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):

April 29, 2008

Cytokinetics, Incorporated

(Exact name of registrant as specified in its charter)

Delaware

000-50633 (Commission

File Number)

(State or other jurisdiction of incorporation)

280 East Grand Avenue, South San Francisco, California

(Address of principal executive offices)

Registrant's telephone number, including area code:

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))

94-3291317

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

94080

(Zip Code)

(650) 624 - 3000

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Item 2.02 Results of Operations and Financial Condition.

On April 29, 2008, Cytokinetics, Incorporated issued a press release announcing its results for the first quarter ended March 31, 2008. A copy of the press release is being filed as Exhibit 99.1 to this Current Report and is hereby incorporated by reference into this item 2.02.

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 April 29, 2008.

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.

April 29, 2008

Cytokinetics, Incorporated

By: /s/ Sharon Surrey-Barbari

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

Exhibit Index

Exhibit No. Description 99.1 Press release, dated April 29, 2008

Cytokinetics, Incorporated Christopher S. Keenan (Investors) Director, Investor Relations (650) 624-3000 Cytokinetics, Incorporated Scott R. Jordan (Media) Director, Corporate Development (650) 624-3000

CYTOKINETICS, INCORPORATED REPORTS FIRST QUARTER 2008 FINANCIAL RESULTS

Company Updates Progress on Cardiovascular and Oncology Programs

Recent Highlights Include Initiation of Second Phase IIa Clinical Trial of CK-1827452,

Opening Enrollment of Third Phase IIa Trial for CK-1827452,

and Expansion of Development Portfolio

SOUTH SAN FRANCISCO, CA, April 29, 2008 – Cytokinetics, Incorporated (Nasdaq: CYTK), reported revenues from research and development collaborations of \$3.1 million for the first quarter of 2008. Net loss for the first quarter of 2008 was \$13.9 million, or \$0.28 per share. As of March 31, 2008, cash, cash equivalents, restricted cash and long-term investments totaled \$128.8 million.

"In the first quarter of 2008, Cytokinetics demonstrated progress across both our clinical and research programs. Specifically, we announced positive Phase IIa interim data from our ongoing clinical trial of CK-1827452 in stable heart failure patients," stated Robert I. Blum, Cytokinetics' President and Chief Executive Officer. "In addition, today we initiated our second Phase IIa trial for CK-187452 and recently opened enrollment in the third planned Phase IIa trial in our clinical trials program for this novel drug candidate. Enrollment rates increased in our ongoing Phase IIa trial and we completed enrollment in two other Phase I trials in this program. I am pleased with progress we are demonstrating in executing on multiple clinical trials for CK-1827452 while also advancing our oncology drug candidates with the objective of amplifying previously observed anti-cancer activity. These activities coincided with expansion of our development portfolio with an additional potential drug candidate."

