November 16, 2016

SAGE-547 Granted PRIME Designation by EMA for the Treatment of Postpartum Depression

New EMA regulatory designation offers potential for increased dialogue and accelerated assessment of future EU regulatory application

Decision based on positive placebo-controlled Phase 2 results

SAGE PPD studies in moderate and severe PPD ongoing with top-line results expected in 2017

Company now anticipates globalizing its PPD development program and establishing European clinical operations

CAMBRIDGE, Mass.--(BUSINESS WIRE)-- Sage Therapeutics (NASDAQ: SAGE), a clinical-stage biopharmaceutical company developing novel medicines to treat life-altering central nervous system (CNS) disorders, today announced that the European Medicines Agency (EMA) has granted its **PRI**ority **ME**dicines (PRIME) designation to SAGE-547 for the treatment of postpartum depression (PPD). The SAGE-547 application for the PRIME designation was based on the positive clinical results from the placebo-controlled 202A study of SAGE-547 in severe PPD. In September, the U.S. Food and Drug Administration (FDA) granted SAGE-547 Breakthrough Therapy Designation for the treatment of PPD.

The PRIME program was launched by the EMA in March 2016, and the designation is designed to aid and expedite the regulatory process for investigational medicines that may offer a major therapeutic advantage over existing treatments, or benefit patients without treatment options. To be accepted, an investigational medicine must show the potential to benefit patients with unmet medical needs based on early clinical data.

"This priority medication designation for SAGE-547 within the EMA's new PRIME program reflects the urgent need for treatment options for women suffering with postpartum depression and was supported by the promising clinical data from our Phase 2 study," said Jeff Jonas, M.D., Chief Executive Officer of Sage. "We look forward to working with the EMA to determine the appropriate regulatory path to support a European marketing authorization application for SAGE-547 in PPD as we initiate planning for our European operations and clinical trial infrastructure."

Once an investigational candidate has been selected for PRIME, developers are assigned a dedicated contact point and a rapporteur from the Committee for Medicinal Products for Human Use (CHMP) to provide continuous support and help ahead of a marketing-authorization application, as well as a meeting with a multidisciplinary group of experts to provide broader guidance on the overall development plan and regulatory strategy. Companies are also eligible for accelerated assessment at the time of their regulatory application.

"We look forward to collaborating with the EMA on our EU regulatory strategy as we continue development of SAGE-547 as a potential treatment for postpartum depression," said Amy Schacterle, Ph.D., Vice President, Regulatory Affairs and Quality Assurance of Sage. "We continue to work with regulatory agencies to determine the most appropriate and efficient pathways to bring potential new therapies to patients."

About Postpartum Depression
Postpartum depression (PPD) is an affective disorder impacting women after childbirth. PPD may have devastating consequences for a woman and for her family, which may include significant functional impairment, depressed mood and/or loss of interest in her newborn, and associated symptoms of depression such as loss of appetite, difficulty sleeping, motor challenges, lack of concentration, loss of energy and poor self-esteem. Suicide is the leading cause of maternal death following childbirth. It is estimated that PPD affects 500,000 to 750,000 mothers in the US each year[1,2]. A subset of these are severe enough to require hospitalization. There are no approved therapies for PPD and there is a high unmet medical need for improved pharmacological therapy in PPD.

About SAGE-547
SAGE-547 is an allosteric modulator of both synaptic and extra-synaptic $GABA_A$ receptors. SAGE-547 has been granted Breakthrough Therapy Designation by the FDA for the treatment of postpartum depression (PPD). SAGE-547 is an intravenous agent evaluated in the PPD-202A trial, a multi-center, randomized, double-blind, parallel-group, placebo-

controlled study evaluating the efficacy, safety and pharmacokinetics of SAGE-547 in the treatment of adult female patients with severe PPD. Following top-line results in July 2016, Sage initiated an expansion of the clinical program of SAGE-547 in PPD with two randomized, placebo-controlled Phase 2 clinical trials to explore dose-ranging of SAGE-547 in severe PPD patients (202B) and to evaluate SAGE-547 efficacy in moderate PPD patients (202C). For more information about participating in these trials, please contact clinicaltrials@sagerx.com.

SAGE-547 is also being developed as an adjunctive therapy for the treatment of super-refractory status epilepticus (SRSE) in the global Phase 3 STATUS Trial. For more information about the STATUS Trial, please visit www.statustrial.com. SAGE-547 has been granted both Fast Track and orphan drug designations by the FDA for the treatment of SRSE.

About Sage Therapeutics
Sage Therapeutics is a clinical-stage biopharmaceutical company committed to developing novel medicines to transform the lives of patients with life-altering central nervous system (CNS) disorders. Sage has a portfolio of novel product candidates targeting critical CNS receptor systems, GABA and NMDA. Sage's lead program, SAGE-547, is in Phase 3 clinical development for super-refractory status epilepticus, a rare and severe seizure disorder, and is being developed for postpartum depression. Sage is developing its next generation modulators, including SAGE-217 and SAGE-718, with a focus on acute and chronic CNS disorders. For more information, please visit www.sagerx.com.

Forward-Looking Statements

Various statements in this release concern Sage's future expectations, plans and prospects, including without limitation, our statements as to the potential for accelerated assessment for SAGE-547 in PPD in the EU as a result of PRIME designation; our plans for expansion of our clinical trials and other development efforts with respect to SAGE-547 in PPD outside the U.S.; our plans with respect to future European operations; our estimates as to the number of patients with PPD; and our statements regarding the potential of Sage's product candidates. 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: we may not achieve or benefit from accelerated assessment of SAGE-547 in PPD as a result of PRIME designation; success in our earlier stage clinical trials of SAGE-547 may not be repeated or observed in ongoing clinical trials; ongoing studies of SAGE-547 may not support further development or be sufficient to gain regulatory approval; the EMA may require additional or different data than required for regulatory approval of SAGE-547 in PPD in the U.S., and we may not be able to generate such data; decisions or actions of regulatory agencies may affect the initiation, timing, design, size, progress and cost of clinical trials, and our ability to proceed with further clinical studies of SAGE-547 in PPD in any country or at all or to obtain marketing approval; we may not be successful in our development of SAGE-547 in PPD or in any other indication; the actual size of the PPD patient population may be significantly lower than our estimates and, even if SAGE-547 is approved for PPD, only a subset of the PPD population will be considered for treatment with a drug delivered through IV administration; we may decide not to proceed with our plans for expansion of operations in Europe or we may encounter unexpected hurdles or costs that delay such plans; we may not be able to generate supportive non-clinical data or clinical data to successfully demonstrate the efficacy and safety of our product candidates at each stage of development or we may encounter unexpected adverse data in ongoing studies that causes us to stop further development of such product candidates; and we may encounter technical and other unexpected hurdles in the development and manufacture of our product candidates which may delay our timing or change our plans, as well as those risks more fully discussed in the section entitled "Risk Factors" in our most recent Quarterly Report on Form 10-Q, as well as 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.

[1] Hamilton BE, Martin JA, Osterman MJK, et al. Births: Final data for 2014. *National Vital Statistics Reports*. National Center for Health Statistics, 2015, 64, 12. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_12.pdf.

[2] O'Hara MW, McCabe JE. Postpartum depression: Current status and future directions. *The Annual Review of Clinical Psychology,*2013, 9, 379-407. doi: 10.1146/annurev-clinpsy-050212-185612.

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Investor Contact:
Sage Therapeutics
Paul Cox, 617-299-8377
paul.cox@sagerx.com
or
Media Contact:

Suda Communications LLC
Maureen L. Suda, 585-387-9248
maureen.suda@sagerx.com

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