First Patient Treated in Cytori’s U.S. Cell Therapy Heart Failure Trial

The Associated Press

SAN DIEGO & MINNEAPOLIS--(BUSINESS WIRE)--Oct 11, 2012--Cytori Therapeutics (NASDAQ: CYTX) announced the initiation of the FDA approved ATHENA clinical trial to investigate Cytori’s cell therapy in patients who suffer from a severe form of refractory (untreatable) heart failure due to chronic myocardial ischemia. Cytori’s cell therapy is based on a patient’s own adipose-derived stem and regenerative cells (ADRCs) processed by the Company’s proprietary Celution® System technology, making this the first FDA approved trial in the U.S. to evaluate ADRCs for cardiovascular disease. This first patient was treated by co-principal investigator Timothy Henry, M.D., Director of Research, at the Minneapolis Heart Institute Foundation in September and has undergone a seven day follow-up assessment. More details on the ATHENA trial may be found at www.theathenatrial.com.

“Patients with refractory heart failure have no options except for heart transplant, for which there are few hearts available,” said Dr. Henry. “Cell therapy such as Cytori’s has the potential to delay, halt, or even reverse this progression. We believe this is accomplished by the cells’ ability to promote angiogenesis and regulate the immune response to help revive damaged tissue that is alive yet not necessarily contributing to its fullest capacity toward the pumping ability of the heart.” ATHENA is a device-based, multi-center, prospective, randomized, double-blind PMA/IDE safety and feasibility (Phase I/II) trial that will enroll 45 patients in six centers in the U.S. Patients will be randomized to receive either Cytori’s cell therapy (n=30) or an inactive placebo injection (n=15). All trial participants will undergo a minor liposuction procedure to remove adipose tissue. The adipose tissue will then be processed at the point-of-care with Cytori’s proprietary system to separate and concentrate clinical-grade ADRCs. The treatment group will have a prescribed dose of the patient’s own ADRCs (0.4 million cells/kg body weight), which will then be injected into their damaged heart tissue using a minimally invasive catheter system.

“Cytori’s cell therapy has unique advantages compared to alternate cell sources such as bone marrow and peripheral blood,” said Emerson Perin, M.D., Ph.D. of The Texas Heart Institute and co-principal investigator for ATHENA. “Specifically, it’s a proprietary formulation that Cytori has optimized for vascular delivery and which contains an uncultured and mixed population of cells. As a result, this increases the number of cell types that potentially contribute to repair relative to a more homogenous population of cultured cells.” The trial will measure several endpoints, including peak oxygen consumption (VO 2 Max). VO 2 Max is an objective functional measurement that can be predictive of outcomes in heart disease, including mortality, and is commonly used as a primary determinant for qualifying patients for heart transplantation. Additional endpoints include perfusion defect, left ventricle end-systolic and diastolic volume and ejection fraction at six and 12

months. ATHENA will also evaluate medical economic factors such as rate of re-hospitalization and heart failure symptoms such as angina and quality of life at 12 months.

"We believe Cytori's cell therapy will improve patient outcomes," said Marc H. Hedrick, M.D., president, Cytori Therapeutics. "In ATHENA, investigators will be delivering a virtually 'off-the-shelf' cell therapy comprised of a patient's own cells, which is made possible by our technology. Using a patient's own cells minimizes the risk of rejection or disease transmission compared to alternative therapies derived from donor cells and the virtually off-the-shelf nature allows the treatment to be accomplished in a single surgical procedure." Cytori received approval from the FDA for its Investigational Device Exemption (IDE) application to begin ATHENA in January 2012 and the trial is currently expected to complete enrollment in mid-2013. In addition to Minneapolis Heart Institute Foundation, the Texas Heart Institute (Houston, TX) is actively screening patients under the direction of Emerson Perin, M.D., Ph.D., co-principal investigator for ATHENA, and James T. Willerson, M.D. Four additional centers are also expected to participate in the trial including: University of Florida, in Gainesville, FL, Carl Pepine, M.D. University of South Florida, Tampa, FL, Leslie W. Miller, M.D. Scripps Green Hospital in San Diego, California, Richard Schatz, M.D. Cardiology P.C., Birmingham, AL, Farrell Mendlesohn, M.D. Previously, Cytori reported six and 18-month safety and feasibility data from the PRECISE trial, a European clinical trial for this same indication. The PRECISE trial demonstrated a statistically significant improvement in VO 2 Max in patients treated with Cytori's cell therapy compared to those treated with placebo. The Company is also conducting the ADVANCE trial, a European pivotal trial investigating the effect of Cytori's cell therapy in heart attack patients.

Refractory Heart Failure Refractory heart failure due to chronic myocardial ischemia (CMI) is a result of inadequate cardiac muscle blood flow and diminished pumping function, despite the maximal use of medical treatments. In many cases, the only viable treatment option for these patients is a heart transplant. Approximately 2.2 million patients in the U.S. and EU G5 were diagnosed with advanced refractory heart failure in 2009.

Cytori's Cell Therapy Cytori's cell therapy is based on adipose-derived stem and regenerative cells (ADRCs). Adipose tissue is the richest source of naturally occurring stem and regenerative cells found in the body. ADRCs that are processed with Cytori's proprietary point-of-care device, the Celution® System, consist of multiple cell types that are believed to respond as needed to the disease environment in multiple ways and contribute to the healing process through cell-to-cell signaling, supporting improved blood flow, and regulation of the immune response.

About Cytori Therapeutics Cytori Therapeutics, Inc. is developing cell therapies based on autologous adipose-derived regenerative cells (ADRCs) to treat cardiovascular disease and repair soft tissue defects. Our scientific data suggest ADRCs improve blood flow, moderate the immune response and keep tissue at risk of dying alive. As a result, we believe these cells can be applied across multiple "ischemic" conditions. These therapies are made available to the physician and

patient at the point-of-care by Cytori's proprietary technologies and products, including the Celution® system product family. www.cytori.com Cautionary Statement Regarding Forward-Looking Statements This communication includes forward-looking statements regarding events, trends and business prospects, which may affect our future operating results and financial position. Such statements including those regarding our expected enrollment completion date, and our expected additional treatment centers are subject to risks and uncertainties that could cause our actual results and financial position to differ materially. Some of these risks include clinical and regulatory uncertainties, risks in the collection and results of clinical data, clinical outcomes, dependence on third party performance, and other risks and uncertainties described under the "Risk Factors" in Cytori's Securities and Exchange Commission Filings. We assume no responsibility to update or revise any forward-looking statements to reflect events, trends or circumstances after the date they are made.

The Celution® System is available in the United States of investigational use only.

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