Safety of Pluristem's PLX Cells Demonstrated in Pre-Clinical Pregnancy Model

Important Milestone Advances Pluristem's Clinical Development Program for the Treatment of Preeclampsia Using PLX-PAD Cells

HAIFA, Israel November 4, 2013 -- Pluristem Therapeutics Inc. (NASDAQCM: PSTI) (TASE:PLTR), a leading developer of placenta-based cell therapies, announced today that its PLacental eXpanded (PLX) cells proved to be safe in an animal study assessing maternal and fetal toxicity. The study was conducted at the Charles River Laboratories, one of the world's leading contract research organizations. The results showed that the intramuscular administration of PLX-PAD cells to pregnant rats did not result in any maternal or fetal toxicity. Pluristem will pursue the clinical development of PLX-PAD cells for the indication of preeclampsia based on these results and earlier evidence that the cells were efficacious in preeclamptic animal models.

"Pluristem is extremely pleased with the demonstrated safety of our PLX-PAD cells in pre-clinical models of pregnancy," said Zami Aberman, Chairman and CEO of Pluristem. "This study, together with the work performed by Dr. Brett Mitchell from Texas A&M College of Medicine, suggesting that our PLX-PAD cells are efficacious in preeclamptic animal models, is an important milestone towards our goal of initiating clinical trials for preeclampsia."

In the study, forty-four pregnant female rats were injected intramuscularly with either PLX-PAD at a dosage of 10 million cells (n=22) or cell-free placebo (n=22), on gestational day 13. Throughout the study the pregnant animals were monitored for viability status, body weight and food consumption. On gestational day 21, female rats were examined for ovarian and uterine contents and abnormalities in dams and pups. Charles River's report concluded that the IM injection of PLX-PAD cells in pregnant rats did not result in any maternal or fetal developmental toxicity.

About Preeclampsia

Preeclampsia is one of the most common medical complications of pregnancy, and one of the leading causes of premature births, stillbirths and early neonatal and maternal deaths. If left untreated, it can progress to eclampsia, the life-threatening occurrence of seizures during pregnancy. The only known treatment for preeclampsia is abortion or delivery.

The disease occurs in previously healthy women after their 20th week of pregnancy, and signs include high blood pressure and significant amounts of protein in the urine. According to the World Health Organization, preeclampsia occurs in approximately 6–8% of pregnancies worldwide. It is estimated that preeclampsia costs the global health care system $3 billion annually.

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 expansion 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, when we discuss the results of testing our PLX cells in preclinical pregnancy animal model, as well as our plans to pursue clinical trial for the indication of preeclampsia, we are using forward-looking statements. 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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