



## **Cytokinetics Announces Data From Phase II Clinical Trial of Ispinesib in Breast Cancer**

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### **Anti-Cancer Activity Supports Further Development of Ispinesib in Additional Breast Cancer Trial**

SOUTH SAN FRANCISCO, CA, Jun 28, 2007 (MARKET WIRE via COMTEX News Network) -- Cytokinetics, Incorporated (NASDAQ: CYTK) announced today the final results from a multicenter Phase II clinical trial sponsored by GlaxoSmithKline (GSK), which evaluated ispinesib in patients with locally advanced or metastatic breast cancer. Ispinesib is a novel small molecule inhibitor of kinesin spindle protein (KSP), a mitotic kinesin essential for proper cell division. Ispinesib has arisen from a broad strategic collaboration between Cytokinetics and GlaxoSmithKline (GSK) to discover, develop and commercialize novel small molecule therapeutics targeting human mitotic kinesins for applications in the treatment of cancer and other diseases.

This Phase II clinical trial was designed to evaluate the safety and efficacy of ispinesib in the second- or third-line treatment of patients with locally advanced or metastatic breast cancer whose disease had recurred or progressed despite treatment with anthracyclines and taxanes. In this trial, patients received ispinesib monotherapy at 18 mg/m<sup>2</sup> as a 1-hour intravenous infusion every 21 days. The primary endpoint of the clinical trial was objective response as determined using the Response Evaluation Criteria in Solid Tumors (RECIST) criteria. This clinical trial employed a conventional two-stage Green-Dahlberg design which specified that advancement to the second stage required the satisfaction of pre-defined efficacy criteria. Interim data were presented at the 2005 San Antonio Breast Cancer Symposium (SABCS) and met the predetermined response criteria for progression from Stage 1 to Stage 2 of this clinical trial.

GSK recently communicated the final results of this clinical trial to Cytokinetics. The best overall responses observed with ispinesib were partial responses in 4 of 45 evaluable patients as measured by the RECIST criteria. Responses were confirmed by independent radiology review and were seen in liver, lung and lymph node metastases. The duration of response, independently reviewed, ranged from 7.1 weeks to 30.0 weeks. The median time to progression in the treated population was 5.9 weeks. The adverse events were manageable, predictable and consistent with those seen in the Phase I trials of ispinesib. The most common grade 3/4 adverse events observed in the 50 patients evaluable for safety were neutropenia (21 patients), febrile neutropenia (4 patients) and neutropenic sepsis (1 patient).

Based on these data, and consistent with a focused approach to the further development of ispinesib, Cytokinetics anticipates initiating a Phase I/II clinical trial in the first-line treatment of patients with locally advanced or metastatic breast cancer during the second half of 2007. The results from this trial are expected to provide data that may inform a decision on further development of ispinesib in advanced breast cancer.

"We are pleased to see that the level of clinical activity observed in these chemorefractory patients in Stage 2 of this clinical trial is consistent with what we observed in Stage 1 of this clinical trial," stated Dr. Andrew A. Wolff, Cytokinetics' Senior Vice President of Clinical Research and Development and Chief Medical Officer. "We believe that these data in women with poor prognosis and visceral metastatic disease support movement into an additional study to evaluate the role of ispinesib as a potential treatment for patients with locally advanced or metastatic breast cancer."

#### **Clinical Trials of Ispinesib**

Ispinesib has been the subject of a broad Phase II clinical trials program under the sponsorship of GSK and is also being developed in collaboration with the National Cancer Institute (NCI). GSK has sponsored three Phase II clinical trials, one evaluating ispinesib as second- or third-line treatment for patients with locally advanced or metastatic breast cancer, one evaluating ispinesib as second-line treatment for patients with non-small cell lung cancer, and one evaluating ispinesib as second-line treatment for patients with advanced ovarian cancer. Enrollment in all of these studies has been closed. To date, clinical activity with ispinesib has been observed in breast cancer as well as in ovarian and non-small cell lung cancer, with the more robust clinical activity observed in a Phase II clinical trial evaluating ispinesib in the treatment of metastatic breast cancer patients that have failed treatment with taxanes and anthracyclines.

In addition, GSK has sponsored three dose-escalating Phase Ib clinical trials. Each of these clinical trials was 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 clinical trial evaluating ispinesib in combination with capecitabine is closed to enrollment. Final data from this trial are expected in 2007.

