

HEAT BIOLOGICS, INC.  
Form 424B5  
April 04, 2019

**Filed Pursuant to Rule 424(b)(5)**

**Registration No. 333-221201**

**PROSPECTUS SUPPLEMENT**

**(To the Prospectus dated November 13, 2017)**

**Up to \$18,000,000 of Shares**

**of Common Stock**

We have entered into an At Market Issuance Sales Agreement, or the sales agreement, with B. Riley FBR, Inc., or B. Riley FBR, dated April 3, 2019, relating to shares of our common stock offered by this prospectus supplement. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock pursuant to this prospectus supplement having an aggregate offering price of up to \$18,000,000 from time to time through B. Riley FBR acting as sales agent. The sales agreement entered into with B. Riley FBR replaces the common stock sales agreement that we entered into with H.C. Wainwright & Co., LLC, dated January 18, 2018, for the issuance of shares in at the market offerings.

Our common stock is listed on the NASDAQ Capital Market under the symbol HTBX. On April 2, 2019, the last reported sale price of our common stock on the NASDAQ Capital Market was \$1.23 per share.

Sales of shares of our common stock, if any, under this prospectus supplement will be made in sales deemed to be an at the market offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act. B. Riley FBR is not required to sell any specific amount, but will act as sales agent on a commercially reasonable efforts basis consistent with its normal trading and sales practices, on mutually agreed terms between B. Riley FBR and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

B. Riley FBR will be entitled to compensation at a fixed commission rate of up to 3% of the gross proceeds of each sale of shares of our common stock. In connection with the sale of our shares of common stock on our behalf, B. Riley FBR will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of B. Riley FBR will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to B. Riley FBR with respect to certain liabilities, including liabilities under the Securities Act.

As of the date of this prospectus supplement, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$54,383,197, based on 34,071,323 shares of outstanding common stock, of which 2,635,949 shares are held by affiliates, and a per share price of \$1.73, which represents the closing sale price of our common stock on February 28, 2019, which is the highest closing sale price of our common stock on the NASDAQ Capital Market within the prior 60 days. As of the date of this prospectus supplement, we have not offered or sold any common stock 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.

**Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under the heading Risk Factors beginning on page S-4 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and the accompanying base prospectus.**

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

**B. Riley FBR**

**The date of this prospectus supplement is April 3, 2019**



## TABLE OF CONTENTS

### PROSPECTUS SUPPLEMENT

	<b>Page</b>
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-ii
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	S-iii
<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>DIVIDEND POLICY</u>	S-7
<u>DILUTION</u>	S-8
<u>PLAN OF DISTRIBUTION</u>	S-9
<u>LEGAL MATTERS</u>	S-10
<u>EXPERTS</u>	S-10
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-10
<u>INCORPORATED OF CERTAIN DOCUMENTS BY REFERENCE</u>	S-10

### PROSPECTUS

	<b>Page</b>
<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 prospectus supplement is part of a registration statement that we have filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under the shelf registration process, we may offer shares of our common stock having an aggregate offering price of up to \$50,000,000 under the accompanying base prospectus. Under this prospectus supplement and the accompanying base prospectus, we may offer shares of our common stock having an aggregate offering price of up to \$18,000,000 from time to time at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both documents combined.

If information in this prospectus supplement is inconsistent with the accompanying base 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. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in this prospectus supplement, the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

This prospectus supplement, the accompanying base 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 base 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 and the accompanying base 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 B. Riley FBR 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 base 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 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 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 base 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 this prospectus supplement 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.

This prospectus supplement contains and incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe that these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading **Risk Factors** in this prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

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 B. Riley FBR that would permit a public offering of the common stock or the possession or distribution of this prospectus supplement and the accompanying base 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 base 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 base prospectus outside the United States. This prospectus supplement and the accompanying base 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 base 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, 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's 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;

.  
our ability to maintain our NASDAQ listing; and

potential product liability or intellectual property infringement claims.

S-iii

---

Please consider our forward-looking statements in light of those risks as you read this prospectus supplement and the accompanying base 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 supplement 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.

