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

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**FORM S-3  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933**

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**ELEVEN BIOTHERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)

**26-2025616**  
(I.R.S. Employer  
Identification Number)

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

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**Stephen A. Hurly  
President and Chief Executive Officer  
Eleven Biotherapeutics, Inc.  
245 First Street, Suite 1800  
Cambridge, MA 02142  
(617) 444-8550**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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*Copies to:*  
**Steven J. Abrams  
Hogan Lovells US LLP  
1735 Market Street, 23rd Floor  
Philadelphia, PA 19103  
Tel: (267) 675-4600**

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**Approximate date of commencement of proposed sale to public:** From time to time after this registration statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

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

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

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

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

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Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

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

**The registrant is an emerging growth company, as defined in Section 2(a) of the Securities Act. This Registration Statement complies with the requirements that apply to an issuer that is an emerging growth company.**

Title of Each Class of Securities To Be Registered	Amount to be Registered(1)(2)	Proposed Maximum Aggregate Offering Price per Share(3)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share, underlying common stock purchase warrants	7,968,128	\$2.69	\$ 21,434,265	\$ 2,668.57

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, there is also being registered hereby such indeterminate number of additional shares of common stock, par value \$0.001 per share, of the registrant as may be issued or issuable because of stock splits, stock dividends, stock distributions, and similar transactions.
- (2) Represents 7,968,128 shares of the registrant's common stock issuable upon exercise of certain outstanding common stock purchase warrants at an exercise price of \$1.20, to be offered and sold by the selling stockholders identified in this registration statement.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act based upon the higher of (i) \$1.20, which is the price at which the warrants may be exercised, and (ii) \$2.69, which is the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Global Market on April 30, 2018, which date is a date within five business days of the filing of this registration statement.

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

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**The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities pursuant to this prospectus until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED MAY 4, 2018**

**PROSPECTUS**



**7,968,128 Shares of Common Stock  
Issuable upon Exercise of Outstanding Warrants**

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This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption "Selling Stockholders," of up to 7,968,128 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain outstanding common stock purchase warrants issued and sold by us. We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale of shares of common stock by the selling stockholders. We will receive proceeds from any cash exercise of the warrants, which, if exercised in cash with respect to all of the 7,968,128 shares of common stock offered hereby, would result in gross proceeds to us of approximately \$9.6 million; however, we cannot predict when or if the warrants will be exercised and it is possible that the warrants may expire and never be exercised, in which case we would not receive any cash proceeds. The selling stockholders will bear all commissions and discounts, if any, attributable to the sale of the shares. We will bear all costs, expenses and fees in connection with the registration of the shares.

The selling stockholders may sell the shares of our common stock offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under the caption "Plan of Distribution." The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.

Our common stock is listed on the Nasdaq Global Market under the symbol "EBIO." On May 3, 2018, the closing price of our common stock was \$3.29 per share.

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 "Prospectus Summary—Implications of Being an Emerging Growth Company."

**Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 7 of this prospectus and under similar headings in the documents incorporated by reference into this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is , 2018.

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## ABOUT THIS PROSPECTUS

This prospectus relates to the resale by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” from time to time, of up to an aggregate of 7,968,128 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain outstanding common stock purchase warrants. As described below under “Prospectus Summary— Description of Private Placement,” the shares of our common stock registered by this prospectus are issuable upon exercise of common stock purchase warrants to purchase up to 7,968,128 shares of our common stock for an exercise price of \$1.20 per share issued on March 23, 2018, all of which are exercisable by the selling stockholders. We are not selling any shares of our common stock under this prospectus, and we will not receive any proceeds from the sale of shares of common stock offered hereby by the selling stockholders.

This prospectus is part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or SEC. It omits some of the information contained in the registration statement, and reference is made to the full registration statement for further information with regard to us and the securities being offered by the selling stockholders. Any statement contained in the prospectus concerning the provisions of any document filed as an exhibit to the registration statement or otherwise filed with the SEC is not necessarily complete, and in each instance, reference is made to the copy of the document filed. You should review the complete document to evaluate these statements.

You should read this prospectus, any documents that we incorporate by reference in this prospectus and the information below under the caption “Where You Can Find More Information” and “Incorporation of Documents By Reference” before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information in this prospectus or any documents we incorporate by reference herein is accurate as of any date other than the date on the front of each document. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus and the documents that are incorporated by reference herein contain certain market data and industry statistics and forecasts that are based on studies and clinical trials sponsored by the Company or third parties, independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not verified any of this data. Further, many of these statements involve risks and uncertainties and are subject to change based on various factors, including those discussed under the caption “Risk Factors” in this prospectus and under similar captions in the documents that are incorporated by reference herein. Accordingly, investors should not place undue reliance on this information.

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.

