



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4720

October 9, 2015

Via E-mail

Blake M. Patterson, M.D.
President and Chief Executive Officer
Cerecor Inc.
400 E. Pratt Street, Suite 606
Baltimore, Maryland 21202

**Re: Cerecor Inc.
Amendment No. 3 to
Registration Statement on Form S-1
Filed October 1, 2015
File No. 333-204905**

Dear Dr. Patterson:

We have reviewed your amended registration statement and have the following comment. Please respond to this letter by amending your registration statement again and providing the requested information. If you do not believe this comment is applicable to your facts and circumstances or do not believe another amendment is appropriate, please tell us why in a response.

After reviewing any further amendment to your registration statement and the information you provide in response to this comment, we may have additional comments.

Capitalization, page 69

1. You disclose that you assume the warrants included in your units will be accounted for as equity instruments and that you will not make your final determination on classification until prior to the issuance of your next quarterly financial statements. Please tell us what information is not currently available in order to conclude that the warrants would not be accounted for as equity and whether, and, if so, to what extent that information will inform as to the appropriateness of an alternative accounting for the warrants. Notwithstanding, you indicate, in the last risk factor on page 62, that if a registration statement is not available upon the exercise of the warrants the holders will receive restricted shares upon exercise. Please confirm that your warrants explicitly provide for settlement in unregistered shares if a registration statement is not available. Otherwise, tell us why classification of the warrants as liabilities under the guidance in ASC 815-40-25-11 through 25-16 is not appropriate under the operation of the U.S. securities laws regarding the settlement of publicly issued warrants.

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 comment, 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.

Blake M. Patterson, M.D.

Cerecor Inc.

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You may contact Mark Brunhofer at (202) 551-3613 or James Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383 or me at (202) 551-3675 with any other questions.

Sincerely,

/s/ Suzanne Hayes

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Joanne R. Soslow, Esq.
Kevin S. Shmelzer, Esq.
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103