

HEAT BIOLOGICS, INC.
Form 424B5
November 17, 2017

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-221201

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are part of an effective registration statement filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting an offer to buy these securities, in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED NOVEMBER 17, 2017
(To the Prospectus dated November 13, 2017)

Shares

Common Stock

We are offering shares of our common stock, par value \$0.0002 per share, pursuant to this prospectus supplement and the accompanying prospectus.

Our common stock is listed on the NASDAQ Capital Market under the symbol HTBX. On November 16, 2017, the last reported sale price of our common stock on the NASDAQ Capital Market was \$0.56 per share.

As of November 17, 2017, the aggregate market value of our outstanding common stock held by non-affiliates was \$25,173,322, based on 35,788,912 shares of outstanding common stock, of which 2,618,109 shares are held by affiliates, and a per share price of \$0.7589 based on the closing sale price of our common stock on October 6, 2017. As of the date of this prospectus, we have offered and sold common stock with an aggregate sales price of \$1,153,293 pursuant to General Instruction I.B.6 to Form S-3 during the 12 calendar month period that ends on and includes the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding more than one-third of our public float (the market value of our common stock held by our non-affiliates) in any 12-month period so long as our public float remains below \$75,000,000.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements. 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 S-4 of this prospectus supplement and on page 6 of the accompanying prospectus for a discussion of information that should be considered in connection with an investment in our common stock.

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

| | Per Share | Total |
|---|-----------|-------|
| Public offering price | \$ | \$ |
| Underwriting discounts and commissions ⁽¹⁾ | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

(1)

Does not include certain accountable expense allowances payable to Aegis Capital Corp., the representative of the underwriters. See Underwriting for a description of compensation payable to the underwriters.

We have granted a 45-day option to the representative of the underwriters to purchase up to additional shares of common stock solely to cover over-allotments, if any.

The underwriters expect to deliver our shares to purchasers in the offering on or about November , 2017.

Sole Book-Running Manager

Aegis Capital Corp

November , 2017.

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT

| | Page |
|--|-------------|
| <u>ABOUT THIS PROSPECTUS SUPPLEMENT</u> | S-ii |
| <u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u> | S-iii |
| <u>INDUSTRY AND MARKET DATA</u> | S-iv |
| <u>PROSPECTUS SUPPLEMENT SUMMARY</u> | S-1 |
| <u>THE OFFERING</u> | S-3 |
| <u>RISK FACTORS</u> | S-4 |
| <u>USE OF PROCEEDS</u> | S-6 |
| <u>CAPITALIZATION</u> | S-7 |
| <u>DIVIDEND POLICY</u> | S-8 |
| <u>DILUTION</u> | S-9 |
| <u>UNDERWRITING</u> | S-10 |
| <u>LEGAL MATTERS</u> | S-16 |
| <u>EXPERTS</u> | S-16 |
| <u>WHERE YOU CAN FIND MORE INFORMATION</u> | S-16 |
| <u>INCORPORATED OF CERTAIN DOCUMENTS BY REFERENCE</u> | S-16 |

PROSPECTUS

| | Page |
|--|-------------|
| <u>ABOUT THIS PROSPECTUS</u> | ii |
| <u>PROSPECTUS SUMMARY</u> | 1 |
| <u>RISK FACTORS THAT MAY AFFECT FUTURE RESULTS</u> | 6 |
| <u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u> | 7 |
| <u>USE OF PROCEEDS</u> | 8 |
| <u>DIVIDEND POLICY</u> | 8 |
| <u>THE OFFERING</u> | 9 |
| <u>DESCRIPTION OF OUR CAPITAL STOCK</u> | 10 |
| <u>DESCRIPTION OF WARRANTS</u> | 13 |
| <u>DESCRIPTION OF UNITS</u> | 15 |
| <u>LEGAL OWNERSHIP OF SECURITIES</u> | 16 |
| <u>PLAN OF DISTRIBUTION</u> | 19 |
| <u>LEGAL MATTERS</u> | 21 |

| | |
|--|----|
| <u>EXPERTS</u> | 21 |
| <u>WHERE YOU CAN FIND MORE INFORMATION</u> | 21 |
| <u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u> | 21 |

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined, together with all documents incorporated by reference. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled **Where You Can Find More Information** and **Incorporation of Certain Documents By Reference**.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus and any free writing prospectus we may provide to you in connection with this offering and the information incorporated or deemed to be incorporated by reference therein. We have not, and the underwriter has not, authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such

representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We are offering to sell, and are seeking offers to buy, the common stock only in jurisdictions where such offers and sales are permitted. No action has been or will be taken in any jurisdiction by us or the underwriter that would permit a public offering of the common stock or the possession or distribution of this prospectus supplement and the accompanying prospectus in any jurisdiction, other than in the United States. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these statements reflect our current views with respect to our ongoing and planned clinical trials, business strategy, business plan, financial performance and other future events including statements regarding the progress and timing of our product development, the goals of our development activities, estimates of the potential markets for our product candidates, estimates of the capacity of manufacturing and other facilities to support our products, our expected future revenues, operations and expenditures and projected cash needs. The forward-looking statements are contained principally in the sections of this prospectus supplement and the documents incorporated by reference entitled Prospectus Summary, Risk Factors, Management Discussion and Analysis of Financial Condition and Results of Operations and Business. These statements relate to future events of our financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. Those risks and uncertainties include, among others:

.
our ability to implement our business plan;

.
our ability to raise additional capital to meet our liquidity needs;

.
our ability to generate sufficient proceeds from this offering;

.
our ability to generate product revenues;

.
our ability to achieve profitability;

.
our ability to satisfy U.S. (including the Food and Drug Administration, or the FDA) and international regulatory requirements;

.
our ability to obtain market acceptance of our technology and products;

.
our ability to compete in the market;

.
our ability to advance our clinical trials;

.
our ability to fund, design and implement clinical trials;

.
our ability to demonstrate that our product candidates are safe for human use and effective for indicated uses;

.
our ability to gain acceptance of physicians and patients for use of our products;

.
our dependency on third-party researchers and manufacturers and licensors;

.
our ability to effectively implement cost-cutting measures;

.
our ability to establish and maintain strategic partnerships, including for the distribution of products;

.
our ability to attract and retain sufficient, qualified personnel;

.
our ability to obtain or maintain patents or other appropriate protection for the intellectual property;

.
our dependency on the intellectual property licensed to us or possessed by third parties;

.
our ability to adequately support future growth;

Pelican Therapeutics, Inc.'s, or Pelican, ability to operate successfully and our ability to integrate our operations with those of Pelican; and

potential product liability or intellectual property infringement claims.

Please consider our forward-looking statements in light of those risks as you read this prospectus supplement and the accompanying prospectus. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should not assume that the information contained in this prospectus supplement and the accompanying base prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying base prospectus, as the case may be, or that any information incorporated by reference into this prospectus is accurate as of any date other than the date of the document so incorporated by reference. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

If one or more of these or other risks or uncertainties materializes, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we anticipate. All subsequent written and oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by this Note. Before purchasing any shares of common stock, you should consider carefully all of the factors set forth or referred to in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference that could cause actual results to differ.

