Pluristem Reports on the Progress of its Phase I/II Clinical Trial for the Treatment of Muscle Injury

First Time Surgically Induced Muscle Injury Treated with PLX Cells

HAIFA, Israel March 20, 2013 -- Pluristem Therapeutics Inc. (NASDAQCM: PSTI) (TASE:PLTR), a leading developer of placenta-based cell therapies, today reported on the progress of its ongoing double blind Phase I/II clinical trial to test the safety and efficacy of its PLacental Expanded (PLX) cells in the treatment of muscle injury. This is the first time PLX cells have been used in patients following surgically induced muscle trauma.

The study is being conducted at the Orthopedic Clinic on the campus of the Charité University Medical School in Berlin, Germany. The muscle injury being studied is the gluteal buttock muscle that has been surgically traumatized during hip replacement surgery. The primary endpoint of the study is safety with a secondary endpoint of gluteal muscle function at 6 months with the ability to perform biopsies of the involved muscle. PLX cells will be injected directly into the surgical incision after it has been sutured. Three groups of six patients will be enrolled in the study. From each group of six patients, two patients will receive a high dose of PLX cells, two patients will receive a low dose of PLX cells and two patients will receive placebo. The first group of six patients has been dosed without a significant adverse event related to either the placebo or the PLX cell product candidate.

“We are very pleased with the progress of enrollment in this trial to date”, stated Zami Aberman, Chairman and CEO of Pluristem. “This is the first time PLX cells have been used in addressing surgically induced muscle injury and a positive response will give us an indication of the potential of PLX cells for this indication as well as non-surgical injuries such as sports injuries”.

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 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, we are using forward-looking statements when we discuss the progress made in our Phase I/II clinical trial of PLX cells for the treatment of muscle injury, or when we discuss how a positive response in this clinical trial will give us an indication of the potential of PLX cells for this indication as well as non-surgical injuries. 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 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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