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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

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**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) March 30, 2006

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**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**  
(IRS Employer  
Identification No.)

**280 East Grand Avenue**  
**South San Francisco, California 94080**  
(Address of principal executive offices, including zip code)

**650-624-3000**  
(Registrant's telephone number, including area code)

(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 (see General Instruction A.2. below):

- 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 March 30, 2006, Cytokinetics, Incorporated issued a press release announcing results from a planned interim analysis of a Phase II clinical trial of *ispinesib* administered as monotherapy in the treatment of patients with platinum sensitive non-small cell lung cancer. This clinical trial is being conducted by Cytokinetics' alliance partner, GlaxoSmithKline. A copy of the press release is being filed with this Current Report on Form 8-K, is attached hereto as Exhibit 99.1, and is hereby incorporated by reference into this Item 8.01.

**ITEM 9.01. FINANCIAL STATEMENTS AND EXHIBITS.**

**(c) Exhibits.**

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

**Exhibit No.    Description**

99.1            Press Release, dated March 30, 2006.

**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**

By: /s/ James H. Sabry  
James H. Sabry  
*Chief Executive Officer*

Date: March 30, 2006

**EXHIBIT INDEX**

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release, dated March 30, 2006.

## Contacts:

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**CYTOKINETICS REPORTS DATA FOR *ISPINESIB* (SB-715992)  
 IN PLATINUM-SENSITIVE NON-SMALL CELL LUNG CANCER**

***Drug Candidate Does Not Demonstrate Sufficient Anti-Tumor Activity  
 to Proceed to Stage 2 in this Phase II Clinical Trial***

***Drug Candidate Demonstrates Disease Stabilization in 50% of Patients***

**South San Francisco, CA, March 30, 2006** – Cytokinetics, Incorporated (Nasdaq: CYTK) announced results from a planned interim analysis of a Phase II clinical trial of *ispinesib* administered as monotherapy in the treatment of patients with platinum-sensitive non-small cell lung cancer. This clinical trial is being conducted by Cytokinetics' alliance partner, GlaxoSmithKline (GSK).

In a Phase II clinical trial designed to evaluate the safety and efficacy of *ispinesib* in the second-line treatment of patients with either platinum-sensitive or platinum-refractory non-small cell lung cancer, *ispinesib* has not satisfied the criteria for advancement to the next stage in the platinum-sensitive treatment arm. This clinical trial was designed to require a minimum of 1 confirmed partial or complete response out of 20 evaluable patients in a treatment arm to proceed to Stage 2 in that treatment arm. The trial's primary endpoint is response rate as determined using RECIST criteria. The best overall responses to date in the platinum-sensitive treatment arm of this clinical trial have been disease stabilization observed in 10 of 20 evaluable patients. Overall, median time to disease progression was 6 weeks; in the 10 patients whose best response was stable disease, median time to progression was 17 weeks.

The platinum-refractory treatment arm of this clinical trial was completed in 2005; Cytokinetics announced in September of 2005 that the platinum-refractory treatment arm also did not satisfy the criteria for advancement to the next stage of evaluation. In that treatment arm, disease stabilization was observed in 5 of 20 evaluable patients. Overall, median time to disease progression was 6 weeks; in the 5 patients whose best response was stable disease, median time to progression was 12 weeks.

"While we are encouraged by both the frequency and duration of disease stabilization observed in the platinum-sensitive treatment arm of this trial, we are disappointed that we did not achieve the objective response rate required by the protocol to continue enrollment in Stage 2," stated Andrew A. Wolff, M.D., F.A.C.C., Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer. "We are awaiting data from ongoing Phase Ib combination trials involving *ispinesib*. With the demonstrated frequency and duration of disease stabilization observed in this patient population and *ispinesib*'s tolerability profile, we plan to consider a potential role that this drug candidate could play in the treatment of patients with non-small cell lung cancer potentially in combination with other chemotherapeutics."