INDUSTRY AND MARKET DATA

We obtained the industry and market data in this prospectus supplement from our own research as well as from industry and general publications, surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in **Risk Factors** and elsewhere in this prospectus supplement. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

S-iv

PROSPECTUS SUPPLEMENT SUMMARY

The items in the following summary are described in more detail elsewhere in this prospectus supplement and in the documents incorporated by reference herein. This summary highlights selected information contained elsewhere in this prospectus supplement. This summary is not intended to be complete and does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus supplement carefully, especially the Risk Factors section beginning on page S-4 and other documents or information included or incorporated by reference in this prospectus supplement before making an investment decision. Except where the context requires otherwise, in this prospectus the terms Company, Heat, we, us and our refer to Heat Biologics, Inc., a Delaware corporation.

Company Overview

Heat Biologics is a biopharmaceutical company developing immunotherapies designed to activate a patient's CD8+ Killer T-cells against cancer. Our T-Cell Activation Platform (TCAP) produces therapies designed to turn "cold" tumors "hot" and be administered in combination with checkpoint inhibitor therapies and other immuno-modulators to increase their effectiveness. We can also utilize our TCAP approach to combine with existing T-cell checkpoint inhibitors and co-stimulators in a single treatment. This offers the potential benefit of combination immunotherapy without the need for multiple, independent biologic products. We are currently enrolling patients in our Phase 2 clinical trial for non-small cell lung cancer, in combination with Bristol-Myers Squibb's nivolumab (Opdivo®). We also have numerous pre-clinical programs at various stages of development.

Through our *ImPACT*® platform technology, we have developed product candidates that consist of live, allogeneic *off-the-shelf* genetically-modified, irradiated human cancer cells. These cells are intended to secrete a broad spectrum of Cancer Testis Antigens (CTA), classified as tumor antigens, together with the gp96 protein. Our *ImPACT*® technology achieves this by reprogramming live tumor cells to secrete gp96, along with their chaperoned tumor antigens; thereby, transforming the allogeneic cells into machines that activate a robust killer CD8+ T cell immune attack against a patient's cancer. Unlike autologous or personalized therapeutic, monotherapy approaches that either require the extraction of blood or tumor tissue from each patient or the creation of an individualized treatment, our product candidates are fully allogeneic, and do not require extraction of individual patient's material or custom manufacturing. As a result, our product candidates can be mass-produced and readily available for immediate patient use. Because each patient receives the same treatment, we believe that our immunotherapy approach offers logistical, manufacturing and other cost benefits, compared to patient-specific or precision medicine approaches.

Our lead *ImPACT*[®] program, HS-110, is in a Phase 2 clinical trial focused on non-small cell lung cancer in combination with Bristol-Myers Squibb's nivolumab (Opdivo[®]). HS-110 is made of a cancer cell line that has been genetically modified using our *ImPACT* technology system. It is designed to secrete a wide range of lung cancer-associated antigens bound to gp96 proteins, while activating a broad, T cell mediated immune response against the patient's cancer.

Our *ComPACT* platform technology, currently in preclinical development, is a dual-acting immunotherapy, combining a pan-antigen T-cell activator and a T-cell co-stimulator in a single product, offering the potential benefits of combination immunotherapy without the need for multiple, independent biologic products. The platform offers broad versatility and has been engineered to incorporate into the gp96-Ig expression vector and various fusion proteins targeting co-stimulatory receptors, including but not limited to, OX40, ICOS, GITR and TLIA.

In May 2017, we acquired two T cell co-stimulators through our acquisition of 80% of the outstanding equity of Pelican Therapeutics, Inc., broadening our pipeline and strengthening our portfolio in the emerging T-cell activation space. We believe the use of these therapeutic agents, in combination with other immunotherapies, have the potential dramatically improve patient outcomes.

Pelican is the only company with a disclosed preclinical pipeline targeting the T-cell co-stimulator, TNFRSF25. We believe PTX-35 can activate memory CD8+ cytotoxic T-cells and eliminate tumor cells in patients. This solution is designed to harness the body's natural tolerance mechanisms to reprogram the immune system and provide a long-term, durable effect after a short course of therapy. Combined with other immunotherapies, including *ImPACT* and *ComPACT*, PTX-35 could boost anti-cancer responses due to its potential to improve the durability of antigen-specific immune responses and a preferential specificity for stimulating the production of memory CD8+ t cells. In May 2016, a \$15.2 million grant was awarded to Pelican from the Cancer Prevention and Research Institute of Texas (CPRIT) to support further development of PTX-35 and examine the benefits it may provide to patients with several types of cancers, such as lung, lymphoma, prostate, pancreatic and ovarian.

General Corporate Information

We were incorporated under the laws of the State of Delaware on June 10, 2008. Our principal offices are located at 801 Capitola Drive, Suite 12, Durham, North Carolina 27713. Our website address is *www.heatbio.com*. We make our periodic and current reports that are filed with the SEC available, free of charge, on our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, and that can be accessed through, our website is not incorporated into and is not a part of this prospectus.

Implications of Being an Emerging Growth Company

We qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we intend to take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

.
allowance to provide only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;

.
reduced disclosure about our executive compensation arrangements;

.
no non-binding advisory votes on executive compensation or golden parachute arrangements; and

.

exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than \$1.07 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you have beneficial ownership.

THE OFFERING

| | |
|---|--|
| Common stock to be offered by us pursuant to this prospectus supplement | shares of our common stock |
| Common stock to be outstanding after the offering | shares (as more fully described in the notes following this table), assuming sales of shares of our common stock in this offering. ⁽¹⁾ |
| Over-allotment option | We have granted the underwriters a 45-day option to purchase up to additional shares of our common stock from us at the public offering price less underwriting discounts and commissions. |
| Use of proceeds | We currently intend to use the net proceeds from this offering for fund our and our subsidiaries preclinical and clinical programs and for working capital and general corporate purposes, including, to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property. See Use of Proceeds. |
| Risk factors | You should read the Risk Factors section of this prospectus supplement and in the documents incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to purchase shares of our common stock. |
| NASDAQ Capital Market | HTBX |
| Trading Symbol | |

(1)

Based on 35,788,912 shares of our common stock outstanding as of November 16, 2017.

Unless we indicate otherwise, all information in this prospectus supplement is based on 35,788,912 shares outstanding as of September 30, 2017, and excludes as of such date:

.

2,673,549 shares of our common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$2.04 per share;

.

3,103,963 additional shares of our common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.46 per share; and

.

5,472,184 additional shares of our common stock reserved for future issuance under our equity incentive plans.

