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April 18, 2014

VIA EDGAR AND FEDERAL EXPRESS

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

Re: **Cerecor Inc.**
Draft Registration Statement on Form S-1
Submitted December 20, 2013
CIK Number: 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 United States Securities and Exchange Commission (the "Commission") in your letter dated January 16, 2014, to Blake M. Paterson, President and Chief Executive Officer of the Company, with respect to the Company's confidential submission of the Draft Registration Statement on Form S-1 referred to above (the "Draft Registration Statement").

In response to your letter, set forth below are your comments in bold followed by the Company's responses. Where indicated below, the Company has included changes to the disclosure in a revised version of the Draft Registration Statement (the "Revised Draft Registration Statement"), which the Company is submitting contemporaneously with this response letter. All page references herein correspond to the page of the Revised Draft Registration Statement.

For the convenience of the Staff's review, copies of this letter and the Revised Draft Registration Statement, marked to reflect changes against the Draft Registration Statement that was confidentially submitted, are being delivered to Mr. Bryan J. Pitko.

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.

Response: The Company advises the Staff that it has submitted a number of exhibits required by the Exhibit Table to item 601(a) of Regulation S-K with the Revised Draft Registration Statement and that the Company will file the remaining exhibits as soon as practicable.

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.

Response: The Company advises the Staff that it does not intend to use any graphic, visual or photographic information in its printed prospectus other than what has already been disclosed in the Draft Registration Statement. If the Company decides to use any such additional information, it will provide such information to the Staff for comment as soon as practicable for review.

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.

Response: The Company advises the Staff that there are no written communications that have been presented to potential investors by the Company or anyone authorized to do so on the Company's behalf in reliance on Section 5(d) of the Securities Act of 1933, as amended (the "Securities Act"). There are no research reports about the Company that have been published or distributed in reliance upon Section 2(a)(3) of the Securities Act added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in the offering contemplated by the Revised Draft Registration Statement. To the extent that such materials are presented to potential investors by the Company or anyone authorized to do so on the Company's behalf, or published or distributed by any broker or dealer that is participating or will participate in the offering, the Company will supplementally provide copies to the Staff.

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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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure in the Table of Contents of the Revised Draft Registration Statement to remove our statement that we have not independently verified statistical and other industry and market data presented in the prospectus.

Prospectus Summary
Overview, page 1

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

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 1 of the Revised Draft Registration Statement to explain the significance of a "fast track designation."

6. Please explain the term "acute suicidality."

Response: The Company acknowledges the Staff's comment and advises the Staff that the Company believes that the indication for treatment of CERC-301 is more appropriately characterized as "active suicidal ideation" rather than "acute suicidality." The Company has revised the disclosure throughout the Revised Draft Registration Statement to refer to "active suicidal ideation" rather than "acute suicidality" and has included an explanation of "active suicidal ideation" on page 1 of the Revised Draft Registration Statement.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure of the COMTi program to remove the statement that the 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 2 of the Revised Draft Registration Statement to include the product pipeline table. The Company has also revised the disclosure on pages 3 and 4 of the Revised Draft Registration Statement to 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on pages 2 and 3 of the Revised Draft Registration Statement to include that the Company has licensed both CERC-301 and the COMTi platform from Merck.

CERC-301, page 1

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

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 1 of the Revised Draft Registration Statement to include a definition of suicidal ideation.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 2 of the Revised Draft Registration Statement to include a reference to the parties that conducted the most relevant of the multiple controlled clinical studies.

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.

Response: The Company acknowledges the Staff's comment and advises the Staff that the Company has elected to remove the reference to ketamine being classified as a Schedule III drug in the Prospectus Summary of the Revised Draft Registration Statement. The Company further advises the Staff that it has revised the Revised Draft Registration Statement to include a description of the ramifications of being classified as a Schedule III drug on page 87 of the Revised Draft Registration Statement.

Management, page 3

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

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 4 of the Revised Draft Registration Statement to include the date on which our 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 4 of the Revised Draft Registration Statement to include the amount of our 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 5 of the Revised Draft Registration Statement to include a statement 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.

Response: The Company acknowledges the Staff's comment and confirms that the pro forma loss per share information will be included in the presentation once such amount can be calculated.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 36 of the Revised Draft Registration Statement to include the name and title of the member of the management team whose departure the Company believes 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on pages 42 and 43 of the Revised Draft Registration Statement to include a risk factor addressing our reliance on the license agreements with Merck.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 52 of the Revised Draft Registration Statement to include an estimate of the annual costs we expect to incur as a result of our reporting obligations applicable to us as a public company following the closing of this offering.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 57 of the Revised Draft Registration Statement to clarify our use of proceeds from this offering.

