



DIVISION OF  
CORPORATION FINANCE

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

July 8, 2010

Dr. Paul J. Maddon, M.D., Ph.D.  
Chief Executive Officer  
Progenics Pharmaceuticals, Inc.  
777 Old Saw Mill River Road  
Tarrytown, New York 10591

**Re: Progenics Pharmaceuticals, Inc.  
Form 10-K for the fiscal year ended December 31, 2009  
Filed March 15, 2010  
File No. 000-23143**

Dear Dr. Maddon:

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

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

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

Form 10-K

PMSA, page 7

PRO 140; Virology, page 8

1. We note the agreements with Seattle Genetics, Abgenix, AlphaVax Human Vaccines, and Protein Design Labs are described in these sections and in the notes to the financial statements, however these agreements have not been filed as exhibits to the Form 10-K. Please file these agreements as exhibits or provide us with an analysis supporting your determination that the agreements are not required to be filed as exhibits pursuant to Item 601(b)(10) of Regulation S-K. In addition, please disclose the material terms of the agreement with Aaron Diamond Research Center and tell us why this agreement has not been filed as an exhibit.

Patents and Proprietary Technology, page 8

2. Please discuss your material patents or groups of related patents. The discussion should identify the jurisdiction(s) where you have obtained patent protection, identify the product(s), product candidate(s), or technology that are dependent on the patent(s), and disclose when the patent(s) expires.

Risk Factors

“If we are unable to obtain sufficient quantities of the raw and bulk materials needed to make our products, or product development and commercialization could be slowed or stopped. Page 19

3. Please identify the sole source suppliers discussed in this risk factor. In addition, please revise the business section to disclose the material terms of the agreements with these suppliers and file the agreements as exhibits. Alternatively, please explain the basis for your determination that you are not required to file the agreements as exhibits.

Definitive Proxy Statement

Compensation Discussion and Analysis, page 21

4. We note that bonuses and option awards were based upon the Compensation Committee’s consideration of a number of factors including each executive’s performance and personal contribution to the company’s achievement of financial and corporate objectives for the fiscal year. We also note that the Committee exercised significant discretion and also considered general economic conditions and market data. The Compensation Discussion and Analysis does not disclose how the Compensation Committee determined each executive officer’s performance or contribution to the achievement of your corporate objectives or how the bonuses and option awards were ultimately determined. Please amend your Form 10-K to provide the following:
  - Identification of the financial and corporate performance goals in addition to those already mentioned related to the pipeline products;
  - A discussion of corporate and financial goals that were considered relevant in the case of each NEO;
  - The assessment of the Committee regarding the performance of each NEO as to these relevant objectives and how that achievement affected the actual bonuses paid; and
  - How general economic conditions and market data influenced or modified the Committee’s ultimate compensation decisions as we understand the Committee exercised considerable discretion in fixing bonuses and equity compensation awards which may have been related to economic conditions and market data.

To the extent that these factors are quantifiable, you should provide quantitative disclosure.

Dr. Paul J. Maddon  
Progenics Pharmaceuticals, Inc.  
July 8, 2010  
Page 3

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 comments, 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 Vanessa Robertson, Staff Accountant, at (202) 551-3649, or Joel Parker, Accounting Branch Chief, at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact John Krug, Staff Attorney, at (202) 551-3862, or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler  
Assistant Director