Company Highlights

Cardiovascular

- During the quarter, Cytokinetics announced positive results from an analysis of the first two cohorts of its ongoing multi-center, double-blind, randomized, placebo-controlled, dose-escalation Phase IIa clinical trial designed to evaluate the safety, tolerability, pharmacodynamics and pharmacokinetic profile of an intravenous formulation of CK-1827452 in patients with stable heart failure. The safety data from this interim analysis suggest that the drug was well-tolerated with no serious adverse events reported in heart failure patients exposed to the intended range of doses and plasma concentrations. In addition, data from the first two cohorts demonstrated that, when compared to placebo, CK-1827452 produced statistically significant and clinically relevant increases in Doppler-derived stroke volume and fractional shortening in association with statistically significant prolongations of systolic ejection time. Statistically significant correlations were observed between the increases in each of these three indices of cardiac ventricular function and increases, also increased with increasing plasma concentrations; however, this increase in left ventricular systolic function did not reach statistical significance in these initial cohorts. Across the plasma concentration levels evaluated, the pharmacokinetics of CK-1827452 were generally linear with respect to dose and similar to those observed in the healthy volunteers in the first-time-in-humans Phase I trial of CK-1827452. Heart rate decreased slightly at higher concentrations and blood pressure remained unchanged in the first two cohorts of the Phase IIa trial.
- Earlier today, Cytokinetics announced that it initiated a double-blind, randomized, placebo-controlled Phase IIa clinical trial designed to evaluate both an intravenous and an oral formulation of CK-1827452 in patients with ischemic cardiomyopathy and angina. The primary objective of this trial is to assess the effect of intravenous CK-1827452 on symptom-limited treadmill exercise tolerance. The secondary objectives of this trial are to assess the tolerability of CK-1827452 administered as an oral formulation, and to evaluate the resulting plasma concentrations.
- Cytokinetics has opened enrollment and is currently recruiting patients in an open-label, non-randomized Phase IIa clinical trial designed to evaluate an intravenous formulation of CK-1827452 administered to patients with stable heart failure undergoing clinically indicated coronary angiography in a cardiac catheterization laboratory. The primary objective of this trial is to evaluate the potential effects of CK-1827452 on myocardial efficiency, defined as the ratio of ventricular performance to myocardial oxygen consumption. The secondary objective of this trial is to measure the potential effects of CK-1827452 on ventricular performance, myocardial oxygen consumption, hemodynamics, pressure-volume relationships and systolic ejection time.
- Recently, Cytokinetics conducted a preliminary evaluation of results from a single-center, Phase I clinical trial designed to evaluate the pharmacokinetics of an oral capsule formulation of CK-1827452 administered as both single and multiple doses of two different strength capsules in healthy volunteers. Results from this evaluation demonstrated dose-proportionality between the two dose levels, both after a single dose and after multiple doses to steady state.
- During the quarter, Cytokinetics completed enrollment and is awaiting final data from an additional Phase I clinical trial of CK-1827452. This singlecenter clinical trial was designed to assess the pharmacokinetics and relative bioavailability of three different oral modified release prototypes of CK-1827452. Based on a preliminary data analysis, one of the prototype formulations of CK-1827452 evaluated in this trial has been selected to proceed forward into further clinical testing.
- Cytokinetics continues to conduct a Phase I clinical trial of CK-1827452. This single-center, open-label, sequential, parallel group trial is designed to
 evaluate the effects of oral ketoconazole, a strong inhibitor of the metabolic enzyme cytochrome P450 (CYP) 3A4, on the pharmacokinetics of a single
 oral dose of CK-1827452 in up to 16 healthy male volunteers, 8 of whom have a normal genotype for CYP2D6, and up to 8 of whom have reduced
 CYP2D6 activity. There was a modest drug-drug interaction between *ketoconazole* and CK-1827452 when the two were co-administered in subjects
 with a normal genotype for CYP2D6. In addition, the effects of *diltiazem*, a moderate CYP3A4 inhibitor, on the pharmacokinetics of CK-1827452 were
 assessed in eight additional volunteers who are normal metabolizers by way of CYP2D6. Diltiazem had no effect on plasma concentrations of CK1827452 when the two were co-administered in this group. Cytokinetics continues to enroll healthy subjects who are poor metabolizers with respect to
 CYP2D6 in order to examine the pharmacokinetics of CK-1827452 in this population.

• In March, a poster containing non-clinical data relating to CK-1827452 was presented at the 2008 Annual Scientific Sessions of the American College of Cardiology Meeting in Chicago, Illinois. The authors concluded that CK-1827452 increased left ventricular function and reduced filling pressures in dogs with heart failure but, in contrast to conventional inotropic agents, did not increase myocardial oxygen consumption or reduce subendocardial blood flow in the setting of heart failure or in heart failure with severe left ventricular hypertrophy.