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

We are a biopharmaceutical company developing immunotherapies focused on activating a patient's immune system against cancer through T-cell activation and expansion. Our T-cell Activation Platform (TCAP), includes two variations for intradermal administration, Immune Pan-antigen Cytotoxic Therapy (*ImPACT*<sup>®</sup>) and Combination Pan-antigen Cytotoxic Therapy (*ComPACT*). To further augment antigen experienced T-cell activation and expansion, we are also developing a novel T-cell co-stimulator PTX-35 for systemic administration. These programs are designed to harness the body's natural antigen specific immune activation and tolerance mechanisms to reprogram immunity and provide a long-term, durable clinical effect. Currently we are enrolling patients in our HS-110 combination immunotherapy trial, preparing IND submissions for our HS-130 and PTX-35 programs, and providing pre-clinical, CMC development, and administrative support for these operations; while constantly focusing on protecting and expanding our intellectual property in areas of strategic interest.

We are continuing to enroll patients in our Phase 2 clinical trial for advanced non-small cell lung cancer (NSCLC), in combination with either Bristol-Myers Squibb's nivolumab (Opdiv<sup>®</sup>) or more recently, Merck & Co., Inc.'s (Merck's) anti-PD1 checkpoint inhibitor, pembrolizumab (KEYTRUDA<sup>®</sup>). Our other programs are in pre-clinical and CMC development with two IND filings anticipated during 2019.

Our T-cell Activation Platform (TCAP), includes two variations, *ImPACT*<sup>®</sup> and *ComPACT* which are designed to activate and expand tumor antigen specific killer T-cells to destroy a patient's cancer. By turning immunologically COLD tumors HOT, we believe our platform will become an essential component of the immuno-oncology cocktail to enhance the effectiveness and durability of checkpoint inhibitors and other cancer therapies, thereby improving outcomes for those patients less likely to benefit from checkpoint inhibitors alone.

We believe the advantage of our approach is that our biologic agents deliver a broad range of tumor antigens that are unrecognized by the patient's immune system prior to the malignant rise of the patient's tumor. TCAP combines these tumor associated antigens with a powerful, naturally occurring immune adjuvant, gp96, to actively chaperone these antigens out of our non-replicating allogenic cell-based therapy into the local microenvironment of the skin. The treatment primes local natural immune recognition to activate T-cells to seek and destroy the cancer cells throughout the body. These TCAP agents can be administered with a variety of immuno-modulators to enhance a patient's immune response through ligand specific T-cell activation.

Unlike many other patient specific or autologous immunotherapy approaches, our drugs are fully-allogenic, off-the-shelf products, which means that we can administer immediately without the extraction of blood or tumor tissue from each patient or the creation of an individualized treatment based on these patient materials. Our TCAP product candidates from our *ImPACT*<sup>®</sup> and *ComPACT* platforms are produced from allogenic cell lines expressing tumor-specific proteins common among cancers. Because each patient receives the same treatment, we believe that our immunotherapy approach offers superior speed to initiation, logistical, manufacturing and importantly, cost benefits, compared to personalized precision medicine approaches.

Our *ImPACT*<sup>®</sup> platform is an allogenic cell-based, T-cell-stimulating platform that functions as an immune activator to stimulate and expand T-cells. The key component of this innovative immunotherapy platform is the dual functionality of the heat shock protein, gp96.

As a molecular chaperone, gp96 is typically found within the cell's endoplasmic reticulum and facilitates the folding of newly synthesized proteins for functionalized tasks. But when a cell abnormally dies through necrosis or infection, gp96 is naturally released into the surrounding microenvironment. At this moment, gp96 becomes a Danger Associated Molecular Protein or DAMP, a molecular warning signal for localized innate activation of the immune system. In this context gp96 serves as a potent adjuvant, or immune stimulator, via Toll-Like Receptor 4/2 (TLR4 and TLR2) signaling which serves to activate APCs to specialized dendritic cells that upregulate T-cell costimulatory ligands, MHC and immune activating cytokines. It is among the most powerful adjuvants found in the body and uniquely shows exclusive specificity to CD8+ killer T-cells through cross-presentation of the gp96-chaperoned tumor associated peptide antigens directly to MHC class I molecules for direct activation and expansion of CD8+ T-cells. Thus, gp96 plays a critical role in the mechanism of action for Heat's T-cell activating platform immuno-therapies; mimicking necrotic cell death and activating a powerful, tumor antigen-specific T-cell immune response to attack the patient's cancer cells.

