Pluristem Initiates Final Validation of New Manufacturing Facility

Capacity Design of Over 150,000 PLX Doses Annually

HAIFA, ISRAEL, December 27, 2012 – Pluristem Therapeutics, Inc. (NASDAQCM: PSTI; TASE:PLTR), a leading developer of placenta-based cell therapies, announced today it has initiated the final validation steps for it new "state-of-the-art" manufacturing facility prior to taking possession of the facility. These steps include the validation of several installation systems including as heating, ventilation and air conditioning (HVAC), water, oil free air and sterile room systems.

Zami Aberman, Chairman and CEO of Pluristem commented, "I am extremely proud of our team in meeting milestones for the completion of the world's first commercial cell therapy manufacturing facility. Assuming the PLX cells product candidates are successfully developed and approved by the regulators, we believe that the new facility would have the capacity to produce PLX cells for the treatment of over 150,000 patients annually estimated by Pluristem at $1 billion in production value. Additionally, as clinical trials are approved by regulators for additional indications, our new facility will enable us to supply PLX cells to conduct these trials in parallel."

About Pluristem Therapeutics

Pluristem Therapeutics Inc. (NASDAQCM:PSTI) (TASE:PLTR) 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 is focusing on the development of PLX cells administered locally to potentially treat systemic diseases and potentially obviating the need to use the intravenous route.

Pluristem has a strong patent and patent applications portfolio, 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 our new manufacturing facility, its validation process, its planned capacity for production of PLX cells and estimated production value assuming the PLX cells

product candidates are successfully developed and approved by the regulators, or when we say that as clinical trials are approved by regulators for additional indications, our new facility will enable us to supply PLX cells to conduct these trials in parallel, we are using forward-looking statements. These forward-looking statements 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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