U.S. National Institutes of Health to Support Development of Pluristem's PLX-RAD Cells for Treatment of Acute Radiation Syndrome

Data Generated by NIH's Evaluation of Pluristems's PLX Cells will Support Multiple Other Indications Including Bone Marrow Failure

HAIFA, ISRAEL, July 26, 2012 -- Pluristem Therapeutics, Inc. (NASDAQCM:PSTI; TASE: PLTR), a leading developer of placenta-based cell therapies, today announced that it has received an invitation from the U.S. National Institute of Allergy and Infectious Diseases (NIAID), a division of the U.S. National Institutes of Health, to submit its PLacental eXpanded (PLX) cells to the agency for evaluation in models of the acute radiation syndrome (ARS).

ARS results from exposure to high doses of ionizing radiation from a nuclear event, such as a nuclear power plant accident. Candidate drug evaluations could include pharmacokinetic, dosing, dose schedule optimization and efficacy studies in both the hematopoietic and gastrointestinal syndromes of ARS and will be performed, subject to NIAID approval, at NIAID contract facilities.

“We are looking forward to establishing a relationship with NIAID that will help develop a treatment to mitigate the devastating consequences of exposure to toxic levels of radiation,” said Zami Aberman, Chairman and CEO of Pluristem. “In addition to developing a treatment for ARS, the data generated from future studies will also be extremely useful in helping us use our PLX cells for other indications, such as the rescue of bone marrow following radiotherapy or chemotherapy."

Pluristem had previously announced that in animal testing, under a collaborative agreement with Prof. Raphael Gorodetsky, the Head of Laboratory of Biotechnology and Radiobiology at Hadassah University Medical Center, animals treated with PLX-RAD cells experienced a four-fold increase in the survival rate accompanied by a corresponding weight regain seen in irradiated animals, versus those treated with the placebo. Those studies were conducted as governments around the world have broadened their search for easily administered and effective radiation countermeasures.

“NIAID extended this invitation to Pluristem after the Company presented animal data demonstrating the efficacy of PLX cells in the treatment of ARS earlier this year,” said Liat Flaishon MD, PhD, Product & Business Development director and head of the ARS Project at Pluristem. “The agency subsequently commented that the data provided by Pluristem was of great interest to NIAID and aligns well with their product development pathway in finding a successful treatment for ARS.”

About Acute Radiation Syndrome (ARS)

ARS represents a constellation of signs and symptoms that occur between several minutes and several weeks after exposure to high doses of ionizing radiation and involves multiple organs like hematological, gastrointestinal, and neurovascular. The hematological syndrome follows damage to the bone marrow and is characterized by severe decreases in red and white blood cells as well as platelets that predispose the affected people to infection, bleeding and subsequently death.

The gastrointestinal syndrome follows damage of the gastrointestinal tract by the radiation and results in infection, dehydration, and electrolyte imbalance that can lead to death within 2 weeks.

About NIAID

The National Institute of Allergy and Infectious Diseases (NIAID) conducts and supports basic and applied research to better understand, treat, and ultimately prevent infectious, immunologic, and allergic diseases. For more than 60 years, NIAID research has led to new therapies, vaccines, diagnostic tests, and other technologies that have improved the health of millions of people in the United States and around the world.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. (NASDAQ CM: 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 obviate 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.

The Pluristem Therapeutics Inc. logo is available at
http://www.globenewswire.com/newsroom/prs/?pkgid=6882

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 establishment of relationship with NIAID and how they will help us develop a treatment to ARS, when we discuss how data generated from future studies will be useful in helping us use our PLX cells for other indications in addition to ARS, when we discuss that Data from two phase I studies indicate that our 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 our clinical trials; 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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