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September 8, 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.

Registration Statement on Form S-1

Filed on June 12, 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 June 22, 2015 (the "New Comment Letter") to Dr. Paterson, President and Chief Executive Officer of the Company, with respect to the Company's Registration Statement on Form S-1 filed on June 12, 2015 (the "Registration Statement"). The Company is concurrently filing via EDGAR a redacted copy of this letter (as discussed below) and Amendment No. 1 to the Registration Statement (the "First Amendment"), which includes changes in response to the Staff's comment. In addition, the purpose of this letter is to provide supplemental information to the Staff regarding the preliminary estimated public offering price per share for the Company's proposed initial public offering and to provide a further response to comment 21 in the Staff's letter to the Company dated January 16, 2014 (the "Previous Comment Letter" and together with the New Comment Letter, the "Comment Letters"). All terms used but not defined herein have the meanings assigned to such terms in the First Amendment.

In response to your Comment Letters, set forth below are your comments in bold followed by the Company's responses. Except for the page reference appearing in the

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headings below (which reference is to the Registration Statement (as it relates to the New Comment Letter) and to the Company's Draft Registration Statement submitted on December 20, 2013 (as it relates to the Previous Comment Letter)), the page references herein correspond to the page of the First Amendment. For the convenience of the Staff's review, copies of this letter and the First Amendment, marked to reflect changes against the Registration Statement, are being delivered to Mr. Bryan J. Pitko.

New Comment Letter

Risk Factors

Risks Related to this Offering and Ownership of Our Common Stock, page 52

1. We note that your amended and restated certificate of incorporation includes a provision requiring that the Court of Chancery in the State of Delaware be the sole and exclusive forum for various stockholder litigation matters. Please revise your risk factor discussion to include a separate risk factor noting the specific types of actions subject to the exclusive forum provision. Please also highlight that such provisions may limit a shareholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with directors, officers or other employees, and may discourage lawsuits with

respect to such claims.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 59 of the First Amendment to disclose a separate risk factor noting the specific types of actions subject to the exclusive forum provision and highlighting that such provisions may limit a shareholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with directors, officers or other employees, and may discourage lawsuits with respect to such claims.

Previous Comment Letter

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.

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Response: The Company advises the Staff that it presently estimates, based in part on input the Company recently received in August from representatives of Maxim Group, LLC, the lead managing underwriter (the "Underwriter") for the Company's initial public offering of the Company's common stock (the "IPO"), as well as taking into consideration current market conditions and information currently available, the public offering price per share for the IPO will be, before any consideration for the reverse stock split that was effected immediately prior to the filing of the Company's First Amendment, based on a pre-money equity value range of \$35 million to \$45 million.

The pre-money equity value range is based on 170,112,243 shares outstanding as of June 30, 2015, which includes common stock issuable upon the automatic conversion of all outstanding shares of the Company's convertible preferred stock, and results in a range of common stock value of \$0.206 to \$0.265 per share. The following response is a quantitative and qualitative analysis explaining the difference between the estimated offering price and the Company's most recent valuation exercise.

The Company advises the Staff that, as described beginning on page 80 of the First Amendment, the Company performs contemporaneous valuations of the Company's common stock to assist the Company's Board of Directors (the "Board") and the Compensation Committee of the Board (the "Committee") in determining the common stock's fair value for purposes of granting stock-based awards. The Board and Committee consider numerous objective and subjective factors in determining the exercise price of such stock-based awards, including the factors set forth on page 81 of the First Amendment, the Company's IPO as the only possible future event and the most recent valuation reports prepared by an unrelated third-party valuation specialist. The Board and Committee, as applicable, also determine whether the assumptions and inputs used in connection with such contemporaneous valuations reflect the Board's and Committee's, as applicable, and management's best estimate of the business condition, prospects and operating performance of the Company at each valuation date. Since December 2014, the exercise price of such stock-based awards have been higher than the contemporaneous valuations performed by third-party valuation specialist engaged by the Company.

In recognition of the Staff's interest in understanding the factors affecting the difference between the anticipated offering price and the exercise price of the prior stock option grants, the Company is providing the information set forth below.

The Company has issued the following stock options during the period January 1, 2014 through the date of this letter as follows:

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| Grant Date | Number of Shares Underlying Stock Options Granted | Exercise Price Per Share of Common Stock | Estimated Offering Price Per Share of Common Stock per Underwriters |
|----------------|---|--|--|
| May 13, 2014 | 1,250,000 | \$ 0.36 | \$0.206-\$0.265 |
| July 10, 2014 | 1,521,897 | \$ 0.60 | \$0.206-\$0.265 |
| July 10, 2014 | 2,198,000 | \$ 0.36 | \$0.206-\$0.265 |
| April 30, 2015 | | | |
| | 100,000 | \$ 0.233 | \$0.206-\$0.265 |
| June 2, 2015 | 1,560,000 | \$ 0.219 | \$0.206-\$0.265 |
| June 2, 2015 | 325,000 | \$ 0.219 | \$0.206-\$0.265 |

June 2, 2015 55,000 \$ 0.219 \$0.206-\$0.265

The exercise price per share of common stock represents the determination by the Company's Board of a price that is considered fair to the grantee as of the date of the grant, taking into consideration various objective and subjective factors, including the conclusion of the most recent independent valuation of the Company's common stock. The Company's contemporaneously estimated fair market values of a share of common stock, prepared by an unrelated third-party valuation specialist over the above period, were as follows:

December 31, 2013 \$0.480 per share
 December 31, 2014 \$0.191 per share
 March 31, 2015 \$0.176 per share

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As can be seen from the information set forth above, the exercise price of all of the options granted during the 2014 fiscal year were above the estimated range of the offering price per share of common stock, while the exercise price of options granted thus far during the 2015 fiscal year were within the range of the estimated offering price per share of common stock. Also, the exercise price of options granted in 2015 was in excess of the fair market value per share of common stock per the then most recent valuation prepared by an unrelated third-party valuation specialist.

The Company believes that the difference in fair value between the midpoint of the preliminary price range, which is \$0.235 and the estimated per share common stock fair value on March 31, 2015 (and the exercise price of the options granted subsequent to that date) is primarily the result of the change in the probability of a near term IPO to virtually 100% (which is implicit in the preliminary price range), thus the discount applied for the lack of marketability in the estimated per share common stock fair value on March 31, 2015 would no longer be applicable. The primary factors that allowed the Company to progress towards an IPO from March 31, 2015, when the Board only attributed a 75% probability of being able to achieve a near-term IPO, to being in a position to determine the preliminary price range in late August 2015, were the public filing of the registration statement in June 2015 and additional due diligence, legal and accounting review by the Underwriter.

In conclusion, the Company respectfully submits that the difference between the exercise price of options granted since January 1, 2014 (as well as the latest valuation) and the estimated midpoint of the price range for the IPO is reasonable in light of the considerations outlined above.

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