Pluristem's Cell Manufacturing Facility Marks Major Milestone with German Regulatory Approval of New Scaled-Up 3D Manufacturing Process

First of many expected regulatory approvals for the new facility strengthens Pluristem's leadership position in commercial-scale cell manufacturing technologies

HAIFA, ISRAEL, January 23, 2014- Pluristem Therapeutics, Inc. (NasdaqCM: PSTI; TASE: PLTR), a leading developer of placenta-based cell product candidates, today announced it has received approval from the Paul-Ehrlich-Institute (PEI), Germany's health authority, to supply cells from its advanced, fully automated, and proprietary 3D cell expansion manufacturing platform implemented at its new state-of-the-art GMP facility. Pluristem's new manufacturing facility has the capability to efficiently produce over 150,000 doses of PLX cells annually, which potentially translates into significant economic value.

This marks the first regulatory approval of Pluristem's new facility where the company has implemented its large scale 3D bioreactor expansion of placental-derived mesenchymal-like Adherent Stromal Cells (ASCs). The approval will enable the company to easily support ongoing trials and enter into multiple clinical trials using its scale-up capabilities for cell supply. The company is also in the process of getting approvals from other regulatory authorities including the US FDA.

"We are very pleased to receive the PEI's approval. Following our multi-million dollar investment into the development of our proprietary high-throughput culturing technologies, 3D bioreactors, and proprietary downstream equipment, the PEI's approval confirms Pluristem's unique position in the cell therapy industry. Our proprietary 3D manufacturing process can create commercial quantities of cells with batch-to-batch consistency, so we are ready to expand and accelerate our clinical programs," stated Zami Aberman, Chairman and CEO of Pluristem. "In addition, the very encouraging results of our Phase I/II trial in muscle injury conducted in Germany suggest that our unique culturing technology may contribute to the quality and consistency of PLX clinical studies."

About Pluristem's 3D Manufacturing

Pluristem's state-of-the-art manufacturing site is located in MATAM industrial park, in Haifa, Israel and is equipped with 500 square meters of clean rooms in which cells can be manufactured to support clinical trials and for commercial demand at time of regulatory approval. Pluristem develops and manufactures its products in full compliance with international quality standards, including U.S. Food and Drug Administration (FDA), European Medicines Agencies (EMA), current Good Manufacturing Practices (cGMP) requirements and International Conference on Harmonization (ICH) quality guidelines. Pluristem believes that controlling the process is the key to success and therefore invests major efforts in developing highly efficient, cutting-edge culturing systems enabling advancement of its large PLX cell therapy product candidate's pipeline.

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, we are using forward-looking statements when we discuss expected regulatory approvals for our manufacturing facility, or when we discuss the capabilities of this facility and how they potentially translate into significant economic value, when we discuss how the received regulatory approval will enable us to support ongoing trials and enter into multiple clinical trials using our capabilities for cell supply, when we discuss expanding and accelerating our clinical programs, or when we say discuss our belief that controlling the manufacturing process is key for success and that our culturing technology may contribute to the quality and consistency of PLX clinical studies . 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 es-

sential 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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