Pluristem Receives Key 3D Cell Expansion Patent in Australia

Covers commercial rights for 3D manufacturing methods and composition of matter for placental or fat cells

HAIFA, ISRAEL, February 18, 2014- Pluristem Therapeutics, Inc. (NasdaqCM: PSTI; TASE: PLTR), a leading developer of placenta-based cell therapies, today announced it has been granted a new patent by the Australian Patent Office. Patent #2007228341 covers the method and composition of matter for three-dimensional (3D) expansion of placental or adipose (fat) stromal cells, Pluristem's key technology platform. Patent claims also include methods of treatment using placental cells for numerous diseases including graft vs. host disease (GvHD), heart disease, stroke, burns, loss of tissue, loss of blood, anemia, and autoimmune disorders. Patents with similar claims have also been granted to Pluristem in Russia and in South Africa. This marks Pluristem's third patent issued in Australia and its 28th patent issued worldwide.

Pluristem's PLacental eXpanded (PLX) PAD cells have been approved for a Phase I study in Australia for the treatment of Pulmonary Arterial Hypertension (PAH). United Therapeutics will be conducting the trial under a licensing agreement with Pluristem.

"Australia represents a significant and attractive healthcare market for the largest biotech and pharmaceutical companies. Because this patent covers manufacturing methods for producing commercial quantities of cells, it is very valuable intellectual property for Pluristem and the patent can be a key asset for potential partnership and licensing opportunities for us in Australia," stated Zami Aberman, Chairman and CEO of Pluristem.

Pluristem's Australian patent announced on January 8, 2014 covers the use of adherent placental cells for the treatment of ischemia, which is a restriction of blood supply to tissues, and for treatments of conditions requiring connective tissue repair or regeneration.

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, we are using forward-looking statements, when we discuss that PLX-PAD cells may be helpful in treating certain medical conditions, that United Therapeutics may conduct clinical trials under a license agreement with Pluristem. 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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