## PROSPECTUS SUMMARY

*This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus, any applicable free writing prospectus and the documents incorporated by reference herein and therein. You should read all such documents carefully, especially the risk factors and our consolidated financial statements and the related notes included or incorporated by reference herein or therein, before deciding to buy shares of our common stock. Unless the context requires otherwise, references in this prospectus to “Eleven,” “we,” “us” and “our” refer to Eleven Biotherapeutics, Inc. and our subsidiaries.*

### Company Overview

We are a biologics oncology company focused primarily on designing, engineering and developing targeted protein therapeutics, or TPTs. Our TPTs 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 recombinant one-step manufacturing process. We target tumor cell surface antigens that allow for rapid internalization into the targeted cancer cell and also have limited expression on normal cells. We have designed our TPTs 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 is Vicinium™, which is a locally-administered TPT. 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 in March 2018 and anticipate reporting topline three-month data in mid-2018 and topline twelve-month data in the second quarter of 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 subjects.

Our second most advanced product candidate is Proxinium™, a locally-administered TPT intended for the treatment of squamous cell carcinoma of the head and neck, or SCCHN. In our two Phase 1 clinical trials, 53% of evaluable subjects treated with Proxinium 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 Proxinium 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 TPTs, our pipeline also includes systemically-administered TPTs in development. Our systemically-administered TPTs 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 plan on submitting an Investigational New Drug application, or IND, with VB6-845d, once funding or a partner is secured for this program.

We have deferred further development of Proxinium and VB6-845d in order to focus our efforts and our resources on our ongoing development of Vicinium. We are also exploring collaborations for Vicinium, Proxinium and VB6-845d.

We maintain global development, marketing and commercialization rights for all of our TPT-based product candidates. We intend to explore various commercialization strategies to market our approved products. If we obtain regulatory approval for Vicinium in 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 our other product candidates, including Proxinium, 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 TPT-based product candidates, covering our key patents with protection ranging from 2018 to 2036. See “Business-Intellectual Property” for additional details.

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 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 2015 and 2016 for the treatment of dry eye disease and allergic conjunctivitis, we do not plan to pursue further development of isunakinra.

#### Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the “Risk Factors” section of this prospectus immediately following this prospectus summary and in Part I, Item 1A “Risk Factors” of our Annual Report on Form 10-K filed with the SEC on April 2, 2018, which is incorporated by reference in this prospectus. These risks include the following:

- We have incurred significant losses since our inception, which we anticipate will continue for the foreseeable future. As of December 31, 2017, we had an accumulated deficit of \$152.3 million.
- We have never generated revenue from product sales and may never be profitable.
- Our business is highly dependent on the success of Vicinium, our lead product candidate.
- We may encounter difficulties enrolling or retaining subjects in our clinical trials.
- Clinical product development involves uncertain outcomes, and results of earlier studies and trials may not be predictive of future trial results.
- We may not be able to submit INDs, commence clinical trials or report data on the timelines we expect, and even if we are able to, the U.S. Food and Drug Administration may not permit us to proceed.
- If our product candidates fail to demonstrate quality, safety and efficacy to the satisfaction of regulatory authorities, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.
- We will need to obtain additional funding for commercialization. Failure to obtain additional funding when needed, and on satisfactory terms, may force us to delay, limit or terminate our product development efforts or other operations.
- There is substantial doubt relating to our ability to continue as a going concern as determined by management and as reflected in the report of our independent registered public accounting firm. We will need to raise substantial additional capital to fund our operations.
- We may record impairment charges, which would adversely impact of financial position and results of operation.
- We have relied and expect to rely on third parties to conduct aspects of our research and development and clinical trials. If they terminate our arrangements, fail to meet deadlines or perform in an unsatisfactory manner, our business could be harmed.
- The potential commercial success of any current or future product candidate will depend upon the degree of market acceptance by physicians, patients, third-party payors and others in the medical community.

#### Our 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.”

### **Description of Private Placement**

On March 21, 2018, we entered into a Securities Purchase Agreement with certain institutional and accredited investors named therein, or the Investors, pursuant to which we agreed, among other things, to issue and sell common stock purchase warrants exercisable for up to 7,968,128 shares of our common stock at an exercise price of \$1.20 per share (subject to adjustment as set forth therein) to the Investors. We refer to the sale of these warrants as the “2018 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.”

Each warrant sold in the 2018 Private Placement was immediately exercisable on the date of its issuance and expires five years from that date. The warrants and the shares of our common stock issuable upon the exercise of the warrants were not registered under the Securities Act of 1933, as amended, or the Securities Act, were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder. All such warrants are exercisable on a cashless basis if at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for, the resale of shares of common stock for which the warrants are exercisable. We closed the 2018 Private Placement on March 23, 2018.

