



DIVISION OF
CORPORATION FINANCE

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

September 28, 2010

Jeffrey H. Cooper
Senior Vice President, 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, 2009
Filed February 26, 2010
Proxy Statement on Schedule 14A
Filed March 26, 2010
File Number: 000-26727**

Dear Mr. Cooper:

We have reviewed your August 13, 2010 response to our July 30, 2010 letter and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may raise additional comments and/or request that you amend your filings.

Form 10-K for the fiscal year ended December 31, 2009

Commercial Products, page 3

1. We note your response to our prior comment 2. To the extent you continue to describe your exclusive license agreement with Asubio Pharma Co., Ltd. and list the agreement as an exhibit in future filings, we ask that you include all material information regarding the agreement including the total potential milestone payments to be made and a more narrow range of royalties within a ten percent range. Please confirm your understanding that this information should be included in future disclosure.

Consolidated Financial Statements

Notes to Consolidated Financial Statements

Note 11. Convertible Debt, page F-30

2. Please refer to your response to prior comment five. It appears under Section 4.07(a)(3) of the First Supplement Indenture dated March 29, 2006 that if you issue any rights or warrants to all or substantially all holders of your outstanding Common Stock entitling them to subscribe for or purchase shares of Common Stock (or securities convertible into Common Stock) at a price per share (or having a Conversion Price per share) less than the Current Market Price per share of Common Stock, the Conversion Rate in effect immediately prior thereto shall be increased based on the terms in the agreement. Please tell us how you determined that this embedded conversion feature was indexed to your own stock and therefore not an embedded derivative requiring separate liability classification under ASC 815-40-15.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis

Cash Bonus, page 34

3. We note your response to our prior comment 8 and your analysis as to why you believe disclosure of your 2009 corporate goals would cause competitive harm to the company. We disagree with your conclusion as it relates to the Net Operating Income and product specific sales goals. We also believe that disclosure of your non-financial goals in general terms would not cause competitive harm to the company. Therefore, please confirm that to the extent the company has analogous goals for the 2010 fiscal year you will disclose such information in the Compensation Discussion and Analysis section of your next annual filing.

You may contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Don Abbott, Senior Staff Accountant, at (202) 551-3608 if you have any questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Laura Crotty, Staff Attorney, at (202) 551-3563 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant