
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

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

Lion Biotechnologies, Inc.
(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

75-3254381
(I.R.S. Employer
Identification Number)

112 West 34th Street,
17th Floor, New York, New York, 10120
(212) 946-4856
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Molly Henderson,
Chief Financial Officer, Secretary
Lion Biotechnologies, Inc.
112 West 34th Street,
17th Floor, New York, New York, 10120
(212) 946-4856
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:
Istvan Benko
TroyGould PC
1801 Century Park East, 16th Floor
Los Angeles, California 90067
(310) 553-4441

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

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)(2)	Proposed maximum offering price per unit (1)(2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, \$0.000041666 par value (3)				—
Preferred Stock, \$0.001 par value (3)				—
Warrants				—
Units				—
Total			\$100,000,000	\$10,070(2)

- (1) Such indeterminate number of each identified class of securities as may from time to time be determined by the registrant and issued at prices determined by the registrant, with an aggregate offering price not to exceed \$100,000,000. Securities registered hereunder may be sold separately, together with other securities registered hereunder or as units with other securities registered hereunder.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933. Pursuant to Rule 457(o) and General Instruction II.D of Form S-3, which permits the registration fee to be calculated on the basis of the maximum offering price of all the securities listed for the primary offering, the table does not specify by each class information as to the amount to be registered or proposed maximum offering price per security.
- (3) Subject to footnote (1), there are also being registered hereunder an indeterminate principal amount or number of shares of common stock or preferred stock that may be issued upon conversion of the preferred stock registered hereunder or upon exercise of warrants registered hereunder, as the case may be.

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

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.

Subject to Completion, Dated May 10, 2016

PROSPECTUS

\$100,000,000
LION BIOTECHNOLOGIES, INC.
Common Stock
Preferred Stock
Warrants
Units

We may offer and sell from time to time, in one or more offerings and on terms that we will determine at the time of each offering, shares of common stock, shares of preferred stock and/or warrants, either separately, together with other securities covered by this prospectus or as units consisting of two or more of the securities covered by this prospectus. The preferred stock and warrants may be convertible into or exercisable for common stock or preferred stock. The aggregate offering price of all securities sold under this prospectus will not exceed \$100,000,000.

We will provide the specific terms of each offering of securities, including the price and the type and amount of securities to be offered and sold, in a supplement to this prospectus. You should read this prospectus and the prospectus supplement carefully before you invest.

We may offer and sell these securities directly to purchasers or to or through one or more underwriters, dealers and agents, and on a continuous or delayed basis. If we sell securities to or through underwriters, dealers or agents, we will include their names and the fees, commissions and discounts that they will receive, as well as the net proceeds to us, in the prospectus supplement. This prospectus may not be used to sell our securities unless it is accompanied by the prospectus supplement. The delivery of this prospectus together with a prospectus supplement relating to the offered securities shall not constitute an offer of any other securities covered by this prospectus.

Investing in our securities involves a high degree of risk. See “Risk Factors” on page 3 of this prospectus and in the applicable prospectus supplement for a discussion of risks that you should consider before you invest in our securities.

Our common stock is traded on the Nasdaq Global Market under the symbol “LBIO.” On May 9, 2016, the last reported sale price of our common stock on the Nasdaq Global Market was \$5.40 per share.

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

The date of this prospectus is , 2016.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. Under the shelf registration process, we may sell any combination of the securities described in this prospectus in one or more transactions up to a total dollar amount of \$100,000,000.

The rules and regulations of the SEC allow us to omit from this prospectus certain information that is included in the registration statement. For further information about us and our securities, you should review the registration statement and the exhibits filed with the registration statement. In addition, the SEC allows us to incorporate by reference into this prospectus information in the reports and other documents that we file with the SEC, which means that we can disclose important information to you by referring you to those reports and other documents. The information incorporated by reference is considered to be part of this prospectus, and information that we later file with the SEC will automatically update and, where applicable, modify or supersede that information. You may read the registration statement (including its exhibits) and the reports and other documents that we file with the SEC at the SEC’s website, www.sec.gov, or at the SEC’s Public Reference Room described below under the heading “Where You Can Find More Information.”

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the heading “Incorporation of Certain Information by Reference.” To the extent that any information in the prospectus supplement is inconsistent with the information in this prospectus, the information in the prospectus supplement will modify or supersede this prospectus.

This prospectus and the related prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the related prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus and the related prospectus supplement is accurate as of any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct as of any date subsequent to the date of the document incorporated by reference, even though this prospectus and any related prospectus supplement is delivered or securities are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates.

You should rely only on the information contained in this prospectus, in the related prospectus supplement and in any documents incorporated by reference into this prospectus. We have not authorized any salesperson, dealer or other person to provide you with information different from that contained in this prospectus, in the related prospectus supplement or in any documents incorporated by reference into this prospectus, and you are not entitled to rely upon any such different information.

Throughout this prospectus, the terms “Lion,” “we,” “us,” “our,” and “our company” refer to Lion Biotechnologies, Inc., a Nevada corporation.

LION BIOTECHNOLOGIES, INC.

Overview

We are a clinical-stage biotechnology company focused on the development and commercialization of novel cancer immunotherapy products designed to harness the power of a patient's own immune system to eradicate cancer cells. Our lead program is an adoptive cell therapy utilizing tumor-infiltrating lymphocytes (TIL), which are T cells derived from patients' tumors, for the treatment of metastatic melanoma. We are also pursuing the development of TIL for other solid tumor cancer indications. In February 2016, we announced that the US Food and Drug Administration (FDA) allowed our Investigational New Drug (IND) application to conduct clinical studies using our TIL therapy in cervical and head and neck cancers. We plan to initiate clinical trials in at least one of these indications during 2016.