Oncology

- Cytokinetics continues to enroll patients and dose-escalate in the Phase I portion of an open-label, non-randomized Phase I/II clinical trial designed to evaluate *ispinesib* as monotherapy administered as a first-line treatment for chemotherapy-naïve patients with locally advanced or metastatic breast cancer. The Phase I portion of the trial is designed to determine the dose-limiting toxicity and maximum tolerated dose (MTD) of *ispinesib* administered as a 1-hour intravenous infusion on days 1 and 15 of a 28-day cycle.
- The National Cancer Institute (NCI) recently completed enrollment in a Phase I clinical trial designed to evaluate the safety, tolerability and pharmacokinetic profile of *ispinesib* as monotherapy administered as a one-hour infusion on days 1, 2 and 3 of a 21-day cycle to adult patients with relapsed or refractory acute leukemias, chronic myelogenous leukemia in blast crisis or advanced myelodysplastic syndromes.
- During the first quarter, the NCI closed enrollment in a Phase I clinical trial designed to evaluate the safety, tolerability, pharmacodynamics and pharmacokinetic profile of *ispinesib* as monotherapy administered as a one-hour infusion on days 1, 8 and 15 of a 28-day schedule to pediatric patients with relapsed or refractory solid tumors.
- Cytokinetics continues to enroll patients and dose-escalate in the Phase I portion of a Phase I/II clinical trial designed to evaluate SB-743921 as a potential treatment of patients with Hodgkin or non-Hodgkin lymphoma. The Phase I portion of this clinical trial is designed to evaluate the safety, tolerability, pharmacodynamics and pharmacokinetic profile of escalating doses of SB-743921 as monotherapy administered as a one-hour infusion on days 1 and 15 of a 28-day treatment cycle first without, and then with, the prophylactic administration of granulocyte colony-stimulating factor (GCSF). During the quarter, Cytokinetics completed treatment of patients in the non-GCSF segment of this trial and initiated treatment of patients in the GCSF segment.
- Earlier this month, three abstracts containing non-clinical and clinical data relating to GSK-923295, a novel inhibitor of centromere-associated protein E (CENP-E), were presented at the 2008 American Association of Cancer Research (AACR) Annual Meeting held in San Diego, California. An oral presentation highlighted interim clinical data from the ongoing first-time-in-humans clinical trial of GSK-923295. The authors concluded that the pharmacokinetics of GSK-923295 were generally dose-proportional over the dose range of 10 to 80 mg/m² and that intrapatient pharmacokinetics on days 1 and 15 were similar. GlaxoSmithKline (GSK) continues to enroll and dose-escalate patients in this Phase I open-label, non-randomized, dose-finding trial designed to investigate the safety, tolerability, pharmacokinetic and pharmacodynamic profile of GSK-923295 in patients with advanced solid tumors.

A non-clinical poster presentation detailed findings in a preclinical model of human neuroblastoma in which the authors concluded that CENP-E is a rational target for the treatment of neuroblastoma. Increased expression was associated with both tumor progression in a transgenic mouse model driven by the gene MYCN and with high risk disease in humans, and GSK-923295 is effective *in vitro* and *in vivo* against neuroblastoma.

Another non-clinical poster examined potential biomarkers that may identify sensitivity to GSK-923295. The authors concluded that the proliferation of cell lines from a diverse panel of tumor types was inhibited by GSK-923295 and that CENP-E transcript levels did not correlate with sensitivity to GSK-923295. The authors also concluded that c-MYC amplification and/or over-expression is a potential biomarker that could be used to select patients more likely to respond to GSK-923295.

Research

• Earlier this month, Cytokinetics announced the selection of a development compound that is directed towards the skeletal sarcomere. This development compound is a highly specific small molecule activator of the skeletal muscle troponin complex, increasing its sensitivity to calcium, and subsequently leading to an increase in skeletal muscle contractility. This compound has demonstrated encouraging pharmacological activity in non-clinical models that may be developed as a potential treatment for skeletal muscle weakness associated with neuromuscular diseases or other conditions. This compound is the fifth development compound to emerge from the company's research activities which have focused on discovering novel therapeutics directed towards cytoskeletal biology.

