Morgan Lewis

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September 22, 2015

VIA EDGAR AND FEDEX

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. 1 to Registration Statement on Form S-1

Filed on September 8, 2015 File No. 333-204905

Dear Mr. Riedler:

On behalf of our client, Cerecor Inc. (the "Company"), we are responding to the comment of the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in your letter dated September 17, 2015 (the "Comment Letter") to Dr. Paterson, President and Chief Executive Officer of the Company, with respect to Amendment No. 1 to the Company's Registration Statement on Form S-1 referred to above (the "Registration Statement"). In response to your Comment Letter, set forth below is your comment in bold followed by the Company's response. The page numbers in the bold caption refer to the page in the Registration Statement. All terms used but not defined herein have the meanings assigned to such terms in the Registration Statement.

Use of Proceeds, page 63

1. You disclose that you expect the net proceeds of your offering at an assumed offering price of \$6.50 to be approximately \$24.8 million or \$26.1 million if the underwriters exercise their overallotment option. Please tell us how you computed each of these amounts as we cannot re-compute them based on the number of shares you expect to sell in each scenario coupled with reasonable underwriters'

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

commissions and the other offering expenses you disclose on page II-1. In your response, tell us why the exercise of the overallotment results in only a \$1.3 million increase in estimated net proceeds equating to approximately \$2.05 per overallotment share when the gross proceeds for these 634,615 shares at \$6.50 per share is approximately \$4.1 million.

Response: The Company acknowledges the Staff's comment and advises the Staff that the calculation of the net proceeds from the Company's issuance and sale of 4,230,769 shares of the Company's common stock, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by the Company, was incorrect in the Registration Statement. Specifically, the Company failed to deduct all of the estimated offering expenses in calculating the net proceeds with respect to the sale of the 4,230,769 shares of the Company's common stock that the Company will be obligated to pay, but such expense amounts were included in calculating net proceeds if the overallotment option was exercised.

The Company estimates that the net proceeds from its issuance and sale of 4,230,769 shares of the Company's common stock in the offering will be approximately \$22.7 million, assuming an initial public offering price of \$6.50 per share, which is the midpoint of the price range set forth on the cover page of the prospectus included as part of the Registration Statement, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by the Company. If the underwriters exercise their over-allotment option in full, the Company estimates that the net proceeds from the offering will be approximately \$26.5 million, assuming an initial public offering price of \$6.50 per share. As a result, if the overallotment is exercised, the Company expects to receive an estimated increase in net proceeds of approximately \$3.8 million, or \$5.99 per overallotment share. Set forth below is a reconciliation

of estimated gross proceeds to net proceeds:

	No Overallotment	Overallotment Exercised
Gross Proceeds @ \$6.50/share	\$27.5M	\$31.6M
UW Discount and Commission (7.5%)	\$(2.063M)	\$(2.37M)
UW Unallocated Expense Reimbursement (1.5%)	\$(.413M)	\$(0.474M)
UW Legal Reimbursement	\$(0.1M)	\$(0.1M)
Company Expenses	\$(2.2M)	\$(2.2M)
Net Proceeds	\$22.7M	\$26.5M
Disclosed in Registration Statement	\$24.8M	\$26.1M
Difference	\$(2.076M) or (8.37)%	\$0.4M or 1.37%

The Company acknowledges that although there is a decrease of approximately \$2.076 million as it relates to the estimated net proceeds of the sale of 4,230,769 shares of the Company's common

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stock, the Company believes it can accomplish the business objectives contemplated in the preliminary prospectus with the proceeds currently anticipated from the offering. The Company has filed an issuer free writing prospectus that updates the first paragraph on page 63 of the Registration Statement as well as the other instances where the incorrect amount of net proceeds was disclosed. The Company will also file Amendment No. 2 to the Registration Statement that will include the updated language as set forth in the issuer free writing prospectus. For the convenience of the Staff's review, copies of this letter and Amendment No. 2 to the Registration Statement, marked to reflect changes against the Registration Statement, are being delivered to Mr. Scot Foley.

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