A patient's immune system, particularly his/her TIL, plays an important role in identifying and killing cancer cells. TIL consist of a heterogeneous population of T cells that can recognize a wide variety of cancer-specific mutations and can overcome tumor escape mechanisms. TIL therapy involves growing a patient's TIL in special culture conditions outside the patient's body, or ex vivo, and then infusing the T cells back into the patient in combination with interleukin-2 (IL-2). By taking TIL away from the immune-suppressive tumor microenvironment in the patient, the T cells can rapidly proliferate. Billions of TIL, when infused back into the patient, are better able to search out and potentially eradicate the tumor.

During the second half of 2015, we opened enrollment in a Phase 2 clinical trial of our lead product candidate, LN-144, for the treatment of refractory metastatic melanoma. This single-arm study is for patients with metastatic melanoma whose disease has progressed following treatment with at least one systemic therapy. The trial opened for enrollment during the second half of 2015 and will be conducted at up to ten sites. The purpose of the study is to evaluate the safety, efficacy and feasibility of our autologous TIL infusion (LN-144). The trial's primary endpoints include safety and feasibility of LN-144 production using our central manufacturing process. Secondary outcome measures include an additional feasibility measure of number of patients successfully infused with LN-144 and the best overall response rate.

In September 2015, Dr. Steven Rosenberg, M.D., Ph.D., Chief of the Surgery Branch of the National Cancer Institute (NCI) and a recognized pioneer in immuno-oncology and adoptive cell therapy using TIL, presented updated data from a Phase 2 clinical trial of TIL therapy in metastatic melanoma at the American Association for Cancer Research Inaugural International Cancer Immunotherapy Conference. Data was presented from a 101 patient, Phase 2 clinical trial conducted at the NCI. In the trial, patients with advanced metastatic melanoma were equally divided in two groups. Both groups were treated according to standard TIL protocol using chemo-ablation, with the second group also receiving total body irradiation. 54% of the patients treated with TIL therapy achieved an objective response. An objective response occurs when there is a complete remission or a partial remission of the tumor. A complete remission requires a complete disappearance of all detectable evidence of disease, and a partial remission typically requires at least approximately 50% regression of measurable disease without new sites of disease. Out of the 101 patients, 24 (24%) had experienced a complete remission and 23 of the 24 (96%) showed durability of this response at 30 to 47 months following treatment. Median follow-up time was approximately 35 months. Overall survival (OS) was approximately 80% at 12 months, and median OS had not yet been achieved. Median progression-free survival was approximately 10 months, and 35% of patients were without disease progression at 4 years.

In further support of our internal research and clinical development activities, we have a Cooperative Research and Development Agreement (CRADA) with the U.S. Department of Health and Human Services, as represented by the NCI, through which we are funding the research and development of TIL-based product candidates for the treatment of advanced solid tumors. Pursuant to the CRADA, we fund TIL research and clinical trials that are being conducted by Dr. Steven Rosenberg. This five-year CRADA expires in August 2016 unless the parties agree to extend it.

We have a worldwide, exclusive patent license from the National Institutes of Health (NIH) for intellectual property to develop, manufacture and commercialize TIL therapy for the treatment of melanoma, which was amended in 2015 to include the exclusive license of this intellectual property for the treatment of lung cancer, HPV-associated cancers, breast cancer, and bladder cancer. We also have an exclusive license from the NIH for intellectual property relating to a TIL-based therapy for use in melanoma in which TIL that express various inhibitory receptors such as 4-1BB (also known as CD137), PD-1, TIM-3 and LAG-3 are selected and expanded for infusion into the patient. TIL that express these proteins are associated with higher tumor reactivity than other TIL populations, so fewer cells may be needed to be therapeutically effective.

During 2015, we received orphan drug designation for LN-144 in the United States to treat metastatic melanoma. This designation provides seven years of market exclusivity in the United States, subject to certain limited exceptions. However, the orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review or approval process.

We are pursuing refractory metastatic melanoma as our first target indication because of the promising initial NCI results and the commercial opportunity inherent in the significant unmet need of this patient population. Melanoma is a common type of skin cancer, accounting for approximately 74,000 patients diagnosed and 9,900 deaths each year in the United States according to the American Cancer Society's Cancer Estimated 2015 Facts and Figures. According to the NCI's Surveillance, Epidemiology and End Results (SEER) program, about 4-7% of patients with melanoma have metastatic disease. Patients with relapsed/refractory metastatic melanoma following treatment under the current standards of care have a particularly dire prognosis with very few curative treatment options.

In addition to the research and development being conducted under the CRADA, in 2014 we established our own internal research and development capabilities in Tampa, Florida, near the H. Lee Moffitt Cancer & Research Institute (Moffitt) on the campus of the University of South Florida, to explore the next-generation of TIL technology and new product candidates, as well as generate new intellectual property

Company History

We filed our original Articles of Incorporation with the Secretary of State of Nevada on September 17, 2007. Until March 2010, we were an inactive company known as Freight Management Corp. On March 15, 2010, we changed our name to Genesis Biopharma, Inc. and in 2011 we commenced our current business. On September 26, 2013, we amended and restated our Articles of Incorporation to, among other things, change our name to Lion Biotechnologies, Inc., effect a 1-for-100 reverse stock split (pro-rata reduction of outstanding shares) of our common stock, increase (after the reverse stock split) the number of our authorized number of shares of common stock to 150,000,000 shares, and authorize the issuance of 50,000,000 shares of "blank check" preferred stock, \$0.001 par value per share.

