Sage Therapeutics to Provide Update on Key 2019 Initiatives at J.P. Morgan Healthcare Conference

January 7, 2019

– Multi-franchise strategy ongoing in depression, neurology and neuropsychiatry –

– Commercial infrastructure build completed for ZULRESSO™ (brexanolone) injection ahead of March 19, 2019 target PDUFA date –

– Statistically significant results achieved in Phase 3 trial of SAGE-217 in postpartum depression –

– First patient dosed in second pivotal trial of SAGE-217 in major depressive disorder –

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Jan. 7, 2019-- Sage Therapeutics, Inc. (NASDAQ:SAGE), a clinical-stage biopharmaceutical company developing novel medicines to treat life-altering central nervous system (CNS) disorders, today announced that Chief Executive Officer, Jeff Jonas, M.D., will discuss the Company's progress as a leading, multi-franchise CNS company in a corporate presentation at the 37th Annual J.P. Morgan Healthcare Conference in San Francisco. As part of the presentation, Dr. Jonas will highlight key programs in the expanding portfolio of product candidates across Sage's depression, neurology, and neuropsychiatry franchises, all using novel mechanisms and approaches with the potential to treat patients with serious disorders impacting significant patient populations.

"We've made significant progress over the last eight years and our innovative approach to discovery and development has resulted in five consecutive positive trials in mood disorders," said Jeff Jonas, M.D., chief executive officer at Sage. "We had a vision to change the way brain disorders were thought about, studied and treated. As we prepare to advance our lead product candidate from development to planned commercialization, we believe we are delivering on that promise. By taking on the stigma of mental health and challenging the conventional wisdom of how mood disorders are treated, we hope to become the leading CNS company."

Dr. Jonas will discuss the following milestones anticipated in the next 12-18 months:

Depression Franchise:
Led by ZULRESSO™(brexanolone) injection, which has been designated as a breakthrough therapy by the U.S. Food and Drug Administration (FDA) for the treatment of postpartum depression (PPD), and SAGE-217, which has been designated as a breakthrough therapy for the treatment of major depressive disorder (MDD).

- Buildout of the commercial infrastructure to support the potential launch of ZULRESSO for the treatment of PPD is complete.
    - The FDA recently extended the Prescription Drug User Fee Act (PDUFA) goal date for its Priority Review of the New Drug Application (NDA) for ZULRESSO in the treatment of PPD.
        - Previously disclosed December 19, 2018 PDUFA goal date was extended by a period of three months to March 19, 2019; launch of ZULRESSO in the U.S., if approved, will follow the anticipated scheduling of brexanolone by the Drug Enforcement Administration (DEA), and is projected for June 2019.

    - Commercial activities, if the NDA is approved, will focus on executing across key pillars of the go-to-market strategy by enabling Centers of Excellence while identifying patient access and reimbursement pathways to optimize the patient experience.
- Statistically significant topline results from the Phase 3 ROBIN Study of SAGE-217 in severe PPD patients demonstrated a rapid, profound and sustained reduction in depressive symptoms compared to placebo.
    - After two weeks of outpatient treatment, patients treated with SAGE-217 had a statistically significant improvement of 17.8 points in the Hamilton Rating Scale for Depression (HAMD-17) score, compared to 13.6 for placebo (p=0.0029).
    - Remission was achieved in 45 percent of patients treated with SAGE-217 for two weeks as measured by the HAMD-17 compared with 23 percent of patients receiving placebo (p=0.0122), with a remission maintained through the end of the 4-week follow-up.
    - Results from secondary endpoints were statistically significant and consistent with the primary endpoint.
    - SAGE-217 was generally well-tolerated with a safety profile consistent with that seen in earlier SAGE-217 trials. Two subjects experienced serious adverse events (SAEs), one subject in each group. Overall reports of AEs were similar between SAGE-217 (58%) and placebo (51%). The most common adverse events (>5%) in either treatment group were somnolence (12.8% SAGE-217; 8.2% placebo), headache (9.0% SAGE-217; 12.3% placebo), dizziness (7.7% SAGE-217; 5.5% placebo), upper respiratory tract infection (7.7% SAGE-217; 1.4% placebo), diarrhea (6.4% SAGE-217; 2.7% placebo), nausea (3.8% SAGE-217; 8.2% placebo), sedation (5.1% SAGE-217; 0.0% placebo), vomiting (1.3% SAGE-217; 5.5% placebo), abnormal dreams (0.0% SAGE-217; 5.5% placebo) and hyperhidrosis (0.0% SAGE-217; 5.5% placebo).
- Additional topline results in the pivotal program for SAGE-217 in MDD anticipated in 2020:
    - Phase 3 MOUNTAIN Study in patients with MDD;
        - First patient dosed in Q4 2018
    - Phase 3 RAINFOREST Study in patients with MDD and co-morbid insomnia;
    - Phase 3 SHORELINE Study evaluating SAGE-217 open-label treatment, treatment-free intervals and as-needed retreatment for return of major depressive episodes.
- Data from Part A open-label portion of the Phase 2 ARCHWAY Study of SAGE-217 in patients with bipolar depression expected in 1H 2019.

