



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

May 22, 2012

Via E-mail

Mr. C. Evan Ballantyne  
Chief Financial Officer  
Synthetic Biologics, Inc.  
3985 Research Park Drive  
Suite 200  
Ann Arbor, MI 48108

**Re: Synthetic Biologic, Inc.  
Item 4.02 Form 8-K Dated May 1, 2012  
Filed May 3, 2012  
File No. 001-12584**

Dear Mr. Ballantyne:

We have reviewed your filing and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within five business days by amending your filing or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your response to our comment.

After reviewing any amendment to your filing and any information you provide in response to the comment, we may have additional comments.

Item 4.02. Non-Reliance on Previously Issued Financial Statements or a Related Audit Report or Completed Interim Review

You filed your Form 8-K under Item 4.02 of 8-K and refer therein to an audit opinion included in the Company's Annual Report on Form 10-K for the year ended December 31, 2011 that was issued by a partner at Berman & Company who was not authorized under the PCAOB rules to issue the opinion or act as the Company's named engagement partner with respect to the Form 10-K audit or subsequent interim reviews. Your disclosure under this item, however, does not specifically state that the audit report nor any annual and subsequent interim financial statements should not be relied upon. Please revise your disclosure to identify the previously issued audit report and annual and subsequent interim financial statements, as applicable that should no longer be relied upon. Refer to requirements of Item 4.02(b) of Form 8-K.

Mr. C. Evan Ballantyne  
Synthetic Biologics, Inc.  
May 22, 2012  
Page 2

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comment, please provide a written 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
- 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.

You may contact Christine Allen, Staff Accountant, at (202) 551-3652 if you have questions regarding the comment. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

/s/ Jim B. Rosenberg

Jim B. Rosenberg  
Senior Assistant Chief Accountant