Corporate

• During the quarter, Cytokinetics appointed Michael Rabson, Ph.D., Senior Vice President, Business Development & Legal Affairs and General Counsel.

Financials

Revenues from research and development collaborations for the first quarter of 2008 were \$3.1 million, compared to \$3.2 million for the same period in 2007. Revenues for the first quarter of 2008 and 2007 were primarily derived from the company's collaboration and option agreement with Amgen.

Total research and development (R&D) expenses in the first quarter of 2008 were \$14.1 million, compared to \$12.5 million for the same period in 2007. The increase in R&D expenses in the first quarter of 2008, compared to the same period in 2007, was primarily due to increased spending related to the company's clinical trials and preclinical programs, along with increased laboratory and personnel expenses.

Total general and administrative (G&A) expenses for the first quarter of 2008 were \$4.2 million, compared to \$4.5 for the same period in 2007. The decrease in G&A expenses in the first quarter of 2008, compared to the same period in 2007, was primarily due to lower legal fees, which was partially offset by an increase in personnel expenses.

The net loss for the three months ended March 31, 2008, was \$13.9 million, or \$0.28 per share, compared to a net loss for the same period in 2007 of \$11.7 million, or \$0.25 per share.

Company Milestones for 2008

Cardiovascular

- The company plans to present data from the ongoing Phase IIa clinical trial of an intravenous form of CK-1827452 in stable heart failure patients at the Heart Failure Congress, the annual meeting of the Heart Failure Association of the European Society of Cardiology, to be held June 14-17, 2008 in Milan, Italy. The company anticipates that final data from this trial will be available during the second half of 2008.
- In the first half of 2008, the company anticipates that final data will be available from the two recently completed Phase I trials of CK-1827452 in healthy volunteers, one designed to evaluate the single-dose and multiple-dose pharmacokinetics of an oral formulation of CK-1827452 and the other designed to evaluate three different oral modified release prototypes of CK-1827452.
- In the second half of 2008, the company anticipates that data will be available from the Phase I trial of CK-1827452 evaluating the potential for certain drug-drug interactions in healthy volunteers.

As enrollment progresses in 2008 in all the ongoing clinical trials of CK-1827452, Cytokinetics anticipates providing updated guidance on the timing and availability of expected data.

Oncology

Ispinesib (SB-715992)

- In June, the company plans to present initial data from the Phase I portion of the ongoing Phase I/II clinical trial of *ispinesib* administered as monotherapy as a first-line treatment in chemotherapy-naïve patients with locally advanced or metastatic breast cancer at the annual meeting of the American Society of Clinical Oncology (ASCO). Additional data are anticipated to be available from the Phase I portion of this trial in 2008.
- In June, data from NCI's Phase I trial evaluating *ispinesib* administered as monotherapy to pediatric patients with relapsed or refractory solid tumors are planned to be presented at ASCO.
- In the first half of 2008, the company anticipates that final data will be available from GSK's Phase Ib clinical trial evaluating *ispinesib* in combination with *capecitabine*.

SB-743921

• In June, data from the Phase I portion of the ongoing Phase I/II clinical trial in patients with Hodgkin or non-Hodgkin lymphoma are planned to be presented at ASCO. The company anticipates final data from the Phase I portion of this trial to be available in the second half of 2008.

GSK-923295

• In 2008, the company anticipates that data will be available from GSK's Phase I clinical trial of GSK-923295 in advanced solid tumors.

The anticipated timing of the availability of data from GSK and NCI's clinical trials is based on information provided by GSK and NCI. The occurrence of these events is outside of the company's control.

As enrollment progresses in 2008 in these clinical trials, Cytokinetics anticipates providing updated guidance on the timing and availability of expected data.

Corporate

• Cytokinetics anticipates providing the required clinical data from our CK-1827452 Phase IIa clinical trials program to Amgen in the second half of 2008 in order to inform the potential exercise of Amgen's option under the strategic alliance between the companies.

