



NEWS RELEASE

Savara Announces IND Approval for Expansion of Molgradex Phase 3 Study Into U.S.

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AUSTIN, TX -- (Marketwired) -- 02/12/18 -- **Savara, Inc.** (NASDAQ: SVRA), an orphan lung disease company, today announced that the U.S. Food and Drug Administration (FDA) approved its Investigational New Drug (IND) application for Molgradex, an inhaled formulation of recombinant human granulocyte-macrophage colony-stimulating factor (GM-CSF), for the treatment of autoimmune pulmonary alveolar proteinosis, or PAP, allowing for the expansion of the company's Phase 3 **IMPALA** study into the U.S.

Last year, Savara announced its expedited U.S. development strategy for Molgradex, which enables the ongoing IMPALA study to serve as a pivotal study also for U.S. registration purposes. In support of this strategy, Savara submitted an IND application to the FDA in December 2017 to expand the study into U.S. sites. The IMPALA study is now being conducted in 20 countries globally. The primary endpoint of the study is the alveolar-arterial oxygen gradient, a commonly used measure of oxygenation impairment. In addition, the FDA will focus its review on three key secondary endpoints that will be assessed to determine the amount of improvement in clinical symptoms and function. To help ensure adequate statistical power by confirming or modifying the study sample size, the IND submission also added a blinded interim check of the variability of two of the key secondary endpoints, the six-minute walk distance and St. George's respiratory questionnaire. This blinded analysis indicated that the current sample size of 90 patients is sufficient to achieve 90% power for one of these two endpoints. However, in order to achieve 90% power for both endpoints, and thereby further increase the likelihood of a robust and convincing study outcome, the sample size will be increased to a total of 135 patients, or 45 patients per treatment arm.

"Expansion of the IMPALA study enrollment into the U.S. is an important and exciting step towards a BLA submission of Molgradex in the U.S.," said Rob Neville, Chief Executive Officer of Savara. "By conducting the interim sample size check we believe we were able to increase the likelihood of success in our sole pivotal study by



ensuring a high level of statistical power not only for the primary endpoint, but now also for two key secondary endpoints that the FDA will be focusing on. We have continued strong progress in enrollment, having reached the original target of 90 patients almost two months ahead of schedule, and we expect to complete the revised enrollment target by the third quarter of 2018 and anticipate that top line results will be available in the second quarter of 2019."

"The IMPALA study is the largest therapeutic study ever conducted in PAP patients, and I am very enthusiastic in participating in this impressive global effort," said Bruce Trapnell, M.D., Professor of Medicine, and the U.S. Coordinating Principal Investigator of the IMPALA study, at Cincinnati Children's Hospital Medical Center. "Inhaled GM-CSF has shown extremely promising efficacy in earlier academic studies in PAP patients. I believe Molgradex has the potential to transform the treatment of PAP, and considerably reduce or eliminate the need for the invasive whole lung lavage procedures that are the only currently approved treatment option for PAP."

About the IMPALA Study

The IMPALA study is a randomized, double-blind, placebo-controlled study designed to compare the efficacy and safety of Molgradex with placebo in patients with PAP. The primary endpoint in the IMPALA study is the absolute change from baseline in arterial-alveolar oxygen gradient, a measure of patient's oxygenation status, following 24 weeks of treatment. In addition, the FDA will focus its review on three key secondary endpoints that will be assessed to show improvement in clinical symptoms and function, including six-minute walk distance, St. George's respiratory questionnaire, and the time to need of whole lung lavage. Patients are randomized to receive treatment for 24 weeks in one of three treatment arms: 1) Molgradex 300 µg administered once daily, 2) Molgradex 300 µg and matching placebo administered daily in 7-day intermittent cycles of each, or 3) inhaled placebo administered once daily. Savara now expects that patient enrollment will be completed by the third quarter of 2018, with top line data available in the second quarter of 2019.

About Pulmonary Alveolar Proteinosis (PAP)

Autoimmune PAP is a rare lung disease which is characterized by the build-up of lung surfactant in the alveoli (or air sacs) of the lungs. The surfactant consists of proteins and lipids, and is an important physiological substance that lines the inside of the alveoli to prevent the lungs from collapsing. In a healthy lung, the old and inactivated surfactant is cleared and digested by immune cells called alveolar macrophages. Alveolar macrophages need to be stimulated by GM-CSF to function properly in clearing surfactant, but in autoimmune PAP, GM-CSF is neutralized by antibodies against GM-CSF, rendering the macrophages unable to perform their tasks. As a result, an excess of surfactant accumulates in the alveoli, causing obstruction of gas exchange, and patients start to experience shortness of breath, and decreased exercise tolerance. Patients may also experience chronic cough, as well as episodes of fever, chest pain, or coughing blood, especially if secondary lung infection develops. In the long term, the disease can lead to serious complications, including lung fibrosis and the need for lung transplant.

