HEAT BIOLOGICS, INC.
Form 424B2
March 24, 2017

Filed Pursuant to Rule 424(b)(2)

Registration No. 333-199274

PROSPECTUS SUPPLEMENT
(To the Prospectus dated October 23, 2014)

5,000,000 Shares

Common Stock

We are offering 5,000,000 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. The last reported sale price of our common stock on the NASDAQ Capital Market on March 22, 2017 was $1.03 per share.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-6 of this prospectus supplement and on page 5 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	$ 0.80	$ 4,000,000
Underwriting discounts and commissions [(1)]	$ 0.056	$ 280,000
Proceeds, before expenses, to us	$ 0.744	$ 3,720,000

(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 750,000 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 March 28, 2017.

Sole Book-Running Manager

Aegis Capital Corp

March 23, 2017.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that we filed with the Securities and Exchange Commission (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

Some of the statements contained or incorporated by reference in this prospectus may include forward-looking statements that reflect our current views with respect to our ongoing and planned clinical trials, business strategy, business plan, financial performance and other future events. These statements include forward-looking statements both with respect to us, specifically, and the biotechnology sector, in general. We make these statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements that include the words expect, intend, plan, believe, project, estimate, may, should, anticipate, will and similar stater forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise.

All forward-looking statements involve inherent risks and uncertainties, and there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. We believe that these factors include, but are not limited to, those factors set forth under the caption Risk Factors in this prospectus and under the captions Risk Factors, Business, and Management s Discussion and Analysis of Financial Condition and Results o Operations, in our most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus supplement and the accompanying prospectus. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

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 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.

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-6 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.

Overview

We are an immuno-oncology company developing novel therapies intended to activate a patient s immune system to fight cancer. Using our highly specific T cell-stimulating therapeutic platform technologies, *ImPACT*® (Immune Pan-Antigen Cytotoxic Therapy) and *ComPACT* (Combination Pan-Antigen Cytotoxic Therapy), we have generated several product candidates that we believe may be effective in treating certain forms of cancer. Our platform technologies address two synergistic mechanisms of action: activation of CD8+ T cells, or killer T cells; and T cell co-stimulation. We believe the use of these technologies in combination with other immunotherapies has the potential to enhance patients natural immune response against certain cancers.

Using our *ImPACT*® platform technology, we have developed product candidates that consist of live, genetically-modified, irradiated human cancer cells which secrete a broad spectrum of tumor-associated antigens (TAAs) together with a potent immune response stimulator called gp96. The secreted antigen-gp96/TAA complexes activate a patient s immune system to recognize and kill cancer cells that express the TAAs included in the product candidates, which we have selected to address the most prevalent TAAs present in the tumor signature of a specific cancer.

Our *ComPACT* platform technology enables us to combine a pan-antigen T cell-activating vaccine 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. Using *ComPACT* , we have engineered new product candidates that incorporate various ligand fusion proteins targeting co-stimulatory receptors (OX40, ICOS, 4-1BB, TL1A, etc.) into the gp96-Ig expression vector, resulting in a single product candidate that includes both a pan-antigen T

cell-priming vaccine and a T cell co-stimulator.

Using our platform technologies, we produce product candidates from allogeneic cell lines selected to express the broadest array of commonly shared tumor antigens for a specified type of cancer. Unlike autologous or personalized therapeutic vaccine approaches that require the extraction of blood or tumor tissue from each patient and the creation of an individualized treatment, our product candidates are fully allogeneic, do not require extraction of an 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 wholly-owned subsidiary, Zolovax, Inc. (Zolovax), is developing therapeutic and preventative vaccines to treat infectious diseases based on our gp96 vaccine 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, Dengue and yellow fever.

Recent Developments

Year-End Financial Information

We are currently finalizing our financial results for the year ended December 31, 2016. While complete financial information and operating data as of and for such period are not available, our management preliminarily estimates that for the year ended December 31, 2016, we will report a loss from continuing operations of approximately $13.0 million. Management also estimates cash of approximately $7.8 million at December 31, 2016.

These estimates are preliminary and may change. Our auditors and we have not completed our normal annual review procedures for the year ended December 31, 2016, and there can be no assurance that our final results for this year will not differ from these estimates, including as a result of year-end closing procedures or review adjustments, and such changes could be material. These estimates should not be viewed as a substitute for full audited financial statements prepared in accordance with GAAP or as a measure of our performance.