Our principal executive offices are located at 112 West 34th Street, 18th Floor, New York, New York 10120, and our telephone number at that address is (212) 946-4856. Our website is located at www.lionbio.com. Information on our website is not, and should not be considered, part of this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in Lion. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent annual report on Form 10-K, as revised or supplemented by our subsequent quarterly reports on Form 10-Q or our current reports on Form 8-K that we have filed, or may hereafter file with the SEC, all of which are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements, and we anticipate that the related prospectus supplement will contain forward-looking statements. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from any future results expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by the use of words such as “believe,” “anticipate,” “intend,” “plan,” “estimate,” “may,” “could,” “anticipate,” “predict,” or “expect” and similar expressions. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors that are, in many cases, beyond our control. Forward-looking statements are not guarantees of future performance. Actual events or results may differ materially from those discussed in the forward-looking statements as a result of various factors. Except as required by applicable law, we do not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise. Important factors that could cause actual results to differ materially from those reflected in our forward-looking statements include, among others:

- our inability to obtain regulatory approval for, or successfully commercialize, our leading product candidate, LN-144 or our other product candidates, such as LN-145;
- our inability to secure and maintain relationships with collaborators and contract manufacturers;
- difficulty in enrolling patients in our clinical trials, and uncertainty of clinical trial results;
- our history of operating losses and inability to ever become profitable;
- our limited history of complying with public company reporting requirements;
- uncertainty and volatility in the price of our common stock;
- the costs and effects of existing and potential governmental investigation and litigation;
- our inability to meet the continued listing requirements of the NASDAQ Global Market;
- our inability to develop, implement and maintain appropriate internal controls in the future;
- uncertainty as to our employees', independent contractors' compliance with regulatory standards and requirements and insider trading rules;
- dependence on the efforts of third-parties to conduct and oversee our clinical trials for our product candidates, to manufacture clinical supplies of our product candidates, and to commercialize our product candidates;

- the extent of government regulations;
- a loss of any of our key management personnel;
- our inability to develop or commercialize our product candidates due to intellectual property rights held by third parties and our inability to protect the confidentiality of our trade secrets; and
- our limited financial resources and inability to access capital to fund proposed operations.

All written and verbal forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We caution investors not to rely too heavily on the forward-looking statements we make or that are made on our behalf. We undertake no obligation, and specifically decline any obligation, to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in any annual, quarterly or current reports that we may file with the SEC.

In addition, you should refer to the section of this prospectus entitled "Risk Factors" as well as the documents we have incorporated by reference for a discussion of other important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

We may discuss certain of these risks and uncertainties in greater detail in any prospectus supplement under the heading "Risk Factors." Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus, including our most recent Annual Report on Form 10-K filed with the SEC and our Quarterly Reports on Form 10-Q filed subsequently with the SEC.

USE OF PROCEEDS

Unless we state otherwise in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities described in this prospectus for the further development of our product candidates and for general corporate purposes, which may include, among other things, acquiring other technologies or businesses (although we currently have no agreement to acquire any technology or business), repurchasing our common stock and making capital expenditures, as well as for working capital. Until we use the net proceeds for these purposes, we intend to invest the net proceeds in investment-grade, interest-bearing securities. We have not determined the amounts we plan to spend on any of these areas or the timing of these expenditures. As a result, our management will have broad discretion regarding the application of the net proceeds from the sale of securities described in this prospectus.

FINANCIAL RATIOS

The following table sets forth our ratio of earnings, if any, to combined fixed charges and preference dividends for each of the periods presented:

	Year Ended December 31					Three Months Ended
	2015 ⁽¹⁾	2014 ⁽¹⁾	2013 ⁽¹⁾	2012 ⁽¹⁾	2011 ⁽¹⁾	March 31, 2016 ⁽¹⁾
Ratio of earnings to fixed charges	N/A	N/A	N/A	N/A	N/A	N/A

(1) For these periods, earnings were inadequate to cover fixed charges. The amount of the coverage deficiencies were \$27,660,000, \$12,035,000, \$25,382,000, \$3,308,000, and \$25,694,000 the years ended December 31, 2015, 2014, 2013, 2012 and 2011 and \$6,884,000 for the three months ended March 31, 2016, respectively.

Fixed charges consist of that portion of rental expense associated with certain facility and equipment leases considered to be a reasonable estimate of the interest factor. We did not pay or accrue any preference dividends for the periods presented.

THE SECURITIES THAT WE MAY OFFER

We, directly or through underwriters, dealers or agents designated by us from time to time, may offer, issue and sell, together or separately, up to \$100,000,000 in the aggregate of:

- shares of our common stock, par value \$0.000041666 per share;
- shares of our preferred stock, par value \$0.001 per share;
- warrants to purchase shares of our common stock or shares of our preferred stock; and
- units consisting of two or more of the securities described above.

The common stock, the preferred stock, the warrants and the units collectively are referred to in this prospectus as the “securities.”

We have summarized below the material terms of the various types of securities that we may offer. We will describe in the applicable prospectus supplement the detailed terms of the securities offered by that supplement. If indicated in the prospectus supplement, the terms of the offered securities may differ from the terms summarized below.

This prospectus may not be used to sell our securities unless it is accompanied by the applicable prospectus supplement.

DESCRIPTION OF SECURITIES

The following is a summary of all material characteristics of our capital stock as set forth in our amended and restated articles of incorporation and bylaws, as amended. Copies of these documents are filed or incorporated by reference as exhibits to the registration statement, of which this prospectus forms a part.