The safety and pharmacokinetics of *ispinesib* in the platinum-sensitive treatment arm of this clinical trial appears comparable to that observed from its Phase I clinical trial experience at equivalent doses and from the platinum-refractory treatment arm in this clinical trial. The most significant side effect observed was Grade 4 neutropenia in 10 patients. With the exception of neutropenia (11 patients), febrile neutropenia (3 patient) and fatigue (2 patients), no other significant side effects of higher than Grade 2 were observed.

"We have now evaluated *ispinesib* in over one hundred patients with cancer and its administration seems to be very well-tolerated, with the only significant side effect being Grade 4 neutropenia. We have not observed side effects commonly associated with currently approved anti-mitotics, such as neurotoxicity and alopecia, that may limit dosing patients with advanced disease," added James Sabry, M.D., Ph.D., Chief Executive Officer. "We have previously observed clinical activity of *ispinesib* in patients with locally advanced or metastatic breast cancer. We look forward to further data from the broad clinical trials program currently underway with *ispinesib*, which is designed to evaluate the clinical potential of this novel drug candidate in multiple tumor types, dosing schedules and treatment combinations and which may inform next steps."

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### Background on KSP Inhibitors

Since their introduction over 40 years ago, anti-mitotic drugs (taxanes and vinca alkaloids) have advanced the treatment of cancer and are commonly used for the treatment of several tumor types. However, these drugs have demonstrated limited treatment benefit against certain cancers. In addition, these drugs target tubulin, a cytoskeletal protein involved not only in mitosis and cell proliferation, but also in other important cellular functions. Inhibition of these other cellular functions produces dose-limiting toxicities such as peripheral neuropathy, an impairment of the peripheral nervous system. Neuropathies result when these drugs interfere with the dynamics of microtubule filaments that are responsible for the long-distance transport of important cellular components within nerve cells.

The strategic alliance between Cytokinetics and GSK has yielded two novel drug candidates, *ispinesib* (SB-715992) and SB-743921. *Ispinesib* and SB-743921 are structurally distinct small molecule compounds that modulate cell proliferation and promote cancer cell death by specifically inhibiting kinesin spindle protein (KSP). KSP is a mitotic kinesin that is essential for cell proliferation, a process which when unregulated, results in tumor growth. Mitotic kinesins are essential to mitosis, and, unlike tubulin, appear to have no role in unrelated cellular functions. We believe that drugs that inhibit KSP and other mitotic kinesins may represent the next generation of anti-mitotic cancer drugs by arresting mitosis and cell proliferation without impacting unrelated, normal cellular functions, avoiding many of the toxicities commonly experienced by patients treated with existing anti-mitotic drugs.

### Clinical Trials Status for *Ispinesib*

*Ispinesib* is the subject of a broad clinical trials program under the sponsorship of GSK and the National Cancer Institute (NCI). GSK is currently conducting two Phase II clinical trials, one evaluating *ispinesib* as second- or third-line treatment for patients with locally advanced or metastatic breast cancer and one evaluating *ispinesib* as second-line treatment for patients with advanced ovarian cancer. Data were presented at the 2005 San Antonio Breast Cancer Symposium demonstrating sufficient anti-tumor activity with *ispinesib* to proceed to Stage 2 in an ongoing Phase II clinical trial evaluating *ispinesib* as monotherapy in patients with locally advanced or metastatic breast cancer. The best overall responses observed in that trial have been partial responses observed in 3 of 33 patients. In addition, GSK is continuing three dose-escalating Phase Ib clinical trials. Each of these clinical trials is designed to evaluate the safety, tolerability, and pharmacokinetics of *ispinesib* in combination with a leading anti-cancer therapeutic, one in combination with *carboplatin*, the second in combination with *capecitabine*, and the third in combination with *docetaxel*. The NCI, in collaboration with GSK, continues to sponsor five additional Phase II clinical trials evaluating the potential efficacy of *ispinesib* in the second-line treatment of patients with colorectal cancer, in the first-line treatment of patients with hepatocellular cancer, in the first-line treatment of patients with melanoma, in the first-line or second-line treatment of patients with head and neck cancers, and in the second-line treatment of patients with hormone-refractory prostate cancer. In addition, the NCI plans to initiate an additional Phase II clinical trial to evaluate the potential efficacy of *ispinesib* as second-line treatment of patients with renal cell cancer. The NCI also continues patient enrollment in two additional Phase I clinical trials designed to evaluate the safety, tolerability and pharmacokinetics of *ispinesib* on an alternative dosing schedule. One clinical trial is enrolling patients with advanced solid tumors that have failed to respond to all standard therapies and the other clinical trial is enrolling patients with acute leukemia, chronic myelogenous leukemia or advanced myelodysplastic syndromes.