We are filing a registration statement on Form S-3, of which this prospectus forms a part, to fulfill our contractual obligations under the 2018 Purchase Agreement to provide for the resale by the Investors of up to 7,968,128 shares of our common stock issuable upon exercise of the warrants we sold in the 2018 Private Placement. We have agreed to use commercially reasonable efforts to cause such registration statement to become effective 181 days following the date of issuance of the warrants and to keep such registration statement effective at all times until (a) the shares of common stock underlying the warrants are sold under such registration statement or pursuant to Rule 144 under the Securities Act, (b) the shares of common stock underlying the warrants may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 under the Securities Act, or (c) the five-year anniversary of the date of the issuance of the warrants, whichever is the earliest to occur.

## The Offering

Shares of common stock offered by the selling stockholders:	7,968,128 shares of common stock issuable upon exercise of certain outstanding common stock purchase warrants
Shares of common stock outstanding before this offering:	47,789,283 shares
Shares of common stock outstanding after completion of this offering (assuming full exercise of the common stock purchase warrants that are exercisable for the shares offered hereby):	55,757,411 shares
Terms of this offering:	The selling stockholders, including their transferees, donees, pledgees, assignees and successors-in-interest, may sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on the Nasdaq Global Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.
Use of proceeds:	All proceeds from the sale of shares of common stock offered hereby will be for the account of the selling stockholders. We will not receive any proceeds from the sale of common stock offered pursuant to this prospectus. We will receive proceeds upon cash exercises, if any, of the warrants to purchase the shares of common stock offered hereby. See the caption "Use of Proceeds" in this prospectus.
Nasdaq Global Market symbol:	EBIO
Trading:	Our shares of common stock currently trade on the Nasdaq Global Market. There is no established trading market for the warrants that are exercisable for the shares offered hereby, and we do not intend to list the warrants on any securities exchange or other trading system.
Risk factors:	Investing in our securities involves a high degree of risk and purchasers of our securities may lose their entire investment. See the information under the caption "Risk Factors" beginning on page 7 of this prospectus and the other information included elsewhere in this prospectus and incorporated by reference herein for a discussion of factors you should consider before deciding to invest in our securities.

### Outstanding Shares

The number of shares of our common stock to be outstanding after this offering is based on 34,706,995 shares of our common stock outstanding as of December 31, 2017, plus (i) 7,968,128 shares of common stock issued in a public offering in March 2018, (ii) 7,968,128 shares of common stock issuable upon exercise of the warrants issued pursuant to the 2018 Purchase Agreement (which warrants are exercisable at an exercise price of \$1.20 per share), (

iii) 9,565 shares of common stock issued under the Company's Employee Stock Purchase Plan during March 2018, and (iv) 5,104,595 shares of common stock issued upon the exercise of stock options and of certain of our previously issued warrants subsequent to December 31, 2017, and excludes:

- 2,695,796 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2017 at a weighted-average exercise price of \$3.16 per share;
- 10,055,000 shares of our common stock issuable upon the exercise of common stock warrants outstanding as of December 31, 2017 at a weighted-average exercise price of \$0.86 per share;
- 1,183,739 shares of our common stock available for future issuance under our 2014 Stock Incentive Plan, or the 2014 Plan, as of December 31, 2017; and
- 59,461 shares of our common stock available for future issuance under our employee stock purchase plan as of December 31, 2017.

## **RISK FACTORS**

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus and in the documents incorporated by reference in this prospectus before you decide to purchase our securities. In particular, you should carefully consider and evaluate the risks and uncertainties described in “Part I—Item 1A. Risk Factors” of our most recent Annual Report on Form 10-K, as updated by the additional risks and uncertainties set forth in the other documents incorporated by reference in this prospectus, as well as the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus or in any other document incorporated by reference into this prospectus. Any of the risks and uncertainties set forth therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our securities. As a result, you could lose all or part of your investment.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus or the documents incorporated herein by reference 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 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 with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc.;
- 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, particularly in the “Risk Factors” section, 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 this prospectus 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.

#### **USE OF PROCEEDS**

All shares of our common stock offered by this prospectus are being registered for the account of the selling stockholders. We will not receive any of the proceeds from the sale of these shares. We have agreed to pay all costs, expenses and fees relating to the registration of the shares of our common stock covered by this prospectus.

We will receive proceeds from the cash exercise of the warrants which, if exercised in cash with respect to all of the 7,968,128 shares of common stock, would result in gross proceeds of approximately \$9.6 million to us. We will use any proceeds received by us from the cash exercise of the warrants to continue to fund the clinical development of Vicinium and for general corporate purposes, which may include capital expenditures and funding our working capital needs.

We cannot predict when or if the warrants will be exercised, and it is possible that the warrants may expire and never be exercised. In addition, the warrants are exercisable on a cashless basis if at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for, the issuance of shares of common stock for which the warrants are exercisable. As a result, we may never receive meaningful, or any, cash proceeds from the exercise of the warrants, and we cannot plan on any specific uses of any proceeds we may receive beyond the purposes described herein.