*ComPACT*, our second TCAP, is a dual-acting immunotherapy designed to deliver antigen driven T-cell activation and specific co-stimulation in a single product. *ComPACT* is designed to help unlock the body's natural defenses and builds upon *ImPACT*<sup>®</sup> by providing specific co-stimulation to enhance T-cell activation and expansion. It has the potential to simplify combination immunotherapy development for oncology patients, as it is designed to deliver the gp96 heat shock protein and a T-cell co-stimulatory fusion protein (OX40L) as a single therapeutic, without the need for multiple, independent biologic products. The potential advantages of *ComPACT* include: (a) enhanced activation of antigen-specific CD8+ T-cells; (b) serving as a booster to expand the number of antigen-specific CD8+ T-cells compared to OX40L alone; (c) stimulation of T-cell memory function to remain effective in the body after treatment, even if the cancer comes back; (d) demonstration of less toxicity, as the source of cancer associated antigens and co-stimulator are supplied at the same time locally and the draining lymph nodes, which drive targeted, cancer specific immunity towards the tumor rather than throughout the body; and (e) a potential paradigm shift that is designed to simplify combination cancer immunotherapy versus systemic co-stimulation with conventional monoclonal antibodies (mAbs).

Pelican, our subsidiary, is a biotechnology company focused on the development of biologic based therapies designed to activate the immune system, including the monoclonal antibody, PTX-35. PTX-35, which is currently focused on preclinical IND enabling activities, is Pelican's lead product candidate targeting the T-cell co-stimulator, TNFRSF25. It is designed to harness the body's natural antigen specific immune activation and tolerance mechanisms to reprogram immunity and provide a long-term, durable clinical effect. TNFRSF25 agonism has been shown to provide highly selective and potent stimulation of antigen experienced memory CD8+ cytotoxic T-cells, which are the class of long-lived T-cells capable of eliminating tumor cells in patients. Due to the preferential specificity of PTX-35 to antigen experienced CD8+ T-cells, this agent represents a promising candidate as a T-cell co-stimulator in cancer patients.

When combined in preclinical studies with *ImPACT*<sup>®</sup> and *ComPACT* platform immunotherapies, PTX-35 has been shown to enhance antigen specific T-cell activation to eliminate tumor cells. Pelican is also developing other biologics that target TNFRSF25 for various immunotherapy approaches, including PTX-45, a human TL1A-Ig fusion protein designed as a shorter half-life agonist of TNFRSF25.

## **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](http://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 supplement.

S-2

---



## THE OFFERING

Issuer	Heat Biologics, Inc.
Common stock to be offered by us pursuant to this prospectus supplement	Shares of our common stock having an aggregate offering price of up to \$18,000,000.
Common stock to be outstanding after the offering	Up to 48,357,037 shares (as more fully described in the notes following this table), assuming sales of 14,285,714 shares of our common stock in this offering at an offering price of \$1.26 per share, which was the last reported sale price of our common stock on the NASDAQ Capital Market on March 28, 2019. The actual number of shares issued will vary depending on the sales price under this offering. <sup>(1)</sup>
Manner of offering	At the market offering that may be made from time to time on the NASDAQ Capital Market or other market for our common stock in the United States through our sales agent, B. Riley FBR, Inc. See the section entitled Plan of Distribution on page S-9 of this prospectus supplement.
Use of proceeds	We currently intend to use the net proceeds from this offering 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 and to fund our milestone payment obligations. 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 Trading Symbol	HTBX

Unless we indicate otherwise, all information in this prospectus supplement is based on 34,071,323 shares outstanding as of March 28, 2019. The number of shares outstanding as used throughout this prospectus

supplement, unless otherwise indicated, excludes:

.  
3,073,972 shares of our common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$2.64 per share;

.  
9,030,730 additional shares of our common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.89 per share; and

.  
72,867 additional shares of our common stock reserved for future issuance under our equity incentive plans as of March 28, 2019.