DESCRIPTION OF COMMON STOCK

We are presently authorized to issue 150,000,000 shares of \$0.000041666 par value common stock and 50,000,000 shares of \$0.001 par value preferred stock. As of May 5, 2016 we had 48,565,978 shares of common stock issued and outstanding, and we had outstanding warrants and options to purchase an additional 7,188,716 and 3,367,129 shares, respectively, of our common stock.

We have one class of common stock. Holders of our common stock are entitled to one vote per share on all matters to be voted upon by stockholders and do not have cumulative voting rights in the election of directors. Holders of shares of common stock are entitled to receive on a pro rata basis such dividends, if any, as may be declared from time to time by our board of directors in its discretion from funds legally available for that use, subject to any preferential dividend rights of outstanding preferred stock. They are also entitled to share on a pro rata basis in any distribution to our common stockholders upon our liquidation, dissolution or winding up, subject to the prior rights of any outstanding preferred stock. Common stockholders do not have preemptive rights to subscribe to any additional stock issuances by us, and they do not have the right to require the redemption of their shares or the conversion of their shares into any other class of our stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock that we may designate and issue in the future.

The following provisions of our articles of incorporation and bylaws could have the effect of delaying or discouraging another party from acquiring control of us and could encourage persons seeking to acquire control of us to first negotiate with our board of directors:

- our bylaws permit stockholders to call a special meeting of stockholders only if the holders of a majority of the voting power of our outstanding stock request such a meeting;
- our bylaws provide that our board of directors will establish the authorized number of directors from time to time;
- our articles of incorporation do not permit cumulative voting in the election of directors; and
- our articles of incorporation permit our board of directors to determine the rights, privileges and preferences of any new series of preferred stock, some of which could impede the ability of a person to acquire control of our company.

The transfer agent and registrar of our common stock is Continental Stock Transfer and Trust Company. The address of our transfer agent and registrar is 7 Battery Place, 8th Floor New York, New York 10004, and its telephone number is (212) 509-4000.

Our common stock is traded on the Nasdaq Global Market under the symbol "LBIO."

DESCRIPTION OF PREFERRED STOCK

We have authority to issue 50,000,000 shares of preferred stock, par value \$0.001 per share. As of May 5, 2016, we had 1,694 shares of Series A Convertible Preferred Stock (the "Series A Preferred") issued and outstanding. The rights and restrictions granted or imposed on Series A Preferred shares are described below under the heading "Series A Preferred."

Under our articles of incorporation, our board of directors has the authority, without further action by stockholders, to designate one or more series of preferred stock and to fix the voting powers, designations, preferences, limitations, restrictions and relative rights granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be preferential to or greater than the rights of the common stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock.

We will describe in a prospectus supplement relating to any series of preferred stock being offered the following terms:

- the distinguishing designation of the series of preferred stock;
- the number of shares of the series of preferred stock offered, the liquidation preference per share and the offering price of the series;
- the dividend rate(s), period(s) or payment date(s) or method(s) of calculation applicable to the series of preferred stock;
- whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends on the series of preferred stock will accumulate;
- the procedures for any auction and remarketing, if any, for the series of preferred stock;
- the provisions for a sinking fund, if any, for the series of preferred stock;
- the provision for redemption, if applicable, of the series of preferred stock;
- any listing of the series of preferred stock on any securities exchange;
- the terms and conditions, if applicable, upon which the series of preferred stock will be convertible into common stock, including the conversion price or manner of calculation and conversion period;
- voting rights, if any, of the series of preferred stock;
- a discussion of any material or special U.S. federal income tax considerations applicable to the series of preferred stock;
- the relative ranking and preferences of the series of preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any series of preferred stock ranking senior to or on a parity with the series of preferred stock being offered as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the series of preferred stock.

Unless we specify otherwise in the applicable prospectus supplement, the preferred stock will rank, relating to dividends and upon our liquidation, dissolution or winding up:

- senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- on a parity with all of our equity securities the terms of which specifically provide that the equity securities rank on a parity with the preferred stock; and
- junior to all of our equity securities the terms of which specifically provide that the equity securities rank senior to the preferred stock.

Series A Preferred

In October 2013, we created a new class of preferred stock designated as Series A Convertible Preferred Stock. The shares of Series A Preferred have a stated value of \$1,000 per share and are initially convertible into shares of common stock at a price of \$2.00 per share (subject to adjustment as described below). The rights of the Series A Preferred are set forth in the Certificate of Designation Of Preferences And Rights Of Series A Convertible Preferred Stock (the "Certificate of Designation"), which gives the holders of the Series A Preferred the following rights, preferences and privileges:

The Series A Preferred may, at the option of the holder, be converted at any time or from time to time into fully paid and non-assessable shares of common stock at the conversion price in effect at the time of conversion; provided, that a holder of Series A Preferred may at any given time convert only up to that number of shares of Series A Preferred so that, upon conversion, the aggregate beneficial ownership of the common stock (calculated pursuant to Rule 13d-3 of the Securities Exchange Act of 1934, as amended) of such holder and all persons affiliated with such holder, is not more than 4.99% of the common stock then outstanding (subject to adjustment up to 9.99% solely at the holder's discretion upon 60 days' prior notice). The number of shares into which one share of Series A Preferred shall be convertible is determined by dividing the stated value of \$1,000 per share by the initial Conversion Price. The "Conversion Price" per share for the Series A Preferred is initially equal to \$2.00 (subject to appropriate adjustment for certain events, including stock splits, stock dividends, combinations, recapitalizations or other recapitalizations affecting the Series A Preferred).