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 your filing to disclose any new equity issuance through the date you request effectiveness of your registration statement.

Response: The Company acknowledges that the Staff may have additional comments on the accounting for stock compensation and related disclosure once we have disclosed an estimated offering price. The Company further acknowledges the Staff's comment regarding quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of the common share at the end of the August 29, 2013 issuance and will provide such explanation when the estimated offering price is disclosed. The Company advises the Staff that the Company has not issued any additional equity through the date hereof and the Company acknowledges that it will revise the registration statement prior to its effectiveness for any additional issuances through such date.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 91 of the Revised Draft Registration Statement to include an explanation as to what the p-values represent and the statistical significance of the historical trial data.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 88 of the Revised Draft Registration Statement to include the number of subjects enrolled in the trial to date and the location of the trial.

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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 88 of the Revised Draft Registration Statement to include an explanation of how the Company determined HAMD-17 was the appropriate end-point measurement for our study of CERC-301.

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.

Response: The Company respectfully advises the Staff that the Company does not consider the license agreement with Johns Hopkins Medical Institute (the "Johns Hopkins Agreement") a material contract that requires the Johns Hopkins Agreement to be filed as an exhibit to the registration statement pursuant to Item 601(b)(10)(ii)(A) of Regulation S-K or that would otherwise require such agreement to be described in the Draft Registration Statement. Upon assuming the Johns Hopkins Agreement, the Johns Hopkins Agreement was material to the Company in both amount and significance in light of the Company's expectation and belief that the Company would develop and commercialize FP01, the sole product candidate that the Company was developing at such time. Due to the passage of time, and the current expectations with respect to the development of FP01, the Company does not believe that the Johns Hopkins Agreement qualifies as "material" as defined under the Rule 405. Specifically, as disclosed on page 97 of the Revised Draft Registration Statement, the Company does not plan to continue to advance the development of FP01 without a collaborator and, as a result, the Company attributes little to no value to FP01 and does not believe the terms of the Johns Hopkins Agreement are material to investors. In addition, because the Company is not currently developing FP01, it does not expect to pay any additional fees to Johns Hopkins Medical Institute under the Johns Hopkins Agreement. As such, the Company believes the Johns Hopkins Agreement is both immaterial in both amount and significance and, as a result, the requirements of Item 601(b)(10)(ii)(A) of Regulation S-K requiring the filing of the Johns Hopkins Agreement as an

exhibit are not satisfied and the agreement does not otherwise require disclosure in the Draft 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.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page F-20 of the Revised Draft Registration Statement to include the allocation of the proceeds received from the August 2013 private equity offering. Subsequent to filing the Draft Registration Statement, management reviewed the accounting for the Series A-1 Convertible Preferred Stock and determined that a beneficial conversion feature equal to the net proceeds allocated to the Series A-1 Convertible Preferred Stock should have been recorded upon issuance. The Company has restated its September 30, 2013 financial statements, which are included in the Revised Draft Registration Statement to reflect this change and has disclosed the amount of the beneficial conversion feature and the 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.

Response: The Company respectfully advises the Staff that the Company does not consider the agreement with Fells Laboratories LLC (the "Fells Agreement") a material contract that requires the Agreement to be filed as an exhibit to the registration statement pursuant to Item 601(b)(10)(ii)(A) of Regulation S-K. Upon entering into the Fells Agreement, the Fells Agreement was material to the Company in both amount and significance, but, as noted in our response to comment 24, solely in light of the Company's expectation and belief that the Company would develop and commercialize FP01, the sole product candidate that the Company was developing at such time. Due to the passage of time, and the current expectations with respect to the development of FP01, the Company does not believe that the Fells Agreement qualifies as "material" as defined under the Rule 405. Specifically, as disclosed on page 97 of the Revised Draft Registration Statement, the Company does not plan to continue to advance the development of FP01 without a collaborator and, as a result, the Company attributes little to no value to FP01 and does not believe the terms of the Fells Agreement are material to investors. In addition, the Company has no continuing obligations to Fells Laboratories LLC pursuant to the terms of the Fells Agreement as Fells Laboratories has disclaimed any right to any future payments under the Fells Agreement. As such, the Company believes the Fells Agreement is both immaterial in both amount and significance and, as a result, the requirements of Item 601(b)(10)(ii)(A) of Regulation S-K requiring the filing of the Fells Agreement as an exhibit are not satisfied.

We hope the foregoing have been responsive to the Staff's comments. 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

cc: Kevin S. Shmelzer
Blake M. Paterson
Cheston J. Larson