as the record date for the preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the number of shares of preferred stock represented by the depositary shares in accordance with those instructions, and we will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote any shares of preferred stock except to the extent it receives specific instructions from the holders of depositary shares representing that number of shares of preferred stock.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay charges of the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay transfer, income and other taxes and

governmental charges and such other charges (including those in connection with the receipt and distribution of dividends, the sale or exercise of rights, the withdrawal of the preferred stock and the transferring, splitting or grouping of depositary receipts) as are expressly provided in the deposit agreement to be for their accounts. If these charges have not been paid by the holders of depositary receipts, the depositary may refuse to transfer depositary shares, withhold dividends and distributions and sell the depositary shares evidenced by the depositary receipt.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment that materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by the holders of a majority of the outstanding depositary shares. The deposit agreement may be terminated by the depositary or us only if:

- all outstanding depositary shares have been redeemed; or
- there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us notice of its election to do so, and we may remove the depositary at any time. Any resignation or removal of the depositary will take effect upon our appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having the requisite combined capital and surplus as set forth in the applicable agreement.

Notices

The depositary will forward to holders of depositary receipts all notices, reports and other communications, including proxy solicitation materials received from us, that are delivered to the depositary and that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

Limitation of Liability

Neither we nor the depositary will be liable if either we or it is prevented or delayed by law or any circumstance beyond its control in performing its obligations. Our obligations and those of the depositary will be limited to performance in good faith of our and their duties thereunder. We and the depositary will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. We and the depositary may rely upon written advice of counsel or accountants, on information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent to give such information and on documents believed to be genuine and to have been signed or presented by the proper party or parties.

DESCRIPTION OF OUR WARRANTS

We may issue warrants to purchase common stock, preferred stock, depositary shares or debt securities. We may offer warrants separately or together with one or more additional warrants, common stock, preferred stock, depositary shares or debt securities, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

- the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants are to be sold separately or with other securities as parts of units;
- whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- the designation and terms of any equity securities purchasable upon exercise of the warrants;
- the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the preferred stock or depositary shares with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, preferred stock, depositary shares or common stock will be separately transferable;
- the number of shares of common stock, preferred stock or depositary shares purchasable upon exercise of a warrant and the price at which those shares may be purchased;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;

- the anti-dilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.;

Description of Outstanding Warrants

As of May 10, 2018, there were 12,373,003 warrants to purchase shares of our common stock outstanding. See “Description of Our Capital Stock - Common Stock Warrants.”

DESCRIPTION OF OUR UNITS

The following, together with the additional information we may include in the applicable prospectus supplement or free writing prospectus, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms summarized below will apply generally to any units we may offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement or free writing prospectus.

We may, from time to time, issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time, or at any time before a specified date.

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of units, including:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- the rights and obligations of the unit agent, if any;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any material provisions of the governing unit agreement that differ from those described above.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

FORMS OF SECURITIES

Each debt security, depositary share, warrant, unit and security right may be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, depositary shares, warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Global Securities

We may issue the debt securities, depositary shares, warrants and units in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a global security may not be transferred except as a whole by and among the depositary for the global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in global securities.

So long as the depositary, or its nominee, is the registered owner of a global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the global security for all purposes under the applicable indenture, deposit agreement, warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a global security will not be entitled to have the securities represented by the global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, deposit agreement, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a global security must rely on the procedures of the depositary for that global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, deposit agreement, warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a

global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, deposit agreement, warrant agreement or unit agreement, the depositary for the global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to depositary shares, warrants or units, represented by a global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the global security. None of us, or any trustee, warrant agent, unit agent or other agent of ours, or any agent of any trustee, warrant agent or unit agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a global security, upon receipt of any payment to holders of principal, premium, interest or other distribution of underlying securities or other property on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of the securities represented by a global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the global security that had been held by the depositary. Any securities issued in definitive form in exchange for a global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the global security that had been held by the depositary.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together:

- directly to purchasers;
- through agents;
- to or through underwriters;
- through dealers;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement or free writing prospectus.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

We may effect the distribution of the securities from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

For example, we may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. We may also sell securities through a rights offering, forward contracts or similar arrangements.

Except as described in a prospectus supplement or a free writing prospectus, the securities issued and sold under this prospectus will have no established trading market, other than our common stock, which is listed on the Nasdaq Global Market. Except as described in a prospectus supplement or a free writing prospectus, any shares of our common stock sold pursuant to this prospectus will be eligible for listing and trading on the Nasdaq Global Market, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than our common stock, may or may not be listed on a national securities exchange or other trading market.