RISK FACTORS

Investing in our common stock involves a high degree of risk, and you should be able to bear the complete loss of your investment. You should consider carefully the risks described below and those described under the section captioned Risk Factors contained in our Annual Report on Form 10-K for the year ended December 31, 2016, our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, any subsequent Annual Reports on Form 10-K, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus supplement and the accompanying base prospectus before deciding whether to purchase any of the common stock being offered under this prospectus supplement. If any of the risks actually occur, our business, consolidated financial condition or results of operations could be adversely affected. In such case, the trading price of our common stock could decline and you could lose all or part of your investment. Our actual results could differ materially from those anticipated in the forward-looking statements made throughout this prospectus supplement as a result of different factors, including the risks we face described below. Unless we have indicated otherwise or the context otherwise requires, references in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein and therein to the Company, Heat Biologics, we, us and our refer to Heat Biologics, Inc.

Risks Related to this Offering

Our management will have broad discretion over the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds from this offering, if any, to fund our and our subsidiaries preclinical and clinical programs and for working capital and general corporate purposes, including, to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds, if any, may be used for corporate purposes that do not improve our operating results or enhance the value of our common stock. The failure of our management to use these funds effectively could have a material adverse effect on our business, cause the market price of our common stock to decline and impair the commercialization of our products and/or delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing instruments and U.S. government securities. These investments may not yield a favorable return to our stockholders.

If you purchase shares of our common stock sold in this offering, you will experience immediate and substantial dilution in the net tangible book value of your shares. In addition, we may issue additional equity or convertible

debt securities in the future, which may result in additional dilution to investors.

The price per share of our common stock being offered is higher than the net tangible book value per share of our outstanding common stock prior to this offering. An aggregate of _____ shares of our common stock were sold at a price of \$ _____ per share, for aggregate gross proceeds of approximately \$ _____, and after deducting commissions and estimated offering expenses payable by us. As a result, new investors in this offering will incur immediate dilution of \$ _____ per share. For a more detailed discussion of the foregoing, see the section entitled "Dilution" below. To the extent outstanding stock options or warrants are exercised, there will be further dilution to new investors.

Our need for future financing may result in the issuance of additional securities which will cause investors to experience dilution.

Our cash requirements may vary from those now planned depending upon numerous factors, including the result of future research and development activities. We expect our expenses to increase if and when we initiate and conduct Phase 3 and other clinical trials, and seek marketing approval for our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. There are no other commitments by any person for future financing. Our securities may be offered to other investors at a price lower than the price per share offered to current stockholders, or upon terms which may be deemed more favorable than those offered to current stockholders. In addition, the issuance of securities in any future financing may dilute an investor's equity ownership and have the effect of depressing the market price for our securities. Moreover, we may issue derivative securities, including options and/or warrants, from time to time, to procure qualified personnel or for other business reasons. The issuance of any such derivative securities, which is at the discretion of our board of directors, may further dilute the equity ownership of our stockholders.

We may sell shares or other securities in any other offering, including the issuance of shares of our common stock in an at-the-market offering, at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering. No assurance can be given as to our ability to procure additional financing, if required, and on terms deemed favorable to us. To the extent additional capital is required and cannot be raised successfully, we may then have to limit our then current operations and/or may have to curtail certain, if not all, of our business objectives and plans.

We have additional securities available for issuance, which, if issued, could adversely affect the rights of the holders of our common stock.

Our Third Amended and Restated Certificate of Incorporation authorizes the issuance of 50,000,000 shares of our common stock and 10,000,000 shares of Preferred Stock. In certain circumstances, the common stock and preferred stock, as well as the awards available for issuance under the 2009 and 2014 Plans, can be issued by our board of directors, without stockholder approval. Any future issuances of such stock would further dilute the percentage ownership of us held by holders of Preferred Stock and common stock. In addition, the issuance of Preferred Stock may be used as an anti-takeover device without further action on the part of our stockholders, and may adversely affect the holders of the common stock.

Because we do not intend to declare cash dividends on our shares of common stock in the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.

As stated above, we have never declared or paid cash dividends on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends in the foreseeable future. As a result, we expect that only appreciation of the price of our common stock, if any, will provide a return to investors in this offering for the foreseeable future.

Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.

We may issue common stock from time to time following this offering. This issuance from time to time of these new shares of our common stock, or our issuance of shares of common stock in this offering, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

Our stock could be delisted from NASDAQ, which could affect our stock's market price and liquidity. Our listing on NASDAQ is contingent upon meeting all the continued listing requirements of NASDAQ which include maintaining a minimum bid price of not less than \$1.00 per share. NASDAQ Listing Rules provide that a failure to meet the minimum bid price requirement exists if the deficiency continues for a period of 30 consecutive business days.

On March 15, 2017, we received written notice from the Listing Qualifications Department of The NASDAQ Stock Market LLC (NASDAQ) that for the preceding 30 consecutive business days (January 31, 2017 through March 14, 2017), our common stock did not maintain a minimum closing bid price of \$1.00 per share as required by NASDAQ Listing Rule 5550(a)(2).

In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we were given an initial compliance period of 180 calendar days, or until September 11, 2017, to regain compliance with NASDAQ Listing Rule 5550(a)(2). In addition, compliance can be achieved automatically and without further action if the closing bid price of our common stock is at or above \$1.00 for a minimum of ten consecutive business days at any time during the 180-day compliance period, in which case NASDAQ will notify us of our compliance and the matter will be closed.

We did not achieve compliance with NASDAQ Listing Rule 5550(a)(2) by September 11, 2017; however, NASDAQ determined that we were eligible for an additional 180 calendar days, or until March 12, 2018, to regain compliance. NASDAQ's determination to grant the extension was based on our meeting the continued listing requirement for market value of publicly held shares and all other applicable requirements for initial listing on The NASDAQ Capital Market, with the exception of the minimum bid price requirement set forth in NASDAQ Listing Rule 5550(a)(2), and the written notice of our intention to cure the deficiency on or before March 12, 2018 by effecting a reverse stock split, if necessary.

If our common stock is delisted from NASDAQ, our ability to raise capital in the future may be limited. Delisting could also result in less liquidity for our stockholders and a lower stock price. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a delisting, we expect to take actions to restore our compliance with NASDAQ's listing requirements, but we can provide no assurance that any action taken by us would result in our common stock becoming listed again, or that any such action would stabilize the market price or improve the liquidity of our common stock.

USE OF PROCEEDS

We estimate that our net proceeds from the sale of common stock offered pursuant to this prospectus will be approximately \$ million, or approximately \$ million if the underwriters exercise in full their option to purchase additional shares, based upon the public offering price of \$ per share and after deducting the underwriting discounts and commissions, and the estimated offering expenses that are payable by us.

We intend to use the net proceeds, if any, from the sales of securities offered by this prospectus to fund our and our subsidiaries' preclinical and clinical programs and for working capital and general corporate purposes, including, to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property.

We have broad discretion in determining how the proceeds of this offering will be used, and our discretion is not limited by the aforementioned possible uses. Our board of directors believes the flexibility in application of the net proceeds is prudent.

