Cytokinetics Presents Non-Clinical Data From Its Smooth Muscle Contractility Program at the American Society of Hypertension 24th Annual Scientific Meeting and Exposition

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SOUTH SAN FRANCISCO, CA, May 07, 2009 (MARKETWIRE via COMTEX) -- Cytokinetics, Incorporated (NASDAQ: CYTK) announced today that a poster summarizing non-clinical data from its smooth muscle contractility program was presented at the American Society of Hypertension 24th Annual Scientific Meeting and Exposition being held May 6 - May 9, 2009 in San Francisco, California. The authors concluded that direct inhibition of smooth muscle myosin may offer a novel therapeutic approach for the treatment of hypertension.

"We believe that these data support further evaluation of this novel approach for its potential to address the unmet clinical needs of patients with hypertension," stated David J. Morgans, Jr., Ph.D., Cytokinetics' Executive Vice President, Preclinical Research and Development. "This program, along with our cardiac muscle contractility and skeletal muscle contractility programs, demonstrates our expertise in the biology of muscle function. The direct inhibition of smooth muscle myosin is a novel mechanism with several potential therapeutic applications. We look forward to the possibility of progressing this program in IND-enabling studies this year."

Poster Presentation at the American Society of Hypertension 24th Annual Scientific Meeting and Exposition

A poster titled, "A Direct Inhibitor of Smooth Muscle Myosin as a Novel Therapeutic Approach for the Treatment of Systemic Hypertension" was presented on Wednesday, May 6, 2009 by Xiangping Qian, Ph.D. of Cytokinetics. This presentation highlighted research conducted with CK-2018509, a novel research compound that demonstrates potent, selective inhibition of smooth muscle myosin, to evaluate its biochemical mechanism of action and its pharmacology in rodent hypertension models. The authors concluded that CK-2018509 selectively inhibits the ATPase activity of smooth muscle myosin compared to other myosin II isoforms, including non-muscle myosin as well as cardiac and skeletal muscle myosins. CK-2018509 appears to relax smooth muscle by locking smooth muscle myosin in a weak actin-binding state. It inhibits force development in skinned arterial smooth muscle activated by calcium or more directly by thiophosphorylation of smooth muscle myosin. These findings are consistent with relaxation occurring as a consequence of direct inhibition of smooth muscle myosin. Also, CK-2018509 relaxes phenylephrine pre-constricted aortic rings in a concentration-dependent manner, suggesting its potential use as a vasodilator. CK-2018509 decreased the elevated mean arterial blood pressure with a minimal effect on heart rate in two animal models of hypertension, spontaneously hypertensive rats and Dahl salt-sensitive rats. These data suggest that direct inhibition of smooth muscle myosin may be a novel therapeutic approach for the potential treatment of hypertension.

Background on Cytokinetics' Smooth Muscle Contractility Program

Cytokinetics' smooth muscle contractility program focuses on the direct inhibition of smooth muscle myosin, the motor protein responsible for the contraction of the smooth muscle cells that surround airways in the lungs and the blood vessels that control blood pressure. In January 2009, Cytokinetics announced the selection of a small molecule inhibitor of smooth muscle myosin for development. By inhibiting the function of the myosin motor central to the contraction of smooth muscle, this potent small molecule directly leads to the relaxation of contracted smooth muscle. Compounds arising from Cytokinetics' research have demonstrated encouraging pharmacological activity in preclinical models that may relate to its uses for the potential treatment of diseases such as hypertension, pulmonary arterial hypertension, asthma and chronic obstructive pulmonary disease (COPD).

About Cytokinetics

Cytokinetics is a clinical-stage biopharmaceutical company focused on the discovery and development of novel small molecule therapeutics that modulate muscle function for the potential treatment of serious diseases and medical conditions. Cytokinetics' cardiac muscle contractility program is focused on cardiac muscle myosin, a motor protein essential to cardiac muscle contraction. Cytokinetics' lead compound from this program, CK-1827452, a novel small molecule cardiac muscle myosin activator, is in Phase II clinical trials for the treatment of heart failure. Amgen Inc. has obtained an option for an exclusive license to develop and commercialize CK-1827452, subject to Cytokinetics' development and commercialization participation rights. In mid-2009, Cytokinetics plans to initiate a Phase I clinical trial of CK-2017357, a fast skeletal muscle troponin activator, in healthy volunteers in the United States. CK-2017357 is being developed as a potential treatment for diseases and medical conditions associated with aging, muscle wasting, and neuromuscular dysfunction. In January 2009, Cytokinetics announced the selection of a potential drug candidate directed towards smooth muscle contractility; Cytokinetics' smooth muscle myosin inhibitors have arisen from research focused towards potential treatments for diseases and conditions, such as hypertension, pulmonary arterial hypertension or bronchoconstriction.

Cytokinetics' cancer development programs are focused on mitotic kinesins, a family of motor proteins essential to cell division. Cytokinetics is developing two drug candidates that have arisen from this program, ispinesib and SB-743921, each an inhibitor of kinesin spindle protein. In addition, Cytokinetics and GlaxoSmithKline are conducting research and development activities focused on GSK-923295, an inhibitor of centromere-associated protein E (CENP-E).

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. 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 Act's safe harbor for forward-looking statements. Examples of such statements include, but are not limited to, statements relating to Cytokinetics' research and development programs, including the results of research studies and the significance of such results, the planned initiation of clinical trials and the progression of IND-enabling studies, and the properties and potential benefits of Cytokinetics' drug candidates and potential drug candidates. 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 and production of Cytokinetics' drug candidates and potential drug candidates that could slow or prevent clinical development or product approval, including risks that current and past results of clinical trials or

preclinical studies may not be indicative of future clinical trials results and that Cytokinetics' drug candidates and potential drug candidates may have unexpected adverse side effects or inadequate therapeutic efficacy. 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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