Cytokinetics Announces Final Phase IIa Clinical Trial Data for CK-1827452 Presented at the 2009 Annual Scientific Sessions of the American College of Cardiology

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CK-1827452 Demonstrates Improvements in Systolic Performance and Hemodynamics in Stable Heart Failure Patients; Company to Hold Investor Teleconference to Discuss Final Results at 8:30 a.m. ET Today

SOUTH SAN FRANCISCO, CA, Mar 30, 2009 (MARKET WIRE via COMTEX) -- Cytokinetics, Incorporated (NASDAQ: CYTK) announced today that data from a Phase IIa clinical trial for CK-1827452 were presented at the 2009 Annual Scientific Sessions of the American College of Cardiology. These data represent the final results from this Phase IIa clinical trial evaluating CK-1827452 in stable heart failure patients. CK-1827452 is a novel cardiac myosin activator being developed for the potential treatment of patients with either acutely decompensated or chronic heart failure.

The poster titled, "The Selective Cardiac Myosin Activator, CK-1827452, Increases Systolic Function in a Concentration-Dependent Manner in Patients with Stable Heart Failure" was presented on Sunday, March 29, 2009, by Roxy Senior, MD, DM, FRCP, FESC, FACC, Director of Cardiac Research, Northwick Park Hospital, Middlesex Harrow UK. The clinical trial was multi-center, double-blind, randomized, and placebo-controlled. The primary objective of this clinical trial was to evaluate the safety and tolerability of CK-1827452 administered as an intravenous infusion to stable heart failure patients. The secondary objectives were to establish a relationship between plasma concentration and pharmacodynamic effect for CK-1827452 and to determine the pharmacokinetics of CK-1827452 in this population. Overall, in 45 patients, a total of 151 treatment periods were initiated.

The authors concluded that CK-1827452 increased systolic ejection time, stroke volume, cardiac output, fractional shortening, and ejection fraction in a concentration dependent manner (p 0.0001, p 0.0001, p 0.0005, p 0.0001, and p 0.009 respectively). More specifically, statistically significant increases were demonstrated in systolic ejection time (p 0.0001) and fractional shortening (p 0.04) at plasma concentrations greater than 100 ng/mL, in stroke volume (p 0.01) at greater than 200 ng/mL, and in cardiac output (p 0.02) at greater than 300 ng/mL. At plasma concentrations greater than 400 ng/mL, increases in stroke volume and cardiac output appeared to plateau in association with concentration dependent decline in heart rate (p 0.0001). In addition, the data demonstrated statistically significant correlations between increasing CK-1827452 plasma concentration and decreases in left ventricular end-systolic volume (p 0.0001) and left ventricular end-diastolic volume (p 0.0005). The effects of CK-1827452 on systolic ejection time and stroke volume appeared to be persistent over a period of a 24-hour period. With 72 hours of infusion, decreases in ventricular volumes appeared sustained. The authors also concluded the improvements in cardiac systolic performance accompanied by the declines in left ventricular volumes observed in this trial may have been the consequence of decreases in filling pressure.

CK-1827452 appeared to be well-tolerated in stable HF patients over a range of plasma concentrations during continuous intravenous administration during this clinical trial. In this trial, three serious adverse events (SAEs) were reported, only one of which was deemed related to CK-1827452. These SAEs included a non-ST elevation myocardial infarction in the setting of a drug overdose, septicemia in the setting of a diabetic foot ulcer, and pneumonia. For the patients that were tolerant of all study drug infusions, no consistent pattern of adverse events with either dose or duration of infusion emerged. In all, five patients were discontinued from the trial; two of these patients had signs and symptoms associated with clinical intolerance due to excessive concentrations of CK-1827452 and one patient with severe hypertension had an asymptomatic increase in troponin levels following completion of the CK-1827452 infusion. Troponin I levels in excess of upper diagnostic limit did not otherwise occur except in these three patients. The authors concluded that these findings support further study in a larger patient population, and translation of this novel and unique mechanism into populations with more severe or acute heart failure.

"I am pleased to have the opportunity to present these data at the Annual Scientific Sessions of the American College of Cardiology. This rigorously conducted Phase IIa clinical trial of CK-1827452 in stable heart failure patients has generated exciting results that underscore the potential for this novel mechanistic approach to the treatment of heart failure patients," stated Dr. Senior. "These important data are suggestive of a clinical benefit for heart failure patients with compromised systolic performance and may offer promise for heightened cardiac efficiency and reverse remodeling in the chronic care setting."

"We are pleased with these data from this key Phase IIa clinical trial evaluating CK-1827452 in stable heart failure patients. These results support our scientific hypotheses for this novel drug candidate in this complex disease population," stated Andrew A. Wolff, MD, FACC, Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer. "We believe this clinical trial, together with our other clinical trials conducted with CK-1827452, has established a solid basis for our advancement to the next stage of clinical development."

