



Cytokinetics Announces Publication of Phase II Evidence of Effect Study of CK-2017357 in the Journal Amyotrophic Lateral Sclerosis

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SOUTH SAN FRANCISCO, CA, Jun 12, 2012 (MARKETWIRE via COMTEX) --Cytokinetics, Incorporated (NASDAQ: CYTK) announced today the publication of its Phase II Evidence of Effect (EoE) clinical study of CK-2017357, an orally bioavailable fast skeletal muscle troponin activator, in patients with amyotrophic lateral sclerosis (ALS). The results published online in the journal Amyotrophic Lateral Sclerosis demonstrated that single oral doses of 250 mg and 500 mg of CK-2017357 appeared safe and well-tolerated in patients with ALS that were studied. Measures of muscle endurance also appeared to be improved in a dose-related fashion in patients who received CK-2017357. In addition, patients who received CK-2017357, and their investigators, perceived a global benefit on treatment. Data from this study, which compared single doses of CK-2017357 to placebo, informed the design of subsequent studies conducted by Cytokinetics which have evaluated the safety and tolerability of CK-2017357 in other dosing regimens.

"The results from this first study of CK-2017357 in ALS patients underscore that a medicine that improves skeletal muscle function in the presence of diminished motor neuron input may be clinically relevant and warrants further investigation," said Jeremy M. Shefner, MD, PhD, Professor and Chair of the Department of Neurology at the Upstate Medical University at the State University of New York and an author of the paper. "Since the completion of this study, I have participated in subsequent studies of CK-2017357 that have augmented my enthusiasm for the novel mechanism of action of this compound and its potential to meaningfully impact the lives and functional status of patients suffering with ALS."

"We are honored to have Cytokinetics' data published in a journal dedicated to reporting significant advances in the treatment of this grievous disease," stated Andrew A. Wolff, MD, FACC, Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer. "This publication presents important clinical data that have served as the basis for our ongoing clinical development program of CK-2017357 in patients with ALS. Based on these results, together with data from more recent Phase II studies, we are continuing to interact with regulatory authorities regarding potential registration programs' strategies for this novel compound."

Clinical Trial Publication of CK-2017357 in Amyotrophic Lateral Sclerosis

The publication, titled "Safety, Tolerability and Pharmacodynamics of a Skeletal Muscle Activator in Amyotrophic Lateral Sclerosis," presents data from a Phase II EoE clinical trial of CK-2017357. The primary objective of this trial was to evaluate the safety and tolerability of single doses of CK-2017357 in patients with ALS, and to explore pharmacodynamic markers related to strength, endurance, and function. These data were presented originally in December 2010 at the 21st International Symposium on ALS/MND in Orlando, Florida.

In this study, sixty-seven patients with ALS received single double-blind doses of CK-2017357 at 250 mg and 500 mg and placebo in random order, separated by one week. Safety measures assessments were performed, as well as tests of pulmonary function, limb muscle strength and endurance, and global impression of change. Pharmacokinetics of both CK-2017357 and riluzole were studied. Sixty-three patients completed all three dosing periods. The authors concluded that CK-2017357 was well tolerated, with dizziness and general fatigue being the most frequent adverse events. Both patients and investigators perceived a dose-dependent benefit of CK-2017357 as measured by global impression of change. Maximum voluntary ventilation and submaximal handgrip endurance also improved. Only small changes were seen in maximal strength. The single doses of 250 mg and 500 mg of CK-2017357 appeared safe and well-tolerated in the patients with ALS that were studied. They also concluded that measures of endurance appeared to be improved in a dose-related fashion and both patients and investigators perceived a global benefit.

Results from Phase II Studies of CK-2017357 Presented at the American Academy of Neurology Annual Meeting

Data from this Phase IIa study which compared single doses of CK-2017357 to placebo informed the design of subsequent studies which have further evaluated the safety and tolerability of CK-2017357 in multiple dosing regimens, both as a fixed dose of CK-2017357 once daily over two weeks and as an escalating dose titration of CK-2017357 dosed twice daily over three weeks. Data relating to the safety and tolerability of CK-2017357 from these completed multiple dose, Phase II studies were presented at the April 2012 American Academy of Neurology (AAN) Annual Meeting.