### Clinical Trials Status for SB-743921

SB-743921 entered a Phase I clinical trial conducted by GSK in the United States in May 2004 to evaluate its tolerability and pharmacokinetics in patients with advanced cancer. Data relating to SB-743921 were presented at the 2005 Annual Meeting of the American Society of Clinical Oncology in May 2005. The data presented were from 20 patients that collectively had a variety of advanced solid tumors and received doses of SB-743921 intravenously once every 21 days. SB-743921 appears to have an acceptable tolerability profile for patients suffering from advanced solid tumors. The dose-limiting toxicities observed to date are prolonged neutropenia, febrile neutropenia (with or without infection), elevated transaminases, hyperbilirubinemia and hyponatremia. Notably, neurotoxicities, mucositis, thrombocytopenia, alopecia and nausea/vomiting requiring pre-medication have not been observed to date. In September of 2005, Cytokinetics announced the amendment of the company's strategic alliance with GSK, which will provide Cytokinetics an expanded role in clinical research and development for SB-743921, a novel, small molecule inhibitor of kinesin spindle protein (KSP). Under the terms of the amendment, Cytokinetics will lead and fund development activities to explore the potential application of SB-743921 for the treatment of non-Hodgkin's lymphoma, Hodgkin's lymphoma and multiple myeloma, subject to the option for GSK to resume responsibility for development and commercialization activities for SB-743921 for these indications during a defined period. Cytokinetics' development activities will be conducted in parallel with GSK's conduct of development activities for SB-743921 in other indications and for *ispinesib* (SB-715992).

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### **About Cytokinetics**

Cytokinetics is a leading biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule drugs that specifically target 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, cardiovascular disease and other diseases. Cytokinetics has developed a cell biology driven approach and proprietary technologies to evaluate the function of many interacting proteins in the complex environment of the intact human cell. Cytokinetics employs the PUMA™ system and Cytometrix™ technologies to enable early identification and automated prioritization of compounds that are highly selective for their intended protein targets without other cellular effects, and may therefore be less likely to give rise to clinical side effects. Cytokinetics and GlaxoSmithKline (GSK) have entered into a strategic alliance to discover, develop and commercialize small molecule therapeutics targeting human mitotic kinesins for applications in the treatment of cancer and other diseases. GSK is conducting Phase II and Ib clinical trials for *ispinesib* (SB-715992) and a Phase I clinical trial for SB-743921. *Ispinesib*, SB-743921 and GSK-923295 are being developed under the strategic alliance with GSK. Cytokinetics' unpartnered heart failure program is the second program to leverage the company's expertise in cytoskeletal pharmacology. Cytokinetics recently initiated a Phase I clinical trial with CK-1827452, a novel small molecule cardiac myosin activator, for the intravenous treatment of heart failure and also selected CK-1827452 as a potential drug candidate for the treatment of chronic heart failure via oral administration. 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 Safe Harbor for forward-looking statements contained in the Act. Examples of such statements include, but are not limited to, statements relating to our and our partners' clinical research and development programs, including expected future clinical trials and announcement of results from current clinical trials and statements regarding the potential benefits of our drug candidates and potential drug candidates and the enabling capabilities of our proprietary technologies. Such statements are based on management's current expectations, but actual results may differ materially due to various factors. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to difficulties or delays in development, testing, regulatory approval, production and marketing of Cytokinetics' drug candidates that could slow or prevent clinical development or product approval (including the risks relating to uncertainty of patent protection for Cytokinetics' intellectual property or trade secrets and Cytokinetics' ability to obtain additional financing if necessary and unanticipated research and development and other costs). 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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