HS-110 in Combination with a Checkpoint Inhibitor

On March 21, 2017, we announced the latest results of our ongoing Phase 2 clinical trial of HS-110 in combination with Bristol-Myers Squibb s anti-PD-1 checkpoint inhibitor, nivolumab (Opdivo®), for the treatment of non-small cell lung cancer (NSCLC). Fifteen patients have completed the HS-110/nivolumab combination treatment to-date and 12 of these 15 patients were evaluable for ELISPOT analysis. ELISPOT results suggest that HS-110 plays an integral role in tumor reduction and may enhance efficacy of checkpoint inhibitors in lung cancer patients. These data reinforce preliminary results seen in the first eight patients as reported last December at the International Association for the Study of Lung Cancer Annual Meeting.

On March 13 2017, we announced that we had achieved the safety and efficacy endpoints for our Phase 1b trial evaluating HS-110 in combination with nivolumab for the treatment of NSCLC and that the trial met the expansion criteria to advance into a Phase 2. Five out of 15 patients treated with the HS-110/nivolumab combination had 20% or greater tumor reduction. Patients with increased levels of tumor infiltrating lymphocytes (TIL) at 10 weeks appeared to have a durable benefit, with six out of eight of these patients (75%) alive at the one-year follow-up point.

Zolovax

On March 16 2017, we announced that Natasa Strbo, M.D., D.Sc., Research Assistant Professor of Microbiology and Immunology at the University of Miami Miller School of Medicine, received a three-year $981,901 grant from the Florida Department of Health 2016-17 Zika Research Grant Initiative to further develop and test gp96-based Zika vaccine. This vaccine is being developed under a collaboration between the University of Miami and our wholly-owned subsidiary, Zolovax, which has licensed the patent.

Nasdaq

On March 15, 2017, we received written notice from the Listing Qualifications Department of The NASDAQ Stock Market LLC (NASDAQ) notifying us 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 (Minimum Bid Price Requirement) per share as required by NASDAQ Listing Rule 5550(a)(2). The notice has no immediate effect on the listing or trading of our common stock and the common stock will continue to trade on The NASDAQ Capital Market under the symbol HTBX.

In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we have a compliance period of 180 calendar days, or until September 11, 2017, to regain compliance with NASDAQ Listing Rule 5550(a)(2). 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.

If, however, we do not achieve compliance with the Minimum Bid Price Requirement by September 11, 2017, we may be eligible for additional time to comply. In order to be eligible for such additional time, we will be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for The NASDAQ Capital Market, with the exception of the Minimum Bid Price Requirement, and must notify NASDAQ in writing of its intention to cure the deficiency during the second compliance period.

We intend to actively monitor the bid price of our common stock and will consider available options to regain compliance with the NASDAQ listing requirements, including such actions as effecting a reverse stock split to maintain its NASDAQ listing.

Pelican Therapeutics

On March 7, 2017, we entered into a Stock Purchase Agreement (the Purchase Agreement) with Pelican Therapeutics, Inc. (Pelican), a related party, and certain stockholders in Pelican (the Majority Pelican Stockholders), including Jeff Wolf, our President, Chief Executive Officer and Chairman of the board of directors, through one or more of his affiliated entities, and Edward Smith, a member of our board of directors, and entities controlled by Mr. Smith, to purchase outstanding capital stock of Pelican (the Pelican Acquisition). Pelican is a biotechnology company focused on the development and commercialization of monoclonal antibody and fusion protein-based therapies that are designed to activate the immune system. Under the Purchase Agreement, it is a condition to closing that holders of at least 80% of the outstanding capital stock of Pelican on a fully diluted basis participate in the Pelican Acquisition. We and Pelican are providing all Pelican stockholders with the opportunity to participate in the Pelican Acquisition by executing a Joinder Agreement pursuant to which they will become a party to the Purchase Agreement and agree to sell at least 80% (and up to 100%) of their shares. In order to participate in the Pelican Acquisition, Pelican stockholders must return an executed Joinder Agreement and other related documents to Pelican by the closing of the transaction, which is currently expected to occur no later than April 30, 2017. The Majority Pelican Stockholders own 75.5% of the fully diluted Pelican shares and have agreed to backstop the Pelican Acquisition and sell additional shares of Pelican common stock in the Pelican Acquisition (up to 100% of their shares) in order to enable us to acquire 80% of the outstanding capital stock of Pelican on a fully diluted basis.