At the AAN Annual Meeting, Cytokinetics reported results from a two-part, randomized, double-blind, placebo-controlled Phase II safety, tolerability, pharmacokinetic and pharmacodynamic clinical trial of multiple doses of CK-2017357 in ALS patients (CY 4024). Part A of this trial enrolled 24 patients who were not taking riluzole and Part B of this trial enrolled 25 patients who were concurrently taking riluzole at a reduced dose of 50 mg daily. In both Parts A and B, CK-2017357 appeared to be safe and well-tolerated when dosed daily for two weeks at 125 mg, 250 mg, or 375 mg. Adverse events and clinical assessments during treatment with CK-2017357 appeared similar, with or without co-administration of riluzole. While the trial was not designed or powered to evaluate statistically the effects of CK-2017357 on the various outcome measures that were assessed during the study, a combined analysis of patients from both cohorts suggested encouraging trends that appeared dose-related and potentially clinically meaningful in magnitude. These clinically relevant trends were observed in the ALS Functional Rating Scale in its revised form (ALSFRS-R) and in maximum voluntary ventilation (MVV). There were no statistically significant differences in outcomes measures between patients in Part A and those in Part B.

Cytokinetics also reported results at AAN from a second Phase II, randomized, double-blind, placebo-controlled, multiple-dose clinical trial of CK-2017357 in patients with ALS receiving riluzole at a reduced dose of 50 mg daily (CY 4025). The primary objective of this trial was to assess the safety and tolerability of CK-2017357 when administered using a twice-daily dose titration regimen to patients with ALS and to determine if the total daily dose of CK-2017357 could be increased from the 375 mg once-daily dose evaluated in CY 4024 to a target of 250 mg dosed twice daily. The authors concluded that the twice-daily dose titration regimen evaluated in the trial was generally safe and well-tolerated, that the majority of patients could be titrated successfully to a CK-2017357 dose level of 250 mg twice daily, and that encouraging trends toward functional improvements were observed in patients receiving CK-2017357 versus those receiving placebo. CY 4025 was not designed or powered to evaluate statistically the effects of CK-2017357 on the various outcome measures that were assessed during the study; nevertheless, increases in ALSFRS-R and MVV were observed in patients receiving CK-2017357 relative to those receiving placebo that were similar in direction and magnitude to those observed in CY 4024.

Results from these three completed safety and tolerability studies of CK-2017357, which have also assessed clinically relevant measurements of function in ALS patients, support the progression of CK-2017357 into larger and longer, late-stage clinical trials which will be designed to evaluate the safety and efficacy of CK-2017357 in a potential registration program.

Development and Regulatory Status of CK-2017357 in ALS

Cytokinetics is developing CK-2017357 as a potential treatment for diseases and conditions associated with aging, muscle wasting or neuromuscular dysfunction. CK-2017357 is currently the subject of a Phase II clinical development program and has been granted orphan drug designation by the U.S. Food and Drug Administration (FDA) and orphan medicinal product designation from the European Medicines Agency (EMA) for the potential treatment of ALS, a debilitating disease of neuromuscular impairment. CK-2017357 also has received Fast Track designation from the FDA for the potential treatment of ALS. Cytokinetics has met with the FDA's Division of Neurology Products and with the EMA to discuss the company's plans for the development of CK-2017357 as a potential treatment for patients with ALS, including potential registration strategies. Cytokinetics anticipates additional such interactions with U.S. and European regulatory authorities during 2012.

