Pluristem Move Forward in the Orthopedic Area with the Support of Key Opinion Leaders

Evaluating several orthopedic indications for Company's PLX-PAD cell therapy

HAIFA, ISRAEL, May 29, 2014 -- Pluristem Therapeutics Inc. (NasdaqCM: PSTI; TASE: PLTR), a leading developer of placenta-based cell therapies, today announced it has enhanced its activity in the orthopedic indications for its PLacental eXpanded (PLX) cell therapies. In January, Pluristem announced positive results from its Phase I/II clinical trial for the treatment of injured gluteal muscle after total hip arthroplasty (THA). "This is a great result for a long path from a first idea to such a success in a first-in-men study in orthopedics with an off-the-shelf product to allow muscle regeneration" states Dr. Georg Duda, the Director of the Julius Wolff Institute and Berlin-Brandenburg Center for Regenerative Therapies at the Charité, Berlin. "This is the first hope for muscle regeneration with virtually no clinical therapy presently available to treat injuries or defects in shoulder or lower leg muscles." added Dr. Carsten Perka, Head of Orthopedics at the Center for Musculoskeletal Surgery at the Charité, Berlin.

In addition, the Company has reported strong preclinical data from studies of PLX-PAD cells in the treatment of tendon injuries. Among the additional Key Opinion Leaders that are advising Pluristem, Dr. Scott Rodeo, who conducted the preclinical study of PLX-PAD cells in tendon injuries, commented, "One aspect that makes PLX cells unique and beneficial as a potential cell therapy is that they are adherent stromal cells derived from placentas, as compared to autologous cells which are sourced from the patient. Beyond the potential promise of PLX cells' efficacy, the abundant commercial supplies of PLX-PAD cells produced by Pluristem eliminate the need for patients to go through an additional procedure to extract the cells from their own bodies."

"We have strong clinical and preclinical data on several orthopedic indications for our PLX-PAD cells. With the guidance and expertise offered by Key Opinion Leaders, we are developing and prioritizing our orthopedic clinical indications pipeline," stated Pluristem Chairman and CEO Zami Aberman.

Key Opinion Leaders supporting Pluristem's orthopedic program:

Doctor Shaul Beyth, M.D., Ph.D.
Orthopedic surgeon

Hebrew University Medical School and Hadassah Medical Center, Jerusalem, Israel

Professor Andrew Carr, M.D.
University of Oxford
Professor, Orthopaedics and Head of the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences

Professor Georg Duda, Ph.D.
Charité Hospital, University of Berlin, Germany
Julius Wolff Institute and Center for Musculoskeletal Surgery
Berlin-Brandenburg Center for Regenerative Therapies

Professor Thomas A. Einhorn, M.D.
Boston University
Chairman of the Department of Orthopaedic Surgery and Professor of Orthopaedic Surgery, Biochemistry and Biomedical Engineering

Doctor Ron Noy, M.D.
Founder, Prestige Orthopaedics & Sports Medicine, NY
Orthopaedic Surgeon and Sports Medicine Specialist, Mount Sinai Beth Israel/Lenox Hill Hospital, NY

Professor Carsten Perka, M.D.
Charité Hospital, University of Berlin, Germany, Deputy Director of the Center for Musculoskeletal Surgery and Chairman of the Orthopaedic Department

Professor Scott Rodeo, M.D.
Co-Chief, Sports Medicine and Shoulder Service
Co-Director, Tissue Engineering, Regeneration, and Repair Program
Professor, Orthopaedic Surgery, Weill Medical College of Cornell University
Attending Orthopaedic Surgeon, The Hospital for Special Surgery
Associate Team Physician, New York Giants Football

Doctor Tobias Winkler, M.D., Ph.D.
Charité Hospital, University of Berlin, Germany
Orthopedic surgeon at the Center for Musculoskeletal Surgery

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 protein delivery platform that releases a cocktail of therapeutic proteins in response to an inflammatory or ischemic process. 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, forward-looking statements, are used in this press release when we discuss developing and prioritizing our orthopedic clinical indications pipeline or when the potential efficacy and benefits of our PLX cells, and the hope they may bring for muscle regeneration, are discussed. 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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