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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 30, 2009

Cytokinetics, Incorporated

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction  
of incorporation)

000-50633

(Commission  
File Number)

94-3291317

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

280 East Grand Avenue, South San Francisco,  
California

(Address of principal executive offices)

94080

(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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[Top of the Form](#)

**Item 8.01 Other Events.**

On May 30, 2009, Cytokinetics, Incorporated issued a press release announcing today that a poster presentation summarizing interim data from the Phase I portion of a Phase I/II clinical trial data evaluating SB-743921, a novel inhibitor of kinesin spindle protein (KSP), in patients with non-Hodgkin and Hodgkin lymphoma was presented at the 2009 Annual Meeting of the American Society of Clinical Oncology (ASCO) held from May 29 – June 2, 2009 in Orlando, FL. The poster highlighted that greater dose-density has been achieved with a dosing schedule of days 1 and 15 of a 28-day cycle in this clinical trial, as compared to a previous Phase I trial evaluating SB-743921. In addition, a potential amplified efficacy signal was observed without any significant increase in side effects. 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 this Current Report on Form 8-K:

Exhibit No. Description

99.1 Press Release, dated May 30, 2009.

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[Top of the Form](#)

**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.

May 30, 2009

Cytokinetics, Incorporated

By: */s/ Michael S. Rabson*

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*Name: Michael S. Rabson  
Title: Senior Vice President, Business Development and Legal,  
General Counsel*

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Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release, dated May 30, 2009

Contact:

Christopher S. Keenan  
Director, Investor & Media Relations  
(650) 624-3000

**CYTOKINETICS PRESENTS CLINICAL DATA RELATING TO SB-743921  
IN PATIENTS WITH NON-HODGKIN OR HODGKIN LYMPHOMA  
AT THE 2009 ANNUAL MEETING OF THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY**

*Potential Amplified Efficacy Signal Observed with Greater Dose-Density on New Schedule*

**South San Francisco, CA, May 30, 2009** – Cytokinetics, Incorporated (Nasdaq: CYTK) announced today that a poster presentation summarizing interim data from the Phase I portion of a Phase I/II clinical trial data evaluating SB-743921, a novel inhibitor of kinesin spindle protein (KSP), in patients with non-Hodgkin and Hodgkin lymphoma was presented at the 2009 Annual Meeting of the American Society of Clinical Oncology (ASCO) held from May 29 – June 2, 2009 in Orlando, FL. The poster highlighted that greater dose-density has been achieved with a dosing schedule of days 1 and 15 of a 28-day cycle in this clinical trial, as compared to a previous Phase I trial evaluating SB-743921. In addition, a potential amplified efficacy signal was observed without any significant increase in side effects.

“In the Phase I portion of this Phase I/II clinical trial, we have observed objective partial response in 3 of 10 patients (30%) treated at the two highest dose levels of 8 mg/m<sup>2</sup> and 9 mg/m<sup>2</sup>,” stated Owen A. O’Connor, MD, PhD, Columbia Medical Center, New York, NY. “This new dosing schedule with cytokine support appears to allow us to achieve higher doses, with potentially marked improvement in the activity of SB-743921. This clinical activity, along with the very favorable side effect profile and novel mechanism of action, may represent a new approach to treating lymphoma patients.”

“We are encouraged by the amplified activity that we are observing in this Phase I/II clinical trial,” stated Andrew A. Wolff, MD, FACC, Cytokinetics’ Senior Vice President of Clinical Research and Development and Chief Medical Officer. “The favorable tolerability profile of SB-743921 combined with this signal of clinical activity in the on-going Phase I portion of this clinical trial is encouraging, as we continue to dose-escalate with this newer dosing schedule and with granulocyte colony-stimulating factor support. We look forward to identifying the maximum-tolerated dose that can be achieved when SB-743921 is given on this schedule with supportive care.”

