HAIFA, ISRAEL – June 19, 2012 -- **Pluristem Therapeutics, Inc** . (NASDAQCM:PSTI; TASE: PLTR) announced today at the 2012 Bio International Convention the results of a pre clinical study it conducted measuring the effectiveness of its
Placental eXpanded
(PLX)
cells
when
administered
intramuscularly
(IM).
Cell therapies
are traditionally delivered through intravenous (IV) injections for systemic effect. However, Pluristems' latest findings show that its
PLX cells
can be effective when injected by needle, into the muscle. Avoiding the use of an IV is simple and more cost-effective. This opens far larger markets for treatments in a wide range of potential outpatient settings and local clinics.

"The ability for IM injections of PLX cells has significant market implications that potentially broaden the indications and frequency with which our cell therapy can be used. We look forward to conducting additional testing of this very promising approach," said Zami Aberman, Chairman and CEO of Pluristem."

The study found that Intramuscularly administered PLX cells are safe, effective, easy to inject

and provided systemic therapeutic benefits in a wide range of hematological disorders, as well as primary and secondary bone marrow failure, such as in radiation sickness and possibly for some complications from chemotherapy and radiotherapy.

The results of the study demonstrated a significant survival and recovery rate of bone marrow and peripheral blood counts in animals pre-irradiated by high lethal doses. These findings indicate that the IM route of administration of PLX cells stimulate the hematopoietic stem cells (HSCs) of the bone marrow to produce red and white blood cells as well as platelets crucial for the treatment of hematological disorders.. The study was conducted in cooperation with the Sharett Institute of Oncology at Hadassah Hospital in Jerusalem.

"Pluristem is extremely pleased at how convincingly this study's data demonstrates that our PLX cells have the ability to stimulate the HSCs involved in rescuing bone marrow. With PLX cells, we may be able to reverse the traditional mindset that if you want to get a systemic effect, you need to inject the cells intravenously," said Liat Flaishon, MD. PhD. BD Director and the Head of the Radiation project at Pluristem.

"We had announced on May 9, 2012 the successful treatment of pediatric patient whose bone marrow graft was rescued using our PLX cells. This data demonstrates the basis for the successful treatment. In the treatment conducted by Professor Reuven Or from the Bone Marrow Transplantation Unit at Hadassah, PLX cells were given to this patient intramuscularly as well," added Dr. Flaishon.

Prof. Raphael Gorodetsky, Head of the Laboratory of Biotechnology and Radiobiology in the Cancer Research Laboratories of Sharett Institute of Oncology at Hadassah Hospital, has been conducting the animal studies of Pluristem's PLX cells in the past several months. In these studies PLX cells and control medium were administered intramuscularly to C3H mice previously irradiated by a total body dose of 770cGy. The company previously reported initial results from these studies with respect to Acute Radiation Syndrome.

The key results of the Study include:

1. With PLX cells or the control medium given IM 24 hours and 5 days post irradiation a significant increase in the survival of mice from 27% in controls to 98% at 23 day on wards (p