The amounts and timing of our actual expenditures will depend on numerous factors, including our development and commercialization efforts, as well as the amount of cash used in our operations. We therefore cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2017:

· on an actual basis; and

· on an as adjusted basis to give effect to the issuance and sale of shares of our common stock in this offering and the use of net proceeds as discussed in “Use of Proceeds.”

| | As of September 30, 2017 | |
|--|---------------------------------|----------------------------------|
| | Actual | As Adjusted⁽¹⁾ |
| Cash and cash equivalents | \$ 4,288,627 | \$ |
| Common stock, \$0.0002 par value; 50,000,000 shares authorized, 35,788,912 shares issued and outstanding, actual; 50,000,000 shares authorized, shares issued and outstanding, as adjusted | 6,841 | |
| Additional paid-in capital | 73,871,510 | |
| Accumulated deficit | (65,714,314) | |
| Accumulated other Comprehensive Loss | (172,973) | |
| Total Stockholders Equity Less Non-Controlling Interest | 7,991,064 | |
| Non-Controlling Interest | (1,365,975) | |
| Total stockholders equity | 6,625,089 | |
| Total capitalization | \$ 14,719,395 | \$ |

(1)

The number of shares of common stock shown above to be outstanding after this offering is based on 35,788,912 shares outstanding as of September 30, 2017, and excludes as of such date:

·
2,673,549 shares of our common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$2.04 per share;

.
3,103,963 additional shares of our common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.46 per share; and

.
5,472,184 additional shares of our common stock reserved for future issuance under our equity incentive plans.

This capitalization table should be read in conjunction with Management's Discussion and Analysis of Results of Operations and our Consolidated Financial Statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2016, and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, and the other financial information included and incorporated by reference in this prospectus supplement.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock and we do not currently intend to pay any cash dividends on our common stock in the foreseeable future. We expect to retain all available funds and future earnings, if any, to fund the development and growth of our business. Any future determination to pay dividends, if any, on our common stock will be at the discretion of our board of directors and will depend on, among other factors, our results of operations, financial condition, capital requirements and contractual restrictions.

DILUTION

If you purchase shares of our common stock in this offering, you will experience dilution to the extent of the difference between the offering price per share and the as adjusted net tangible book value per share after giving effect to this offering.

Our pro forma net tangible book value on September 30, 2017 was approximately \$(1,430,249), or \$(0.04) per share.

Net tangible book value is total assets minus the sum of liabilities and intangible assets. Net tangible book value per share is net tangible book value divided by the total number of shares outstanding.

After giving effect to the sale of the common stock in this offering at the public offering price of \$ _____ per share, and after deducting estimated offering commissions and expenses payable by us, our as adjusted net tangible book value as of September 30, 2017 would have been approximately \$ _____, or \$ _____ per share of common stock. This represents an immediate increase in net tangible book value of \$ _____ per share to our existing stockholders and an immediate dilution in net tangible book value of \$ _____ per share to investors participating in this offering. The following table illustrates this dilution per share to investors participating in this offering:

| | | |
|--|----|--------|
| Public offering price per share | | \$ |
| Pro forma net tangible book value per share as of September 30, 2017 | \$ | (0.04) |
| Increase in pro forma net tangible book value per share attributable to new investors in this offering | \$ | |
| As adjusted net tangible book value per share after giving effect to this offering | | |
| Dilution per share to new investors | | \$ |

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants having a per share exercise price less than the per share offering price to the public in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The table and discussion above are based on 35,788,912 shares of common stock issued and outstanding as of September 30, 2017 and excludes as of that date:

.

2,673,549 shares of our common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$2.04 per share;

.

3,103,963 additional shares of our common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.46 per share; and

.

5,472,184 additional shares of our common stock reserved for future issuance under our equity incentive plans.

UNDERWRITING

Aegis Capital Corp. is acting as the representative of the underwriters of the offering, or the representative. We have entered into an underwriting agreement, dated November 1, 2017, with the representative. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below and each underwriter named below has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

| Underwriter | Number of Shares |
|---------------------|-------------------------|
| Aegis Capital Corp. | |
| Total | |

The underwriters are committed to purchase all the shares of common stock offered by us other than those covered by the option to purchase additional shares described below. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriters propose to offer the shares offered by us to the public at the public offering price set forth on the cover of this prospectus supplement. In addition, the underwriters may offer some of the shares to other securities dealers at such price less a concession of \$ _____ per share. After the initial offering, the public offering price and concession to dealers may be changed.

We have granted the underwriters an over-allotment option. This option, which is exercisable for up to forty-five (45) days after the date of this prospectus supplement, permits the underwriters to purchase a maximum of _____ additional shares from us. If the underwriters exercise all or part of this option, they will purchase shares covered by the option at the public offering price that appears on the cover page of this prospectus supplement, less the underwriting discount.

If this option is exercised in full, the total price to the public will be approximately \$ and the total proceeds to us, before expenses, will be approximately \$.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their option.

| | Per Share | Total Without Over-Allotment Option | Total With Over-Allotment Option |
|---|------------------|--|---|
| Public offering price | \$ | \$ | \$ |
| Underwriting discounts and commissions (7.0%) | \$ | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ | \$ |

We have agreed to pay certain of the underwriters' expenses relating to the offering, including: (a) all fees incurred in clearing this offering with FINRA; (b) all fees, expenses and disbursements relating to the registration, qualification or exemption of securities offered under the securities laws of such foreign jurisdictions as the underwriters may reasonably designate; and (c) the fees and expenses of counsel to the underwriters not to exceed \$35,000. The total of any advanced payments will be refundable to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C).

We estimate that the total expenses of the offering payable by us, excluding the underwriting discount and expense reimbursement, will be approximately \$100,000.

Lock-Up Agreements. We, our directors and executive officers expect to enter into lock-up agreements with the representative prior to the commencement of this offering pursuant to which each of these persons or entities, for a period of sixty (60) days with respect to us and ninety (90) days with respect to our directors and executive officers from the date of this prospectus supplement without the prior written consent of the representative, agree not to (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our securities or any securities convertible into or exercisable or exchangeable for shares of our common stock owned or acquired on or prior to the closing date of this offering (including any shares of common stock acquired after the closing date of this offering upon the conversion, exercise or exchange of such securities); (2) file or caused to be filed any registration statement relating to the offering of any shares of our capital stock or any securities convertible into or exercisable or exchangeable for shares of our capital stock; or (3) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the capital stock, whether any such transaction described in clause (1), (2) or (3) above is to be settled by delivery of shares of capital stock or such other securities, in cash or otherwise, other than (a) the issuance and/or sale of securities in connection with a business acquisition, joint ventures or partnerships (so long as the purpose of such issuance is not solely for capital raising), or (b) the issuance by us of shares of common stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date of this prospectus supplement, or (c) the issuance of securities as compensation.

Electronic Offer, Sale and Distribution Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representative may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees and expense reimbursements. Except as disclosed below, we have no present arrangements with any of the underwriters for any further services.

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the

shares while the offering is in progress.