**Poster Presentation at ASCO**

The poster titled, “A Phase I/II Trial of Kinesin Spindle Protein (KSP) Inhibitor SB-743921 Dosed q14d Without and With Prophylactic G-CSF in Non-Hodgkin (NHL) or Hodgkin Lymphoma (HL)” was presented on Saturday, May 30, 2009. This poster summarized an ongoing, multi-center, international Phase I/II open-label, non-randomized dose-finding clinical trial evaluating, SB-743921 in patients with non-Hodgkin or Hodgkin lymphoma who have progressed or relapsed on standard therapy. The primary objective of this clinical trial is to determine the dose-limiting toxicities (DLTs) and the maximum-tolerated dose (MTD) of SB-743921 administered as a 1-hour infusion on days 1 and 15 of a 28-day cycle, first without and then with prophylactic granulopoietic factor support (i.e., granulocyte colony-stimulating factor or G-CSF) and to assess the safety and tolerability of SB-743921 on this schedule. The secondary objectives are to characterize the pharmacokinetics of SB-743921 administered on this schedule and to evaluate the effect of SB-743921 on biomarkers of cell proliferation in patients with accessible tumors. The authors concluded that the main DLT of SB-743921 on this schedule without G-CSF was neutropenia, leading to a DLT of 6 mg/m<sup>2</sup>. The authors noted that a greater dose-density can be achieved with SB-743921 given on a once every two week schedule (i.e., 6 mg/m<sup>2</sup> = 0.43 mg/m<sup>2</sup>/day) than a once every 21 days schedule (i.e., 4 mg/m<sup>2</sup> = 0.19 mg/m<sup>2</sup>/day). Dose-density with G-CSF on this schedule was greater than or equal to 0.64 mg/m<sup>2</sup>. Further dose-escalation with empiric, prophylactic G-CSF is ongoing and currently enrolling at 10 mg/m<sup>2</sup>. The main toxicity of SB-743921 observed has been myelosuppression, predominantly neutropenia. Grade 3 or 4 toxicities other than myelosuppression are infrequent; in particular, there has been no evidence of neuropathy or alopecia greater than Grade 1. A preliminary potential efficacy signal in the form of partial responses has been observed at doses at or above 6 mg/m<sup>2</sup> in four patients with Hodgkin lymphoma and indolent non-Hodgkin lymphoma. The poster highlighted data indicating an objective partial response rate of 30 percent (3 of 10 patients) in the last two dosing levels of 8 mg/m<sup>2</sup> and 9 mg/m<sup>2</sup>.

**Development Status of SB-743921**

In December 2008, Cytokinetics reported interim data from the Phase I portion of a Phase I/II clinical trial of SB-743921 designed to evaluate the safety, tolerability, pharmacodynamics and pharmacokinetic profile of this novel drug candidate administered as a one-hour infusion on days 1 and 15 of a 28-day schedule, and to assess the potential efficacy and the MTD of SB-743921 administered on this schedule in patients with Hodgkin or non-Hodgkin lymphoma. The authors observed that SB-743921 has been well-tolerated at the doses and schedule currently being studied in the Phase I portion of this clinical trial. The authors concluded that the pattern of neutropenia onset and recovery support a dosing schedule for SB-743921 of days 1 and 15 of a 28-day cycle. This represents a greater dose-density than in the previously studied dosing regimen of 4 mg/m<sup>2</sup> or 0.19 mg/m<sup>2</sup>/day every 3 weeks. The most common DLT observed without granulocyte colony-stimulating factor (G-CSF) was neutropenia; therefore, further dose escalation with empiric, prophylactic G-CSF is ongoing.

**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 exercised an option for an exclusive license to develop and commercialize CK-1827452, world-wide (excluding Japan), subject to Cytokinetics’ development and commercialization participation rights. In mid-2009, Cytokinetics plans to initiate a Phase I clinical trial of CK-2017357, a fast skeletal muscle troponin activator, in healthy volunteers in the United States. CK-2017357 is being developed as a potential treatment for diseases and medical conditions associated with aging, muscle wasting, and neuromuscular dysfunction. In January 2009, Cytokinetics announced the selection of a potential drug candidate directed towards smooth muscle contractility. Cytokinetics’ smooth muscle myosin inhibitors have arisen from research focused towards potential treatments for diseases and conditions, such as systemic hypertension, pulmonary arterial hypertension or bronchoconstriction.

Cytokinetics’ cancer development programs are 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 (CENP-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](http://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 initiation, conduct, dosing and scope of clinical trials, and the results of clinical trials and the significance of such 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 production of Cytokinetics' compounds 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' compounds 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; GSK's decisions with respect to the design, conduct, timing and continuation of development activities for GSK-923295; Amgen's decisions with respect to the design, conduct, timing and continuation of development activities for CK-1827452; Cytokinetics may incur unanticipated research and development and other costs or be unable to obtain the additional funding necessary to conduct development of some or all of its compounds; standards of care may change rendering Cytokinetics' compounds obsolete; others may introduce products or alternative therapies for the treatment of indications Cytokinetics' compounds 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.*

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