The Series A Preferred will automatically be converted into common stock at the then applicable Conversion Price (i) upon the written consent of the holders holding at least a majority of the outstanding shares of Series A Preferred or (ii) if required by us to be able to list our common stock on a national securities exchange; provided, any such conversions will continue to be limited by, and subject to the beneficial ownership conversion limitations set forth above.

Except as otherwise required by law, the holders of shares of Series A Preferred do not have the right to vote on matters that come before the stockholders; provided, that we may not, without the prior written consent of a majority of the outstanding Series A Preferred: (i) amend, alter, or repeal any provision of our Articles of Incorporation (including the Certificate of Designation) or Bylaws in a manner adverse to the Series A Preferred; (ii) create or authorize the creation of or issue any other security convertible into or exercisable for any equity security, having rights, preferences or privileges senior to or on parity with the Series A Preferred, or increase the authorized number of shares of Series A Preferred; or (iii) enter into any agreement with respect to any of the foregoing.

In the event of any dissolution or winding up of this company, whether voluntary or involuntary, the proceeds shall be paid pari passu among the holders of the shares of common stock and the Series A Preferred, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to common stock.

We may not declare, pay or set aside any dividends on shares of any class or series of our capital stock (other than dividends on shares of common stock payable in shares of common stock) unless the holders of the Series A Preferred shall first receive, or simultaneously receive, an equal dividend on each outstanding share of Series A Preferred.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock or preferred stock. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. If a series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent, we will so specify in the applicable prospectus supplement. The following summary of the material provisions of the warrants and warrant agreements is subject to, and qualified in its entirety by reference to, all the provisions of the warrants and any warrant agreement applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement, as well as the complete warrants and warrant agreements that contain the terms of the warrants.

The material terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- a summary of the designation and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock as set forth in the certificate of designation for such series of preferred stock;
- the date, if any, on and after which the warrants and the related preferred stock or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- U.S. federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Each warrant will entitle its holder to purchase the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

DESCRIPTION OF UNITS

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may elect to evidence each series of units by unit certificates that we will issue under a separate unit agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms, and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain U.S. federal income tax considerations applicable to the units; and
- any other material terms of the units and their constituent securities.

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters or dealers, through agents and/or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions:

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

Each time that we sell securities covered by this prospectus, we will provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms and conditions of the offering of such securities, including the offering price of the securities and the proceeds to us, if applicable.

Offers to purchase the securities being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the securities from time to time. Any agent involved in the offer or sale of our securities will be identified in a prospectus supplement.

If a dealer is utilized in the sale of the securities being offered by this prospectus, the securities will be sold to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If an underwriter is utilized in the sale of the securities being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for which they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase securities as a principal, and may then resell the securities at varying prices to be determined by the dealer.

Any compensation paid to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers, will be described in the applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended (the "Securities Act"), and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

Any common stock issued by us will be traded on the Nasdaq Global Market unless we specify otherwise in the prospectus supplement, but any other securities may or may not be publicly traded or listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

If indicated in the applicable prospectus supplement, underwriters or other persons acting as agents may be authorized to solicit offers by institutions or other suitable purchasers to purchase the securities at the public offering price set forth in the prospectus supplement, pursuant to delayed delivery contracts providing for payment and delivery on the date or dates stated in the prospectus supplement. These purchasers may include, among others, commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions. Delayed delivery contracts will be subject to the condition that the purchase of the securities covered by the delayed delivery contracts will not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which the purchaser is subject. The underwriters and agents will not have any responsibility with respect to the validity or performance of these contracts.

We may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

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

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc. (“**FINRA**”), the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate proceeds of the offering.

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

LEGAL MATTERS

The validity of the securities being offered hereby has been passed upon by TroyGould PC, Los Angeles, California. Sanford J. Hillsberg, one of our directors, is an attorney with TroyGould PC. Some of the attorneys at TroyGould PC, including Mr. Hillsberg, own shares of our common stock constituting in the aggregate less than 1% of our outstanding shares of common stock.

EXPERTS

The financial statements as of December 31, 2015 and 2014 and for each of the three years in the period ended December 31, 2015 and management’s assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 incorporated by reference in this prospectus have been so incorporated in reliance on the reports of Weinberg & Company, P.A., independent registered public accounting firm, upon the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information and periodic reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and, in accordance with that act, file periodic reports and other information with the SEC. The periodic reports and other information filed by us are available for inspection and copying at prescribed rates at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the operation of the SEC's Public Reference Room. The SEC also maintains an Internet site that contains all reports and other information that we file electronically with the SEC. The address of that website is www.sec.gov.

This prospectus is part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act for the securities offered under this prospectus (the "Form S-3 Registration Statement"). The Form S-3 Registration Statement, including the exhibits to the Form S-3 Registration Statement, contains additional information about us and the securities offered by this prospectus. The rules and regulations of the SEC allow us to omit from this prospectus certain information that is included in the Form S-3 Registration Statement. For further information about us and our securities, you should review the Form S-3 Registration Statement and the exhibits filed with the Form S-3 Registration Statement.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate into this prospectus by reference the information we file with it, which means that we can disclose important information to you by referring you to the documents containing that information. The information incorporated by reference is considered to be part of this prospectus, and information that we later file with the SEC will automatically update and, where applicable, modify or supersede that information.