- Overallotment transactions involve sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase pursuant to their option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares pursuant to their option to purchase additional shares. The underwriters may close out any short position by exercising their option to purchase additional shares and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of their option to purchase additional shares. If the underwriters sell more shares than could be covered by exercise of the option to purchase additional shares and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the shares originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our shares or common stock or preventing or retarding a decline in the market price of our shares or common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the NASDAQ Capital Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive market making. In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock on the NASDAQ Capital Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

Offer restrictions outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of the common stock under this prospectus supplement is only made to persons to whom it is lawful to offer the common stock without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted

under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the common stock sold to the offeree within twelve (12) months after its transfer to the offeree under this prospectus.

China

The information in this document does not constitute a public offer of the common stock, whether by way of sale or subscription, in the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The common stock may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to qualified domestic institutional investors.

European Economic Area-Belgium, Germany, Luxembourg and Netherlands

The information in this document has been prepared on the basis that all offers of common stock will be made pursuant to an exemption under the Directive 2003/71/EC (Prospectus Directive), as implemented in Member States of the European Economic Area (each, a Relevant Member State), from the requirement to produce a prospectus for offers of securities.

An offer to the public of common stock has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

- (a) to legal entities that are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity that has two or more of (i) an average of at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements) and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements);
- (c) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive) subject to obtaining the prior consent of the Company or any underwriter for any such offer;
or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of common stock shall result in a requirement for the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

France

This document is not being distributed in the context of a public offering of financial securities (*offre au public de titres financiers*) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (*Code monétaire et financier*) and Articles 211-1 et seq. of the General Regulation of the French *Autorité des marchés financiers* (AMF). The common stock has not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the common stock have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to be distributed, directly or indirectly, to the public in France.

Such offers, sales and distributions have been and shall only be made in France to (i) qualified investors (*investisseurs qualifiés*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D. 744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (*cercle restreint d'investisseurs*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the common stock cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

Ireland

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the Prospectus Regulations). The common stock has not been offered or

sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

Israel

The common stock offered by this prospectus supplement has not been approved or disapproved by the Israeli Securities Authority, or ISA, nor has such common stock been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus supplement; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the common stock being offered. Any resale in Israel, directly or indirectly, to the public of the common stock offered by this prospectus supplement is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Italy

The offering of the common stock in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (*Commissione Nazionale per le Società e la Borsa*, CONSOB) pursuant to the Italian securities legislation and, accordingly, no offering material relating to the common stock may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 (Decree No. 58), other than:

- to Italian qualified investors, as defined in Article 100 of Decree no. 58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 (“Regulation no. 11971”) as amended (“Qualified Investors”); and
- in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

Any offer, sale or delivery of the common stock or distribution of any offer document relating to the common stock in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the common stock in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such common stock being declared null and void and in the liability of the entity transferring the common stock for any damages suffered by the investors.

Japan

The common stock has not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the FIEL) pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the common stock may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires common stock may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of common stock is conditional upon the execution of an agreement to that effect.

Portugal

This document is not being distributed in the context of a public offer of financial securities (*oferta pública de valores mobiliários*) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (*Código dos Valores Mobiliários*). The common stock has not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the common stock have not been, and will not be, submitted to the Portuguese Securities Market Commission (*Comissão do Mercado de Valores Mobiliários*) for approval in Portugal and, accordingly, may not be distributed or caused to be distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer

under the Portuguese Securities Code. Such offers, sales and distributions of common stock in Portugal are limited to persons who are qualified investors (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Sweden

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the common stock be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) *om handel med finansiella instrument*). Any offering of common stock in Sweden is limited to persons who are qualified investors (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Switzerland

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

Neither this document nor any other offering material relating to the common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority.

This document is personal to the recipient only and not for general circulation in Switzerland.

United Arab Emirates

Neither this document nor the common stock has been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor has the Company received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the common stock within the United Arab Emirates. This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the common stock, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by us.

No offer or invitation to subscribe for common stock is valid or permitted in the Dubai International Financial Centre.

United Kingdom

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended (FSMA)) has been published or is intended to be published in respect of the common stock. This document is issued on a confidential basis to qualified investors (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the common stock may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the common stock has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to the Company.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (FPO); (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations,

etc.) of the FPO; or (iii) to whom it may otherwise be lawfully communicated (together relevant persons). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

S-15

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Gracin & Marlow, LLP, New York, New York. Certain legal matters in connection with this offering will be passed upon for the underwriters by Zysman, Aharoni, Gayer and Sullivan & Worcester LLP, New York, New York.

EXPERTS

The consolidated financial statements as of December 31, 2016 and December 31, 2015 and for each of the two years in the period ended December 31, 2016 incorporated by reference in this prospectus supplement and the accompanying base prospectus have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, given on authority of said firm as experts in auditing and accounting. The report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

The financial statements of Pelican Therapeutics, Inc. as of December 31, 2016 and 2015 and for the years then ended, included in our current report on Form 8-K/A filed on July 11, 2017, incorporated by reference in this prospectus supplement and the accompanying base prospectus have been so incorporated in reliance on the report of BDO USA, LLP, an independent auditor, given on the authority of said firm as experts in accounting and auditing. The report contains an explanatory paragraph regarding Pelican's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our public filings are also available to the public at the SEC's web site at www.sec.gov.

This prospectus supplement is part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act. This prospectus does not contain all of the information in the registration statement. We have omitted certain parts of the registration statement, as permitted by the rules and regulations of the SEC. You may inspect and copy the registration statement, including exhibits, at the SEC's public reference room or Internet site.

Additional information about Heat Biologics, Inc. is contained at our website, www.heatbio.com. Information on our website is not incorporated by reference into this prospectus supplement. We make available on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K as soon as reasonably practicable after those reports are filed with the SEC. The following Corporate Governance documents are also posted on our website: Code of Conduct, Code of Ethics and the Charters for the Audit Committee, Compensation Committee and Nominations Committee of the Board of Directors.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference certain information that we will file with it which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and the later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, however, we will not incorporate by reference any documents or portions thereof that are not deemed filed with the SEC, or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (File No. 001-35994) filed with the SEC on March 31, 2017;
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 (File No. 001-35994) filed with the SEC on May 11, 2017, August 14, 2017, and November 13, 2017, respectively, and our Quarterly Report on Form 10-Q/A (Amendment No. 1) for the quarter ended June 30, 2017 (File No. 001-35994) filed with the SEC on September 15, 2017;
- Our Current Reports on Form 8-K (File No. 001-35994) filed with the SEC on January 4, 2017, February 3, 2017, March 8, 2017, March 13, 2017, March 16, 2017, March 21, 2017, March 24, 2017, April 7, 2017, May 3, 2017, May 31, 2017, June 30, 2017, Form 8-K/A filed on July 11, 2017, Form 8 K/A filed July 17, 2017, September 12, 2017, September 14, 2017, September 15, 2017, September 27, 2017, September 28, 2017, October 16, 2017, October 23, 2017, October 27, 2017, October 30, 2017, November 6, 2017, November 7, 2017, November 9, 2017, and November 13, 2017 (other than as indicated therein);
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on May 11, 2017;
- The description of our common stock set forth in our registration statement on Form 8-A12B, filed with the SEC on July 8, 2013 (File No. 001-35994); and
- All documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (Commission File No. 001-35994) after the date of this prospectus supplement and before the completion of the offering of the shares of our common stock included in this prospectus supplement.

