U.S. National Institutes of Health Recommend to Expand Its Scope of Research in the Development of Pluristem's PLX-RAD Cells for the Treatment of Acute Radiation Syndrome

Positive Data from the First Study Prompts Decision

HAIFA, Israel July 18, 2013 -- Pluristem Therapeutics Inc. (NASDAQCM: PSTI) (TASE:PLTR), a leading developer of placenta-based cell therapies, announced today that the U.S. National Institute of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health, has recommended to Pluristem that NIAID expand the scope of its ongoing animal research using PLX-RAD cells for the treatment of acute radiation syndrome (ARS).

As previously announced on July 26, 2012, Pluristem accepted NIAID's invitation to submit PLX-RAD cells to the agency for this indication. Subsequently, NIAID's contract facilities have been studying the use of PLX-RAD cells on irradiated animals' hematological systems. NIAID has now recommended that the institute expand the focus of its work to better understand the mechanism of action for dose optimization. NIAID's initial work on the use of PLX-RAD cells included a screening assay examining the thirty-day survival of irradiated rodents given PLX-RAD or vehicle as a control. In this study mice were exposed to either 853, 872 or 904 cGy of total body gamma irradiation and injected intramusculary with two doses of two million PLX-RAD cells per dose or vehicle on days 1 and 5 following radiation (n=49-53 mice/group). Thirty-day survival was significantly increased in mice treated with PLX-RAD cells ($p<0.0001$) for all radiation doses. Overall survival time was also significantly increased in these mice ($p=0.0004$).

"We are extremely pleased that the positive animal results obtained from NIAID have prompted them to recommend extending and expanding the scope of their investigation towards developing our PLX-RAD cells as a potential treatment for ARS," said Zami Aberman, Chairman and CEO of Pluristem. "Additionally, we believe the data generated from this collaboration will be very helpful in developing PLX-RAD for the indication of bone marrow failure following radio or chemotherapy."

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 and involves

multiple organs such as 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 cells as well as platelets that predispose the affected people to infection, bleeding and subsequently death. The gastrointestinal syndrome follows damage of the gastrointestinal tract by the radiation and results in infection, dehydration, and electrolyte imbalance that can lead to death within 2 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, when we discuss the development our PLX-RAD cells as a potential treatment for ARS, or that data generated from our collaboration with the NIAID will be helpful in developing PLX-RAD for the indication of bone marrow failure following radio or chemotherapy, we are using forward-looking statements. 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.

Contact:

Pluristem Therapeutics Inc.:

William Prather R.Ph., M.D. Sr. VP Corporate Development
1-303-883-4954
William.PratherMD@pluristem.com

Daya Lettvin
Investor & Media Relations Director
+972-54-674-5580
daya@pluristem.com