In addition, all information in this prospectus supplement reflects a one-for-ten reverse stock split of our issued and outstanding shares of common stock, options and warrants effected on January 19, 2018 and the corresponding adjustment of all common stock prices per share and stock option and warrant exercise prices per share and conversion ratios.

## 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, 2018, 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 base 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 and to fund our milestone payment obligations. 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 may be higher than the net tangible book value per share of our outstanding common stock prior to this offering. Assuming that an aggregate of 14,285,714 shares of our common stock are sold at a price of \$1.26 per share, the last reported sale price of our common stock on the NASDAQ Capital Market on March 28, 2019, for aggregate gross proceeds of approximately \$18,000,000 and after deducting commissions and estimated offering expenses payable by us, new investors in this offering will incur immediate dilution of \$0.44 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 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, as amended, authorizes the issuance of 100,000,000 shares of our common stock and 10,000,000 shares of preferred stock. In certain circumstances, the common stock, as well as the awards available for issuance under our equity incentive 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 certain securities, including pursuant to the terms of our stockholder rights plan, 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 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.

***The actual number of shares we will issue under the Sales Agreement, at any one time or in total, is uncertain.***

Subject to certain limitations in the sales agreement with B. Riley FBR and compliance with applicable law, we have the discretion to deliver placement notices to B. Riley FBR at any time throughout the term of the sales agreement. The number of shares that are sold by B. Riley FBR after delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and limits we set with B. Riley FBR.

***The shares of common stock offered under this prospectus supplement and the accompanying base prospectus may be sold in at the market offerings, and investors who buy shares at different times will likely pay different prices.***

Investors who purchase shares under this prospectus supplement and the accompanying base prospectus at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may experience declines in the value of their shares as a result of share sales made at prices lower than the prices they paid.

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate gross proceeds of up to \$18,000,000 from time to time under this prospectus supplement and accompanying base prospectus. Because there is no minimum offering amount required as a condition to close this offering, the actual total offering amount, commissions and proceeds to us, if any, are not determinable at this time. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the sales agreement with B. Riley FBR as a source of financing.

We intend to use the net proceeds, if any, from the sales of securities offered by this prospectus supplement 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 and to fund our milestone payment obligations. 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 supplement, 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.

S-6

---



## **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.

S-7

---

## 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.

As of December 31, 2018, our net tangible book value was approximately \$22 million, or approximately \$0.68 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 issuance of an additional 1,579,179 restricted stock awards subsequent to December 31, 2018 our pro forma net tangible book value per share as of December 31, 2018 would have been approximately \$0.65 per share.

After giving effect to the issuance of an additional 1,579,179 restricted stock awards subsequent to December 31, 2018 and the sale of 14,285,714 shares of our common stock in this offering in the aggregate amount of approximately \$18 million at an assumed offering price of \$1.26 per share, which is the last reported sale price of our common stock on the NASDAQ Capital Market on March 28, 2019, and after deducting estimated offering commissions and estimated aggregate offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2018 would have been approximately \$39,587,608, or \$0.82 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of \$0.17 per share to existing stockholders and an immediate dilution of \$0.44 per share to new investors purchasing securities in this offering. The following table illustrates this per share dilution:

Assumed public offering price per share	\$	1.26
Pro forma net tangible book value per share as of December 31, 2018	\$	0.65
Increase in pro forma net tangible book value per share attributable to new investors in this offering	\$	0.17
Pro forma as adjusted net tangible book value per share after giving effect to this offering	\$	0.82
Dilution per share to new investors purchasing common stock in this offering	\$	0.44

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.

S-8

---

## PLAN OF DISTRIBUTION

On April 3, 2019, we entered into an At Market Issuance Sales Agreement, or the sales agreement, with B. Riley FBR, under which we may issue and sell our common stock from time to time through B. Riley FBR acting as sales agent, subject to certain limitations, as described below. Pursuant to the terms of the sales agreement, in no event will we issue or sell through B. Riley FBR, as sales agent, such number or dollar amount of shares of common stock that would: (i) exceed the number or dollar amount of shares of common stock registered on the registration statement pursuant to which this offering relates; (ii) exceed the number of authorized but unissued shares of common stock; (iii) exceed the number or dollar amount of shares of common stock permitted to be sold under Form S-3 (including General Instruction I.B.6 thereof, if applicable); or (iv) exceed the number or dollar amount of common stock for which we have filed a prospectus supplement. The sales agreement entered into with B. Riley FBR replaces the common stock sales agreement that we entered into with H.C. Wainwright & Co., LLC, dated January 18, 2018, for the issuance of shares in at the market offerings.

