

Mail Stop 6010

July 24, 2006

William A. Carter, M.D.
Chairman and Chief Executive Officer
Hemispherx Biopharma, Inc.
1617 JFK Boulevard
Philadelphia, Pennsylvania 19103

**Re: Hemispherx Biopharma, Inc.
Schedule 14A, Amendment 1
Filed July 21, 2006
File No. 1-13441**

Dear Dr. Carter:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Proposal No. 3: Approval of the Proposal to Amend Our Certificate of Incorporation to Increase the Number of Authorized Shares of Common Stock, page 31

1. Based on the third paragraph of this section, it appears you currently have sufficient authorized shares for your outstanding options, warrants, convertible debentures, and your agreement with Fusion Capital. Do you have any plans to issue any of the 100,000,000 shares for which you are seeking shareholder approval? For example, we note that you “most likely will (i) attempt to raise capital through the sale of [your] common stock or securities convertible into or

exercisable for common stock: and/or (ii) acquire additional assets.” We also note from the second paragraph in the discussion of proposal 4 that you may issue some of these shares to Fusion Capital. Please describe in your discussion of proposal 3 any plans you currently have to issue any of the shares that would be authorized through this proposal. After discussing all such plans, state that you have no other plans besides the plans that are discussed in your filing.

Proposal No. 4: Approval of the Issuance of Common Stock to Comply with AMEX
Company Guide Section 713, page 32

2. Please state whether there is a possibility that Fusion Capital could obtain control of your company. For example, does your agreement with Fusion Capital include limitations on Fusion Capital’s share ownership?
3. Please discuss the anticipated uses of the proceeds from the issuance to Fusion Capital, as required by Item 11(c)(2) of Schedule 14A. Also discuss any other reasons for the issuance, as required by Item 11(d).

* * *

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with a marked copy of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and

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- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Please contact Greg Belliston at (202) 551-3861 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director