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

DIVISION OF
CORPORATION FINANCE

January 16, 2014

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

Re: Cerecor Inc.
Draft Registration Statement on Form S-1
Submitted December 20, 2013
CIK No. 0001534120

Dear Dr. Paterson:

We have reviewed your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. We note that you have yet to submit any of your exhibits. Please be advised that we may have further comments upon examination of these exhibits once they have been submitted by amendment.

2. Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

3. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please

supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

Table of Contents, page ii

4. Please revise your disclosure with respect to the statistical and other industry and market data presented in the prospectus to remove your statement that you have not independently verified this data. It is not appropriate to directly or indirectly disclaim liability for information in the registration statement.

Prospectus Summary
Overview, page 1

5. Please explain the significance of a "fast track designation" at your first reference in the summary.

6. Please explain the term "acute suicidality."

7. In light of the early stage of development of your COMTi product program and the fact that you have not yet selected lead candidates for development under this program, please remove your statements throughout the prospectus that such product candidates are potentially best-in-class.

Product Candidate and Platform
General

8. Please revise your summary to include your product pipeline table as provided on page 82. Please also include a brief description of FP01 and its clinical development status.

9. Please revise your summary to disclose that you have licensed both CERC-301 and the COMTi platform from Merck.

CERC-301, page 1

10. Please define the term "suicidal ideation" in this summary.

11. When you refer to "multiple recent controlled clinical studies" please indicate the parties that conducted the trials you refer to and when they were conducted.

12. In your discussion of ketamine here and in your Business section, please briefly explain the ramifications of being classified as a Schedule III drug.

Management, page 3

13. Please revise your disclosure to provide the date on which your IND for CERC-301 was filed.

Risks Associated with Our Business, page 3

14. In your second bullet point, please include the amount of your accumulated deficit to date.

15. In your fifth bullet point, please state that FP01 failed to meet its primary endpoint in two Phase 2 clinical studies.

Summary Financial Data, page 8
Selected Financial Data, page 61

16. Please revise your presentation to also disclose the pro forma loss per share information for the latest complete fiscal year.

Risk Factors
Risks Related to Our Financial Position and Capital Needs
"If we fail to attract and keep management and other key personnel . . .," page 34

17. Please include in this risk factor the name(s) and title(s) of the members of your management team and any other key personnel whose departure you believe may result in serious adverse consequences.

Risks Related to Our Business and Industry
General

18. Please include a risk factor that addresses how you obtained CERC-301 and your COMT inhibitors through license agreements with Merck, your reliance on such licenses to continue development of your product candidates, and the potential impact on the Company in the event either or both agreements is terminated.

Risks Related to this Offering and Ownership of Our Common Stock
"We will incur increased costs as a result of operating as a public company . . .," page 49

19. Please include in this risk factor an estimate of the annual costs you will incur as a result of your reporting obligations.

Use of Proceeds, page 63

20. Please separate the amount of your net proceeds that you intend to allocate toward research and development under the COMTi platform and the amount you intend to allocate toward your preclinical product candidates.

Stock-Based Compensation
Fair Market Value Estimates, page 68

21. We may have additional comments on your accounting for stock compensation and related disclosure once you have disclosed an estimated offering price. Please provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of the common share at the August 29, 2013 issuance. Also, please update you filing to disclose any new equity issuance through the date you request effectiveness of your registration statement.

Business
Product Pipeline, page 82

22. Where you reference p-values in your discussion of your clinical trials please explain what the p-values represent and whether the results of your trials indicate statistical significance.

Study Clin301-201, page 85

23. Please revise your disclosure to indicate the number of subjects who have been enrolled in your trial thus far and where the trial is being conducted.

24. Please revise your disclosure to indicate how you determined that HAMD-17 was the appropriate end-point for your study of CERC-301. In this discussion, please explain the differences between the respective depression assessment tools and why results obtained under one assessment tool might differ from another.

Intellectual Property, page 94

25. We note that you have entered into an exclusive worldwide license with Johns Hopkins Medical Institute to develop and market FP01. Please revise your disclosure to describe any material financial obligations under your agreement. You should also identify the duration of the agreement and the circumstances in which the license could be terminated. Please also file your license agreement as an exhibit to the registration statement.

Note 8. Convertible Preferred Stock and Stockholders' Equity, page F-37

26. Please revise your filing to discuss how you allocated the proceeds from your August 2013 private equity offering between the Series A-1 Convertible Preferred Stock and warrants. Please disclose whether you recognize any related beneficial conversion feature, and if so, the amount and accretion period.

Exhibits and Financial Statement Schedules, page II-4

27. We note the disclosure regarding your entry into an agreement with Fells Laboratories LLC, an entity owned 50% by your CEO, and that such agreement provided you with access to various assets related to FP01. As this agreement appears to represent a material contract to which your CEO is a party, please file this agreement as an exhibit to the registration statement pursuant to Item 601(b)(10)(ii)(A) of Regulation S-K.

General

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Dana Hartz at (202) 551-3652 or Mark Brunhofer 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, Bryan Pitko at (202) 551-3203 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Bryan J. Pitko for

Jeffrey P. Riedler
Assistant Director

cc: Joanne R. Soslow, Esq.
Kevin S. Shmelzer, Esq.
Morgan, Lewis & Bockius LLP

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Philadelphia, PA 19103