## SELLING STOCKHOLDERS

This prospectus covers an aggregate of up to 7,968,128 shares of our common stock that may be sold or otherwise disposed of by the selling stockholders. Such shares are issuable to the selling stockholders upon the exercise of the common stock purchase warrants we issued to the selling stockholders in the 2018 Private Placement transaction.

The following table sets forth certain information with respect to each selling stockholder, including (i) the shares of our common stock beneficially owned by the selling stockholder prior to this offering, (ii) the number of shares being offered by the selling stockholder pursuant to this prospectus and (iii) the selling stockholder's beneficial ownership after completion of this offering, assuming that all of the shares covered hereby (but none of the other shares, if any, held by the selling stockholders) are sold. The registration of the shares of common stock issuable to the selling stockholders upon the exercise of the warrants does not necessarily mean that the selling stockholders will sell all or any of such shares.

The table is based on information supplied to us by the selling stockholders, with beneficial ownership and percentage ownership determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to shares of stock. This information does not necessarily indicate beneficial ownership for any other purpose. In computing the number of shares beneficially owned by a selling stockholder and the percentage ownership of that selling stockholder, shares of common stock subject to warrants held by that selling stockholder that are exercisable as of April 30, 2018, or exercisable within 60 days after April 30, 2018, are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. The percentage of beneficial ownership after this offering is based on 47,789,283 shares outstanding on April 30, 2018.

The registration of these shares of common stock does not mean that the selling stockholders will sell or otherwise dispose of all or any of those securities. The selling stockholders may sell or otherwise dispose of all, a portion or none of such shares from time to time. We do not know the number of shares, if any, that will be offered for sale or other disposition by any of the selling stockholders under this prospectus. Furthermore, the selling stockholders may have sold, transferred or disposed of the shares of common stock covered hereby in transactions exempt from the registration requirements of the Securities Act since the date on which we filed this prospectus.

Other than the transactions referred to herein and in documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, the selling stockholders have not within the past three years had any position, office or other material relationship with us or any of our subsidiaries other than as a holder of our securities. To our knowledge, none of the selling stockholders are affiliates of broker-dealers.

Information about the selling stockholders may change over time. Any changed information will be set forth in an amendment to the registration statement or supplement to this prospectus, to the extent required by law.

Selling Stockholder(1)	Beneficial Ownership Before This Offering	Shares Underlying Warrants Offered Hereby(3)	Beneficial Ownership After This Offering	
	Number of Shares Owned(2)		Number of Shares Owned	Percentage of Outstanding Shares
Sabby Volatility Warrant Master Fund, Ltd. (4)	2,384,685	3,306,773	1,950,597	3.82%
M. Kingdon Offshore Master Fund L.P. (5)	2,384,685	1,195,219	2,213,980	4.52%
1992 MSF International Ltd. (6)	1,593,626	1,593,626	—	*
Iroquois Capital Investment Group LLC (7)	637,450	637,450	—	*
Iroquois Master Fund Ltd. (8)	398,407	398,407	—	*
Kingsbrook Opportunities Master Fund LP (9)	478,086	239,043	239,043	*
KBB Asset Management, LLC (10)	278,844	278,884	—	*
Bigger Capital Fund, LP (11)	364,124	219,124	145,000	*
Obed Cepeda and Antonia Dunbar (Married)	99,602	99,602	—	*

\* Less than one percent.

- (1) This table and the information in the notes below are based upon information supplied by the selling stockholders, including reports and amendments thereto filed with the SEC on Schedule 13G.
- (2) All of the warrants that are exercisable for the shares of our common stock offered hereby contain certain beneficial ownership limitations, which provide that a holder of the warrants will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding. As a result, the number of shares of common stock reflected in this column as beneficially owned by each selling stockholder includes (a) any outstanding shares of our common stock held by such selling stockholder, and (b) if any, the number of shares of common stock subject to the warrants exercisable for the shares offered hereby and any other warrants that may be held by such selling stockholder, in each case which such selling stockholder has the right to acquire as of April 30, 2018 or within 60 days thereafter and without it or any of its affiliates beneficially owning more than 4.99% of the number of outstanding shares of our common stock as of April 30, 2018.
- (3) The actual number of shares of common stock offered hereby and included in the registration statement, of which this prospectus forms a part, includes, in accordance with Rule 416 under the Securities Act, such indeterminate number of additional shares of our common stock as may become issuable in connection with any proportionate adjustment for any stock splits, stock combinations, stock dividends, recapitalizations or similar events with respect to common stock.
- (4) Sabby Management, LLC is the investment manager of Sabby Volatility Warrant Master Fund, Ltd. and shares voting and investment power with respect to these shares in this capacity. As manager of Sabby

