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): May 18, 2010

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 May 18, 2010, Cytokinetics, Incorporated issued a press release announcing that a poster summarizing non-clinical data regarding its smooth muscle contractility program was presented at the American Thoracic Society's 2010 International Conference which was held May 14-19, 2010 at the Ernest N. Morial Convention Center in New Orleans, LA.

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 8K:

Exhibit No. Description

99.1 Press Release, dated May 18, 2010.

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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.

Cytokinetics, Incorporated

May 18, 2010

By: /s/ Sharon A. Barbari

Name: Sharon A. Barbari
Title: Executive Vice President, Finance and Chief Financial Officer

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Exhibit No.	Description
99.1	Press release, dated May 18, 2010

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

CYTOKINETICS ANNOUNCES PRESENTATION OF NON-CLINICAL DATA FROM ITS SMOOTH MUSCLE CONTRACTILITY PROGRAM AT THE AMERICAN THORACIC SOCIETY'S 2010 INTERNATIONAL CONFERENCE

Inhibitors of Smooth Muscle Myosin May Offer a Novel Therapeutic Approach to the Treatment of Chronic Obstructive Pulmonary Disease and Asthma

South San Francisco, CA, May 18, 2010 – Cytokinetics, Incorporated (Nasdaq: CYTK) announced today that a poster summarizing non-clinical data regarding its smooth muscle contractility program was presented at the American Thoracic Society's 2010 International Conference which was held May 14-19, 2010 at the Ernest N. Morial Convention Center in New Orleans, LA.

"We are pleased to have the opportunity to present these non-clinical data from our smooth muscle contractility program at the American Thoracic Society's annual meeting," stated Fady Malik, MD, PhD, FACC, Cytokinetics' Vice President of Biology and Therapeutics. "These results, considered alongside prior presentations arising from this program, suggest that small molecule inhibitors of smooth muscle myosin may have a role in the treatment of patients with diseases whose pathogenesis is tied to bronchoconstriction of the airways, such as chronic obstructive pulmonary disease and asthma."

Poster Presentation at American Thoracic Society's 2010 International Conference

The poster titled "The Direct Smooth Muscle Myosin Inhibitor, CK-2018571, Represents a Novel Therapeutic Mechanism for Bronchodilation" was presented today by Jessie Z. Jia of Cytokinetics, Inc. The objective of this study was to evaluate the pharmacology of CK-2018571 and CK-2019165, an active pro-drug of CK-2018571, in preclinical models of bronchoconstriction. The authors concluded that CK-2018571 selectively inhibited the ATPase activity of smooth muscle myosin over other myosin II isoforms (i.e., non-muscle myosin and cardiac and fast skeletal muscle myosin) and confers its smooth muscle relaxation activity by locking smooth muscle myosin in a weakly bound state for actin. In addition, the results demonstrate that CK-2018571 inhibited calcium-induced force development in a detergent permeabilized ("skinned") vascular smooth muscle preparation and relaxed skinned vascular smooth muscle rings activated by thiophosphorylation, consistent with relaxation occurring as a consequence of direct inhibition of smooth muscle myosin. Moreover, CK-2018571 relaxed methacholine pre-constricted tracheal rings in a concentration-dependent manner, suggesting its potential utility as a bronchodilator. CK-2019165 inhibited methacholine-induced bronchoconstriction in two preclinical models of pulmonary function, a model measuring pulmonary resistance and compliance directly under anesthetized conditions and a conscious model measuring pulmonary function in an unrestrained whole body plethysmograph. These results suggest that direct inhibition of smooth muscle myosin may be a novel therapeutic approach for the treatment of chronic obstructive pulmonary disease and asthma.

Background on Cytokinetics Smooth Muscle Contractility Program

Cytokinetics' smooth muscle contractility research program is directed to smooth muscle myosin, the motor protein responsible for the contraction of the smooth muscle cells that surround airways in the lungs and the blood vessels that control blood pressure. By inhibiting the function of the myosin motor central to the contraction of smooth muscle, potent small molecules arising from this program may directly contribute to the relaxation of contracted smooth muscle. Cytokinetics' smooth muscle myosin inhibitors have demonstrated encouraging pharmacological activity in preclinical models that may relate to uses for the potential treatment of diseases such as asthma and chronic obstructive pulmonary disease (COPD) and systemic hypertension. Cytokinetics continues to conduct non-clinical development of its smooth muscle myosin inhibitors.

About Cytokinetics

Cytokinetics is a clinical-stage biopharmaceutical company focused on the discovery and development of 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* (formerly CK-1827452), is in 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 IIa clinical trials program and has been granted orphan-drug designation by the United States Food and Drug Administration (FDA) for the potential treatment of amyotrophic lateral sclerosis. Cytokinetics is also conducting non-clinical development of compounds that inhibit smooth muscle contractility and which may be useful as potential treatments for diseases and conditions such as systemic hypertension or bronchoconstriction. In addition, prior Cytokinetics' research generated three anti-cancer drug candidates that have progressed into clinical development: *ispinesib*, SB-743921 and GSK-923295. 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 activities, including the significance and utility of study results and the properties and potential benefits of Cytokinetics' compounds. 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 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 decisions with respect to the design, initiation, conduct, timing and continuation of development activities for omecamtiv mecarbil; 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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