



501 Elliott Ave. W. #400
Seattle, WA 98119

T 206.282.7100
F 206.272.4010

LPAAT-beta, A New Cancer Drug Development Target, Has Potential Use in Myeloid and Lymphoid Malignancies

Cell Therapeutics' novel target featured in four presentations at ASH

Dec. 8, 2003 San Diego—In four presentations at the 45th Annual Meeting of the American Society of Hematology (ASH) scientists presented data on a novel cancer target from Cell Therapeutics, Inc. (CTI) (NASDAQ: CTIC), LPAAT-beta. LPAAT-beta produces a lipid called phosphatidic acid (PA), an essential cofactor for activity Raf and mTOR, two molecules which are critical to tumor growth and survival. CTI scientists have found that although LPAAT-beta is minimally expressed in most normal tissue, it is highly expressed in many cancers including lung, ovarian, prostate, bladder and cervical cancers as well as in leukemias and lymphomas. Non-clinical research presented at ASH shows that LPAAT-beta inhibitors are cytotoxic to leukemia and lymphoma cell lines as well as multiple myeloma cell lines. Activity was also demonstrated against samples obtained from patients with multiple myeloma and chronic myelogenous leukemia.

“The research into LPAAT-beta has been supported by the work of a number of prestigious cancer investigators, which speaks to importance of this potential new target,” said Jack W. Singer, MD, Executive Vice President and Research Program Chair of CTI. “We’re encouraged by the preliminary, non-clinical data that we have seen coming out of the studies presented at ASH and look forward to advancing the research of this target.”

Presentation Details:

In an oral presentation, John M. Pagel, M.D., of the Fred Hutchinson Cancer Research Center, provided data evaluating the anti-proliferative effects of LPAAT-beta inhibitors alone or in combination with rituximab *in vitro* in human lymphoma cell lines and *in vivo* in mice models. Based on this investigation, small molecule LPAAT-beta inhibitors in combination with rituximab appear to provide enhanced therapeutic effects through apoptotic mechanisms.

Kenneth Mills, M.D. of Cardiff University’s School of Bioscience provided data on a study of LPAAT-beta inhibitors in human acute myeloid leukemia (AML) cell lines and their all-trans retinoic acid (ATRA) resistant sub clones. Mills concluded that LPAAT-beta plays an important role in AML cell survival and the effect of the inhibitors on ATRA-sensitive and –resistant cell lines suggests that LPAAT-beta inhibitors may provide a novel therapy for resistant disease.

Nikhil C. Munshi, M.D. of the Dana-Farber Cancer Institute presented data on his study of LPAAT-beta inhibitors of human multiple myeloma cells and demonstrated for the first time that inhibiting LPAAT-beta induces cytotoxicity in multiple myeloma cells.

Michael W. Deininger, M.D. of Oregon Health & Science University presented the results of *in vitro* investigation of an LPAAT-beta inhibitor in chronic myeloid leukemia (CML) cells versus the inhibitor's activity in normal human cells. The study reported on culture conditions in which the inhibitors killed CML stem cells but not normal stem cells.

About LPAAT-beta

LPAAT-beta is an enzyme, initially cloned by CTI scientists, that regulates the production of a lipid known as phosphatidic acid (PA), shown to be critical for the activation of several key oncologic pathways, including the Ras/Raf/ERK pathway and the Akt/mTOR pathway. Enhanced expression of LPAAT-beta is associated with increased tumorigenicity while its inhibition induces tumor cell death through apoptosis.

About Cell Therapeutics, Inc.

Based in Seattle, CTI is a biopharmaceutical company committed to developing an integrated portfolio of oncology products aimed at making cancer more treatable. For additional information, please visit www.cticseattle.com.

This announcement includes forward-looking statements that involve a number of risks and uncertainties, the outcome of which could materially and/or adversely affect actual future results. Specifically, the risks and uncertainties that could affect the development of LPAAT-beta include risks associated with preclinical and clinical developments in the biopharmaceutical industry in general and with LPAAT-beta in particular including, without limitation, the potential failure of LPAAT-beta to prove safe and effective for treatment of cancer, determinations by regulatory, patent and administrative governmental authorities, competitive factors, technological developments, costs of developing, producing and selling LPAAT-beta and the risk factors listed or described from time to time in the Company's filings with the Securities and Exchange Commission including, without limitation, the Company's most recent filings on Forms S-4, 10-K, 8-K, and 10-Q.

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For further information please contact:

Investors

Cell Therapeutics, Inc.

Leah Grant

T: 206.282.7100 F: 206.272.4010

E: invest@cticseattle.com

www.cticseattle.com/investors.htm

Media

Cell Therapeutics, Inc.

Candice Douglass

T: 206.272.4472 F: 206.272.4010

E: media@cticseattle.com

www.cticseattle.com/media.htm