Management, LLC, Hal Mintz also shares voting and investment power on behalf of Sabby Volatility Warrant Master Fund, Ltd. Each of Sabby Management, LLC and Hal Mintz disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein. The address of the principal business office of each of Sabby Volatility Warrant Master Fund, Ltd., Sabby Management, LLC and Hal Mintz is 10 Mountainview Road, Suite 205, Upper Saddle River, New Jersey 07458

- (5) Based, in part, on information provided on Schedule 13G filed with the SEC on April 4, 2018 by M. Kingdon Capital Management, L.L.C., M. Kingdon Offshore Master Fund L.P. and Mark Kingdon. Consists of (i) 2,213,980 shares of our common stock and (ii) 153,485 shares of common stock issuable upon exercise of common stock purchase warrants, which shares are being offered for resale pursuant to this prospectus. Mark Kingdon is the Managing Member of Kingdon GP, LLC, which is the general partner of M. Kingdon Offshore Master Fund L.P. Each of M. Kingdon Capital Management, L.L.C., M. Kingdon Offshore Master Fund L.P. and Mark Kingdon have shared voting and dispositive power over shares held by M. Kingdon Offshore Master Fund L.P. The business address for each M. Kingdon Capital Management, L.L.C., M. Kingdon Offshore Master Fund L.P. and Mark Kingdon is 152 West 57th Street, 50th Floor, New York, NY 10019.
- (6) Highbridge Capital Management, LLC (“HCM”), the trading manager of 1992 MSF International Ltd., may be deemed to be the beneficial owner of the securities held by 1992 MSF International Ltd. 1992 MSF International Ltd. disclaims any beneficial ownership of these securities. The business address of HCM is 40 West 57th Street, 32nd Floor, New York, New York 10019 and the business address of 1992 MSF International Ltd. is c/o HedgeServ (Cayman) Ltd., Willow House, Cricket Square Floor 3, George Town, Grand Cayman KY1-1104, Cayman Islands.
- (7) Richard Abbe is the managing member of Iroquois Capital Investment Group LLC and has voting and dispositive power over the shares held by Iroquois Capital Investment Group LLC. As such, Mr. Abbe may be deemed to be the beneficial owner of the securities held by Iroquois Capital Investment Group LLC. Notwithstanding the foregoing, Mr. Abbe disclaims such beneficial ownership. The business address of Iroquois Capital Investment Group LLC is 205 East 42nd Street, 20th Floor, New York, New York, 10017.
- (8) Richard Abbe and Kimberly Page are the natural persons with voting and dispositive power over the shares held by Iroquois Master Fund Ltd. As such, Mr. Abbe and Ms. Page may be deemed to be the beneficial owner of the securities held by Iroquois Master Fund Ltd. Notwithstanding the foregoing, Mr. Abbe and Ms. Page disclaim such beneficial ownership. The business address of Iroquois Master Fund Ltd. is 205 East 42nd Street, 20th Floor, New York, New York, 10017.
- (9) Consists of (i) 239,043 shares of our common stock owned by Kingsbrook Opportunities Master Fund LP (“Kingsbrook Opportunities”) and (ii) 239,043 shares of common stock issuable upon exercise of common stock purchase warrants, which shares are being offered for resale pursuant to this prospectus. Kingsbrook Partners LP (“Kingsbrook Partners”) is the investment manager of Kingsbrook Opportunities and consequently has voting control and investment discretion over securities held by Kingsbrook Opportunities. Kingsbrook Opportunities GP LLC (“Opportunities GP”) is the general partner of Kingsbrook Opportunities and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Opportunities. KB GP LLC (“GP LLC”) is the general partner of Kingsbrook Partners and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Partners. Ari J. Storch, Adam J. Chill and Scott M. Wallace are the sole managing members of Opportunities GP and GP LLC and as a result may be considered beneficial owners of any securities deemed beneficially owned by Opportunities GP and GP LLC. Each of Kingsbrook Partners, Opportunities GP, GP LLC and Messrs. Storch, Chill and Wallace disclaim beneficial ownership of these securities.

- (10) Steven Segal is the managing member of KBB Asset Management, LLC and may be deemed to have beneficial ownership of the securities reported herein that are held by KBB Asset Management, LLC. Mr. Segal disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein. The address for KBB Asset Management, LLC is 12 Harrison Avenue, Enfield, CT 06082.
- (11) Consists of (i) 145,000 shares of common stock and (ii) 219,124 shares of common stock issuable upon exercise of common stock purchase warrants, which shares are being offered for resale pursuant to this prospectus. Michael Bigger has the power to vote and dispose of the shares held by Bigger Capital Fund, LP and may be deemed to be the beneficial owner of these shares. Notwithstanding the foregoing, Mr. Bigger disclaims beneficial ownership of such securities except to the extent of his pecuniary interest therein. The address for Bigger Capital Fund, LP is 159 Jennings Road, Cold Spring Harbor, New York 11724.

