Pluristem Reports Third Quarter Fiscal 2018 Corporate and Financial Highlights

HAIFA, Israel, May 10, 2018 - Pluristem Therapeutics Inc. (Nasdaq:PSTI) (TASE:PSTI), a leading developer of placenta-based cell therapy products, today reported financial results and corporate developments for its third quarter of fiscal 2018 ended March 31, 2018.

"The past few months brought several significant milestones which we believe are key to our continued development", stated Pluristem Chairman and Co-CEO Zami Aberman. "The U.S. Food and Drug Administration (FDA) has cleared our Investigational New Drug application (IND) for the use of PLX-R18 in treating victims who may have been acutely exposed to high dose radiation (ARS) due to nuclear attack or accident. Following this IND approval, and as an additional step to prepare for marketing, we will now start the necessary preparations in order to keep an emergency stock of PLX-R18 on hand for use in such events. We were also cleared by the FDA to start our Phase III study in PLX-PAD in the treatment of muscle injury following hip fracture surgery. This marks the second Phase III study in Pluristem's clinical pipeline, and we intend to have an additional Phase III study in the treatment of ARS cleared by the FDA by the end of this year."

"Pluristem is well positioned to be a significant market leader in the cell therapy and regenerative medicine industries", stated Pluristem President and Co-CEO Yaky Yanay. "We expect to publish top line data from our Phase II study in intermittent claudication (IC) in June, which will be the largest clinical data set we have published to date. With these data and the latest IND approvals, we are moving closer to market. In support of this process we have announced that we are forming a strategic advisory board, composed of highly accomplished executives, such as Roger Jeffs, former CEO of United Therapeutics and who led Amgen's Neupogen clinical programs. We believe that this strategic board will bring tremendous expertise and vision to Pluristem, and support our strategic development, clinical progress and commercialization. The company is well financed and has multiple non-dilutive grants to supports its clinical development, including a $2.5 million grant from the U.S. National Institutes of Health (NIH) for a research project in ARS which should provide bridging data for the final pivotal study."

Financial Update:

As of March 31, 2018, Pluristem had $34.1 million in cash and cash equivalents, bank deposits and short-term restricted deposits. The Company's net cash used for operating activities for the quarter ended March 31, 2018 was $5.6 million.

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 cells and is entering late-stage trials in several indications. Our 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; 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 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 its discusses its belief that the recent milestones are key to Pluristem's continued development and that Pluristem is heading towards a significant time period, its intention to make necessary preparations to keep an emergency stock of PLX-R18, that it expects to publish top line data from its Phase II study in IC within the coming weeks, its belief that with the data from the Phase II study in IC, and the latest IND approvals, it is moving closer to market, that the data developed from its ARS studies should provide data for its final pivotal study and its belief that it is in a strong position to become a significant market leader in the cell therapy and regenerative medicine industries. 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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