



DIVISION OF
CORPORATION FINANCE

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

October 9, 2013

Via E-mail

Vicente Anido, Jr., PhD
Chief Executive Officer
Aerie Pharmaceuticals, Inc.
135 US Highway 206, Suite 15
Bedminster, New Jersey 07921

**Re: Aerie Pharmaceuticals, Inc.
Registration Statement on Form S-1
Correspondence Filed October 7, 2013
File No. 333-191219**

Dear Dr. Anido:

We have reviewed your correspondence and have the following comments. Please respond to this letter by providing the requested information. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Stock-Based Compensation
Common Stock Valuations, page 62

1. Please refer to your response to comment 3 and the proposed disclosure. Please revise to disclose the intrinsic value of outstanding vested and unvested options based on the midpoint of the offering price range.
2. We acknowledge your response to comment four. Please continue to update your disclosure for all equity related transactions, including any options, warrants, or convertible note or preferred stock issuances, through the effective date of the registration statement.

Initial Public Offering Price

3. Please refer to your proposed disclosure. Tell us why the third bullet point relating to the offering proceeds substantiates a difference between the June 30, 2013 valuation and the offering price.

Note 15. Subsequent Events, page F-24

4. Refer to your response to comment 5. Please disclose the fair value of the warrants issued in August and September 2013 in Note 15. Also, please update your proposed disclosure under “Equity Issuances Subsequent to June 30, 2013” to include the September 2013 warrant issuances.
5. Refer to your response to comment 7. Please disclose the exercise price of the options granted in August and September 2013.
6. Disclose the fair value of the options granted in August and September 2013. Separately disclose the fair value of the vested and unvested options granted.
7. Refer to your response to comment 8. Confirm to us that you received approval to convert the August and September notes at the offering price and update your disclosures on page 70 and in Note 15.

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.

Vicente Anido, Jr., Ph.D.
Aerie Pharmaceuticals, Inc.
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You may contact Christine Allen at (202) 551-3652 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383, Daniel Greenspan at (202) 551-3623 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Andrew B. Barkan, Esq.
Steven G. Scheinfeld, Esq.
Fried, Frank, Harris, Shriver & Jacobson LLP
One New York Plaza
New York, New York 10004