You may obtain, free of charge, a copy of any of these documents (other than exhibits to these documents unless the exhibits are specifically incorporated by reference into these documents or referred to in this prospectus) by writing or calling us at the following address and telephone number:

Heat Biologics, Inc.

801 Capitola Drive, Suite 12
Durham, North Carolina 27713

(919) 240-7133

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

PROSPECTUS

\$50,000,000

Common Stock

Preferred Stock

Warrants

Units

We may offer and sell up to \$50,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. The supplement may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement before you invest in any of our securities.

We may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be

calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled **About this Prospectus** and **Plan of Distribution** for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

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

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE RISK FACTORS ON PAGE 6 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Our common stock is listed on the NASDAQ Capital Market under the symbol **HTBX**. On October 27, 2017, the last reported sale price of our common stock on the NASDAQ Capital Market was \$0.56 per share.

As of October 27, 2017, the aggregate market value of our outstanding common stock held by non-affiliates was \$25,109,897, based on 35,788,912 shares of outstanding common stock, of which 2,701,684 shares are held by affiliates, and a per share price of \$0.7589 based on the closing sale price of our common stock on October 6, 2017. As of the date of this prospectus, we have offered and sold common stock with an aggregate sales price of \$2,623,244 pursuant to General Instruction I.B.6 to Form S-3 during the 12 calendar month period that ends on and includes the date hereof.

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 November 13, 2017

TABLE OF CONTENTS

| | |
|--|----|
| <u>ABOUT THIS PROSPECTUS</u> | ii |
| <u>PROSPECTUS SUMMARY</u> | 1 |
| <u>RISK FACTORS THAT MAY AFFECT FUTURE RESULTS</u> | 6 |
| <u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u> | 7 |
| <u>USE OF PROCEEDS</u> | 8 |
| <u>DIVIDEND POLICY</u> | 8 |
| <u>THE OFFERING</u> | 9 |
| <u>DESCRIPTION OF OUR CAPITAL STOCK</u> | 10 |
| <u>DESCRIPTION OF WARRANTS</u> | 13 |
| <u>DESCRIPTION OF UNITS</u> | 15 |
| <u>LEGAL OWNERSHIP OF SECURITIES</u> | 16 |
| <u>PLAN OF DISTRIBUTION</u> | 19 |
| <u>LEGAL MATTERS</u> | 21 |
| <u>EXPERTS</u> | 21 |
| <u>WHERE YOU CAN FIND MORE INFORMATION</u> | 21 |
| <u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u> | 21 |

You should rely only on the information we have provided or incorporated by reference in this prospectus or in any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus or in any prospectus supplement. This prospectus and any prospectus supplement is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information contained in this prospectus and in any prospectus supplement is accurate only as of their respective dates and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any prospective supplement or any sale of securities. The registration statement, including the exhibits and the documents incorporated herein by reference, can be read on the Securities and Exchange Commission website or at the Securities and Exchange Commission offices mentioned under the heading **Where You Can Find More Information.**

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, (the SEC), using a shelf registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings up to a total dollar amount of \$50 million of securities as described in this prospectus. Each time that we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the prospectus supplement. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement, together with the additional information described under the heading **Where You Can Find More Information** and **Incorporation of Certain Documents by Reference**.

You should rely only on the information provided or incorporated by reference in this prospectus or in any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise stated or the context otherwise requires, references in this prospectus to **Heat**, **the Company**, **we**, and **us** refer to Heat Biologics, Inc., a Delaware corporation and its consolidated subsidiaries, unless otherwise specified. When we refer to **you**, we mean the holders of the applicable series of securities.

PROSPECTUS SUMMARY

The items in the following summary are described in more detail elsewhere in this prospectus and in the documents incorporated by reference herein. This summary provides an overview of selected information and does not contain all the information you should consider before investing in our common stock. Therefore, you should carefully read the entire prospectus, any prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering, including the Risk Factors section and other documents or information included or incorporated by reference in this prospectus and any prospectus supplement before making any investment decision.

Overview

Heat Biologics is a biopharmaceutical company developing immunotherapies designed to activate a patient's CD8+ Killer T-cells against cancer. Our T-Cell Activation Platform (TCAP) produces therapies designed to turn "cold" tumors "hot" and be administered in combination with checkpoint inhibitor therapies and other immuno-modulators to increase their effectiveness. We can also utilize our TCAP approach to combine with existing T-cell checkpoint inhibitors and co-stimulators in a single treatment. This offers the potential benefit of combination immunotherapy without the need for multiple, independent biologic products. We are currently enrolling patients in our Phase 2 clinical trial for non-small cell lung cancer, in combination with Bristol-Myers Squibb's nivolumab (Opdivo®). We also have numerous pre-clinical programs at various stages of development.

Through our *ImPACT*® platform technology, we have developed product candidates that consist of live, allogeneic *off-the-shelf* genetically-modified, irradiated human cancer cells. These cells are intended to secrete a broad spectrum of Cancer Testis Antigens (CTA), classified as tumor antigens, together with the gp96 protein. Our *ImPACT*® technology achieves this by reprogramming live tumor cells to secrete gp96, along with their chaperoned tumor antigens; thereby, transforming the allogeneic cells into machines that activate a robust killer CD8+ T cell immune attack against a patient's cancer. Unlike autologous or personalized therapeutic, monotherapy approaches that either require the extraction of blood or tumor tissue from each patient or the creation of an individualized treatment, our product candidates are fully allogeneic, and do not require extraction of individual patient's material or custom manufacturing. As a result, our product candidates can be mass-produced and readily available for immediate patient use. Because each patient receives the same treatment, we believe that our immunotherapy approach offers logistical, manufacturing and other cost benefits, compared to patient-specific or precision medicine approaches.

Our lead *ImPACT*[®] program, HS-110, is in a Phase 2 clinical trial focused on non-small cell lung cancer in combination with Bristol-Myers Squibb's nivolumab (Opdivo[®]). HS-110 is made of a cancer cell line that has been genetically modified using our *ImPACT* technology system. It is designed to secrete a wide range of lung cancer-associated antigens bound to gp96 proteins, while activating a broad, T cell mediated immune response against the patient's cancer.

Our *ComPACT* platform technology, currently in preclinical development, is a dual-acting immunotherapy, combining a pan-antigen T-cell activator and a T-cell co-stimulator in a single product, offering the potential benefits of combination immunotherapy without the need for multiple, independent biologic products. The platform offers broad versatility and has been engineered to incorporate into the gp96-Ig expression vector and various fusion proteins targeting co-stimulatory receptors, including but not limited to, OX40, ICOS, GITR and TLIA.

