Mail Stop 6010

October 11, 2006

Fuad El-Hibri
Chief Executive Officer
Emergent BioSolutions Inc.
300 Professional Drive, Suite 250
Gaithersburg, Maryland 20879

Re: Emergent BioSolutions Inc.
Amendment No. 1 to the Registration Statement on Form S-1
Filed September 25, 2006
File No. 333-136622

Dear Mr. El-Hibri:

We have reviewed your filing and have the following 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.

Form S-1/#1

Our Business, page 1

1. We note your response to comment 10. Please tell us if the IND filed by Microscience and that which is currently held by Emergent Product Development UK is for an IND filed with the FDA in the United States or with a similar agency in a foreign country.

Our Strategy, page 3

2. We note your response to comment 12 and reissue the comment. The discussion of the risks and obstacles you will face in implementing your strategy should be as prominent as the discussion of your strategy. Please revise the discussion of the risks you face to include a similar level of detail for each of the risks you identify.

We will not be able to commercialize our product candidates if our preclinical development efforts are not successful, …, page 20

3. We note your statement in your response to comment 27 that you have had discussions with the FDA relating to the design of your Phase I clinical trial. Did the FDA indicate that it would not require a Phase II clinical trial?

Use of Proceeds, page 45

4. We note your response to comment 50 and your revised disclosure. However, our comment sought for you to provide disclosure on how much you anticipate spending for each product candidate and where in the development process you expect to be after the expenditure of these proceeds. Therefore, our comment is reissued in part. Please revise this section accordingly. Please also provide the approximate timing of these expenditures.

License Agreements, page 111

5. We note your response to comment 63. We note your revised disclosure that you have paid $1.0 million minimum contractual commitments for each of the two developmental agreements you entered with HPA. Please disclose any amounts you have paid HPA to date with respect to the license agreements you have with them. You also indicate that with respect to the license agreement with HPA that if you fail to file an IND within a certain time period under either of your license agreement with HPA that you are obligated to pay HPA an annual fee until an IND has been filed. Please disclose the annual fee amount, if such amount is material.

Typhoid Vaccine, page 96
Hepatitis B therapeutic vaccine, page 98
Group B streptococcus, page 100
Chlamydia vaccine, page 102
Meningitis B vaccine, page 94

6. We note your response to comment 69. To the extent that the data from your clinical trials was analyzed for immunogenicity, the results of these analyses should be disclosed with the related p values and statements that they are merely indications of efficacy and not sufficient to enable a product to proceed to Phase II clinical development.

Management's discussion and analysis of financial condition
Critical accounting policies and estimates
Revenue recognition, page 56

7. We have reviewed your response to comment number 54. Please disclose within your document similar information regarding the FDA review process as you have presented within your response. In addition, please disclose the number of instances, if any, that the FDA has denied sale of BioThrax and the effect on the financial statements of such denial. Lastly, please describe to us, and disclose, the point at which you capitalize cost as inventory. Given that you are unable to sell BioThrax until you have received FDA approval, please tell us how these costs meet the definition of an asset as described in paragraph 26 of CON 6. Specifically, address your ability to estimate the likelihood of obtaining FDA approval in determining whether there is a future economic benefit.

Stock-based compensation, page 58

8. Refer to your response to previous comment 54. We continue to believe that you have used an "independent valuation specialist" as an expert to help determine the fair value of your equity securities. Please name the independent valuation specialists and provide written consents, as appropriate, or provide to us a more robust and detailed analysis of Rule 436, including consideration of footnote 60 of the AICPA Practice Aid, which supports management's current determination that the independent valuation specialist is not an expert.

Financial operations overview
Revenues, page 60

9. We note your added disclosures regarding your expectation of successful delivery of the required 1 million doses of BioThrax to the DoD during the three month period ended September 30, 2006. Please update your disclosures to indicate whether you were successful in delivering these doses. If you were unable to deliver the doses as required, please disclose the implications of non-performance, including any effect on the financial statements that will be reflected in the September 30, 2006 financial statements.

10. Given the wide disparity in the price per dose charge under the HHS and DoD contracts, please revise your disclosure to discuss significant changes in price separate from your current discussion of volume.

Contractual Obligations, page 73

11. We have reviewed your response to comment number 58. Please disclose within the footnote to the table, the material royalties and milestones related to current development programs that the Company estimated are not probable to occur and the basis for management's decision.

Selling Shareholders, page 157

12. We note your response to comment 74 and your response that Microscience Investment "may" be an affiliate of a broker-dealer. Please determine if Microscience Investment is an affiliate of a broker-dealer and if they are considered an affiliate of a broker-dealer, please revise your disclosure to include the following representations:

    - The selling security holder purchased in the ordinary course of business; and
    - At the time of the purchase, the selling security holder had no agreements or understanding to distribute the securities.

    If you are unable to make these statements in the prospectus, please revise the prospectus to state the seller shareholder is an underwriter.

Nature of the business and organization, page F-7

13. We have reviewed your response to comment number 78. Please note that Article 11-01(d) of Regulation S-X states that a "presumption exists that a separate entity, a subsidiary, or a division is a business." Additionally, in appears based upon your response that Microscience possessed physical facilities, employee base, operating rights, and production techniques. Accordingly, please provide additional information as to why financial statements for Microscience have not been provided in accordance with Rule 3-05 of Regulation S-X. Please note that the determination of a business under EITF 98-3 and SFAS 141 is irrelevant to this analysis.

Exhibits

14. We note that a number of your agreements will be filed by amendment, including the form of underwriting agreement. Please file as promptly as possible all exhibits as we will need to review them prior to granting effectiveness of the registration statement. In that regard, to the extent you are able to provide us with a supplemental copy of the underwriting agreement, this may expedite our review of your filing.

* * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies 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 supplemental information. Detailed cover letters greatly facilitate our review. Please furnish your letter to us via EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

You may contact Todd Sherman at (202) 551-3665 or Kevin Woody, Accounting Branch Chief at (202) 551-3629 if you have questions regarding comments on the financial statements and related matters. Please contact Song Brandon at (202) 551-3621, Suzanne Hayes, Legal Branch Chief at (202) 551-3675, or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: David Redlick
Brian A. Johnson
Wilmer Cutler Hale and Dorr LLP
1875 Pennsylvania Ave., NW
Washington, DC 20006