



DIVISION OF
CORPORATION FINANCE

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

July 16, 2014

Via E-mail

Thomas W. Chalberg, Jr., Ph.D.
President and Chief Executive Officer
Avalanche Biotechnologies, Inc.
1035 O'Brien Drive, Suite A
Menlo Park, CA 94025

**Re: Avalanche Biotechnologies, Inc.
 Amendment No. 1 to Registration Statement on Form S-1
 Filed July 3, 2014
 File No. 333-197133**

Dear Dr. Chalberg:

We have reviewed your amendment no. 1 to your registration statement 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.

Prospectus Summary
Strategy, page 3

1. We note your response to our prior comment 6. Additionally, please provide the percentage of the \$6.0 billion of Lucentis and EYLEA sales attributable to the treatment of wet AMD.

Risks Associated with Our Business, page 4

2. We note your response to our prior comment 11. Please revise your disclosure in the ninth bullet point to state specifically that Chiron and Regents are co-owners of the technology which you license from Regents. In this regard, please also disclose that Regents has licensed its interest in such patent rights to you, and therefore, you share the intellectual property rights with Chiron.

Capitalization, page 51

3. We acknowledge your response to prior comment 13. We believe, however, that you should remove herein and elsewhere in the filing the pro forma effect of the \$8.0 million received in connection with the research and license agreement entered into with Regeneron in May 2014. Alternatively, demonstrate to us:
- that this cash receipt relates to a sale of assets for which you have no continuing involvement;
 - that you are not committed to expend cash or other resources under the agreement; and
 - how this transaction is different from other transactions subsequent to the latest balance sheet for which you have received and spent cash in the normal course.

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 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.

Thomas W. Chalberg, Jr., Ph.D.
Avalanche Biotechnologies, Inc.
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You may contact Dana Hartz at (202) 551-3648 or James Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Johnny Gharib at (202) 551-3170 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Alan C. Mendelson, Esq.
Latham & Watkins LLP