In May 2017, we acquired two T cell co-stimulators through our acquisition of 80% of the outstanding equity of Pelican Therapeutics, Inc. (Pelican), broadening our pipeline and strengthening our portfolio in the emerging T-cell activation space. We believe the use of these therapeutic agents, in combination with other immunotherapies, have the potential dramatically improve patient outcomes.

Pelican is the only company with a disclosed preclinical pipeline targeting the T-cell co-stimulator, TNFRSF25. We believe PTX-35 can activate memory CD8+ cytotoxic T-cells and eliminate tumor cells in patients. This solution is designed to harness the body's natural tolerance mechanisms to reprogram the immune system and provide a long-term, durable effect after a short course of therapy. Combined with other immunotherapies, including *ImPACT* and *ComPACT*, PTX-35 could boost anti-cancer responses due to its potential to improve the durability of antigen-specific immune responses and a preferential specificity for stimulating the production of memory CD8+ t cells. In May 2016, a \$15.2 million grant was awarded to Pelican from the Cancer Prevention and Research Institute of Texas (CPRIT) to support further development of PTX-35 and examine the benefits it may provide to patients with several types of cancers, such as lung, lymphoma, prostate, pancreatic and ovarian.

PTX-15, Pelican's second product candidate, is a human TL1A-Ig fusion protein designed to trigger regulatory T-cell proliferation. We believe it can provide precise control of the regulatory arm of our immune system, and can be used in immuno-oncology or to prevent inflammation in autoimmune diseases and transplantation. As both Pelican therapies are based on natural, existing components of the immune system, we expect they will be safer, longer-lasting, and more effective than traditional medicines after only a short course of therapy.

Our wholly-owned subsidiary, Zolovax, Inc. (Zolovax), is in preclinical studies to develop therapeutic and preventative medicines to treat infectious diseases based on our gp96 therapeutic technology, with a current focus on the development of a Zika vaccine in collaboration with the University of Miami. Other infectious diseases of interest include HIV, West Nile virus, and Dengue and yellow fever.

General Corporate Information

We were incorporated under the laws of the State of Delaware on June 10, 2008. Our principal offices are located at 801 Capitola Drive, Bay 12, Durham, North Carolina 27713. Our website address is www.heatbio.com. We make our periodic and current reports that are filed with the Securities and Exchange Commission (the SEC) available, free of charge, on our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, and that can be accessed through, our website is not incorporated into and is not a part of this prospectus.

Implications of Being an Emerging Growth Company

We qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). As an emerging growth company, we intend to take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

.
allowance to provide only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;

·
reduced disclosure about our executive compensation arrangements;

·
no non-binding advisory votes on executive compensation or golden parachute arrangements; and

·
exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of \$1 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you have beneficial ownership.

The Securities That May Be Offered

We may offer shares of our common stock and preferred stock, and/or warrants to purchase any of such securities, either individually or in combination with other securities or as units, with a total value of up to \$50,000,000 from time to time under this prospectus, together with the applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

.

designation or classification;

.

aggregate principal amount or aggregate offering price;

.

maturity date, if applicable;

.

original issue discount, if any;

.

rates and times of payment of interest or dividends, if any;

.

redemption, conversion, exercise, exchange or sinking fund terms, if any;

.

ranking;

.

restrictive covenants, if any;

.

voting or other rights, if any;

.

conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and

.

material or special U.S. federal income tax considerations, if any.

The applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may offer and sell these securities directly to investors or to or through one or more agents, underwriters, dealers or other third parties. We or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

.

the names of those agents or underwriters;

.

applicable fees, discounts and commissions to be paid to them;

.

details regarding over-allotment options, if any; and

.

the net proceeds to us.

Common Stock

We may issue shares of our common stock from time to time.

Voting. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences. The holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable. All of our outstanding shares of common stock are, and the shares of common stock to be issued under this prospectus will be, fully paid and nonassessable.

In this prospectus, we have summarized certain general features of our common stock under **Description of Capital Stock - Common Stock**. We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common stock being

offered.

Preferred Stock

We may issue shares of our preferred stock from time to time, in one or more series. Under our Third Amended and Restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to designate and issue up to 10,000,000 shares of preferred stock in one or more series (of which 112,500 shares have been designated Series 1 Preferred Stock, 2,000,000 shares have been designated Series A Preferred Stock, 4,100,000 have been designated as Series B-1 Preferred Stock and 2,000,000 have been designated Series B-2 Preferred Stock), to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding. No shares of preferred stock are outstanding. Any authorized and undesignated shares of preferred stock may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by our Board of Directors (authority to do so being hereby expressly vested in the Board of Directors).

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 that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock. We have no current plans to issue any shares of preferred stock.

In this prospectus, we have summarized certain general features of the preferred stock under **Description of Capital Stock Preferred Stock**. We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Warrants

We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or in combination with common stock and/or preferred stock. In this prospectus, we have summarized certain general features of the warrants under Description of Warrants.

We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that contain the terms of the warrants. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if any, in the applicable prospectus supplement relating to a particular series of warrants.

Units

We may offer units consisting of our common stock or preferred stock, and/or warrants to purchase any of these securities in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate 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. This prospectus contains only a summary of certain general features of the units. The applicable prospectus supplement will describe the particular features of the units being offered thereby. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you 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 provisions and will be incorporated by reference into the registration statement of which this prospectus is a part from reports we file with the SEC.

RISK FACTORS THAT MAY AFFECT FUTURE RESULTS

*You should consider carefully the risks discussed under the section captioned **Risk Factors** contained in our annual report on Form 10-K for the year ended December 31, 2016 and in our subsequent quarterly reports on Form 10-Q, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended (the **Exchange Act**), each of which is incorporated by reference in this prospectus in its entirety, together with other information in this prospectus, and the information and documents incorporated by reference in this prospectus, any prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our securities. If any of these events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose all or part of your investment.*

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements, including statements regarding the progress and timing of our product development, the goals of our development activities, estimates of the potential markets for our product candidates, estimates of the capacity of manufacturing and other facilities to support our products, our expected future revenues, operations and expenditures and projected cash needs. The forward-looking statements are contained principally in the sections of this prospectus, any prospectus supplement and the documents incorporated by reference entitled Prospectus Summary, Risk Factors, Management Discussion and Analysis of Financial Condition and Results of Operations and Business. These statements relate to future events of our financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. Those risks and uncertainties include, among others:

- .
our ability to implement our business plan;
- .
our ability to raise additional capital to meet our liquidity needs;
- .
our ability to generate sufficient proceeds from this offering;
- .
our ability to generate product revenues;
- .
our ability to achieve profitability;
- .
our ability to satisfy U.S. (including FDA) and international regulatory requirements;
- .
our ability to obtain market acceptance of our technology and products;
- .

our ability to compete in the market;

.

our ability to advance our clinical trials;

.

our ability to fund, design and implement clinical trials;

.

our ability to demonstrate that our product candidates are safe for human use and effective for indicated uses;

.

our ability to gain acceptance of physicians and patients for use of our products;

.

our dependency on third-party researchers and manufacturers and licensors;

.

our ability to effectively implement cost-cutting measures;

.

our ability to establish and maintain strategic partnerships, including for the distribution of products;

.

our ability to attract and retain sufficient, qualified personnel;

.

our ability to obtain or maintain patents or other appropriate protection for the intellectual property;

.

our dependency on the intellectual property licensed to us or possessed by third parties;

.

our ability to adequately support future growth;

.