HS-410 in Combination with BCG

On February 17 2017, we presented immunological data from our 94-patient Phase 2 trial evaluating HS-410 either alone or in combination with standard of care, BCG, for the treatment of non-muscle invasive bladder

cancer (NMIBC). Researchers reported that HS-410, in combination with BCG, continues to be generally well-tolerated, that HS-410 activates CD8+ T cells and that these immune responders appear to have a lower recurrence rate than non-immune responders. These data were an extension on the topline data presented in November 2016 at the Society of Urology Annual Meeting. Researchers reported that there were encouraging signs of anti-tumor activity as HS-410 generated a robust antigen-specific immune response to multiple tumor-associated peptides in treated patients, while there were no immune responses of this type in the placebo. However, these responses did not translate into clinical outcomes, and there was no statistically significant difference in the primary endpoint between the vaccine and placebo arms of the trial. To better assess the durability of the positive immunological responses, and in keeping with recent clinical trial guidance, we will continue to monitor all patients enrolled in the study for an additional 12 months. At that time, we will make a final determination on whether to progress our bladder program into a Phase 3 trial.

Chief Scientific Officer

On January 1, 2017, we appointed Jeff T. Hutchins, Ph.D. to serve as our Chief Scientific Officer and Senior Vice President of Preclinical Development. Dr. Hutchins oversees our research efforts, bringing over 24 years of research and clinical development experience from both large pharmaceutical and biotechnology companies. Dr. Hutchins replaced Taylor Schreiber, M.D., Ph.D., who resigned as our Chief Scientific Officer on December 31, 2016, and now serves as the Chairman of our Scientific and Clinical Advisory Board.

At-the-Market Sales

Subsequent to September 30, 2016, we issued and sold a total of 5,058,377 shares of our common stock under the At Market Issuance Sales Agreement entered into with FBR Capital Markets & Co. (FBR) and received net proceeds of approximately $6.2 million (the ATM).

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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, NC 27713. Our website address is *www.heatbio.com*. 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:

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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;

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reduced disclosure about our executive compensation arrangements;

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

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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 (5) 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 Offering

Common stock offered by us pursuant to this prospectus supplement	5,000,000 shares of our common stock
Common stock to be outstanding after the offering	33,496,109 shares (as more fully described in the notes following this table), assuming sales of 5,000,000 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 750,000 additional shares of our common stock from us at the public offering price less underwriting discounts and commissions.
Use of proceeds	We intend to use the net proceeds of this offering to fund our and our subsidiaries preclinical and clinical programs and for working capital and general corporate purposes to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property. See Use of Proceeds for further information.
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 trading symbol	HTBX

(1)

The number of shares of common stock shown above to be outstanding after this offering is based on 28,496,109 shares outstanding as of March 21, 2017, and excludes:

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2,154,065 shares of our common stock reserved for issuance upon the exercise of outstanding options under our equity incentive plans as of March 21, 2017, at a weighted-average exercise price of $2.45 per share;

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3,103,963 shares of our common stock reserved for issuance upon the exercise of outstanding warrants as of March 21, 2017, with a weighted-average exercise price of $1.46 per share;

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905,418 shares of our common stock which are reserved for equity awards that may be granted under our equity incentive plans as of March 21, 2017; and

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1,331,082 shares of our common stock to be issued in the Pelican Acquisition.

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 most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form10-Q, or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus supplement and the accompanying 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, for general corporate purposes, including, but not limited to, continuing to support and advance our ongoing preclinical and clinical programs, for licensing or acquisition of assets complementary to our business and for working capital purposes. 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.

Because the price per share of our common stock sold in this offering may be higher than the book value per share of our common stock, you will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. After giving effect to the sale of common stock in this offering at the public offering price of $0.80 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2016 would have been approximately $15.96 million, or $0.48 per share of common stock. This represents an immediate increase in the net tangible book value of $0.04 per share to our existing stockholders and an immediate and substantial dilution in as adjusted net tangible book value of $0.32 per share to new investors who purchase our common stock in the offering. See Dilution.

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, and for general corporate purposes. We expect our expenses to increase due to the expansion of our Phase 1b clinical trial to a Phase 2 clinical trial and due to our acquisition of Pelican, if and when we initiate and conduct 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 the Pelican Acquisition and 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 pursuant to the At Market Issuance Sales Agreement entered into with FBR, 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. Subsequent to September 30, 2016, we issued and sold a total of 5,058,377 shares of our common stock under the At Market Issuance Sales Agreement entered into with FBR and received net proceeds of approximately $6.2 million. 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 could result in dilution to our existing 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. In addition, the terms of any existing or future debt agreements may preclude us from paying dividends. 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 in connection with this offering. This issuance from time to time of these new shares of our common stock, or our ability to issue these 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 NASDAQ notifying us 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 have a compliance period of 180 calendar days, or until September 11, 2017, to regain compliance with NASDAQ Listing Rule 5550(a)(2). 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.

