Karuna Therapeutics Announces Positive Outcome of End-of-Phase 2 Meeting with the FDA for KarXT for the Treatment of Acute Psychosis in Patients with Schizophrenia

June 23, 2020

One additional Phase 3 trial, along with previously completed Phase 2 trial, would be acceptable to support an efficacy claim for a New Drug Application filing

Company on track to initiate Phase 3 program, including efficacy and open-label long-term safety trials, by the end of 2020

BOSTON--(BUSINESS WIRE)--Jun. 23, 2020-- Karuna Therapeutics, Inc. (NASDAQ: KRTX), an innovative clinical-stage biopharmaceutical company committed to developing novel therapies with the potential to transform the lives of people with disabling and potentially fatal neuropsychiatric disorders and pain, today announced next steps in the clinical program evaluating KarXT for the treatment of acute psychosis in patients with schizophrenia following the completion of a successful End-of-Phase 2 meeting with the U.S. Food & Drug Administration (FDA). The outcome of the meeting supports the progression of KarXT into Phase 3 development. The Company remains on track to initiate the Phase 3 program by the end of 2020.

"We look forward to progressing KarXT into Phase 3 clinical development for the treatment of schizophrenia following a constructive End-of-Phase 2 meeting with the FDA," said Andrew Miller, Ph.D., chief operating officer and founder of Karuna Therapeutics. "Our team is dedicated to truly advancing the standard of care in schizophrenia, and we believe our planned Phase 3 program sets us on course to potentially offer a new, unique and mechanistically differentiated treatment option relative to current therapies. We are pleased to be working closely with the FDA as we prepare to advance our lead clinical program into Phase 3 by the end of the year."

The End-of-Phase 2 discussion was supported by pre-clinical and clinical efficacy data, including results from the previously completed positive Phase 2 trial evaluating KarXT in patients with schizophrenia. In the Phase 2 trial, KarXT demonstrated robust efficacy on primary and key secondary outcome measures and was generally safe and well tolerated.

The Company and FDA aligned on key elements of the Phase 3 program to support a New Drug Application (NDA) filing, including the initiation of additional trials evaluating the efficacy and long-term safety of KarXT. The formal minutes from the meeting confirmed that the completed Phase 2 trial, along with one successful Phase 3 efficacy and safety trial, and additional safety data to meet regulatory requirements, would be acceptable to support an NDA filing.

The Company plans to initiate two five-week inpatient trials evaluating the efficacy and safety of KarXT for the treatment of acute psychosis in adults with schizophrenia. Both trials will share key characteristics of the completed Phase 2 trial, such as duration of treatment, patient population and primary outcome measure, among other aspects. The first Phase 3 trial is expected to commence by the end of 2020. This five-week, 1:1 randomized, flexible-dose, double-blind, placebo-controlled, inpatient trial will enroll approximately 250 adults in the U.S. and evaluate the change in Positive and Negative Syndrome Scale total score at Week 5 of KarXT versus placebo as the primary outcome measure. Details of the second efficacy trial will be finalized by the end of 2020, with initiation expected in the first half of 2021.

In conjunction with the short-term efficacy and safety trials, the Company will collect long-term, open-label data to assess the safety and tolerability of KarXT in patients for up to one year in an outpatient setting. Following the five-week, double-blind, inpatient phase in both efficacy trials, patients may enter a 52-week open-label safety and tolerability extension in which all patients will receive active treatment. The Company currently plans to also conduct a separate 52-week open-label trial evaluating the long-term safety of KarXT in adults with schizophrenia who have not been enrolled in the inpatient trials. This trial is expected to begin the first half of 2021. Data from these trials will be used to support regulatory safety requirements for an NDA filing.

As previously shared, the Company is well capitalized, with sufficient funding to support development activities for the NDA filing. Additional details regarding the development plan, including anticipated completion timelines, will be shared in the second half of 2020.

About KarXT
KarXT, a proprietary oral modulator of muscarinic cholinergic receptors, is Karuna's lead product candidate that combines xanomeline, a novel muscarinic agonist, with trospium, an FDA-approved muscarinic antagonist that does not appreciably cross the blood-brain-barrier, to preferentially stimulate muscarinic receptors in the central nervous system (CNS). This novel product candidate, if approved, has the potential to usher in a new treatment paradigm and dramatically impact patients with schizophrenia and other psychotic disorders by providing a differentiated mechanism of action relative to current D2 dopamine and serotonin receptor-targeting antipsychotic drugs.

About Schizophrenia
Schizophrenia is a chronic, disabling disorder typically diagnosed in late teenage years or early adulthood. Characterized by recurring episodes of psychosis requiring long-term treatment with antipsychotic drugs in most patients, it affects more than 21 million people worldwide and 2.7 million Americans (0.5% - 1.0% of U.S. population).

At least one-third of patients with schizophrenia fail to respond to current treatments, with 74% of patients discontinuing within 18 months of initiation. People with schizophrenia have a 10- to 15-year reduction in life expectancy and struggle to maintain meaningful interpersonal relationships. The World Health Organization ranks psychosis as the third-most disabling medical condition in the world.

About Karuna
Karuna is a clinical-stage biopharmaceutical company committed to developing and delivering first-in-class therapies with the potential to transform the lives of people with CNS disorders – which remain among the most disabling and potentially fatal disorders worldwide. Galvanized by the understanding that today's neuropsychiatric and pain management patients deserve better, Karuna's mission is to harness the untapped potential of

the brain’s complex biology in pursuit of novel therapeutic pathways that will advance the standard of care. For more information, please visit karunatx.com.

Forward Looking Statements

This press release contains forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding our expectations about our cash resources, the timing of advancing of our planned clinical trials and regulatory filings, interim trial results, our goals to develop and commercialize our product candidates, and other statements identified by words such as “could,” “expects,” “intends,” “may,” “plans,” “potential,” “should,” “will,” “would,” or similar expressions and the negatives of those terms. Forward-looking statements are not promises or guarantees of future performance, and are subject to a variety of risks and uncertainties, many of which are beyond our control, and which could cause actual results to differ materially from those contemplated in such forward-looking statements. These factors include risks related to our limited operating history, our ability to obtain necessary funding, our ability to generate positive clinical trial results for our product candidates, the timing and scope of regulatory approvals, changes in laws and regulations to which we are subject, competitive pressures, our ability to identify additional product candidates, risks relating to business interruptions resulting from the coronavirus (COVID-19) pandemic, and other risks set forth under the heading “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2019. Our actual results could differ materially from the results described in or implied by such forward-looking statements. Forward-looking statements speak only as of the date hereof, and, except as required by law, we undertake no obligation to update or revise these forward-looking statements.

View source version on businesswire.com: https://www.businesswire.com/news/home/20200623005333/en/

Investor
Alexis Smith
518-338-8990
asmith@karunatx.com

Source: Karuna Therapeutics, Inc.