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June 12, 2015

VIA E-MAIL

Jeffrey P. Riedler
Assistant Director
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

Re: Cerecor Inc.
Amendment No. 2 to Confidential Draft Registration Statement on Form S-1
Submitted April 29, 2015
CIK No. 0001534120

Dear Mr. Riedler:

On behalf of our client, Cerecor Inc. (the "Company"), we are responding to the comments of the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in your letter dated May 21, 2015 to Dr. Paterson, President and Chief Executive Officer of the Company, with respect to the Company's confidential submission of Amendment No. 2 to the Confidential Draft Registration Statement on Form S-1 referred to above (the "Draft Registration Statement"). The Company is concurrently filing via EDGAR this letter and its revised Registration Statement on Form S-1 (the "Registration Statement"), which includes changes in response to the Staff's comments. For the convenience of the Staff's review, copies of this letter and the Registration Statement, marked to reflect changes against the Draft Registration Statement that was confidentially submitted on April 29, 2015, are being delivered to Mr. Bryan J. Pitko.

In response to your letter, set forth below are your comments in bold followed by the Company's responses. Except for page references appearing in the headings and the Staff's comments below (which are references to the Draft Registration Statement), all page references herein correspond to the page of the revised Registration Statement.

Almaty Astana Beijing Boston Brussels Chicago Dallas Dubai Frankfurt Harrisburg Hartford Houston London Los Angeles Miami Moscow
New York Orange County Paris Philadelphia Pittsburgh Princeton San Francisco Santa Monica Silicon Valley Singapore Tokyo Washington Wilmington

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Prospectus Summary **Product Candidates and Platform, page 2**

- 1. Please remove the row concerning the COMTi platform from this table and the corresponding one on page 90. Unless and until you are able to advance a product candidate from the platform into preclinical studies, as you have done with CERC-406, the information included in this row is too inchoate to be included in a chart intended to summarize your product pipeline.**

Response: The Company acknowledges the Staff's comment and has revised the disclosure in the Registration Statement to remove the row concerning the COMTi platform from the table on page 2 in the Prospectus Summary and the corresponding table on page 93.

- 2. Please disclose from whom you acquired CERC-501 in this summary.**

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 4 of the Prospectus Summary to disclose that the Company acquired CERC-501 from Eli Lilly and Company.

Risk Factors

Risks Related to Our Business and Industry

“Our product candidates may cause undesirable side effects....” page 24

3. Please amend the risk factor to state the adverse effects that were identified in the Clin301-201 clinical study and whether they were the same or similar to the ones you anticipate. Also, as you intend to increase the dosage of CERC-301 in the Clin301-203 study, please disclose that the risk of serious adverse events will also increase.

Response: The Company acknowledges the Staff’s comment and has revised the disclosure beginning on page 25 of the Registration Statement to state the adverse effects that were identified in the Clin301-201 clinical study and that such adverse effects were similar to the ones the Company had anticipated. Further, the Company also revised the disclosure to state that as the Company increases the dosage of CERC-301 as expected in the Clin301-203 study, the risk of serious adverse events will also increase.

2

Management’s Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Significant Judgments and Estimates

Determination of the Fair Market Value of Common Stock, page 79

4. We acknowledge your April 18, 2014 response to comment 21 of our January 16, 2014 letter. Once you have an estimated offering price, please provide us a separate analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

Response: The Company acknowledges the Staff’s comment and the Company will provide such explanation when the estimated offering price is disclosed explaining the difference between the estimated offering price and the recent valuations of our common stock leading up to the IPO.

If you have any questions, please feel free to contact me at (215) 963-5262 or Kevin Shmelzer at (215) 963-5716.

Very truly yours,

/s/ Joanne R. Soslow

Joanne R. Soslow

c: Blake M. Paterson, M.D.
Kevin S. Shmelzer
Mitchell S. Nussbaum
Tahra T. Wright

3
