



DIVISION OF
CORPORATION FINANCE

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

September 3, 2013

Via E-mail

John Knopf
Chief Executive Officer and President
Accelaron Pharma Inc.
128 Sidney Street
Cambridge, MA 02139

**Re: Accelaron Pharma Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed August 20, 2013
File No. 333-190417**

Dear Dr. Knopf:

We have reviewed your amended registration statement and correspondence filed on August 20, 2013 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 by amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. We are in receipt of your additional correspondence dated August 28, 2013. Please note that we are in the process of reviewing this correspondence and may have additional comments after we have completed our review.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Stock-Based Compensation, page 53

2. Refer to your response to our prior Comment 3. As a continuing reminder we have reissued the following comments regarding your disclosure and accounting for stock-based compensation:
 - Since you have not disclosed an estimated offering price we are deferring a final evaluation of stock compensation and other costs recognized until the estimated

- offering price is specified. We may have further comments in this regard when the amendment containing that information is filed.
- Please provide in your filing containing the IPO price range, a discussion of each significant factor contributing to the difference between the fair value as of the date of each grant and the estimated IPO price range. Please reconcile and explain the differences between the mid-point of your estimated offering price range and the fair values included in your analysis.
 - Please provide additional disclosure on any equity issuances including stock options, warrants, convertible preferred stock and debt since the latest balance sheet date and provide additional disclosure through the date of effectiveness.

Notes to Financial Statements

8. Redeemable convertible preferred stock

Special Mandatory, page F-33

3. As a continuing reminder, when determinable please disclose the amount and accounting for the conversion of the Series E Preferred Stock, if material (in your Amendment filed which includes an IPO range) in a “subsequent event” footnote.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under

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the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact James Peklenk at (202) 551-3661 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Matthew Jones at (202) 551-3786 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Marc Rubenstein
Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199