Peer-Reviewed Article Published on Pluristem's PLX-PAD Cells' Mechanism of Action to Restore Blood Flow in Ischemic Tissue

Data supports advanced PLX-PAD clinical studies including dosing regimen, systemic therapeutic effects and superiority of the cells over cytokines

HAIFA, ISRAEL, November 29, 2017 -- Pluristem Therapeutics Inc. (NASDAQ: PSTI, TASE: PSTI), a leading developer of placenta-based cell therapy products, announced the publication of a peer-reviewed article in *Cytotherapy*, the official journal of the International Society for Cellular Therapy, titled, "Placenta-Derived PLX-PAD Mesenchymal-Like Stromal Cells are Efficacious in Rescuing Blood Flow in Hind Limb Ischemia Mouse Model by a Dose- and Site-Dependent Mechanism of Action (MOA)." The article is based on the Company's preclinical findings and will be published in the December 2017 issue of *Cytotherapy*.

The study utilized a mouse model of hind limb ischemia (HLI) to study the efficacy and MOA of PLX-PAD cells in the treatment of peripheral artery disease (PAD). Pluristem is currently conducting a global, pivotal Phase III study in critical limb ischemia (CLI), and is expecting clinical data from its Phase II study in intermittent claudication (IC). Both are forms of peripheral artery disease. In both conditions, blood supply to the legs is obstructed, leading to impaired blood flow and tissue ischemia.

Data from this study showed that intramuscularly (IM) administered PLX-PAD cells restored blood flow to the lower limbs of mice with HLI, in a dose- and site-dependent manner. IM administration of PLX-PAD cells had a systemic effect, thereby restoring blood flow to parts of the limb in need even when injected to the contralateral leg. Administration of a second dose was found to boost the effect of a single administration and lead to greater improvement in blood flow. The study demonstrated the cells' MOA: secreting therapeutic proteins systemically that promote the creation of new blood vessels.

"We are pleased to share these findings, which suggest the potential of our cells to secrete an adaptive, slow-release cocktail of therapeutic proteins via their interaction with tissue surrounding the area in need of healing and repair," stated Zami Aberman, Chairman and Co-CEO of Pluristem. "We believe this data supports our current pivotal trial in CLI by affirming our dosing methods and quantities. The data is also valuable in understanding the therapeutic role of PLX products in additional medical indications. We believe these important findings also provide additional support for the scientific rationale behind our unique mechanism of action, and for the systemic effect and therapeutic benefits of injecting the cells intramuscularly."

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, 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 the various studies relating to its cell therapy products, Pluristem's belief that the findings of the preclinical HLI study support its dosing methods and quantities, the scientific rationale of its unique MOA and the positive influence of IM Injections on the systemic therapeutic effect of the cells as well as its understanding of the therapeutic role of PLX products in additional medical indications. 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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