UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

April 25, 2014

Via E-Mail
Jeffrey M. Jonas, M.D.
President and Chief Executive Officer
Sage Therapeutics, Inc.
215 First Street
Cambridge, Massachusetts 02142

**Re: Sage Therapeutics, Inc.**
**Confidential Draft Registration Statement on Form S-1**
**Submitted March 28, 2014**
**CIK No. 0001597553**

Dear Dr. Jonas:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. If our comments are applicable to portions of the filings that we have not cited, please make the appropriate changes elsewhere in the filing in accordance with our comments.

2. Please submit all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

3. Please confirm that the graphics included in your registration statement are the only graphic, visual, or photographic information you will use in your prospectus. If those are not the only graphics, please provide any additional graphics prior to their use for our review.

4. 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.

5. We note that a footnote to your exhibit index suggests that you have submitted or intend to submit a confidential treatment request with respect to portion of certain of your exhibits. We will provide any comments on your confidential treatment request and the related disclosure in a separate comment letter.

Prospectus Summary, page 1

6. Please revise the table of your current pipeline that appears here and in your Business section so that the arrows indicating developmental progress more precisely reflect the status of your activities. In particular, we note that the arrow for SAGE-689 continues into the area of the table marked "IND" although it appears that no such filing has yet been made.

Risk Factors
"We may not be successful in our efforts…" page 22
"We may expend our limited resources…" page 39

7. We note that these two risk factors appear to be substantially similar. Please revise your disclosure to combine these two risk factors.

"We are dependent on licensed intellectual property..." page 33

8. Please revise this risk factor to explain the relationship between Ligand Pharmaceuticals and CyDex Pharmaceuticals, as well as the effect of Ligand's acquisition of Cydex on your license.

Managements' Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Significant Judgments and Estimates
Stock-Based Compensation, page 67

9. We are deferring final evaluation of stock compensation and related costs until an amendment including your estimated offering price has been filed. Please continue to update your tabular disclosure on page 70 for any new option grants or other equity issuances and discuss how you determined the fair value. Provide us with a quantitative

and qualitative analysis explaining the difference between the estimated offering price and the fair value of recent equity issuances.

Business
Overview, page 78

10. Please revise your disclosure to describe the IND submitted in connection with your Phase 1/2 clinical trial of SAGE-547for SRSE, and disclose when this IND was filed and by whom. If you or someone else has not filed an IND for SAGE-547 for SRSE or has filed an IND for a different indication, please explain the basis of your position that an IND filing or an amended IND filing was not required.

Our Strategy, page 79

11. In the first bullet that appears in this section, please clarify why you believe the opportunity exists for accelerated clinical trials following your ongoing Phase 1/2 trial. If you are referring to Fast Track designation, please specify this and discuss your plans for requesting this status.

12. In the third bullet, please briefly describe the differentiating features of your newer compounds and explain why the risk-benefit calculus may be better for such compounds.

13. On page 82 you state that "BDZs are prototypical allosteric modulators that primarily act at a particular receptor." However, on page 83,you talk about the advantages of [your] allosteric approach over therapy with BDZs," which seems more consistent with the preponderance of your disclosure that BDZs are limited in their efficacy because they act as orthosteric modulators in patients with SE. Please revise to reconcile this apparent inconsistency or advise us accordingly.

Understanding the Foundations of Our Approach—Allosteric Modulation of Extrasynaptic $GABA_A$ receptors to treat SE, page 83

14. The left-most chart on page 83 appears to show that the level of extrasynaptic $GABA_A$ receptors (the percentage of receptors expressed on the neuronal surface) increased (i.e., was greater than 100%) as SE progressed. Please clarify as necessary and explain how receptor surface expression was measured.

SAGE-547
Emergency-use experience with SAGE-547, page 89

15. Please include cautionary language similar to your risk factor disclosure on page 13 regarding the extent to which results in these emergency-use settings are predictive of success in your clinical trials of SAGE-547.

16. Please expand your disclosure to provide more details and observations about the two pediatric SRSE patients in a manner similar to your discussion of the two adult patients.

Clinical, page 90

17. Please disclose the current status of your Phase 1/2 clinical trials of SAGE-547 that indicate how far the study has progressed thus far.

18. Please expand your discussion of the clinical trials of SAGE-547 on page to include a brief description of the investigator sponsored trial for the treatment of TBI, identify your collaborator, and disclose the material terms of your arrangement with the collaborator as it relates to this trial and the right to use the results of the trial.

SAGE-689—Non-clinical results—Efficacy, page 91
SAGE-217—Non-clinical results—Efficacy, page 93

19. Please revise your discussion of these non-clinical trials to address the inherent limitations of pre-clinical studies in animal models in predicting efficacy in human patients. If there were other factors, such as trial design, that also could impact the predictive power of these studies, please address this as well.

Licenses
Cydex Pharmaceuticals, page 95

20. Please briefly explain the nature of Captisol technology and its relationship to allopregnanolone and SAGE-547.

Intellectual Property
Patents— page 98

21. Please expand your discussion to disclose, if material, the expiration dates of the potential patents issuable under the remaining seven patent application families licensed from WU described in paragraph (2) and the three families of application that you own described in paragraph (4).

Certain Relationships and Related Party Transactions
Agreements with Stockholders, page 131

22. Please expand you discussion of the Third Rock Ventures agreement to describe with more specificity the services provided by Third Rock and summarize the parties' material obligations under this agreement. In addition, please file a copy of the agreement as an exhibit to your registration statement.

Material U.S. Federal Income and Estate Tax Considerations
to Non-U.S. Holders, page 142

23. Please delete the word "certain" from the introductory paragraph and make clear that the summary discusses all material tax consequences of which you are aware.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Ibolya Ignat at (202) 551-3656 or Jim Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Amy Reischauer at (202) 551-3793, Daniel Greenspan at (202) 551-3623 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ *Daniel Greenspan for*

Jeffrey P. Riedler
Assistant Director

cc: Via E-Mail
Mitchell S. Bloom
Goodwin Procter LLP