Cytokinetics Conference Call and Webcast

Cytokinetics plans to host a conference call and webcast on Monday, March 30th from 8:30 a.m. - 9:30 a.m. Eastern Time to discuss the results from this Phase IIa clinical trial. Robert Blum, Cytokinetics' President and Chief Executive Officer, will be joined by Andrew Wolff, MD, FACC, Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer, Fady Malik, MD, PhD, FACC, Cytokinetics' Vice President of Biology and Therapeutics and John R. Teerlink, MD, FACC, FAHA, FESC, Professor of Medicine at the University of California, San Francisco and the Director of Heart Failure at the San Francisco Veterans Affairs Medical Center, in a discussion of the data. Mr. Blum will moderate the session. Dr. Wolff will review the Phase IIa clinical trial design and results and plans for the future clinical development of CK-1827452, with Drs. Malik and Teerlink offering additional perspectives on the clinical relevance of these data and the potential of CK-1827452 for the treatment of heart failure patients.

The conference call and accompanying slides will be simultaneously webcast and can be accessed in the Investor Relations section of Cytokinetics' website at www.cytokinetics.com. The live audio of the conference call is also accessible via telephone to investors, members of the news media and the general public by dialing either (866) 999-CYTK (2985) (United States and Canada) or (706) 679-3078 (International) and typing in the passcode

91861227.

An archived replay of the webcast will be available via Cytokinetics' website until April 13, 2009. The replay will also be available via telephone by dialing (800) 642-1687 (United States and Canada) or (706) 645-9291 (International) and typing in the passcode 91861227 from March 30, 2009 at 12:30 p.m. Eastern Time until April 13, 2009.

Development Status of CK-1827452

CK-1827452 is currently the subject of a clinical trials program comprised of multiple Phase I and Phase IIa trials. This program is designed to evaluate the safety, tolerability, pharmacodynamics and pharmacokinetic profile of both intravenous and oral formulations of CK-1827452 for the potential treatment of heart failure across the continuum of care, in both hospital and outpatient settings. To date, two Phase IIa clinical trials have been conducted with CK-1827452, while a third clinical trial is ongoing. The first clinical trial was the above-referenced Phase IIa clinical trial of CK-1827452 in patients with stable heart failure. The second clinical trial was a Phase IIa trial that was designed to evaluate an intravenous formulation together with an oral formulation of CK-1827452 in patients with ischemic cardiomyopathy and angina, for which top-line results were announced in December 2008. The third clinical trial is an open-label Phase IIa clinical trial that is designed to evaluate an intravenous formulation of CK-1827452 in patients with stable heart failure undergoing clinically indicated coronary angiography in the cardiac catheterization laboratory.

In addition, Cytokinetics has conducted five Phase I clinical trials of CK-1827452 in healthy subjects: a first-time-in-humans study evaluating an intravenous formulation, an oral bioavailability study evaluating both intravenous and oral formulations, and three studies of oral formulations: a drug-drug interaction study, a dose proportionality study and a study evaluating modified-release formulations. Data from each of these trials have been reported previously.

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' cardiac muscle contractility program is focused on cardiac muscle myosin, a motor protein essential to cardiac muscle contraction. Cytokinetics' lead compound from this program, CK-1827452, a novel small molecule cardiac muscle myosin activator, is in Phase II clinical trials for the treatment of heart failure. Amgen Inc. has obtained an option for an exclusive license to develop and commercialize CK-1827452, subject to Cytokinetics' development and commercialization participation rights. In April 2008, Cytokinetics announced the selection of a potential drug candidate, CK-2017357, directed towards skeletal muscle contractility which may be developed as a potential treatment for diseases and medical conditions associated with skeletal muscle weakness. In January 2009, Cytokinetics announced the selection of a potential drug candidate directed towards smooth muscle contractility which may be developed as a potential treatment for diseases associated with pulmonary arterial hypertension and bronchoconstriction.

Cytokinetics' cancer program is focused on mitotic kinesins, a family of motor proteins essential to cell division. Cytokinetics is developing two drug candidates that have arisen from this program, ispinesib and SB-743921, each an inhibitor of kinesin spindle protein. In addition, Cytokinetics and GlaxoSmithKline are conducting research and development activities focused on GSK-923295, an inhibitor of centromere-associated protein E.

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' and its partners' research and development programs, including the initiation, design, enrollment, conduct and results of clinical trials relating to CK-1827452 and the significance of such results, including CK-1827452's potential for reverse remodeling; planned presentations relating to the results from Cytokinetics' clinical trials with CK-1827452; and the properties and potential benefits of CK-1827452 and Cytokinetics' other drug candidates and potential drug candidates. 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, potential difficulties or delays in the development, testing, regulatory approvals for trial commencement, progression or product sale or manufacturing, or production of CK-1827452 or Cytokinetics' other 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, including without limitation, due to political instability in countries where clinical trials of CK-1827452 or Cytokinetics' other drug candidates are being conducted, CK-1827452 or Cytokinetics' other 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 may elect not to exercise its option with respect to CK-1827452; Cytokinetics may incur unanticipated research and development and other costs or be unable to obtain additional financing necessary to conduct development of its products; standards of care may change rendering CK-1827452 and Cytokinetics' other drug candidates obsolete; others may introduce products or alternative therapies 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 option fees, 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.

Contact:
Christopher S. Keenan
Director, Investor and Media Relations
(650) 624-3000

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