About Cytokinetics

Cytokinetics is a clinical-stage biopharmaceutical company focused on the discovery and development of novel small molecule therapeutics that modulate muscle function for the potential treatment of serious diseases and medical conditions. Cytokinetics' lead drug candidate from its cardiac muscle contractility program, omecamtiv mecarbil, is in Phase II clinical development for the potential treatment of heart failure. Amgen Inc. holds an exclusive license worldwide (excluding Japan) to develop and commercialize omecamtiv mecarbil and related compounds, subject to Cytokinetics' specified development and commercialization participation rights. Cytokinetics is independently developing CK-2017357, a skeletal muscle activator, as a potential treatment for diseases and conditions associated with aging, muscle wasting or neuromuscular dysfunction. CK-2017357 is currently the subject of a Phase II clinical trials program and has been granted orphan drug designation and fast track status by the U.S. Food and Drug Administration and orphan medicinal product designation by the European Medicines Agency for the potential treatment of amyotrophic lateral sclerosis, a debilitating disease of neuromuscular impairment in which treatment with CK-2017357 produced potentially clinically relevant pharmacodynamic effects in Phase II trials. Cytokinetics is also conducting research on compounds that inhibit smooth muscle contractility and which may be useful as potential treatments for diseases and conditions associated with excessive smooth muscle contraction, such as bronchoconstriction associated with asthma and chronic obstructive pulmonary disease. All of these drug candidates and potential drug candidates have arisen from Cytokinetics' research activities and are directed towards the cytoskeleton. The cytoskeleton is a complex biological infrastructure that plays a fundamental role within every human cell. Additional information about Cytokinetics can be obtained at www.cytokinetics.com.

This press release contains forward-looking statements for purposes of the Private Securities Litigation Reform Act of 1995 (the "Act"). Cytokinetics disclaims any intent or obligation to update these forward-looking statements, and claims the protection of the Act's Safe Harbor for forward-looking statements. Examples of such statements include, but are not limited to, statements relating to Cytokinetics' research and development activities, including the significance and utility of clinical trial results for CK-2017357; anticipated interactions with regulatory authorities; and the properties and potential benefits of CK-2017357 and Cytokinetics' other drug candidates and potential drug candidates, including CK-2017357's potential utility in the treatment of patients with ALS. Such statements are based on management's current expectations, but actual results may differ materially due to various risks and uncertainties, including, but not limited to, Cytokinetics will require significant additional funding to conduct a registration program for CK-2017357 for the potential treatment of ALS and may be unable to obtain such additional funding on acceptable terms, if at all; potential difficulties or delays in the development, testing, regulatory approvals for trial commencement, progression or product sale or manufacturing, or production of Cytokinetics' drug candidates that could slow or prevent clinical development or product approval, including risks that current and past results of clinical trials or preclinical studies may not be indicative of future clinical trials results, patient enrollment for or conduct of clinical trials may be difficult or delayed, Cytokinetics' drug candidates may have adverse side effects or inadequate therapeutic efficacy, the U.S. Food and Drug Administration (FDA) or foreign regulatory agencies may delay or limit Cytokinetics' or its partners' ability to conduct clinical trials, regulatory authorities may not grant CK-2017357 orphan drug exclusivity in ALS even if it is approved for marketing; Amgen's decisions with respect to the design, initiation, conduct, timing and continuation of development activities for omecamtiv mecarbil; Cytokinetics may be unable to obtain or maintain patent or trade secret protection for its intellectual property; funding from the National Institute of Neurological Disorders and Stroke may not be available in future periods; Cytokinetics may incur unanticipated research and development and other costs; Cytokinetics may be unable to enter into future collaboration agreements for its drug candidates and programs on acceptable terms, if at all; standards of care may change, rendering Cytokinetics' drug candidates obsolete; competitive products or alternative therapies may be developed by others for the treatment of indications Cytokinetics' drug candidates and potential drug candidates may target; and risks and uncertainties relating to the timing and receipt of payments from its partners, including milestones and royalties on future potential product sales under Cytokinetics' collaboration agreements with such partners. For further information regarding these and other risks related to Cytokinetics' business, investors should consult Cytokinetics' filings with the Securities and Exchange Commission.

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