Pluristem to Expand Research & Development of Radiation Exposure Treatment

Decision Follows Preliminary Discussions with Several Governmental Authorities on Potential Uses of Pluristem's PLX Cells for Treatment of Acute Radiation Exposure

HAIFA, ISRAEL, Feb 7, 2012 -- Pluristem Therapeutics, Inc. (NASDAQ:PSTI; TASE:PLTR) today announced that following preliminary discussions with several governmental authorities, it will expand its research and development efforts on an acute radiation exposure treatment. The announcement comes as governments around the world have broadened their search for easily administered and effective radiation countermeasures. Liat Flaishon, MD, PhD, recently appointed Pluristem's Director of Business Development, will lead the company's development efforts.

Dr. Flaishon joins Pluristem after serving as the director of Drug Safety Risk Management in the global drug safety and pharmacovigilance department at Teva Pharmaceuticals. Dr. Flaishon received her medical degree from the Sackler School of Medicine, Tel-Aviv University, and her PhD in Immunology from The Weizmann Institute of Science.

As previously announced, Pluristem's PLX cells have achieved favorable pre-clinical data in the treatment of radiation exposure. In studies conducted by Professor Raphael Gorodetsky and his team at the Biotechnology and Radiobiology Laboratory at the Sharett Institute of Oncology at Hadassah Medical Center in Jerusalem, Pluristem's placental 3D expanded cells have demonstrated efficacy as mitigators of the acute radiation syndrome (ARS) following radiation exposure in animals that were given lethal doses of radiation and 24 hours later were treated with these cells. According to these studies' findings, a statistically significant increased survival rate (3-4 fold) was observed in those animals treated with Pluristem's cells over the untreated control animals. Additionally, bone marrow cellularity was significantly elevated following the administration of the placental cells throughout the follow-up period. These beneficial effects may be attributed to the cytoprotective effect and/or the immunomodulatory properties of PLX cells.

"Following announcement regarding our initial studies on radiation treatment, we have seen significant interest in our radiation product candidate", said Zami Aberman, Chairman and CEO of Pluristem. "Currently, there is an extensive search for an easily administered and effective product for radiation countermeasures. We believe that our PLX cells have the potential to both extend the window of treatment for radiation victims and to become an off-the-shelf nuclear

catastrophe countermeasure product."

About Pluristem Therapeutics Inc.

Pluristem Therapeutics Inc. (NasdaqCM: PSTI; TASE: PLTR) is a leading developer of placenta-based cell therapies. The company's patented PLX (PLacental eXpanded) cells drug delivery platform releases a cocktail of therapeutic proteins in response to a variety of local and systemic inflammatory diseases. PLX cells are grown using the company's proprietary 3D micro-environmental technology and are an off-the-shelf product that requires no tissue matching or immune-suppression treatment prior to administration.

Data from two Phase I safety and dose determining clinical trials indicate that Pluristem's first PLX product candidate, PLX-PAD, is safe and potentially effective for the treatment of end stage peripheral artery disease. Pluristem's pre-clinical animal models have demonstrated PLX cells are also potentially effective in treating nerve pain and muscle damage when administered locally and in inflammatory bowel disease, MS and stroke when administered systemically.

Pluristem has a strong patent portfolio, GMP certified manufacturing, research and development facilities, strategic relationships with major research institutions and a seasoned management team.

For more information visit www.pluristem.com and follow Pluristem on Twitter @Pluristem, the contents of which are not part of this press release.

CLICK HERE to watch a video where CLI patients and doctors involved in the clinical trials share their stories.

About Hadassah Medical Center

Hadassah is a state-of-the-art medical center incorporating all medical and surgical sub-specialties, with a tertiary care referral hospital at Ein-Kerem and a community hospital on Mt. Scopus; Hadassah conducts more than half the hospital research in Israel. Hadassah employs 850 physicians and academic University Affiliated researchers, 1,940 nurses, 1,020 paramedical and support staff; two campuses with 1,000 beds, 31 operating theaters, 9 intensive care units and over 120 outpatient clinics. Hadassah, committed to excellence in health care, medical research and medical education treats over 1 million people a year and is a pioneer in introducing in Israel, and in some areas in the world, innovative and unique medical treatment.

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Safe Harbor Statement

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and federal securities laws. For example, we are using forward looking statements when we discuss the potential that our PLX cells have as a treatment for radiation victims, or when we discuss the safety and potential effectiveness of PLX-PAD for the treatment of end stage peripheral artery disease, or when we discuss the potential effectiveness of PLX cells in treating nerve pain and muscle damage and in inflammatory bowel disease, MS and stroke. These forward-looking statements are based on the current expectations of the management of Pluristem only, and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. The following factors, among others, could cause actual results to differ materially from those described in the forward-looking statements: delay in payment of the grant by the Israeli government; changes in technology and market requirements; we may encounter delays or obstacles in launching our clinical trials; our technology may not be validated as we progress further and our methods may not be accepted by the scientific community; we may be unable to retain or attract key employees whose knowledge is essential to the development of our products; unforeseen scientific difficulties may develop with our process; our products may wind up being more expensive than we anticipate; results in the laboratory may not translate to equally good results in real surgical settings; our patents may not be sufficient; our products may harm recipients; changes in legislation; inability to timely develop and introduce new technologies, products and applications; loss of market share and pressure on pricing resulting from competition, which could cause the actual results or performance of Pluristem to differ materially from those contemplated in such forward-looking statements. Except as otherwise required by law, Pluristem undertakes no obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. For a more detailed description of the risks and uncertainties affecting Pluristem, reference is made to Pluristem's reports filed from time to time with the Securities and Exchange Commission.