



Cytokinetics Announces Preclinical Data for GSK-923295 to Be Presented at the 2007 AACR-NCI-EORTC International Conference

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SOUTH SAN FRANCISCO, CA, Oct 16, 2007 (MARKET WIRE via COMTEX News Network) -- Cytokinetics, Incorporated (NASDAQ: CYTK) announced today that two posters covering preclinical data from research on the mitotic kinesin centromere-associated protein E (CENP-E) and an inhibitor of CENP-E, GSK-923295, will be presented at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics to be held from October 22-26, 2007 at the Moscone West Convention Center, San Francisco, California.

These posters contain preclinical data that provided a basis for the initiation of a first-time-in-humans Phase I clinical trial to evaluate the safety and tolerability of GSK-923295 in patients with solid tumors. This clinical trial is being conducted by GlaxoSmithKline (GSK).

Poster Presentations at AACR-NCI-EORTC International Conference:

The following posters will be presented on Tuesday, October 23, 2007 in the Exhibit Hall (First Floor, Moscone Convention Center West), from 12:30-2:30 PM and from 5:30-7:30 PM in the Cell Cycle Regulators Poster Session A:

Poster #792: "A Potent and Selective Inhibitor of the Mitotic Kinesin CENP-E (GSK923295A), Demonstrates a Novel Mechanism of Inhibiting Tumor Cell Proliferation and Shows Activity Against a Broad Panel of Human Tumor Cell Lines in vitro," Penelope Chua, Cytokinetics, Inc.

Poster #941: "Differential Response of Tumor Cell Lines to Inhibition of the Mitotic Checkpoint Regulator and Mitotic Kinesin, CENP-E," David Sutton, GlaxoSmithKline.

Development Status of GSK-923295

GSK-923295 is a small-molecule inhibitor of centromere-associated protein E (CENP-E), and the third novel drug candidate to arise from Cytokinetics' broad strategic alliance with GlaxoSmithKline (GSK). In August 2007, the company announced that GSK initiated a first-time-in-humans Phase I clinical trial of GSK-923295 in patients with solid tumors. This first Phase I clinical trial is an 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. As reported at the 2007 Annual Meeting of the American Association for Cancer Research (AACR), GSK-923295 demonstrated a broad spectrum of activity against a range of human tumor xenografts grown in nude mice, including models of colon, breast, ovarian, lung and other tumors.

Background on CENP-E

CENP-E plays an essential role in chromosome movement during early mitosis and integrates mitotic spindle mechanics with regulators of the mitotic checkpoint; hence CENP-E is directly involved in coupling the mechanics of mitosis with the mitotic checkpoint signaling machinery, regulating cell-cycle transition from metaphase to anaphase. CENP-E is also essential for prometaphase chromosome movements that contribute to metaphase chromosome alignment. These processes are essential to cell proliferation. CENP-E is expressed exclusively in proliferating cells and is abundant during mitosis; it is absent from non-proliferating cells, including neurons. Inhibition of CENP-E induces cell cycle arrest in mitosis with bipolar mitotic spindles and misaligned chromosomes leading to subsequent apoptosis. GSK-923295 is the first drug candidate to enter human clinical trials that specifically targets CENP-E.

Background on Mitotic Kinesin 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 peripheral nervous system function. Neuropathies are thought to 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.

Mitotic kinesins are essential to mitosis, and, unlike tubulin, are not present in non-dividing cells. Cytokinetics believes that drugs that inhibit CENP-E 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, thereby avoiding many of the toxicities commonly experienced by patients treated with existing anti-mitotic drugs.

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 and GSK-923295. 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. 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 the drug candidate 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 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, 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. 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 that ispinesib has demonstrated clinical activity in Phase II monotherapy clinical trials in breast cancer, ovarian cancer and non-small lung cancer and plans to conduct additional clinical trials with ispinesib. Cytokinetics is also conducting a Phase I/II trial of SB-743921 in non-Hodgkin's lymphoma. 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, subject to Cytokinetics' option to co-fund certain later-stage development activities and to co-promote the drug candidate in North America. GSK began a Phase I clinical trial with GSK-923295 in 2007. All of these drug candidates have arisen from Cytokinetics' research efforts 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 timing, scope and results of Cytokinetics' and its partners' planned research and development activities, future presentations concerning Cytokinetics and its partners' research and development programs, the potential benefits of Cytokinetics' 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

factors. Such statements involve risks and uncertainties, including, but not limited to, 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, 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 and maintain patent or trade secret protection for its intellectual property; potential decisions by GSK to postpone or discontinue development efforts for GSK-923295; 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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