## PLAN OF DISTRIBUTION

The selling stockholders, including their transferees, donees, pledgees, assignees and successors-in-interest, may, from time to time, sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price, at varying prices determined at the time of sale or at negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- broker-dealers may agree with a selling stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts relating to its sales of shares to exceed what is customary in the types of transactions involved.

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

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The selling stockholders have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

Because the selling stockholders may each be deemed to be an “underwriter” within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The selling stockholder has advised us that it has not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares.

The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the selling stockholder or any other person. We will make copies of this prospectus available to the selling stockholders and have informed the selling stockholders of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

We have agreed to use commercially reasonable efforts to keep the registration statement, of which this prospectus forms a part, continuously effective until the earliest of (i) the shares of common stock issuable upon exercise of the warrant have been disposed of pursuant to such registration statement, (ii) such shares can be sold under Rule 144 without limitation or other restriction and (iii) the first year anniversary of the effective date of such registration statement.

We are required to pay certain fees and expenses in connection with the registration of the shares of common stock issuable upon exercise of the March 2018 Warrants. We have agreed to indemnify the selling stockholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We will not receive any proceeds from the sale of the shares by the selling stockholders.

#### **Listing**

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

## LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Hogan Lovells US LLP.

## 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 of which this prospectus forms a part. 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 into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-36296. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2017, filed on April 2, 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, March 23, 2018, March 23, 2018 and April 5, 2018;
- 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.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us 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 forms a part and prior to the effectiveness of such registration statement and all documents that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

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 have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of our common stock. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You should rely only on information contained in, or incorporated by reference into, this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus.

You may read and copy the registration statement, of which this prospectus forms a part, at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's 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 forms 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.elevenbio.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be incurred in connection with the offering described in this Registration Statement, all of which will be paid by the Registrant. All amounts are estimates except the Securities and Exchange Commission, or SEC, registration fee.

	<b>Amount</b>
Securities and Exchange Commission registration fee	\$ 2,669
Accounting fees and expenses	20,000
Legal fees and expenses	75,000
Miscellaneous	2,500
<b>Total Expenses</b>	<b>\$ 100,169</b>

#### Item 15. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law, or the DGCL, permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Our certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of us), by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in

connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with our directors and executive officers. In general, these agreements provide that we will indemnify the director or executive officer to the fullest extent permitted by law for claims arising in his or her capacity as a director or officer of our company or in connection with their service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director or executive officer makes a claim for indemnification and establish certain presumptions that are favorable to the director or executive officer.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as the forgoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act of 1933, as amended, or the Securities Act, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Item 16. Exhibits and Financial Statement Schedules.**

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

#### **Item 17. Undertakings.**

- (a) The undersigned registrant hereby undertakes that:
  - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
    - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of the registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in

the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

## EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
2.1	<a href="#"><u>Share Purchase Agreement, effective as of September 20, 2016, by and between Eleven Biotherapeutics, Inc., Viventia Bio Inc. and Clairmark Investments Ltd., as representative of the selling shareholders (we hereby agree to furnish supplementally a copy of any omitted schedules to the SEC upon request). Incorporated herein by reference to Exhibit 2.1 to our Current Report on Form 8-K filed on September 21, 2016 (File No. 001-36296).</u></a>
3.1	<a href="#"><u>Restated Certificate of Incorporation of Eleven Biotherapeutics, Inc. Incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed with the SEC on February 18, 2014 (File No. 001-36296).</u></a>
3.2	<a href="#"><u>Amended and Restated By-laws of Eleven Biotherapeutics, Inc. Incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed with the SEC on April 16, 2015 (File No. 001-36296).</u></a>
4.1	<a href="#"><u>Specimen Stock Certificate evidencing the shares of common stock. Incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-1/A filed with the SEC on January 23, 2014 (Reg. No. 333-193131).</u></a>
4.2	<a href="#"><u>Amended and Restated Investors' Rights Agreement of Eleven Biotherapeutics, Inc. Incorporated by reference to Exhibit 4.2 to our Registration Statement on Form S-1 filed with the SEC on December 30, 2013 (Reg. No. 333-193131).</u></a>
4.3	<a href="#"><u>Registration Rights Agreement, dated as of September 20, 2016 by and among Eleven Biotherapeutics, Inc. and the shareholders named therein. Incorporated herein by reference to Exhibit 4.1 to our Current Report on Form 8-K filed on September 21, 2016 (File No. 001-36296).</u></a>
4.4	<a href="#"><u>Form of Warrant to Purchase Common Stock, by and between Eleven Biotherapeutics, Inc. and the persons party thereto. Incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed with the SEC on December 1, 2014 (File No. 001-36296).</u></a>
4.5	<a href="#"><u>Form of Warrant issued to Silicon Valley Bank and Life Science Loans, LLC dated November 25, 2014. Incorporated by reference to Exhibit 10.23 to our Registration Statement on Form S-1 filed with the SEC on December 19, 2014 (Reg. No. 333-201176).</u></a>
4.6	<a href="#"><u>Form of Common Warrant. Incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on November 3, 2017 (File No. 001-36296).</u></a>
4.7	<a href="#"><u>Form of Warrant. Incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on March 23, 2018 (File No. 001-36296).</u></a>
5.1*	<a href="#"><u>Opinion of Hogan Lovells US LLP</u></a>
10.1	<a href="#"><u>Form of Securities Purchase Agreement. Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on March 23, 2018 (File No. 001-36296).</u></a>
10.2*	<a href="#"><u>Amendment to Securities Purchase Agreement, dated as of April 27, 2018, by and among Eleven Biotherapeutics, Inc. and the other signatories thereto.</u></a>
21.1	<a href="#"><u>Subsidiaries of Eleven Biotherapeutics, Inc. Incorporated herein by reference to Exhibit 21.1 to our Annual Report on Form 10-K filed on April 2, 2018 (File No. 001-36296).</u></a>
23.1*	<a href="#"><u>Consent of Ernst &amp; Young LLP.</u></a>
23.2*	<a href="#"><u>Consent of Hogan Lovells US LLP (included in Exhibit 5.1).</u></a>

