Pluristem Participates in Radiation Injury Treatment Network Conference Co-sponsored by National Institutes of Health's NIAID

Pluristem's PLX-R18 is being studied by NIAID for Acute Radiation Syndrome (ARS), and following pharmacodynamics, safety and efficacy trials, the company plans to initiate a pivotal study to gain approval for ARS via the FDA Animal Rule.

HAIFA, ISRAEL, July 20, 2016 -- Pluristem Therapeutics Inc. (NasdaqCM: PSTI, TASE: PLTR), a leading developer of placenta-based cell therapy products, today announced its participation in the Radiation Injury Treatment Network's meeting titled, "Medical Management of Radiation Casualties: Where Research and Usage Meet". The meeting, which took place on July 18-19, 2016, was organized jointly by the Radiation Injury Treatment Network and the National Institutes of Health's National Institute of Allergy and Infectious Diseases (NIAID).

Racheli Ofir, Ph.D., Pluristem's Vice President of Research & Intellectual Property, shared her expertise in studying the treatment of Acute Radiation Syndrome (ARS) in a variety of animal models.

"We are pleased to have been invited to participate in this important event. It highlights our continued collaboration with the NIH's NIAID to develop PLX-R18 as a treatment for the hematologic component of ARS," said Zami Aberman, Chairman and CEO of Pluristem Therapeutics.

Pluristem's scientists, together with researchers at several academic institutions, Hadassah Medical Center and at the NIAID, have studied the Company's PLX-R18 cells as a potential treatment for the hematologic subsyndrome of ARS. They have also used animal and in vitro models to delineate the unique mechanism of action of PLX-R18 in this indication. Data have demonstrated that PLX-R18 cells release a spectrum of therapeutic proteins in response to inflammatory cytokines secreted by animals with acutely damaged bone marrow caused by exposure to high levels of radiation. The therapeutic proteins from PLX-R18 cells work to stimulate recovery of hematopoietic function, addressing production of all three blood cell lineages.

As previously announced, the U.S. FDA recently cleared Pluristem's Phase I trial of PLX-R18 in the treatment of insufficient hematopoietic recovery following hematopoietic cell transplantation.

PLX-R18 Mechanism of Action in Hematologic Indications

PLX-R18 cells sense the inflammatory cytokines that are secreted by the body following hematopoietic failure, and respond by releasing a spectrum of therapeutic proteins such as G-CSF (induces HSC mobilization), MCP-1 (induces chemotaxis of monocytes and basophils) and IL-6 (assists in renewal and differentiation of hematopoietic cells). Preclinical studies showed that the proteins released by PLX-R18 attained peak levels before accelerated cellularity and progenitor cell recovery were detected within the bone marrow. Treatment with PLX-R18 was associated with 98% survival versus 30% survival in a control group that was treated with a placebo. Intramuscular injection of PLX-R18 into naïve mice induces only a negligible response, in contrast to the reaction in irradiated mice, suggesting detection of ARS-related signals by PLX-R18.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading developer of placenta-based cell therapy products. The Company has reported robust clinical trial data in multiple indications for its patented PLX (PLacental eXpanded) cells. The cells release a range of therapeutic proteins in response to inflammation, ischemia, hematological disorders, and radiation damage. PLX cell products are grown using the Company's proprietary three-dimensional expansion technology. They are off-the-shelf, requiring no tissue matching prior to administration.

Pluristem has a strong intellectual property position; Company-owned and operated, GMP-certified manufacturing and research facilities; strategic relationships with major research institutions; and a seasoned management team.

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, forward-looking statements are used in this press release when we discuss PLX-R18 cells as a potential treatment for the hematologic subsyndrome of ARS, prior models and data relating to the Company’s PLX-R18 cells and the Company’s Phase I trial of PLX-R18 in the treatment of insufficient hematopoietic recovery following hematopoietic cell transplantation. 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 clinical 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. 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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