



DIVISION OF  
CORPORATION FINANCE

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

June 20, 2013

Via E-mail

Mr. Sanj K. Patel  
President and Chief Executive Officer  
Synageva Biopharma Corp.  
128 Spring Street, Suite 520  
Lexington, Massachusetts 02421

**Re: Synageva Biopharma Corp.  
Form 10-K for Fiscal Year Ended December 31, 2012  
Filed March 14, 2013  
File No. 000-23155**

Dear Mr. Patel:

We have reviewed your May 17, 2013 response to our May 9, 2013 letter and have the following comment.

Please respond to this letter within 10 business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe the comment applies to your facts and circumstances, 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 the information you provide in response to this comment, we may have additional comments.

Notes to Consolidated Financial Statements

Note 7. Share Based Payments, page 71

1. With regard to your response to comment two, it is not clear how the companies used as peers are similar to you in terms of size, stage of life cycle and financial leverage. It does not appear appropriate to only consider the rare disease focus as the most important factor when estimating expected volatility. We note, for example, Shire has a current market capitalization of \$18 billion, 2012 revenues of \$4.7 billion, and 2012 research and development expense of \$966 million as compared to your current market capitalization of \$1 billion, 2012 revenues of \$15 million and 2012 research and development expense of \$37 million. It does not appear that any of the companies are similar in size and stage of life cycle to you except Amicus. If you continue to believe the identified peer companies are similar to you provide a more thorough analysis of each factor (size, stage of life

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cycle and financial leverage) explaining why you believe it is appropriate to use the peer companies you selected in estimating the expected volatility that marketplace participants would be likely to use in determining an exchange price for an option. Refer to ASC 718-10-55-35 through ASC 718-10-55-41.

Please contact Frank Wyman, Staff Accountant, at (202) 551-3660 or Lisa Vanjoske, Assistant Chief Accountant, at (202) 551-3614 if you have any 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