24.1\* [Power of Attorney \(included on the signature page hereto\).](#)

\* Filed herewith.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Cambridge, Commonwealth of Massachusetts, on this 4th day of May, 2018.

### ELEVEN BIOTHERAPEUTICS, INC.

By: /s/ Stephen A. Hurly  
Name: Stephen A. Hurly  
Title: President and Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Stephen A. Hurly and Richard F. Fitzgerald, as his or her true and lawful attorney-in-fact and agent, with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and any other registration statements for the same offering pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Stephen A. Hurly</u> <b>Stephen A. Hurly</b>	Director, President and Chief Executive Officer (Principal Executive Officer)	May 4, 2018
<u>/s/ Richard F. Fitzgerald</u> <b>Richard F. Fitzgerald</b>	Chief Financial Officer, Secretary and Treasurer (Principal Financial and Accounting Officer)	May 4, 2018
<u>/s/ Wendy L. Dixon, Ph.D.</u> <b>Wendy L. Dixon, Ph.D.</b>	Chair of the Board of Directors	May 4, 2018
<u>/s/ Abbie C. Celniker</u> <b>Abbie C. Celniker, Ph.D.</b>	Director	May 4, 2018
<u>/s/ Paul G. Chaney</u> <b>Paul G. Chaney</b>	Director	May 4, 2018
<u>/s/ Leslie Dan</u> <b>Leslie Dan</b>	Director	May 4, 2018
<u>/s/ Jay S. Duker, M.D.</u> <b>Jay S. Duker, M.D.</b>	Director	May 4, 2018
<u>/s/ Barry J. Gertz, M.D., Ph.D.</u> <b>Barry J. Gertz, M.D., Ph.D.</b>	Director	May 4, 2018
<u>/s/ Jane V. Henderson</u> <b>Jane V. Henderson</b>	Director	May 4, 2018
<u>/s/ Daniel S. Lynch</u> <b>Daniel S. Lynch</b>	Director	May 4, 2018



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May 4, 2018

Board of Directors  
Eleven Biotherapeutics, Inc.  
245 First Street, Suite 1800  
Cambridge, MA 02142

Ladies and Gentlemen:

We are acting as counsel to Eleven Biotherapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with its registration statement on Form S-3 (the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**"), relating to the resale or other disposition, from time to time, by the selling stockholders listed in the Registration Statement (the "**Selling Stockholders**"), including their transferees, pledgees, donees or successors, of up to 7,968,128 shares of the common stock, par value \$0.001 per share of the Company (the "**Warrant Shares**"), issuable upon exercise of warrants (the "**Warrants**") issued by the Company to the Selling Stockholders on March 23, 2018, as described in the prospectus that forms a part of the Registration Statement (the "**Prospectus**"). This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed, including the Warrants. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. "Hogan Lovells" is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Beijing Birmingham Boston Brussels Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterrey Moscow Munich New York Northern Virginia Paris Perth Philadelphia Rio de Janeiro Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Warsaw Washington DC Associated offices: Budapest Jakarta Shanghai FTZ Ulaanbaatar Zagreb. Business Service Centers: Johannesburg Louisville. For more information see www.hoganlovells.com

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Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof, the Warrant Shares have been duly authorized by all necessary corporate action on the part of the Company and, following (i) the exercise of the Warrants in accordance with their terms and (ii) receipt by the Company of the consideration for the Warrant Shares specified in the Warrants, the Warrant Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Registration Statement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Prospectus. In giving this consent, we do not thereby admit that we are an "expert" within the meaning of the Act.

