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June 21, 2013

VIA EDGAR

United States Securities
and Exchange Commission
100 F Street, NE
Mail Stop 4720
Washington, D.C. 20549
Attention: Jeffrey P. Riedler
Assistant Director

Re: *Heat Biologics, Inc.*
Registration Statement on Form S-1
Filed June 10, 2013
File No. 333-188365

Dear Mr. Riedler:

Thank you for your June 12, 2013 letter regarding Heat Biologics, Inc. ("Heat"). In order to assist you in your review of Heat's Form S-1, we hereby submit a letter responding to the comments and Amendment No. 3 to Form S-1 marked to show changes. For your convenience, we have set forth below the staff's numbered comments in their entirety followed by our responses thereto.

Notes to Consolidated Financial Statements
10. Stockholders' (Deficit) Equity
Preferred Stock, page F-21 (Now page F-22)

1. Please refer to prior comment 5. Please disclose the revised conversion ratio or the number of common shares that each preferred stock series is convertible into. In addition, please disclose that the preferred stock is convertible at the option of the holder at any time.

Response: Complied with. We have added the requested disclosure under "Optional Conversion" on page F-22 and shown the conversion ratio for shares of each preferred stock series. The conversion ratio for all series of Preferred Stock after the 1 for 2.3 stock split is .4348.

2. Please refer to prior comment 6. Please address the following:

- a. Add a restatement footnote to comply with ASC 250-10-50. Note that this disclosure shall be included until you update for your next annual period.

Response: Complied with. We have added the requested disclosure as Footnote 3.

- b. Tell us why you have not reflected the beneficial conversion feature charge as a preferred stock deemed dividend with a corresponding debit to deficit accumulated during the development stage and credit to additional paid in capital. You currently do not show any impact of this accounting in the statement of stockholders (deficit) equity.

Response: *We have reflected the beneficial conversion feature as a preferred stock dividend but it has been treated as a return of capital since there are no earnings to distribute. Accordingly there are corresponding debit and credit entries to Additional Paid in Capital.*

- c. In your beneficial conversion feature note on page F-11, disclose the effective conversion price and the fair value of your common stock as of the commitment date. Disclose the adjustments to the conversion price related to you issuing common stock below the conversion price as you had previously done in your May 6, 2013 S-1 filing or explain why it was removed.

Response: *Complied with. We have added the requested disclosure on page F-11 The effective conversion price was \$6.14 and the fair value of the Company's common stock as of the Commitment Date was \$8.81.*

- d. In addition disclose how you accounted for this feature and why it did not require bifurcation.

Response: *The preferred stock was determined to have characteristics more akin to equity than debt. Particularly the preferred has no mandatory redemption provision nor is it redeemable at the option of the holder. As a result, the conversion option was determined to be clearly and closely related to the preferred stock and therefore does not need to be bifurcated and classified as a liability.*

Exhibits

3. We note your response to our prior comment 7 that the Quality Agreement has not yet been negotiated, however, Section 4.6 of the Manufacturing Services Agreement states: "Upon the decision to manufacture a Product according to a Draft Plan, the Parties shall enter into a separate Quality Agreement, in the form attached hereto, setting forth the terms for Product quality, quantity, price, and any other terms necessary for such agreements. Such Quality Agreement shall be separately appended to this Agreement." To the extent that a form of the Quality Agreement was included as Appendix B to the Manufacturing Services Agreement, please file the form of Quality Agreement with Exhibit 10.13.

Response: *We recognize that Section 4.6 of the Manufacturing Services Agreement states: "Upon the decision to manufacture a Product according to a Draft Plan, the Parties shall enter into a separate Quality Agreement, in the form attached hereto, setting forth the terms for Product quality, quantity, price, and any other terms necessary for such agreements. Such Quality Agreement shall be separately appended to this Agreement.", however, we confirm to you that notwithstanding such provision, a Form of Quality Agreement was not actually included as part of the Manufacturing Services Agreement or as an Appendix to the Manufacturing Services Agreement. The parties intend to enter in a Form of Quality Agreement prior to commencement of GMP manufacturing and expect to add it to the Manufacturing Services Agreement as an Appendix at that time.*

We acknowledge that the adequacy and accuracy of the disclosure in our filings is our responsibility. We acknowledge that the staff comments or changes to disclosure do not foreclose the Commission from taking any action with respect to the filings. We acknowledge that the company may not assert staff comments as a defense in any proceedings initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions or need additional information, please contact the undersigned at (516) 496-2223 or (212) 907-6457.

Sincerely,

/s/ Leslie Marlow

Leslie Marlow
Partner