About Molgradex

Molgradex is an inhaled formulation of recombinant human GM-CSF, in Phase 3 development for PAP and in preparation for Phase 2a development for nontuberculous mycobacteria, or NTM, lung infection. Molgradex is delivered via an investigational eFlow® Nebulizer System (PARI Pharma GmbH). Molgradex has been granted Orphan Drug Designation for the treatment of PAP in the United States and the European Union.

About Savara

Savara Inc. is a clinical-stage specialty pharmaceutical company focused on the development and commercialization of novel therapies for the treatment of serious or life-threatening rare respiratory diseases. Savara's pipeline comprises: Molgradex, an inhaled granulocyte-macrophage colony-stimulating factor, or GM-CSF, in Phase 3 development for PAP, and in preparation for Phase 2a development for NTM lung infection; AeroVanc, a Phase 3 stage inhaled vancomycin for treatment of MRSA infection in Cystic Fibrosis; and, Aironite, an inhaled sodium nitrite for heart failure with preserved ejection fraction, or HFpEF, in Phase 2 development. Savara's strategy involves expanding its pipeline of potentially best-in-class products through indication expansion, strategic development partnerships and product acquisitions, with the goal of becoming a leading company in its field. Savara's management team has significant experience in orphan drug development and pulmonary medicine, in identifying unmet needs, developing and acquiring new product candidates, and effectively advancing them to approvals and commercialization. More information can be found at www.savarapharma.com. (Twitter: [@SavaraPharma](https://twitter.com/SavaraPharma))

Forward Looking Statements

Savara cautions you that statements in this press release that are not a description of historical fact are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words referencing future events or circumstances such as "expect," "intend," "plan," "anticipate," "believe," and "will," among others. Such statements include, but are not limited to, statements relating to that the FDA will focus its review on three key secondary endpoints, that to achieve 90% power for both endpoints, and thereby further increase the likelihood of a robust and convincing study outcome, the sample size will be increased to a total of 135 patients, that expansion of the IMPALA study enrollment into the U.S. is an important and exciting step towards a BLA submission of Molgradex in the U.S., that we believe we were able to increase the likelihood of success in our sole pivotal study by ensuring a high level of statistical power not only for the primary endpoint, but now also for two key secondary endpoints, continued strong progress in enrollment, expecting to complete the revised enrollment target by the third quarter of 2018 and anticipate that top line results will be available in the second quarter of 2019, being very enthusiastic in participating in this impressive global effort, belief that Molgradex has the potential to transform the treatment of PAP, and considerably reduce or eliminate the need for the invasive whole lung lavage procedures that are the only currently approved treatment option for PAP, that Savara now expects that patient enrollment will be completed by end of Q3 of 2018, with top line data available by the end of Q2 of 2019 and our strategy. Savara may not actually achieve

any of the matters referred to in such forward looking statements, and you should not place undue reliance on these forward-looking statements. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. These forward-looking statements are based upon Savara's current expectations and involve assumptions that may never materialize or may prove to be incorrect. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties, which include, without limitation, risks and uncertainties associated with the outcome of our ongoing clinical trials for our product candidates (including the expanded IMPALA study), the ability to project future cash utilization and reserves needed for contingent future liabilities and business operations, the availability of sufficient resources for Savara's operations and to conduct or continue planned clinical development programs (including our expanded IMPALA study), the ability to obtain the necessary patient enrollment for our product candidates in a timely manner (including our expanded IMPALA study), the ability to successfully develop our product candidates, the risks associated with the process of developing, obtaining regulatory approval for and commercializing drug candidates such as Molgradex, AeroVanc and Aironite that are safe and effective for use as human therapeutics and the timing and ability of Savara to raise additional equity capital as needed to fund continued operations. All forward-looking statements are expressly qualified in their entirety by these cautionary statements. For a detailed description of our risks and uncertainties, you are encouraged to review our documents filed with the SEC including our recent filings on Form 8-K, Form 10-K and Form 10-Q. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they were made. Savara undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made, except as may be required by law.

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