Pluristem Reports Data Showing PLX-PAD Cells Effective in Treating Duchenne Muscular Dystrophy

- ***PLX-PAD cells increase regeneration of muscle tissue and reduce inflammation and cell death***
- ***Pluristem donated cells for the studies performed in conjunction with ADI- the Association Duchenne Israel***

HAIFA, ISRAEL, June 22, 2016 -- Pluristem Therapeutics Inc. (NasdaqCM: PSTI, TASE: PSTI/ PLTR), a leading developer of placenta-based cell therapy products, today reported positive data from preclinical studies of its PLX-PAD cells in the treatment of Duchenne muscular dystrophy. The studies were conducted in conjunction with ADI, the Association Duchenne Israel, whose members are parents of children with Duchenne. They are committed to helping to find a cure for Duchenne muscular dystrophy through research, clinical trials, and advocacy.

Duchenne muscular dystrophy is the most common neuromuscular disorder, and affects roughly one in 3,500 boys. The disease causes progressive muscle weakness, and leads to severe disability and death. There is currently no cure.

Following Pluristem's announcement of positive results from a Phase II clinical trial of PLX-PAD as a treatment for muscle injury, the Association Duchenne Israel approached Pluristem with a request to study PLX-PAD cells in Duchenne muscular dystrophy. Pluristem donated PLX-PAD cells for the preclinical studies, and the association supported the research in cooperation with Science in Action Ltd.

The studies demonstrated that, in a mouse model of muscular dystrophy, PLX-PAD cells reduced creatine phosphokinase (CPK), a marker of muscle degeneration or injury, by approximately 50% as compared to placebo. CPK levels were measured via a blood sample taken 5 days after each intramuscular PLX-PAD injection made at day 15 and day 29 of the study. Histological analyses of quadriceps and diaphragm muscles show PLX-PAD reduced levels of inflammation and necrosis, a type of cell death, and induced regeneration of muscle tissue.

Hila Krupsky, CEO of ADI, the Association Duchenne Israel, stated, "These preclinical data suggest that PLX-PAD cells could possibly be a breakthrough therapy to help treat symptoms of Duchenne muscular dystrophy. We are thankful for Pluristem's donation of PLX-PAD and are eager to continue studying the cells since new therapeutic approaches are needed to manage this disease, save children's lives, and give them hope and a chance for the future."

“Because PLX-PAD cells have already displayed efficacy in muscle regeneration in a Phase II muscle injury study, we believe our cell therapy may potentially be beneficial in Duchenne muscular dystrophy in human clinical trials,” said Pluristem Chairman and CEO Zami Aberman. “We admire the commitment of the Association Duchenne Israel to find a cure for Duchenne muscular dystrophy, and we will work closely with them in an effort to develop a treatment for the children around the world who suffer from this disease.”

About Duchenne Muscular Dystrophy

Duchenne muscular dystrophy (DMD) is a genetic disorder characterized by progressive muscle degeneration and weakness. It is caused by a shortage of dystrophin, a protein that helps keep muscle fibers intact as they contract and relax. This shortage is due to a mutation in the gene that controls the production of dystrophin. Muscle weakness can begin as early as age 3, and by the early teens the heart and respiratory muscles also are affected. Average life expectancy for people with DMD is 27 years, though there is significant individual variability. Although girls can be carriers and mildly affected, the disease typically affects boys, and there is currently no cure.

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading developer of placenta-based cell therapy products. The Company has reported robust clinical trial data in multiple indications for its patented PLX (PLacental eXpanded) cells. The cells release a cocktail of therapeutic proteins in response to inflammation, ischemia, hematological disorders, and radiation damage. PLX cell products are grown using the Company's proprietary three-dimensional expansion technology. They are off-the-shelf, requiring no tissue matching prior to administration.

Pluristem has a strong intellectual property position; Company-owned and operated, GMP-certified manufacturing and research facilities; strategic relationships with major research institutions; and a seasoned management team.

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 the findings of the study of our cell therapy and its potential to treat symptoms of, or be part of a possible cure for, DMD and that we will work closely with the Association Duchenne Israel in an effort to develop a treatment to this disease. 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 clinical 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. 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.

Contact:

Pluristem Therapeutics Inc.
Karine Kleinhaus, MD, MPH
Divisional VP, North America
1-914-512-4109
karinek@pluristem.com