Very truly yours,

/s/ HOGAN LOVELLS US LLP

HOGAN LOVELLS US LLP

**AMENDMENT TO SECURITIES PURCHASE AGREEMENT**

This AMENDMENT TO SECURITIES PURCHASE AGREEMENT, dated as of April 27 2018 (this “Amendment”), is made and entered into by and among Eleven Biotherapeutics, Inc., a Delaware corporation (the “Company”) and the undersigned parties (the “Holders”) in connection with that certain Securities Purchase Agreement, dated as of March 21, 2018 (the “Agreement”), by and among the Company and each purchaser identified on the signature pages thereto (each, including its successors and assigns, a “Purchaser” and collectively, the “Purchasers”). As used in this Amendment, capitalized terms which are not defined herein shall have the meanings ascribed to such terms in the Agreement.

**W I T N E S S E T H**

WHEREAS, pursuant to Section 5.5 of the Agreement, any amendment to the Agreement requires a written instrument signed by Purchasers which purchased at least 50.1% in interest of the Securities based on the initial Subscription Amounts under the Agreement;

WHEREAS, the Holders purchased at least 50.1% in interest of the Securities based on the initial Subscription Amounts under the Agreement;

WHEREAS, the Company, pursuant to the Agreement, offered and sold, among other Securities, common stock purchase warrants (the “Warrants”) exercisable for 7,968,128 shares of the Company’s common stock, par value \$0.001 per share (the “Warrant Shares”);

WHEREAS, pursuant to Section 4.18 of the Agreement, the Company is required to file, upon the terms and condition set forth in the Agreement, a registration statement on Form S-1 providing for the resale of the Warrant Shares issued and issuable upon exercise of the Warrants; and

WHEREAS, the Company and the Holders wish to amend the Agreement to provide that the Company shall file a registration statement on Form S-3 providing for the resale of the Warrant Shares issued and issuable upon exercise of the Warrants.

NOW, THEREFORE, the Company and the Holders hereby agree as follows:

1. Amendment to Agreement.

(a) The first sentence of Section 4.18 of the Agreement shall be amended and restated in its entirety to read as follows:

“As soon as reasonably practicable (and in any event within 45 calendar days after the date of this Agreement) and subject to the Company’s prior receipt of each of the Purchaser’s Questionnaires (as defined below), the Company shall file a registration statement on Form S-3 providing for the resale by the Purchasers of the Warrant Shares issued and issuable upon exercise of the Warrants.

2. Miscellaneous.

(a) Successors and Assigns. This Amendment shall be binding upon and inure to the benefit of and be enforceable by the respective successors and permitted assigns of the parties hereto.

(b) No Modification. Except as expressly set forth herein, the Agreement is and shall remain unchanged and in full force and effect, and nothing contained in this Amendment shall, by implication or otherwise, limit, impair, constitute a waiver of, or otherwise affect the rights and remedies of the parties, or shall alter, modify, amend or in any way affect any of the terms, conditions, obligations, covenants or agreements contained in the Agreement.

(c) Governing Law. This Amendment and all actions arising out of or in connection with this Amendment shall be governed by and construed in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof.

(d) Counterparts. This Amendment may be executed in any number of counterparts, including counterparts transmitted by facsimile or other electronic transmission, and by different parties hereto in separate counterparts, with the same effect as if all parties had signed the same document. All such counterparts shall be deemed an original, shall be construed together and shall constitute one and the same instrument.

*[Signature Pages Follow]*

The parties hereto have caused this Amendment to be duly executed and delivered by their duly authorized officers as of the day and year first above written.

**Sabby Volatility Warrant Master Fund, Ltd.**

By: Sabby Management, LLC  
Its: Investment Manager

By: /s/ Robert Grundstein  
Name: Robert Grundstein  
Title: Chief Operating Officer

*[Signature Page to Amendment to Securities Purchase Agreement]*

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The parties hereto have caused this Amendment to be duly executed and delivered by their duly authorized officers as of the day and year first above written.

**M. Kingdon Offshore Master Fund L.P.**

By: Kingdon Capital Management, L.L.C.  
Its: Agent and Investment Advisor

By: /s/ William Walsh  
Name: William Walsh  
Title: Chief Financial Officer

*[Signature Page to Amendment to Securities Purchase Agreement]*

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The parties hereto have caused this Amendment to be duly executed and delivered by their duly authorized officers as of the day and year first above written.

**ELEVEN BIOTHERAPEUTICS, INC.**

By: /s/ Richard F. Fitzgerald

Name: Richard F. Fitzgerald

Title: Chief Financial Officer

*[Signature Page to Amendment to Securities Purchase Agreement]*

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectus of Eleven Biotherapeutics, Inc. for the registration of 7,968,128 shares of common stock and to the incorporation by reference therein of our report dated April 2, 2018, with respect to the consolidated financial statements of Eleven Biotherapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
May 4, 2018