Pluristem Granted Key U.S. Patent for the Treatment of Peripheral Artery Disease

Exclusive rights to treat PAD with placental cells in the U.S.

HAIFA, Israel September 11, 2013 -- Pluristem Therapeutics Inc. (NASDAQCM: PSTI) (TASE:PLTR), a leading developer of placenta-based cell therapies, announced today that the company has completed a major step in its intellectual property strategy: the United States Patent and Trademark Office has granted the Company U.S. Patent 8,529,888. This patent, the 26th issued to the Company, covers methods for the treatment of peripheral artery disease with placental-derived adherent stromal cells. The treatment for PAD is one of Pluristem's primary drug development areas. Based on priority date, the expected expiration date of this patent is at least until 2028.

"This patent is an important milestone in Pluristem's intellectual property strategy and brings us closer to realizing our vision - to become a world leader in developing and manufacturing cell therapy products," said Zami Aberman, Chairman and CEO of Pluristem. "We believe it is a key asset and significantly enhances our competitive position in cell therapy-based therapeutics."

About PAD

Peripheral artery disease (PAD) is a decrease in blood flow to the lower extremities due primarily from cholesterol plaque blocking the arteries to these limbs. The disease is frequently seen in patients with diabetes and can result in lower extremity ulcers and amputations. Approximately 18 million people in the in the U.S. suffer from PAD with the resultant economic burden estimated to average approximately $200B annually. Current therapeutic methodologies have proven ineffective for many patients with severe PAD and has led to the medical community's call for the development of cell therapies, such as Pluristem's PLX-PAD, as an alternative and potentially cost-effective treatment.

About Pluristem's Intellectual Property Approach

Pluristem's IP portfolio currently includes 26 issued patents and about 100 worldwide pending patent applications fully owned by the company. Pluristem has developed a four-tier strategy to protect its IP. The base of this tier includes the purchase of the core patent surrounding the company's 3D cell expansion technology initially developed at the Weizmann Institute of Science and the Technion-Israel Institute of Technology. Further

patent applications have been filed based on advances in the methods of the 3D expansion of Adherent Stromal cells (ASC) that includes culture methods and conditions. The second tier relates to the Company's filing of "composition-of-matter" patents surrounding the unique PLX cells expanded by the Company's 3D expansion technology based on the cell's source, function, phenotype or other characteristics. The third tier is directed to the filing patent applications surrounding unique instruments and devices invented by Pluristem that are used during the culture of the cells and their eventual administration. The fourth tier consists of the filing of "method of treatment" patents surrounding the application of Pluristem's PLX cells for different indications.

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, when we mention the expected expiration date of the patent discussed above, when we discuss the potential to become a leader in our industry and the potential of the patent to support our competitive position, 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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