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 $3.5 million, or approximately $4.1 million if the underwriters exercise in full their option to purchase additional shares, based upon the public offering price of $0.80 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 of this offering to fund our and our subsidiaries' preclinical and clinical programs and for working capital and general corporate purposes to acquire, license or invest in complementary businesses, technologies, product candidates or other intellectual property.

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, 2016:

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on an actual basis; and

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on a pro forma basis to give effect to the repayment of $2.9 million of debt and receipt of cash proceeds of $7.3 million received from the issuance of 6,147,824 shares of our common stock under the ATM and the exercise of warrants; and

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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, 2016		
	Actual	**Pro forma(1)**	**As Adjusted[1][2]**
Cash and cash equivalents	$ 8,464,635	$ 12,896,532	$ 16,406,532
Long-term debt, including current portion	2,880,539		
Common stock, $0.0002 par value; 50,000,000 shares authorized, 22,202,465 shares issued and outstanding, actual; 50,000,000 shares authorized, 33,496,109 shares issued and outstanding, as adjusted	4,124	5,354	6,354
Additional paid-in capital	60,704,297	68,015,503	71,524,503
Accumulated deficit	(53,532,473)	(53,532,473)	(53,532,473)
Accumulated other Comprehensive Loss	(149,545)	(149,545)	(149,545)
Total Stockholders Equity Less	7,026,403	14,338,839	17,848,839
Non-Controlling Interest	(1,885,271)	(1,885,271)	(1,885,271)
Total stockholders equity	5,141,132	12,453,568	15,963,568
Total capitalization	$ 8,021,671	$ 12,453,568	$ 15,963,568

(1)

Reflects the repayment of $2,880,539 of debt and cash proceeds of $7,312,436 from the issuance of 6,147,824 shares of our common stock under the ATM and exercise of warrants.

(2)

The number of shares of common stock shown above to be outstanding after this offering is based on 28,496,109 shares outstanding as of March 21, 2017, and excludes:

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2,154,065 shares of our common stock issuable upon exercise of outstanding options under our equity incentive plans as of March 21, 2017, at a weighted-average exercise price of $2.45 per share;

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3,103,963 shares of our common stock reserved for issuance upon the exercise of outstanding warrants as of March 21, 2017, with a weighted-average exercise price of $1.46 per share;

.

905,418 shares of our common stock which are reserved for equity awards that may be granted under our equity incentive plans as of March 21, 2017; and

.

1,331,082 shares of our common stock to be issued in the Pelican Acquisition.

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, 2015, and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, 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, including any secured loan or loans that we may enter into, which, with limited exception, would restrict our ability to pay any dividends or make any other distributions or payments on account of or in redemption, retirement or purchase of any capital stock.

DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the exercise price and the adjusted net tangible book value per share of our common stock after this offering.

Our pro forma net tangible book value on September 30, 2016 was approximately $12,453,568, or $0.44 per share after giving effect to the issuances of 6,147,824 shares of common stock (of which 5,058,377 shares were issued in the ATM and 1,089,447 shares were issued upon the exercise of warrants) for which we received $7,312,436 from October 1, 2016 through March 21, 2017. 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 $0.80 per share, and after deducting estimated offering commissions and expenses payable by us, our as adjusted net tangible book value as of September 30, 2016 would have been approximately $15,963,568, or $0.48 per share of common stock. This represents an immediate increase in net tangible book value of $0.04 per share to our existing stockholders and an immediate dilution in net tangible book value of $0.32 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		$ 0.80
Pro forma net tangible book value per share as of September 30, 2016	$ 0.44	
Increase in pro forma net tangible book value per share attributable to new investors in this offering	$ 0.04	
As adjusted net tangible book value per share after giving effect to this offering		$ 0.48
Dilution per share to new investors		$ 0.32

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 above discussion and table are based on 22,202,465 shares of our common stock issued and outstanding as of September 30, 2016, which does not include the following, all as of September 30, 2016:

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1,219,847 shares of our common stock reserved for issuance upon the exercise of outstanding options under our equity incentive plans, at a weighted-average exercise price of $4.09 per share;

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142,392 shares of our common stock reserved for issuance upon the exercise of outstanding warrants, with a weighted-average exercise price of $11.03 per share;

.

2,343,136 shares of our common stock which are reserved for equity awards that may be granted under our stock option plan; and

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1,331,156 share of our common stock to be issued in the Pelican Acquisition.

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 March 23, 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.	5,000,000
Total	