We incorporate by reference into this prospectus the following documents that we have filed, or will file, with the SEC:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 11, 2016;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on May 9, 2016;
- Our Current Reports on Form 8-K filed with the SEC on January 4, 2016, March 10, 2016, March 15, 2016, April 7, 2016, and May 9, 2016, respectively;
- The portions of our definitive proxy statement on Schedule 14A filed with the SEC on April 29, 2016 that are deemed "filed" with the SEC under the Exchange Act;
- The description of our stock contained in our registration statement on Form 8-A filed on February 25, 2015 pursuant to Section 12 of the Exchange Act, as such statement may be amended from time to time; and
- Each document that we file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date on which we filed the Form S-3 Registration Statement and before the termination of this offering, with information in each such filing to be deemed to be incorporated by reference into this prospectus as of the date we make the filing with the SEC.

You may request a copy of any of these filings from us at no cost by writing or calling our Chief Financial Officer at the following address or telephone number: Lion Biotechnologies, Inc., 112 West 34th Street, 18th Floor, New York, New York 10120; Telephone: (212) 946-4856.

Notwithstanding the foregoing, no portion of any document that is “furnished” but not “filed” in accordance with SEC rules under Exchange Act shall be deemed to be incorporated by reference into the Form S-3 Registration Statement. Any statement contained in the Form S-3 Registration Statement or in a document incorporated by reference into the Form S-3 Registration Statement will be deemed to be modified or superseded for purposes of the Form S-3 Registration Statement to the extent that a statement contained in the Form S-3 Registration Statement or in any other subsequently filed document that is incorporated by reference into the Form S-3 Registration Statement modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of the Form S-3 Registration Statement.

PROSPECTUS

\$100,000,000

LION BIOTECHNOLOGIES, INC.

**Common Stock
Preferred Stock
Warrants
Units**

The date of this prospectus is , 2016.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be paid by us, other than underwriting discounts and commissions, in connection with the offering of the securities described in this registration statement. All amounts shown are estimates except for the Securities and Exchange Commission registration fee and FINRA filing fee.

Securities and Exchange Commission registration fee	\$	10,070
FINRA fee		*
Printing and engraving expenses		*
NASDAQ Global Market listing fees		*
Legal fees and expenses		*
Accounting fees and expenses		*
Transfer agent and registrar fees		*
Miscellaneous expenses		*

Total	\$	_____

* These fees and expenses will be based upon the number of securities offerings and the amount of securities offered and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Pursuant to our amended and restated articles of incorporation, none of our directors or officers will have any personal liability to us or our stockholders for damages for breach of fiduciary duty as a director or officer, except for damages for breach of fiduciary duty resulting from (1) acts or omissions which involve intentional misconduct, fraud or a knowing violation of law or (2) the payment of dividends in violation of the applicable statutes of Nevada.

Section 78.7502 of the Nevada Revised Statutes permits a corporation to indemnify a present or former director, officer, employee or agent of the corporation, or of another entity or enterprise for which such person is or was serving in such capacity at the request of the corporation, who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, except an action by or in the right of the corporation, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection therewith, arising by reason of such person's service in such capacity if such person (1) is not liable pursuant to Section 78.138 of the Nevada Revised Statutes, which sets forth standards for the conduct of directors and officers, or (2) acted in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to a criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. In the case of actions brought by or in the right of the corporation, however, no indemnification may be made for any claim, issue or matter as to which such person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper.

Section 78.751 of the Nevada Revised Statutes permits any discretionary indemnification under Section 78.7502 of the Nevada Revised Statutes, unless ordered by a court or advanced to a director or officer by the corporation in accordance with the Nevada Revised Statutes, to be made by a corporation only as authorized in each specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances. Such determination must be made (1) by the stockholders, (2) by the board of directors by majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding, (3) if a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding so orders, by independent legal counsel in a written opinion, or (4) if a quorum consisting of directors who were not parties to the action, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion.

Our amended and restated bylaws require us to indemnify our directors and officers in a manner that is consistent with the provisions of Nevada law described in the preceding two paragraphs.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers. Furthermore, we have entered into indemnification agreements with our directors that among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors.

Item 16. Exhibits.

A list of exhibits filed with this Registration Statement on Form S-3 is set forth in the Exhibit Index and is incorporated by reference into this Item 16.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

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

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

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 Securities and Exchange Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

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

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

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

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

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a 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 of 1933 shall be deemed to be part of and included in this 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 this registration statement relating to the securities in this registration statement to which that 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 this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is a part of this registration statement will, as to a purchaser with a time of contract sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was a part of this registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (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 this 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.

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 New York, on May 10, 2016.

LION BIOTECHNOLOGIES, INC.

By: /s/ Elma Hawkins

Elma Hawkins
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Merrill A. McPeak and Molly Henderson and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to sign any registration statement for the same offering covered by this registration statement that is to be effective on filing pursuant to Rule 462(b) promulgated under the Securities Act and all post-effective amendments thereto, and to file the same, with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 attorneys-in-fact and agents or any of them, or his/her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated on May 10, 2016.