We will set forth in a prospectus supplement or free writing prospectus:

- the terms of any underwriting or other agreement that we reach relating to sales under this prospectus;
- the method of distribution of the securities;
- the names of any agents, underwriters or dealers, including any managing underwriters, used in the offering of securities;
- the terms of any direct sales, including the terms of any bidding or auction process, or the terms of any other transactions;
- the compensation payable to agents, underwriters and dealers, which may be in the form of discounts, concessions or commissions;
- any activities that may be undertaken by agents, underwriters and dealers to stabilize, maintain or otherwise affect the price of the securities; and

- any indemnification and contribution obligations owing to agents, underwriters and dealers.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If we sell directly to institutional investors or others, they may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. Unless otherwise indicated in a prospectus supplement or free writing prospectus, if we sell through an agent, such agent will be acting on a best efforts basis for the period of its appointment. Any agent may be deemed to be an “underwriter” of the securities as that term is defined in the Securities Act. If a dealer is used in the sale of the securities, we or an underwriter will sell securities to the dealer, as principal. The dealer may resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

We may authorize agents, underwriters and dealers to solicit offers by certain institutional investors to purchase offered securities under contracts providing for payment and delivery on a future date specified in a prospectus supplement or free writing prospectus. The prospectus supplement or free writing prospectus will also describe the public offering price for the securities and the commission payable for solicitation of these delayed delivery contracts. Delayed delivery contracts will contain definite fixed price and quantity terms. The obligations of a purchase under these delayed delivery contracts will be subject to only two conditions:

- that the institution’s purchase of the securities at the time of delivery of the securities is not prohibited under the law of any jurisdiction to which the institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

To the extent permitted by and in accordance with Regulation M under the Securities Exchange Act of 1934, as amended, or the Exchange Act, in connection with an offering an underwriter may engage in over-allotments, stabilizing transactions, short covering transactions and penalty bids. Over-allotments involve sales in excess of the offering size, which creates a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would be otherwise. If commenced, the underwriters may discontinue any of the activities at any time.

To the extent permitted by and in accordance with Regulation M under the Exchange Act, any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq during the business day prior to the pricing of an offering, before the commencement of offers or sales of the securities.

Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement or free writing prospectus.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

No securities may be sold under this prospectus without delivery, in paper format or in electronic format, or both, of the applicable prospectus supplement or free writing prospectus describing the method and terms of the offering.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Hogan Lovells US LLP. As appropriate, legal counsel representing the underwriters, dealers or agents will be named in the accompanying prospectus supplement and may opine to certain legal matters.

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, 2017, as set forth in their report, which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements, included therein, and which are 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.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated

by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2017, filed on April 2, 2018;
- our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, filed on May 15, 2018;
- our Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items) filed with the SEC on January 25, 2018, March 13, 2018, March 23, 2018, March 23, 2018 and April 5, 2018 (SEC Accession No. 0001485003-18-000039);
- our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 30, 2018; and
- the description of our capital stock contained in Form 8-A filed with the SEC on February 3, 2014, including any amendment or report filed for the purpose of updating such description.

In addition, all documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement and all such documents that we file with the SEC after the date of this prospectus and before the termination of the offering of our securities shall be deemed incorporated by reference into this prospectus and to be a part of this prospectus from the respective dates of filing such documents.

Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: Eleven Biotherapeutics, Inc., Attn: Chief Financial Officer, 245 First Street, Suite 1800, Cambridge, MA 02142. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at <http://www.elevenbio.com>. The information on such website is not incorporated by reference and is not a part of this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the SEC's public reference facilities by calling the SEC at 1-800-SEC-0330. You can request copies of these documents, upon payment of a duplicating fee, by writing to the SEC at its principal office at 100 F Street NE, Room 1580, Washington, D.C. 20549-1004. The SEC maintains an Internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our SEC filings are accessible through the Internet

at that website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at <http://www.elevenbio.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

\$150,000,000

**Debt Securities
Common Stock
Preferred Stock
Depository Shares
Warrants
Units**

PROSPECTUS

June 8, 2018



Sesen Bio, Inc.

**shares of Common Stock
and**

Warrants to purchase up to shares of Common Stock

PROSPECTUS SUPPLEMENT

Canaccord Genuity

, 2019