Pelican's ability to operate successfully and our ability to integrate our operations with those of Pelican; and

.

potential product liability or intellectual property infringement claims.

Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipates, estimates, projects, predicts, potential, or the negative of those terms, and similar expressions and comparative terminology intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus and, except as required by law, we undertake no obligation to update or review publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus. You should read this prospectus, the documents incorporated by reference in this prospectus, the documents referenced in this prospectus and the documents filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We intend to use the net proceeds, if any, from the sales of securities offered by this prospectus to fund our and our subsidiaries' preclinical and clinical programs and for working capital and general corporate purposes, including, to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property.

We have broad discretion in determining how the proceeds of this offering will be used, and our discretion is not limited by the aforementioned possible uses. Our board of directors believes the flexibility in application of the net proceeds is prudent.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received from this offering. The amounts and timing of our actual expenditures will depend on numerous factors including the progress in, and costs of, our clinical trials and other preclinical development programs and the amount of funding, if any, received from grants. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of management regarding the application of the net proceeds from the offering. We may find it necessary or advisable to reallocate the net proceeds of this offering; however, any such reallocation would be substantially limited to the categories set forth above as we do not intend to use the net proceeds for other purposes. Pending such uses set forth above, we plan to invest the net proceeds in government securities and other short-term investment grade, marketable securities.

DIVIDEND POLICY

We have never paid cash dividends on our common stock. Moreover, we do not anticipate paying periodic cash dividends on our common stock for the foreseeable future. We intend to use all available cash and liquid assets in the operation and growth of our business. Any future determination about the payment of dividends will be made at the discretion of our board of directors and will depend upon our earnings, if any, capital requirements, operating and financial conditions and on such other factors as our board of directors deems relevant.

THE OFFERING

We may offer shares of our common stock, preferred stock, warrants to purchase any of such securities, either individually or in combination, and/or units consisting of some or all of such securities for total gross proceeds of up to \$50 million, from time to time under this prospectus, together with the applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of any offering. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities being offered. Below is a summary of the securities we may offer under this prospectus (together with the applicable prospectus supplement).

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. Each prospectus supplement will set forth the names of any underwriters, dealers or agents involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

DESCRIPTION OF OUR CAPITAL STOCK

General

The following is a summary of the rights of our common stock, preferred stock and outstanding warrants and related provisions of our certificate of incorporation, bylaws and warrants. For more detailed information, please see our certificate of incorporation and bylaws, each as amended.

We are authorized to issue 100,000,000 shares of common stock, par value \$0.0002 per share, of which 35,788,912 shares are outstanding as of October 27, 2017 and 10,000,000 shares of preferred stock, par value \$0.0001 per share, of which 112,500 shares are designated Series 1 Preferred Stock, 2,000,000 shares are designated Series A Preferred Stock, 4,100,000 are designated as Series B-1 Preferred Stock and 2,000,000 are designated Series B-2 Preferred Stock. There are currently no shares of preferred stock outstanding.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted on by the shareholders and do not have cumulative voting rights. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by the Board out of funds legally available therefore. If we liquidate, dissolve or wind up, holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any outstanding shares of preferred stock. The holders of our common stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and all shares of common stock to be outstanding upon completion of this offering will be, fully paid and nonassessable. Except as otherwise required by Delaware law, all stockholder action, other than the election of directors, is taken by the vote of a majority of the outstanding shares of common stock voting as a single class present at a meeting of stockholders at which a quorum consisting of a majority of the outstanding shares of common stock is present in person or proxy. The election of directors by our stockholders, is determined by a plurality of the votes cast by the stockholders entitled to vote at any meeting held for such purposes at which a quorum consisting of a majority of the outstanding shares of common stock is present in person or proxy.

Reverse Stock Split

At our 2017 Annual Meeting of Stockholders, our stockholders approved an amendment to our certificate of incorporation, as amended, to implement a reverse stock split of our common stock with the ratio to be determined by our board of directors, within a range of one (1) share of common stock for every two (2) to ten (10) shares of common stock. If the board of directors continues to believe that a reverse stock split is in the best interests of our Company and our stockholders, the board will determine the ratio, within the range approved by our stockholders, of the reverse stock split and implement such reverse stock split by filing a certificate of amendment to our certificate of incorporation (the "Certificate of Amendment for Reverse Split") with the Secretary of State of the State of Delaware (the "Reverse Stock Split"). The Reverse Stock Split, if any, will become effective after the filing of the Certificate of Amendment for Reverse Split on the effective date set forth in this certificate.

Preferred Stock

The following description of our preferred stock will apply generally to any future preferred stock that we may offer, but is not complete. We will describe the particular terms of any class or series of these securities in more detail in the applicable prospectus supplement.

We are authorized to issue 10,000,000 shares of Preferred Stock, par value \$.0001 per share, of which 112,500 shares have been designated Series 1 Preferred Stock, 2,000,000 shares have been designated Series A Preferred Stock, 4,100,000 have been designated as Series B-1 Preferred Stock and 2,000,000 have been designated Series B-2 Preferred Stock. No shares of preferred stock are outstanding. Any authorized and undesignated shares of preferred stock may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by our Board of Directors (authority to do so being hereby expressly vested in the Board of Directors).

Under our Third Amended and Restated Certificate of Incorporation, as amended, our board of directors is authorized by resolution to divide the preferred stock into series and, with respect to each series, to determine the designations and the powers, preferences and rights, and the qualifications, limitations and restrictions thereof, including the dividend rights, conversion or exchange rights, voting rights, redemption rights and terms, liquidation preferences, sinking fund provisions and the number of shares constituting the series. Our board of directors can, without stockholder approval, but subject to the terms of the Third Amended and Restated Certificate of Incorporation, as amended, issue preferred stock with voting and other rights that could adversely affect the voting power of the holders of our common stock and which could have certain anti-takeover effects. Before we may issue any series of preferred stock, our board of directors will be required to adopt resolutions creating and designating such series of preferred stock.

The following summary of terms of our preferred stock is not complete. You should refer to the provisions of our certificate of incorporation and bylaws and the resolutions containing the terms of each class or series of the preferred stock which have been or will be filed with the SEC at or prior to the time of issuance of such class or series of preferred stock and described in any applicable prospectus supplement. Any applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series of preferred stock, provided that the information set forth in such prospectus supplement does not constitute material changes to the information herein such that it alters the nature of the offering or the securities offered.

We will fix the designations, voting powers, preferences and rights of the preferred stock of each series we issue under this prospectus, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering. We will describe in any applicable prospectus supplement the terms of the series of preferred stock being offered, including, to the extent applicable:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price;
- the dividend rate, period and payment date and method of calculation for dividends;