Neurology Franchise:
Led by SAGE-324, a next-generation positive allosteric modulator (PAM) of $GABA_A$ receptors

- Phase 1 studies ongoing with further clinical development to be explored for neurological conditions, including essential tremor and epileptiform disorders.
    - Phase 1 multiple ascending dose (MAD) trial evaluating the safety, tolerability, pharmacokinetic and pharmacodynamic profile of SAGE-324 ongoing.
    - Phase 1 single ascending dose (SAD) trial of SAGE-324 in healthy volunteers recently completed.
    - Topline results from the Phase 1 SAD and MAD studies expected in 1H 2019.
    - Plan to initiate a Phase 1 open-label study in 1H 2019 to determine the safety, tolerability and pharmacokinetics of SAGE-324 in approximately 10 patients with essential tremor. Topline results are anticipated in 2H 2019.

Neuropsychiatry Franchise:
Led by first-in-class NMDA receptor PAM, SAGE-718

- First-in-class NMDA receptor PAM being explored in certain cognition-related disorders impacted by NMDA receptor dysfunction currently in Phase 1 development. The healthy volunteer portions of the Phase 1 SAD and MAD trials are complete.

- Initiated target engagement biomarker studies in healthy volunteers, focusing on electrophysiology and imaging, to further evaluate SAGE-718. Results of these Phase 1 healthy volunteer studies, including SAD, MAD and the target engagement studies, are anticipated in 1H 2019.
- Initiated a Phase 1 double-blind, placebo-controlled MAD study to determine the safety, tolerability and pharmacokinetics of SAGE-718 in approximately 10 patients with early manifest Huntington's disease. Topline results are anticipated in 2H 2019.

Webcast Information for J.P. Morgan Healthcare Conference Presentation

Sage is scheduled to present at the 37th Annual J.P. Morgan Healthcare Conference on Tuesday, January 8, 2019 at 3:30 p.m. PST (6:30 p.m. EST), followed by a Q&A session. A live webcast of the presentation and Q&A session can be accessed on the investor page of Sage's website at investor.sagerx.com. A replay of the webcast will be available on Sage's website approximately two hours after the completion of the event and will be archived for up to 30 days.

Forward-Looking Statements

Various statements in this release concern Sage's future expectations, plans and prospects, including without limitation statements regarding: our expectations regarding the possible approval of our NDA filing for ZULRESSO™ (brexanolone) injection, including the target timing of a decision by the FDA; our plans regarding the timing of launch of ZULRESSO in PPD and future commercial activities, if approved; our statements regarding plans and timelines for clinical development of SAGE-217, SAGE-324 and SAGE-718, including potential indications and the potential timing of data availability; and our views as to the opportunity represented by Sage's portfolio and business. These forward-looking statements are neither promises nor guarantees of future performance, and are subject to a variety of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from those contemplated in these forward-looking statements, including the risks that: the FDA may decide not to approve ZULRESSO as a treatment for PPD and may determine that additional trials or data are necessary in order to obtain approval; the FDA may not complete its review of our filing within the target timelines; even if ZULRESSO is successfully approved for PPD in the U.S., we may encounter issues, delays or other challenges in launching or commercializing the product, including issues related to timing of DEA scheduling, issues related to market acceptance and reimbursement, challenges associated with restrictions or conditions that may be imposed by regulatory authorities, including challenges related to limiting the site of administration to a certified healthcare facility monitored by a qualified healthcare provider, and the necessity for a REMS, and challenges associated with the execution of our sales and patient support activities, which in each case could limit the potential of our product; we may encounter unexpected safety or tolerability issues with ZULRESSO, SAGE-217, SAGE-324, SAGE-718 or any of our other product candidates in ongoing or future development; we may not be successful in our development of SAGE-217, SAGE-718, SAGE-324 or any of our other product candidates in any indication we are currently pursuing or may in the future pursue; success in early stage clinical trials may not be repeated or observed in ongoing or future studies of any of our product candidates; ongoing and future clinical results may not support further development or be sufficient to gain regulatory approval of our product candidates; we may decide that a development pathway for one of our product candidates in one or more indications is no longer feasible or advisable or that the unmet need no longer exists; decisions or actions of the FDA or other regulatory agencies may affect the initiation, timing, design, size, progress and cost of clinical trials and our ability to proceed with further development or may impact the regulatory pathway; we may experience slower than expected enrollment in ongoing or planned clinical trials; the internal and external costs required for our activities, and to build our organization in connection with such activities, and the resulting use of cash, may be higher than expected, or we may conduct additional clinical trials or pre-clinical studies, or engage in new activities, requiring additional expenditures and using cash more quickly than anticipated, which could delay, slow or limit our efforts; and we may encounter technical and other unexpected hurdles in the development, manufacture and potential future commercialization of our product candidates; as well as those risks more fully discussed in the section

entitled "Risk Factors" in our most recent Quarterly Report on Form 10-Q, and discussions of potential risks, uncertainties, and other important factors in our subsequent filings with the Securities and Exchange Commission. In addition, any forward-looking statements represent our views only as of today and should not be relied upon as representing our views as of any subsequent date. We explicitly disclaim any obligation to update any forward-looking statements.

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