Annual Stockholders' Meeting

Cytokinetics' Annual Stockholders' Meeting will be held at the Embassy Suites Hotel located at 250 Gateway Boulevard in South San Francisco, CA at 10:00 AM on May 22, 2008.

Conference Call and Webcast Information

Members of Cytokinetics' management team will review first quarter results via a webcast and conference call today at 4:30 PM Eastern Time. The webcast 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 44054319.

An archived replay of the webcast will be available via Cytokinetics' website until May 13, 2008. 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 44054319 from April 29, 2008 at 5:30 PM Eastern Time until May 13, 2008.

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' development activities are primarily directed to advancing multiple drug candidates through clinical trials with the objective of determining the intended pharmacodynamic effect or effects in two principal diseases: heart failure and cancer. Cytokinetics' cardiovascular disease program is focused to 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 GaxoSmithKline (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 kinesins spindle protein (KSP), a mitotic kinesin. Cytokinetics believes that *ispinesib* has demonstrated clinical activity in Phase II monotherapy clinical trials in breast cancer, ovarian cancer and non-small cell lung cancer and

recently initiated an additional Phase I/II clinical trial of *ispinesib* as monotherapy as a first-line treatment in chemotherapy-naïve patients with locally advanced or metastatic breast cancer on a more dose-dense schedule than previously studied. Cytokinetics is also conducting a Phase I/II trial of SB-743921 on a similar more dose-dense schedule in non-Hodgkin and Hodgkin lymphomas. GSK has obtained 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, subject to Cytokinetics' option to co-fund certain later-stage development activities and to co-promote any resulting approved drug in North America. 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 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. Cytokinetics' focus on the cytoskeleton enables it to develop novel and potentially safer and more effective classes of drugs directed at treatments for cancer and cardiovascular disease. 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 expected conduct, focus, design, scope, progress and results of Cytokinetics' and its partners' planned research and development activities, including clinical trials and the anticipated timing for the announcement, presentation or availability of data from clinical trials; Cytokinetics' provision to Amgen of clinical data to inform Amgen's potential exercise of its option under the companies' collaboration and option agreement; the potential benefits of Cytokinetics' drug candidates and potential drug candidates; and the enabling capabilities of Cytokinetics' cytoskeletal focus. 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, 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 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; GSK or the NCI may decide to postpone or discontinue development activities for GSK-923295 or ispinesib, 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, standards of care may change, 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 our 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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Condensed Statement of Operations

(in thousands, except share and per share data) (unaudited)

	Three Months Ended		
	March 31, 2008	March 31, 2007	
Revenues:			
Research and development	\$ 11	\$ 147	
License revenues	3,058	3,058	
Total revenues	3,069	3,205	
Operating Expenses:			
Research and development	14,102	12,486	
General and administrative	4,157	4,483	
Total operating expenses	18,259	16,969	
Operating loss	(15,190)	(13,764)	
Interest and other income	1,440	2,241	
Interest and other expense	(145)	(169)	
Net loss	\$ (13,895)	\$ <u>(11,692</u>)	
Net loss per common share — basic and diluted Weighted average shares used in computing	\$ (0.28)	\$ (0.25)	
net loss per common share – basic and diluted	49,293,865	46,761,354	

Condensed Balance Sheet (in thousands) (unaudited)

	March 31, 2008	December 31, 2007	
Assets			
Cash and cash equivalents	\$105,540	\$ 116,564	
Short term investments		3,175	
Other current assets	1,970	2,277	
Total current assets	107,510	122,016	
Long term investments	19,082	20,025	
Property and equipment, net	7,201	7,728	

Restricted investments	4,147	5,167
Other assets	398	 434
Total assets	\$ <u>138,338</u>	\$ 155,370
Liabilities and stockholders' equity		
Current liabilities	\$ 26,294	\$ 26,448
Long-term obligations	25,420	29,006
Stockholders' equity	86,624	 99,916
Total liabilities and stockholders' equity	\$ <u>138,338</u>	\$ 155,370