Cytokinetics Provides Updates Regarding Clinical Development Program for Omecamtiv Mecarbil

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Protocol for COSMIC-HF Amended to Evaluate Dose Titration Strategy

Preparations Underway for Phase I Pharmacokinetic Trial in Japanese Volunteers

South San Francisco, CA, January 13, 2014 - Cytokinetics, Incorporated (Nasdaq: CYTK) provided updates today regarding COSMIC-HF (**C**hronic **O**ral **S**tudy of **M**yosin **A**ctivation to **I**ncrease **C**ontractility in **H**eart **F**ailure) and other progress in the development of *omecamtiv mecarbil*. As previously disclosed, Cytokinetics and Amgen selected an oral formulation of *omecamtiv mecarbil* based on the results of the ascending dose cohorts in COSMIC-HF and the companies agreed to proceed to the expansion phase in the ongoing clinical trial. Cytokinetics and Amgen recently agreed to amend the protocol to evaluate a dose titration strategy in the expansion phase of COSMIC-HF. In addition, the size of the expansion phase has been increased with the objective to provide greater statistical power for the planned evaluation of several pharmacodynamic parameters during oral dosing with *omecamtiv mecarbil.*

"Amending the protocol for COSMIC-HF provides for a plasma concentration-guided dose titration strategy that may be useful in the further development of *omecamtiv mecarbil*," stated Andrew A. Wolff, MD, FACC, Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer. "This approach may maximize the number of patients who achieve the targeted range of plasma concentrations and minimize the potential for excessive exposures."

Cytokinetics and Amgen are also making preparations for a Phase I single center, placebo-controlled, double-blind study comparing the pharmacokinetics of *omecamtiv mecarbil* between healthy Japanese and Caucasian volunteers (CY 1211). Dosing in both the expansion phase of COSMIC-HF and in CY 1211 is expected to begin in the first quarter of 2014.

Amgen holds an exclusive, worldwide license to *omecamtiv mecarbil* and related compounds, subject to Cytokinetics' specified development and commercialization rights. COSMIC-HF is being conducted by Amgen in collaboration with Cytokinetics. CY 1211 is being conducted by Cytokinetics in collaboration with Amgen.

Additional information on COSMIC-HF and other Phase II clinical trials of *omecamtiv mecarbil* can be found at www.clinicaltrials.gov.

COSMIC-HF: Phase II Clinical Trial of Oral *Omecamtiv Mecarbil*

COSMIC-HF is a double-blind, randomized, placebo-controlled, multicenter, dose escalation study designed to assess the pharmacokinetics and tolerability of three oral modified-release formulations of *omecamtiv mecarbil* in patients with heart failure and left ventricular systolic dysfunction, and to select one formulation for further evaluation. During the dose escalation phase, approximately 40 patients were randomized 1:1:1:1 to placebo or one of three different oral formulations of *omecamtiv mecarbil* in each of two ascending dose escalation cohorts to enable selection of one of these oral formulations for the expansion phase of the trial. The dose of *omecamtiv mecarbil* was 25 mg twice daily in the first dose escalation cohort and 50 mg twice daily in the second dose escalation cohort. The expansion phase of the trial will enroll approximately 450 patients randomized 1:1:1 to receive placebo, 25 mg, or 50 mg twice daily of *omecamtiv mecarbil*. Escalation to the 50 mg dose will depend on the plasma concentration of *omecamtiv mecarbil* following 2 weeks of dosing with 25 mg twice daily. The primary objective of the expansion phase of this trial is to characterize the safety, tolerability, and pharmacokinetics of oral *omecamtiv mecarbil* during 20 weeks of treatment. The secondary objectives are to assess the changes from baseline in systolic ejection time, stroke volume, left ventricular end-systolic diameter, left ventricular end-diastolic diameter, heart rate and N-terminal pro-brain natriuretic peptide (a biomarker associated with the severity of heart failure) during 20 weeks of treatment.

About *Omecamtiv Mecarbil*

Omecamtiv mecarbil is a novel cardiac myosin activator and is the subject of a collaboration between Cytokinetics and Amgen. Cardiac myosin is the cytoskeletal motor protein in the cardiac muscle cell that is directly responsible for converting chemical energy into the mechanical force resulting in cardiac contraction. Cardiac contractility is driven by the cardiac sarcomere, a highly ordered cytoskeletal structure composed of cardiac myosin, actin and a set of regulatory proteins, which is the fundamental unit of muscle contraction in the heart. Cardiac myosin activators have been shown preclinically to work in the absence of changes in intracellular calcium in cardiac myocytes by a novel mechanism that directly stimulates the activity of the cardiac myosin motor protein. Cardiac myosin activators appear to accelerate the rate-limiting step of the myosin enzymatic cycle and shift the enzymatic cycle in favor of the force-producing state. Preclinical research has shown that this mechanism does not increase the velocity of cardiac contraction, but instead, increases the systolic ejection time, resulting in an increase in cardiac contractility and cardiac function in a potentially more oxygen-efficient manner.

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 to develop and commercialize *omecamtiv mecarbil* and related compounds, subject to Cytokinetics' specified development and commercialization participation rights. Cytokinetics is independently developing *tirasemtiv*, a fast skeletal muscle activator, as a potential treatment for diseases and medical conditions associated with neuromuscular dysfunction. *Tirasemtiv* 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 (ALS). Cytokinetics is collaborating with Astellas Pharma Inc. to develop CK-2127107, a skeletal muscle activator structurally distinct from *tirasemtiv*, for non-neuromuscular indications. All of these drug candidates have arisen from Cytokinetics' muscle biology focused 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' and Amgen's research and development activities, including the conduct and design of clinical trials and the potential utility of the amendment to the COSMIC-HF protocol; the anticipated timing for the initiation of dosing in CY 1211 and the expansion phase of COSMIC-HF; the significance and utility of the results of clinical trials and preclinical studies of omecamtiv mecarbil; and the properties and potential benefits of omecamtiv mecarbil and Cytokinetics' other drug candidates, including the potential utility of omecamtiv mecarbil in the potential treatment of heart failure. 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 anticipates that it will be required to conduct at least one confirmatory Phase III clinical trial of tirasemtiv in ALS patients which will require significant additional funding, and it 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 or foreign regulatory agencies may delay or limit Cytokinetics' or its partners' ability to conduct clinical trials, and Cytokinetics may be unable to obtain or maintain patent or trade secret protection for its intellectual property; Amgen's and Astellas' decisions with respect to the design, initiation, conduct, timing and continuation of development activities for omecamtiv mecarbil and CK-2127107, respectively; Cytokinetics may incur unanticipated research and development and other costs or be unable to obtain additional financing necessary to conduct development of its products; 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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