Pluristem and Hadassah Medical Center Will Collaborate to Study Potential of PLX-RAD Cells to Improve Bone Marrow and Umbilical Cord Blood Transplant Outcomes

Second collaboration agreement for new PLX-RAD cell therapy product

HAIFA, ISRAEL, December 4, 2014 -- Pluristem Therapeutics Inc. (NasdaqCM: PSTI; TASE: PLTR), a leading developer of placenta-based cell therapy products, announced today that it has entered into a long-term collaboration agreement with Hadassah Medical Center in Jerusalem. The medical center's Department of Bone Marrow Transplantation and Cancer Immunotherapy, headed by Professor Reuven Or, will use preclinical models to assess the potential efficacy of PLX-RAD cells for treatment and prevention of hematological deficiencies and complications of bone marrow and umbilical cord blood transplantation. PLX-RAD cells are Pluristem's second cell therapy product candidate.

"Hadassah is one of the leading medical centers in the world and we are honored to work with Dr. Or and his team. The preclinical studies to be conducted at Hadassah are expected to yield important data about the use of PLX-RAD cells in the treatment of hematological diseases. These data may help Pluristem to direct future clinical trials," stated Pluristem CEO Zami Aberman. "This is our second collaboration with an academic institution to study PLX-RAD cells since announcing in October that we have the capability to manufacture this product candidate on a large scale."

The Company's development plan for PLX-RAD cells includes potential indications such as:

- Enhancement of engraftment of transplanted hematopoietic stem cells for the treatment of bone marrow deficiency, which can result from immune system disorders, genetic diseases, and treatment of leukemia and other blood cancers. Case Western Reserve University is studying PLX-RAD cells to see if they improve engraftment of umbilical cord blood transplants.
- Treatment of acute radiation syndrome (ARS); this indication is being developed in conjunction with the U.S. National Institutes of Health.
- Treatment of bone marrow deficiency in patients who have undergone chemotherapy.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading developer of placenta-based cell therapy products. The Company's patented PLX (PLacental eXpanded) cells release a cocktail of

therapeutic proteins in response to inflammation, hematological disorders, radiation damage, and ischemia. PLX cells are grown using the Company's proprietary three-dimensional expansion 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, forward-looking statements are used in this press release when we discuss the PLX-RAD preclinical studies to be conducted at Hadassah, the data they are expected to yield about PLX-RAD cells, that such data may help us to direct future clinical trials, or when we discuss the potential indications for PLX-RAD. 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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