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May 19, 2017

Via EDGAR and Electronic Mail

Mr. Jeffrey Gabor United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549

Re: Cerecor Inc. Preliminary Proxy Statement on Schedule 14A Filed May 12, 2017 File No. 001-37590

Ladies and Gentlemen:

On behalf of Cerecor Inc. (the "*Company*"), this letter is being transmitted in response to a comment received from the staff (the "*Staff*") of the Securities and Exchange Commission, by telephone on May 19, 2017 (the "*Comment*"), regarding the Company's Preliminary Proxy Statement on Schedule 14A, filed on May 12, 2017 (the "*Proxy Statement*"). The text of the Staff's comment has been included in this letter in italics for your convenience.

Proposal 5: Approval of the Authorized Share Reduction Proposal

1. Please revise the disclosure in the preliminary proxy statement to discuss any other plans, agreements, arrangements or understandings with regard to the increase of authorized shares as a result of the planned reverse stock split.

Response:

The Company acknowledges the Staff's comment and has revised the disclosure to page 23 of the Proxy Statement.

Mr. Jeffrey Gabor May 19, 2017 Page Two

Please contact me at (202) 728-7087 with any questions or further comments regarding the Company's response to the Comment Letter.

Sincerely,

/s/ Madison A. Jones

Madison A. Jones

cc: Uli Hacksell, Cerecor Inc. Mariam Morris, Cerecor Inc. Brent B. Siler, Cooley LLP

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