Under a November 2006 amendment to its collaboration and license agreement with GSK, Cytokinetics assumed responsibility for the costs and activities associated with the continued development of the KSP inhibitors, ispinesib and SB-743921, subject to GSK's option to resume responsibility for some or all development and commercialization activities associated with each of these novel drug candidates. Cytokinetics plans to conduct, at its expense, a focused development program for ispinesib in breast cancer specifically designed to supplement the broad series of Phase I and Phase II clinical trials sponsored by GSK that have demonstrated clinical activity in the treatment of patients with metastatic breast cancer and that have shown an acceptable tolerability profile for ispinesib in combination with standard chemotherapeutics.

The NCI has sponsored six additional Phase II clinical trials, one evaluating the potential efficacy of ispinesib in the second-line treatment of patients with colorectal cancer, one in the first-line treatment of patients with hepatocellular cancer, one in the first-line treatment of patients with melanoma, one in the first- or second-line treatment of patients with head and neck cancers, one in the second-line treatment of patients with hormone-refractory prostate cancer, and one in the second-line treatment of patients with renal cell cancer. Enrollment has been closed for all of these trials; patients remain on treatment in the renal cell cancer trial. Data are expected from the hepatocellular cancer, the prostate cancer and the melanoma trials in 2007. Data from the other ispinesib clinical trials have already been reported.

The NCI has completed patient treatment in a Phase I clinical trial designed to evaluate the safety, tolerability and pharmacokinetics of ispinesib on an

alternative dosing schedule in patients with advanced solid tumors that have failed to respond to all standard therapies; data from this trial have already been reported. The NCI is continuing patient enrollment in a Phase I clinical trial designed to evaluate the safety, tolerability and pharmacokinetics of ispinesib on an alternative dosing schedule in patients with relapsed or refractory acute leukemia, chronic myelogenous leukemia in blast crisis, or advanced myelodysplastic syndromes. Data from this trial are expected in 2007.

#### 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 efforts are directed to advancing multiple drug candidates through clinical trials to demonstrate proof-of-concept in humans, specifically in the areas of 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, recently entered Phase II clinical trials for the treatment of heart failure in 2007. Under a strategic alliance established in 2006, Cytokinetics and Amgen Inc. plan to conduct research with activators of cardiac myosin in order to identify potential treatments for patients with heart failure. Amgen has obtained an option for the joint development and commercialization of CK-1827452 exercisable during a defined period, the ending of which is dependent on Cytokinetics' conduct of further clinical trials of CK-1827452. Cytokinetics' cancer program is focused on mitotic kinesins, a family of motor proteins essential to cell division. 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. Ispinesib has been the subject of a broad clinical trials program comprised of nine Phase II clinical trials as well as six Phase I or Ib clinical trials. Cytokinetics plans to conduct additional clinical trials with ispinesib and is conducting a Phase I/II trial of SB-743921 in non-Hodgkin's lymphoma. Under a strategic alliance established in 2001, Cytokinetics and GlaxoSmithKline (GSK) are conducting research and development activities focused on the potential treatment of cancer. GSK has obtained an option for the joint development and commercialization of ispinesib and SB-743921, exercisable during a defined period. 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 is expected to begin clinical trials with GSK-923295 in 2007. 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](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 the expected initiation, timing, scope and results of Cytokinetics' and its partners' research and development programs, including statements regarding initiation of clinical trials, the potential benefits of our drug candidates and potential drug candidates and the enabling capabilities of Cytokinetics' biological 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 decisions by GSK or the NCI to postpone or discontinue development efforts for GSK-923295 or ispinesib, respectively; potential difficulties or delays in the development, testing, regulatory approval, production and marketing of Cytokinetics' drug candidates that could slow or prevent clinical development, product approval or market acceptance, 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 unexpected adverse side effects or inadequate therapeutic efficacy, and Cytokinetics may be unable to obtain and maintain patent or trade secret protection for its intellectual property; Cytokinetics may incur unanticipated research and development and other costs or be unable to obtain additional financing if necessary; standards of care may change or others may introduce products or alternative therapies for the treatment of indications Cytokinetics' drug candidates and potential drug candidates currently or potentially target; and risks and uncertainties relating to the timing and receipt of funds under Cytokinetics' collaborations. 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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