U.S. National Institutes of Health to Commence New Study of Pluristem's PLX Cells for Acute Radiation Syndrome Treatment

NIAID's next study of PLX-RAD cells to be initiated in February

HAIFA, ISRAEL, February 3, 2014- Pluristem Therapeutics, Inc. (NasdaqCM: PSTI; TASE: PLTR), a leading developer of placenta-based cell therapies, today announced that the U.S. National Institute of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health (NIH), will commence a mechanism-of-action study of Pluristem's PLacental eXpanded RAD (PLX-RAD) cells for the treatment of acute radiation syndrome (ARS). The study aims to investigate the effect of PLX-RAD cells on body weight, blood count parameters, cytokine concentrations and bone marrow or spleen cellularity at various time points following the administration of PLX-RAD cells to animals receiving total body irradiation. The study is scheduled to begin in February 2014.

Following positive data from NIAID's first study of PLX-RAD cells on irradiated animals' hematological systems, Pluristem had announced on July 18th, 2013 NIAID's intention to expand the scope of its PLX-RAD research. NIAID's initial work showed that the overall survival of irradiated rodents treated with PLX-RAD cells significantly increased compared to that of the control group.

"In this study, NIAID will expand the focus of its work to better understand the mechanism-of-action of PLX-RAD cells. We are pleased that NIAID has recognized the therapeutic potential of these cells in treating ARS," stated Zami Aberman, Chairman and CEO of Pluristem.

Pluristem has a preclinical hematology program in which the company is evaluating PLX-RAD cells in the treatment of bone marrow failure following radio- or chemotherapy. Data from the NIAID studies are expected to be beneficial to our hematology program.

ARS studies of PLX-RAD cells also have been conducted by Prof. Raphael Gorodetsky, lead investigator of the study and head of the Biotechnology and Radiobiology Laboratory at the Sharett Institute of Oncology at the Hadassah Hebrew University Medical Center. Those studies showed an up to four-fold increase in the survival rate of irradiated animals treated with PLX cells versus those treated with placebo, as well as improvements in additional parameters. The preclinical results for PLX-RAD cells have been published in peer reviewed journal PLOS ONE.

About Acute Radiation Syndrome (ARS)

ARS represents a constellation of signs and symptoms that occur between several minutes and several weeks after exposure to high doses of ionizing radiation. ARS involves multiple organs, including the hematological and gastrointestinal systems. The hematological syndrome follows damage to the bone marrow and is characterized by severe decreases in red and white blood cell and platelet counts, which can lead to infection, bleeding and death. The gastrointestinal syndrome follows radiation-induced damage of the gastrointestinal tract and results in infection, dehydration and electrolyte imbalance, which can lead to death within two weeks.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading developer of placenta-based cell therapies. The Company's patented PLX (PLacental eXpanded) cells are a drug delivery platform that releases a cocktail of therapeutic proteins in response to a host of local and systemic inflammatory and ischemic 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 prior to administration.

Pluristem has a strong intellectual property position, company-owned GMP certified manufacturing and research facilities, strategic relationships with major research institutions and a seasoned management team. For more information visit www.pluristem.com, the content of which is not part of this press release.

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 schedule of the NIAID study of our PLX-RAD cells, when we discuss the therapeutic potential of our cells in treating ARS, or that data from NIAID studies are expected to be beneficial for Pluristem's preclinical hematology program. These forward-looking statements and their implications 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: changes in technology and market requirements; we may encounter delays or obstacles in launching and/or successfully completing our clinical trials; our products may not be approved by regulatory agencies, 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; results of preclinical studies may not correlate with the results of human clinical trials; 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.

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