

August 5, 2016

VIA FEDERAL EXPRESS

United States Securities and Exchange Commission
Division of Corporation Finance
Mail Stop 4561
100 F. Street, N.E.
Washington, D.C. 20549
Attention: Christina Thomas
Erin Jaskot
Suzanne Hayes

Re: Sage Therapeutics, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2015
Filed February 29, 2016
Definitive Proxy Statement on Schedule 14A
Filed April 29, 2016
File No. 001-36544

Dear Ms. Thomas:

This letter is being submitted on behalf of Sage Therapeutics, Inc. (the "Company") in response to the comments of the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") with respect to the Company's Form 10-K for the Fiscal Year Ended December 31, 2015, filed February 29, 2016 and the Definitive Proxy Statement on Schedule 14A, filed April 29, 2016, as set forth in your letter dated July 25, 2016 addressed to Jeffrey M. Jonas, President and Chief Executive Officer of the Company (the "Comment Letter"). For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment.

Definitive Proxy Statement on Schedule 14A

Executive Officer and Director Compensation

Equity Incentive Compensation, page 20

We note that in 2015 you granted stock options to your NEOs, including a grant valued at \$9,310,667 to your CEO. Please tell us supplementally how you determined the amount of options to award to the NEOs. Please also include similar disclosure in future filings, as applicable. Please refer to Item 402(b)(1)(v) and Item 402(b)(2)(v) of Regulation S-K.

RESPONSE: The Company respectfully advises the Staff that, in determining the number of options to award to a named executive officer for the year ended December 31, 2014 (“Fiscal 2014”), the Compensation Committee considered a number of factors, including: the Company’s performance during Fiscal 2014, the named executive officer’s performance during Fiscal 2014, and competitive levels of executive compensation for similarly situated executives based on analysis of data from the Company’s 2014 peer group companies (the “Peer Companies”), with the goal of targeting equity incentive compensation for the named executive officers between the median and upper quartile of the Peer Companies of target performance, with the achievement of exceptional corporate and individual performance resulting in upper quartile amounts.

With respect to Fiscal 2014, the Compensation Committee elected to provide each named executive officer with a base option grant (the “Base Grant”) based on annual option award ranges made to similarly situated executives at Peer Companies. The number of options granted to a named executive officer in the Base Grant was based on such named executive officer’s individual performance for Fiscal 2014, with the Chief Executive Officer, Chief Financial Officer and Chief Medical Officer receiving Base Grants at the upper quartile of the Peer Companies, the Chief Commercial Strategy Officer receiving a Base Grant above the median quartile of the Peer Companies and the Chief Scientific Officer receiving a Base Grant at the median quartile of the Peer Companies. This was also consistent with the Company’s strong performance in Fiscal 2014, which had achievement of 115% of its corporate goals. In order to align compensation with key milestones, the Compensation Committee also decided to grant to each named executive officer an option subject to performance-based vesting (the “Base Performance Grant”), allowing for alignment between the interests of the Company’s stockholders and the named executive officers. Given that the performance milestones for the Base Performance Grant covered events that would occur over a span of several years and given the additional risk associated with the Base Performance Grant, the number of options granted to a named executive officer in the Base Performance Grant was equal to 50% of the number of options in the Base Grant (the “Performance Portion”) plus 20% of the Performance Portion. The Company’s Chief Executive Officer was also awarded a one-time 120,000 share option market correction grant, as data provided by the Company’s compensation consultant demonstrated that the Chief Executive Officer’s equity ownership was at the 26th percentile as a percentage of shares outstanding as compared to the Peer Companies, which was below the Company’s targeted ownership for its Chief Executive Officer whose performance was also equivalent to the upper quartile. The equity ownership percentage of the other named executive officers was in the targeted range for their positions.

The Company will expand its Executive Compensation section in future filings to include the additional level of detail specified in this response with respect how the Company determined the amount of options to be awarded to the named executive officers in the applicable fiscal year.

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On behalf of the Company, I hereby acknowledge that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Should you have any further comments or questions with regard to the foregoing, please do not hesitate to contact the undersigned by phone at (857) 415-4080, by facsimile transmission at (617) 299-8379 or by e-mail at annemarie.cook@sagerx.com, or Laurie Burlingame by phone at 617-570-1879, by facsimile transmission at 617-523-1231 or by email at lburlingame@goodwinlaw.com.

Sincerely,

/s/ Anne Marie Cook

Anne Marie Cook
Senior Vice President, General Counsel

cc: Jeffrey M. Jonas, *Sage Therapeutics, Inc.*
Mitchell S. Bloom, *Goodwin Procter LLP*
Laurie A. Burlingame, *Goodwin Procter LLP*