
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported):

October 20, 2008

Cytokinetics, Incorporated

(Exact name of registrant as specified in its charter)

Delaware

000-50633

94-3291317

(State or other jurisdiction
of incorporation)

(Commission
File Number)

(I.R.S. Employer
Identification No.)

280 East Grand Avenue, South San Francisco,
California

94080

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code:

(650) 624 - 3000

Not Applicable

Former name or former address, if changed since last report

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 8.01 Other Events.

On October 20, 2008, Cytokinetics, Incorporated issued a press release announcing that data relating to a Phase IIa clinical trial for CK-1827452 were presented during a Special Program at the 12th Annual Scientific Meeting of the Japanese Heart Failure Society, which was held October 16-18, 2008 in Tokyo, Japan. These data represent an interim analysis of results in an ongoing 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.

A copy of the press release is filed as Exhibit 99.1 to this Current Report on Form 8-K, and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following Exhibit is filed as part of the Current Report on Form 8-K:

Exhibit No. Description

99.1 Press release, dated October 20, 2008.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

October 20, 2008

Cytokinetics, Incorporated

By: *Sharon Barbari*

Name: Sharon Barbari
Title: Senior Vice President, Finance and Chief Financial Officer

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release, dated October 20, 2008

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

**CYTKINETICS ANNOUNCES CLINICAL TRIALS DATA RELATING TO CK-1827452
PRESENTED AT THE 12TH ANNUAL SCIENTIFIC MEETING OF THE JAPANESE
HEART FAILURE SOCIETY**

South San Francisco, CA, October 20, 2008 – Cytokinetics, Incorporated (Nasdaq: CYTK) announced today that data relating to a Phase IIa clinical trial for CK-1827452 were presented during a Special Program at the 12th Annual Scientific Meeting of the Japanese Heart Failure Society, which was held October 16-18, 2008 at the Hotel Pacific Tokyo in Tokyo, Japan. These data represent an interim analysis of results in an ongoing 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.

Oral Presentation at the Annual Scientific Meeting of the Japanese Heart Failure Society

The oral presentation entitled, “The Selective Cardiac Myosin Activator, CK-1827452, Increases Systolic Function in Heart Failure” was presented on Saturday, October 18, 2008, by Fady Malik, MD, PhD, FACC, Vice President, Biology and Therapeutics, and Medical Director, Cardiovascular Clinical Research and Development, Cytokinetics. The presentation included data from eight patients from each of Cohorts 1, 2 and 3 and four patients from Cohort 4. These interim analyses demonstrated statistically significant correlations between CK-1827452 plasma concentration and increases in systolic ejection time, stroke volume, fractional shortening (each $p < 0.0001$), cardiac output ($p < 0.01$), and ejection fraction ($p < 0.05$). In addition, there were statistically significant correlations between CK-1827452 concentration and decreases in heart rate ($p < 0.001$) and left ventricular end-systolic volume ($p < 0.05$). Decreases in left ventricular end-diastolic volume were not statistically significant. This data had previously been presented at the Heart Failure Society of America meeting in Toronto in September 2008.

“We are pleased to have the opportunity to present these data to the Japanese heart failure community. The pharmacodynamic data from this trial in stable heart failure patients show that the unique mechanism of action of CK-1827452 increases stroke volume and slows heart rate, yet still results in an overall increase in cardiac output in the setting of substantially depressed left ventricular function. In preclinical studies, these increases in systolic function were observed to occur without an increase in energy expenditure, leading us to believe that CK-1827452 holds promise for the treatment of heart failure,” stated Dr. Malik. “This clinical trial is progressing well into its final phases and we look forward to sharing the complete data set once it becomes available.”

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.

Background on Cardiac Myosin Activators and Cardiac Contractility

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, and is the fundamental unit of muscle contraction in the heart. The sarcomere represents one of the most thoroughly characterized protein machines in human biology. Cytokinetics’ cardiovascular program is focused towards the discovery and development of small molecule cardiac myosin activators in order to create next-generation treatments to manage acute and chronic heart failure. Cytokinetics’ program is based on the hypothesis that activators of cardiac myosin may address certain mechanistic liabilities of existing positive inotropic agents by increasing cardiac contractility without increasing intracellular calcium. Current inotropic agents, such as beta-adrenergic receptor agonists or inhibitors of phosphodiesterase activity, increase cardiac cell contractility by increasing the concentration of intracellular calcium, which further activates the cardiac sarcomere. This effect on calcium levels, however, also has been linked to potentially life-threatening side effects. The inotropic mechanism of current drugs also increases the velocity of cardiac contraction and shortens systolic ejection time. In contrast, cardiac myosin activators have been shown to work in the absence of changes in intracellular calcium by a novel mechanism that directly stimulates the activity of the cardiac myosin motor protein. Cardiac myosin activators accelerate the rate-limiting step of the myosin enzymatic cycle and shift the enzymatic cycle in favor of the force-producing state. This inotropic mechanism results not in an increase in the velocity of cardiac contraction, but instead, in a lengthening of the systolic ejection time, which results in increased cardiac contractility and cardiac output in a potentially more oxygen-efficient manner.

About Cytokinetics

Cytokinetics is a biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule drugs that may address areas of significant unmet clinical needs. Cytokinetics’ cardiovascular disease program is focused on cardiac myosin, a motor protein essential to cardiac muscle contraction. Cytokinetics’ lead compound from this program, CK-1827452, a novel small molecule cardiac myosin activator, entered Phase II clinical trials for the treatment of heart failure in 2007. Under a strategic alliance established in 2006, Cytokinetics and Amgen Inc. are performing joint research focused on identifying and characterizing activators of cardiac myosin as back-up and follow-on potential drug candidates to CK-1827452. Amgen has obtained an option for an exclusive license to develop and commercialize CK-1827452, subject to Cytokinetics’ development and commercial participation rights. Cytokinetics’ cancer program is focused on mitotic kinesins, a family of motor proteins essential to cell division. Under a strategic alliance established in 2001, Cytokinetics and GlaxoSmithKline (GSK) are conducting research and development activities focused on the potential treatment of cancer. Cytokinetics is developing two novel drug candidates that have arisen from this program, *ispinesib* and SB-743921, each a novel inhibitor of kinesin spindle protein (KSP), a mitotic kinesin. Cytokinetics is conducting a Phase I clinical trial of *ispinesib* as monotherapy as a first-line treatment in chemotherapy-naïve patients with locally advanced or metastatic breast cancer. In addition, Cytokinetics is conducting a Phase I trial of SB-743921 in patients with non-Hodgkin or Hodgkin lymphoma. GSK has an option for the joint development and commercialization of *ispinesib* and SB-743921. Cytokinetics and GSK are conducting collaborative research activities directed to the mitotic kinesin centromere-associated protein E (CENP-E). GSK-923295, a CENP-E inhibitor, is being developed under the strategic alliance by GSK; GSK began a Phase I clinical trial with GSK-923295 in 2007. In April 2008, Cytokinetics announced the selection of a potential drug candidate directed towards skeletal muscle contractility which may be developed as a potential treatment for skeletal muscle weakness associated with neuromuscular diseases or other conditions. 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 Safe Harbor for forward-looking statements contained in the Act. Examples of such statements include, but are not limited to, statements relating to the potential therapeutic benefits of CK-1827452 and Cytokinetics' other drug candidates and potential drug candidates, and the progress of Cytokinetics' research and development programs with regard to CK-1827452. 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 approval 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 and that Cytokinetics' drug candidates may have adverse side effects or inadequate therapeutic efficacy. 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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