The sales, if any, of shares made under the sales agreement will be made by any method that is deemed an at the market offering as defined in Rule 415 promulgated under the Securities Act. We may instruct B. Riley FBR not to sell common stock if the sales cannot be effected at or above the price designated by us from time to time. We or B. Riley FBR may suspend the offering of common stock upon notice and subject to other conditions.

B. Riley FBR will offer our common stock subject to the terms and conditions of the sales agreement as agreed upon by us and B. Riley FBR. Each time we wish to issue and sell common stock under the sales agreement, we will notify B. Riley FBR of the number of shares to be issued, the time period during which such sales are requested to be made, any limitation on the number of shares that may be sold in one day, any minimum price below which sales may not be made and other sales parameters as we deem appropriate. Once we have so instructed B. Riley FBR, unless B. Riley FBR declines to accept the terms of the notice, B. Riley FBR has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of B. Riley FBR under the sales agreement to sell our common stock are subject to a number of conditions that we must meet.

We will pay B. Riley FBR commissions for its services in acting as agent in the sale of common stock. B. Riley FBR will be paid a commission in an amount equal to up to 3.0% of the gross sales price per share sold. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also reimbursed B. Riley FBR for certain specified expenses, including the fees and disbursements of its legal counsel in an amount not to exceed \$50,000 and have agreed to reimburse B. Riley FBR an amount not to exceed \$2,500 per quarter during the term of the sales agreement for legal fees to be incurred by B. Riley FBR. We estimate that the total expenses for the offering, excluding commissions and reimbursements payable to B. Riley FBR under the terms of the sales agreement, will be approximately \$150,000.

Settlement for sales of common stock will generally occur on the second business day following the date on which any sales are made, or on some other date that is agreed upon by us and B. Riley FBR in connection with a particular transaction, in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

B. Riley FBR will act as sales agent on a commercially reasonable efforts basis consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of The Nasdaq Stock Market LLC. In connection with the sale of the common stock on our behalf, B. Riley FBR will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of B. Riley FBR will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to B. Riley FBR against certain civil liabilities, including liabilities under the Securities Act.

The offering of our common stock pursuant to the sales agreement will terminate upon the earlier of (i) the sale of all of our common stock subject to the sales agreement, or (ii) termination of the sales agreement as provided therein.

B. Riley FBR and its affiliates may in the future provide various investment banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, B. Riley FBR will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement.

This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of the sales agreement has been filed with the SEC as Exhibit 1.1 to our Current Report on Form 8-K filed with the SEC on April 3, 2019.

## 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. Duane Morris, New York, New York, is acting as counsel to B. Riley FBR in this offering.

## EXPERTS

The financial statements as of December 31, 2018 and 2017 and for each of the two years in the period ended December 31, 2018 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, incorporated by reference in this Prospectus and in the accompanying base prospectus, given on the authority of said firm as experts in auditing and accounting.

## 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](http://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 supplement 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](http://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 supplement. The information incorporated by reference is considered to be part of this prospectus supplement, 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, 2018 (File No. 001-35994) filed with the SEC on March 28, 2019;
- Our Current Reports on Form 8-K (File No. 001-35994) filed with the SEC on January 3, 2019, January 8, 2019, January 8, 2019, January 10, 2019, January 14, 2019, February 25, 2019, February 28, 2019, March 12, 2019, April 2, 2019 (other than as indicated therein) and April 3, 2019;
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on May 29, 2018;
- 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);
- The description of our common stock purchase rights set forth in our registration statement on Form 8-A12B, filed with the SEC on March 12, 2018 (File No. 001-35994), and our registration statement on Form 8-A12B/A, filed with the SEC on March 13, 2019 (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.

S-11

---

**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.****

