Cytokinetics Announces Clinical Trial Data Related to SB-743921 Presented at the 10th International Conference on Malignant Lymphoma

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Novel KSP Inhibitor Demonstrates Favorable Tolerability and Activity on an Every-Other-Week Dosing Schedule in Ongoing Clinical Trial

SOUTH SAN FRANCISCO, CA, Jun 05, 2008 (MARKET WIRE via COMTEX News Network) -- Cytokinetics, Incorporated (NASDAQ: CYTK) announced today that an abstract summarizing data from a Phase I/II clinical trial evaluating its drug candidate SB-743921 in the treatment of patients with Hodgkin or non-Hodgkin lymphoma was presented at the 10th International Conference on Malignant Lymphoma, at the Palazzo Dei Congressi in Lugano, Switzerland. SB-743921 is a novel, small molecule inhibitor of kinesin spindle protein (KSP), a mitotic kinesin essential for proper cell division.

A poster entitled, "A Phase I-II Trial of the Kinesin Spindle Protein (KSP) Inhibitor SB-743921 on Days 1 and 15 Every 28 Days in Non-Hodgkin or Hodgkin Lymphoma," was presented by Owen A. O'Connor, MD, PhD, Columbia Medical Center, New York, N.Y. The primary objectives of the Phase I portion of this clinical trial are to determine the dose-limiting toxicities (DLTs) and maximum tolerated dose (MTD) and to assess the safety and tolerability of SB-743921 administered as a 1-hour intravenous infusion on days 1 and 15 of a 28-day cycle, first without and then with the prophylactic administration of granulocyte colony-stimulating factor (G-CSF). 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.

At the interim analysis point, 46 patients had been enrolled and 43 patients were treated. Of the treated patients, 43 were evaluable for safety and 28 were evaluable for efficacy. The authors concluded that the pattern of onset and recovery of neutropenia supports a dosing schedule for SB-743921 of days 1 and 15 of a 28-day cycle. The MTD of SB-743921 was 6 mg/m2 when given days 1 and 15 every 28 days without G-CSF support. This represents a greater dose density (0.43 mg/m2/day) than on the previously studied schedule; i.e., 4 mg/m2 once every 21 days (0.19 mg/m2/day). The only DLT observed without G-CSF was neutropenia; therefore further dose escalation with empiric, prophylactic G-CSF is ongoing and the trial is currently enrolling at 8 mg/m2. The declines from baseline seen in neutrophil counts on day 8 and 22 without G-CSF were not observed with 6 mg/m2 plus G-CSF suggesting further dose escalation with G-CSF may be possible. Grade 3 and 4 toxicities other than neutropenia were uncommon; in particular, no evidence of neuropathy or alopecia was observed. To date, one objective partial response has been observed at the MTD without G-CSF in a patient with Hodgkin lymphoma.

"These data are encouraging with respect to our interest in novel drugs to treat lymphomas," stated Owen A. O'Connor, MD, PhD. "The favorable tolerability profile of SB-743921 combined with the observed recovery in neutrophil counts is encouraging for future dose escalation of this agent on the new dosing schedule with G-CSF support."

"We are pleased with the progress of SB-743921 in patients with lymphoma," stated Robert I. Blum, President and CEO, Cytokinetics. "These data demonstrate that SB-743921 may play an important role as a novel anti-mitotic in the treatment of these cancers and we look forward to additional data that may emerge from this continuing trial."

About SB-743921

SB-743921, Cytokinetics' second KSP inhibitor to enter clinical trials, is structurally distinct from ispinesib, Cytokinetics' most advanced anti-cancer drug candidate. In May 2006 at the American Society of Clinical Oncology (ASCO) annual meeting, GSK presented data from an open-label, non-randomized, dose-finding Phase I clinical trial of SB-743921 administered as a 1-hour intravenous infusion once every 21 days to patients with advanced solid tumors. The authors concluded that SB-743921 appeared to have an acceptable tolerability profile on this schedule. The DLTs reported at that time were prolonged neutropenia, febrile neutropenia (with or without infection), elevated transaminases, hyperbilirubinemia and hyponatremia. Neurotoxicities, mucositis, thrombocytopenia, alopecia and nausea/vomiting requiring pre-medication were not observed.

Background on Cytokinetics and GlaxoSmithKline Strategic Alliance

In June 2001, Cytokinetics and GSK entered into a broad strategic alliance to discover, develop and commercialize novel small molecule therapeutics targeting mitotic kinesins for applications in the treatment of cancer and other diseases. The strategic alliance has generated three drug candidates in clinical development, ispinesib and SB-743921, both inhibitors of KSP and GSK-923295, an inhibitor of centromere-associated protein E (CENP-E). In June 2007, Cytokinetics announced a further one-year extension of the strategic alliance's research term, which began in June 2001, to continue activities focused towards translational research directed to CENP-E. 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 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, exercisable during a defined period. The November 2006 amendment superseded a September 2005 amendment to the collaboration and license agreement, which specifically related to SB-743921. GSK-923295, now in a Phase I clinical trial in advanced cancers, is being developed under the strategic alliance by GSK. Cytokinetics will receive royalties from the sale of any products arising from the strategic alliance that GSK progresses to commercialization. For products that GSK progresses in development, Cytokinetics retains a product-by-product option to co-fund certain later-stage development activities, thereby providing Cytokinetics an opportunity to increase its potential royalties and obtain co-promotion rights for the applicable products in North America.

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 GlaxoSmithKline (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 kinesin spindle protein (KSP), a mitotic kinesin. Cytokinetics believes clinical activity for ispinesib has been observed 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-naive 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 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. 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 and other diseases. 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 Cytokinetics' and its partners' research and development activities, including the conduct, design and results of clinical trials, 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 may decide to postpone or discontinue development activities for GSK-923295, 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.

Contacts:

Scott R. Jordan (Media)
Director, Corporate Development
(650) 624-3000

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

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