<u>Signature</u>	<u>Title</u>
<u>/s/ Elma Hawkins</u> Elma Hawkins	Chief Executive Officer (Principal Executive Officer)
<u>/s/ Molly Henderson</u> Molly Henderson	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Merrill A. McPeak</u> Merrill A. McPeak	Director
<u>/s/ Jay Venkatesan</u> Jay Venkatesan	Director
<u>/s/ Sanford J. Hillsberg</u> Sanford J. Hillsberg	Director
<u>/s/ Ryan Maynard</u> Ryan Maynard	Director

EXHIBIT INDEX

Exhibit Number	Description of Document
1.1	Form of Underwriting Agreement.*
2.1	Agreement and Plan of Merger between Freight Management Corp. (renamed Genesis Biopharma, Inc.) and Genesis Biopharma, Inc. dated March 15, 2010 (incorporated herein by reference to the Registrant's Form 8-K filed with the Commission on March 19, 2010).
3.1	Amended and Restated Articles of Incorporation filed with the Nevada Secretary of State on September 24, 2013 (incorporated herein by reference to the Registrant's Definitive Information Statement on Schedule 14C filed with the Commission on August 20, 2013).
3.2	Bylaws (incorporated herein by reference to the Registrant's Registration Statement on Form SB-2 filed with the Commission on January 29, 2008).
3.3	Amendment to Bylaws (incorporated herein by reference to the Registrant's Form 8-K filed with the Commission on May 29, 2013).
4.1	Form of Common Stock Certificate Lion Biotechnologies, Inc. (incorporated herein by reference to the Registrant's Registration Statement on Form S-3 filed with the Commission on November 20, 2014).
4.2	Form of Warrant.*
4.3	Form of Warrant Agreement.*
4.4	Form of Preferred Stock Certificate.*
4.5	Form of Unit Agreement.*
5.1	Opinion of TroyGould PC (filed with this registration statement).
23.1	Consent of Weinberg & Company P.A. (filed with this registration statement).
23.2	Consent of TroyGould PC (included in Exhibit 5.1).
24.1	Power of Attorney (included in Part II of this registration statement).

* To be filed, if applicable, subsequent to the effectiveness of this registration statement (1) by an amendment to this registration statement or (2) as an exhibit to a Current Report on Form 8-K and incorporated herein by reference.

TroyGould PC
1801 Century Park East
16th Floor
Los Angeles, California 90067

May 10, 2016

Lion Biotechnologies, Inc.
112 West 34th Street, 18th Floor,
New York, New York 10120

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Lion Biotechnologies, Inc., a Nevada corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement"), including a related prospectus included in the Registration Statement (the "Prospectus"). The Registration Statement relates to the offer by the Company from time to time of up to \$100,000,000 of securities of the Company (collectively, "Securities"), which may include (1) shares of common stock, par value 0.000041666 per share ("Common Stock"); (2) shares of preferred stock, par value \$0.001 per share ("Preferred Stock"); (3) warrants ("Warrants") to purchase Common Stock or Preferred Stock; and (4) units consisting of shares of Common Stock, shares of Preferred Stock, and/or Warrants ("Units").

The Prospectus contemplates that it will be supplemented in the future by one or more prospectus supplements setting forth the specific terms of each offer and sale of Securities (each, a "Prospectus Supplement").

In connection with this opinion, we have examined and relied upon the Registration Statement and the Prospectus, the Company's amended and restated articles of incorporation (the "Articles of Incorporation"), the Company's bylaws, as amended (the "Bylaws"), resolutions of the board of directors of the Company relating to the Registration Statement, the Securities and related matters, and originals or copies certified to our satisfaction of such other records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently sought to verify such matters.

Our opinions herein are expressed solely with respect to the federal laws of the United States, the internal laws of the State of California, and the Nevada General Corporation Law (including applicable rules and regulations promulgated under the Nevada General Corporation Law and applicable reported judicial decisions interpreting the Nevada General Corporation Law). We neither express nor imply any opinion with respect to any other laws or the laws of any other jurisdiction. The Securities may be issued from time to time on a delayed or continuous basis, and the opinions expressed below concern only laws that are in effect on the date of this opinion letter. We undertake no, and hereby disclaim any, obligation to advise you of any change in any matter set forth herein, whether based on a change in laws, a change in any fact relating to the Company, or any other circumstance. This opinion letter is limited to the matters expressly stated herein, and no opinions are to be inferred or may be implied beyond the opinions expressly set forth herein. Without limiting the generality of the foregoing, we neither express nor imply any opinion regarding the contents of the Registration Statement, the Prospectus, or any Prospectus Supplement other than as expressly stated herein with respect to the issuance of the Securities.

Based upon and subject to the foregoing and the additional qualifications and limitations set forth below, we are of the opinion that:

1. When the issuance and the terms of sale of shares of Common Stock have been duly authorized and established by the board of directors of the Company in conformity with the Articles of Incorporation and Bylaws, and such shares have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement (and, if issued upon the exercise of Warrants or the conversion of Preferred Stock, when such shares of Common Stock have been duly issued and delivered as contemplated by the terms of the Warrants or Preferred Stock, as applicable), such shares of Common Stock will be validly issued, fully paid, and nonassessable.

2. When the issuance and the terms of sale of shares of Preferred Stock have been duly authorized and established by the board of directors of the Company in conformity with the Articles of Incorporation, including the designations of rights, preferences and privileges of such Preferred Stock, and the Bylaws and such shares have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement (and, if issued upon the exercise of Warrants, when such shares of Preferred Stock have been duly issued and delivered as contemplated by the terms of the Warrants, as applicable), such shares of Preferred Stock will be validly issued, fully paid, and nonassessable.

