Pluristem Develops Point-of-Care Thawing Device for PLX Cells

Positioned to Provide a Uniform PLX Cell Product with Every Dose

HAIFA, Israel, Oct. 04, 2012 -- Pluristem Therapeutics Inc. (NASDAQCM: PSTI) (TASE:PLTR), a leading developer of placenta-based cell therapies, today announced that a portable, compact, on-site instrument has been developed by the company for the rapid, uniform thawing of its PLX cells prior to administration. As part of the company's comprehensive approach in developing high quality, easy to use PLX cell therapy candidate products, the device ensures the uniform thawing of PLX cells across all doses.

Pluristem's "off-the-shelf" PLX cell therapy product candidates will be shipped and stored in multiple dose vials that require thawing prior to use. The vial will be placed into the proprietary thawing device and PLX cells will be ready for a convenient intramuscular (IM) injection. If we are successful in our trials and development, this cutting edge device will be used as the final step in bringing high quality, clinical grade PLX cell products to patients around the globe.

"Pluristem understands the importance of providing a standardized product with every dose of these living drug delivery devices," said Zami Aberman, Chairman and CEO of Pluristem. "Additionally, if we are successful, we want our PLX cell products, once developed, to be "easy-to-use" therapy. This thawing device will give us better control of several variables in our clinical trials and in treating patients after our products have been approved assuming we are successful. This instrument is an additional step in our vision to bring PLX cells as "first-line" therapies for a variety of indications and to think about the cell delivery process all the way from mass manufacturing to the patient's bedside."

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.

Data from two phase I studies indicate that Pluristem's first PLX product candidate, PLX-PAD, is safe and potentially effective for the treatment of end stage peripheral artery disease when given locally. Additionally, Pluristem is developing PLX-PAD for cardiac ischemia, PLX-BMP for Acute Radiation Exposure, Bone Marrow Transplant Failure and Chemotherapy induced Bone Marrow Aplasia, PLX-ORTHO for orthopedic indications and PLX-PAH for Pulmonary Hypertension in collaboration with United Therapeutics. Pluristem's pre-clinical animal models have demonstrated PLX cells are also potentially effective in other inflammatory/ischemic indications, including diastolic heart failure, inflammatory bowel disease, neuropathic pain and pulmonary fibrosis.

Pluristem has a strong patent 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. Follow Pluristem on Twitter@Pluristem.

CLICK HERE to watch a video where CLI patients and doctors involved with the clinical trials share their stories, 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 the use of the thawing device we developed in bringing highly quality, clinical grade PLX cell products to patients, when we discuss how the thawing device will give us better control of several variables in our clinical trials and in treating patients after our products have been approved, when we imply that our products will be developed and approved for use, when we discuss that data from two phase I indicates that PLX-PAD is safe and potentially effective for the treatment of end stage peripheral artery disease, or when we discuss how pre-clinical animal models have demonstrated PLX cells are also potentially effective in other inflammatory/ischemic indications, 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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