Pluristem and U.S. Department of Defense to Announce Data from Studies Testing PLX-R18 as a Prophylactic Treatment for Acute Radiation Syndrome at RITN

- *Data will be jointly presented at the upcoming 2019 Radiation Injury Treatment Network (RITN) Workshop on July 31st*

HAIFA, Israel, July 17, 2019 - Pluristem Therapeutics Inc. (Nasdaq:PSTI) (TASE:PSTI), a leading regenerative medicine company developing novel placenta-based cell therapy products, announced that results from a series of studies of the company's PLX-R18 cell therapy product conducted by the U.S. Department of Defense's Armed Forces Radiobiology Research Institute at the Uniformed Services University of the Health Sciences, will be jointly presented at the upcoming 2019 Radiation Injury Treatment Network (RITN) Workshop on July 31st.

The animal studies, conducted following guidance from the U.S. Food and Drug Administration (FDA) relating to its animal rule pathway, are designed to evaluate PLX-R18 as a potential prophylactic countermeasure against acute radiation syndrome (ARS) administered prior to radiation exposure.

In addition to the DoD study, PLX-R18 is also being evaluated by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), as a treatment following radiation exposure. Data from these studies demonstrated a significant increase in survival rates and enhanced neutrophil and lymphocyte recovery in radiation subjects. The company's PLX-R18 cell therapy product was granted an FDA orphan drug designation and an IND for the treatment of ARS.

About ARS

ARS results from exposure to high levels of radiation, as in the case of a nuclear accident or attack, and it may cause severe or fatal systemic effects such as injuries that hinder the bone marrow's ability to produce blood cells and platelets, as well as other organs and systems within the body, increasing patients' susceptibility to life-threatening hemorrhage, infection, and anemia.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading regenerative medicine company developing novel placenta-based cell therapy products. The Company has reported robust clinical trial data in multiple indications for its patented PLX cell product and is currently conducting late stage clinical trials in several indications. PLX cell products release a range of therapeutic proteins in response to inflammation, ischemia, muscle trauma, hematological disorders and radiation damage. The cells are grown using the Company's proprietary three-dimensional expansion technology and

can be administered to patients off-the-shelf, without tissue matching. Pluristem has a strong intellectual property position; a Company-owned and operated GMP-certified manufacturing and research facility; strategic relationships with major research institutions; and a seasoned management team.

Safe Harbor Statement

This press release contains express or implied forward-looking statements within the Private Securities Litigation Reform Act of 1995 and other U.S. Federal securities laws. For example, Pluristem is using forward-looking statements when it discusses the potential benefits of PLX-R18 and when it states that its PLX-R18 studies via the FDA's animal rule pathway are designed to evaluate PLX-R18 as a potential prophylactic countermeasure against ARS administered prior to radiation exposure. 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; Pluristem may encounter delays or obstacles in launching and/or successfully completing its clinical trials; Pluristem's products may not be approved by regulatory agencies, Pluristem's technology may not be validated as it progresses further and its methods may not be accepted by the scientific community; Pluristem may be unable to retain or attract key employees whose knowledge is essential to the development of its products; unforeseen scientific difficulties may develop with Pluristem's process; Pluristem's products may wind up being more expensive than it anticipates; 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; Pluristem's patents may not be sufficient; Pluristem's products may harm recipients; changes in legislation may adversely impact Pluristem; 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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