3. When the issuance and the terms of sale of Warrants have been duly authorized and established by the board of directors of the Company and such Warrants have been issued and delivered against payment of their full purchase price and in accordance with the applicable warrant, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement, such Warrants will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

4. When the issuance and the terms of sale of Units have been duly authorized and established by the board of directors of the Company and such Units have been issued and delivered against payment of their full purchase price and in accordance with the applicable purchase, underwriting, or similar agreement and the terms of the Registration Statement, the Prospectus, and the applicable Prospectus Supplement, such Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

With your permission, we have made (and are relying upon) the following assumptions, without any independent investigation or inquiry by us, and our opinions expressed above are subject to, and limited and qualified by the effect of, the following assumptions: (1) all representations, warranties, and other statements as to factual matters that are contained in the documents that we reviewed in connection with this opinion letter are accurate and complete, and all corporate records furnished to us by the Company are accurate and complete; (2) the Registration Statement will be declared effective under the Securities Act of 1933, as amended (the "Securities Act"), prior to the Company's offer and sale of any Securities, and such effectiveness will not be suspended or terminated as of the date of the offer and sale of any Securities; (3) the Company's board of directors will adopt resolutions duly authorizing each offer and sale of Securities and establishing the terms of the sale of such Securities, and such resolutions will not be rescinded and will not be modified in a manner that adversely affects the opinions expressed above; (4) in compliance with the Securities Act and the rules and regulations thereunder, the Company will prepare and file with the Commission a Prospectus Supplement describing the terms of each offering of Securities; (5) a definitive purchase, underwriting, warrant, or similar agreement will be duly executed and delivered by the Company and the other parties thereto with respect to each offer and sale of Securities; (6) the number of shares of the Company's Common Stock or Preferred Stock, as applicable, to be issued pursuant to the Registration Statement, the Prospectus, and any Prospectus Supplement, together with the number of then-outstanding shares of Common Stock or Preferred Stock, will not exceed the number of shares of Common Stock or Preferred Stock authorized in the Articles of Incorporation; (7) the purchase price of all Securities will consist solely of cash; (8) in connection with each issuance of Common Stock, Preferred Stock, Warrants, or Units, the Company will duly execute and deliver stock certificates, warrant certificates, or unit certificates, as applicable, in the form filed, or to be filed, by the Company as exhibits to the Registration Statement or, with respect to Common Stock or Preferred Stock issued on an uncertificated basis, the Company will comply with applicable law regarding the documentation of uncertificated securities; (9) the Company's offer and sale of Securities, and compliance with any definitive purchase, underwriting, warrant, or similar agreement pertaining to such offer and sale, will not violate any applicable law, rule, regulation, or public policy or any judgment, order or decree of any court having jurisdiction over the Company; (10) the Company's offer and sale of Securities, and compliance with any definitive purchase, underwriting, warrant, or similar agreement pertaining to such offer and sale, will not constitute a default under, or a breach of, any agreement to which the Company is a party or is otherwise subject, and neither the Articles of Incorporation nor the Bylaws will be amended after the date of this opinion letter in a manner that would cause such offer or sale of Securities to constitute a violation of the Articles of Incorporation or the Bylaws; (11) each Warrant and purchase, underwriting and similar agreement pertaining to the offer and sale of Securities will be governed by the internal laws of the State of California; and (12) with respect to documents that we reviewed in connection with this opinion, all documents submitted to us as originals are authentic; all documents submitted to us as certified, facsimile, or photostatic copies conform to the originals of such documents, and such original documents are authentic; the signatures on all documents are genuine; and all natural persons who have executed any of the documents have the legal capacity to do so.

Our opinions are subject to: (i) the effect of bankruptcy, insolvency, reorganization, preference, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, whether considered in a proceeding in equity or at law (including the possible unavailability of specific performance or injunctive relief), concepts of materiality, reasonableness, good faith and fair dealing, and the discretion of the court before which a proceeding is brought; (iii) the invalidity under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy; and (iv) we express no opinion as to (a) any provision for liquidated damages, default interest, late charges, monetary penalties, make-whole premiums or other economic remedies to the extent such provisions are deemed to constitute a penalty, (b) consents to, or restrictions upon, governing law, jurisdiction, venue, arbitration, remedies or judicial relief, (c) waivers of rights or defenses, (d) any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy, (e) the creation, validity, attachment, perfection, or priority of any lien or security interest, (f) advance waivers of claims, defenses, rights granted by law, or notice, opportunity for hearing, evidentiary requirements, statutes of limitation, trial by jury or at law, or other procedural rights, (g) waivers of broadly or vaguely stated rights, (h) provisions for exclusivity, election or cumulation of rights or remedies, (i) provisions authorizing or validating conclusive or discretionary determinations, (j) grants of setoff rights, (k) proxies, powers and trusts, (l) provisions prohibiting, restricting, or requiring consent to assignment or transfer of any right or property, (m) any provision to the extent it requires that a claim with respect to a security denominated in other than U.S. dollars (or a judgment in respect of such a claim) be converted into U.S. dollars at a rate of exchange at a particular date, to the extent applicable law otherwise provides, and (n) the severability, if invalid, of provisions to the foregoing effect.

This opinion letter is provided in connection with the transactions contemplated by the Registration Statement and may not be used or relied upon for any other purpose without our express written consent. The only opinions rendered by us consists of those set forth above, and no opinion may be implied or inferred beyond that expressly stated.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and further consent to the use of our name under the heading "Legal Matters" in the Prospectus. In giving such consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ TROYGOULD PC

TROYGOULD PC

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 Lion Biotechnologies, Inc. for the registration of up to \$100,000,000 of common stock, preferred stock, and/or warrants, and the incorporation by reference therein of our reports dated March 11, 2016, with respect to the financial statements of Lion Biotechnologies, Inc. and the effectiveness of internal control over financial reporting of Lion Biotechnologies, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Weinberg & Company, P.A.
Los Angeles, California
May 10, 2016
