

Via Facsimile and U.S. Mail  
Mail Stop 6010

December 20, 2007

Mr. Jeffrey H. Cooper  
Chief Financial Officer  
BioMarin Pharmaceutical, Inc.  
105 Digital Drive  
Novato, CA 94949

**Re: BioMarin Pharmaceutical, Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2006  
Form 10-Q for the quarterly period ended September 30, 2007  
File No. 000-26727**

Dear Mr. Cooper:

We have reviewed your filing and have the following comments. We have limited our review to your financial statements and related disclosures and do not intend to expand our review to other portions of your document. In our comments, we ask you to provide us with information to better understand your disclosure. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

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.

Item 9A. Controls and Procedures, page 50  
Evaluation of Disclosure Controls and Procedures, page 50

1. You state that your CEO and CFO have concluded that your disclosure controls are “sufficiently effective.” The use of terminology other than effective raises the question if you are attempting to state that disclosure controls and procedures met

Mr. Jeffrey H. Cooper  
BioMarin Pharmaceutical, Inc.  
December 20, 2007  
Page 2

some standard lower than effective. Please revise your disclosure. Refer to Item 307 of Regulation S-K.

Financial Statements – December 31, 2006

(2) Summary of Significant Accounting Policies, page F-9  
(s) Reclassifications, page F-17

2. Please explain to us why you classified cash outflows for property, plant and equipment within cash flows from operations instead of investing activities.

Form 10-Q – September 30, 2007

(2) Summary of Significant Accounting Policies, page 6  
(c) Revenue Recognition, page 7  
Royalty and license revenues, page 9

3. Please explain to us why you believe that the milestone payment received related to the “one-year anniversary” of FDA approval recorded in the current period represented a substantive milestone, as its receipt is based solely on the passage of time from FDA approval.

\*\*\*\*\*

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish the letter to us via EDGAR under the form type label CORRESP.

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 your letter, 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
- the company may not assert staff comments as a defense in any proceeding initiated

Mr. Jeffrey H. Cooper  
BioMarin Pharmaceutical, Inc.  
December 20, 2007  
Page 3

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.

You may contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Jim Atkinson, Accounting Branch Chief, at (202) 551-3674 if you have questions regarding the comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant