Pluristem Joins Forces with CRISPR-IL National Consortium to Advance Development of Cutting-Edge Genome Editing Solutions for Life Science Products

- **Collaboration will enable Pluristem to develop new technologies relying on its PLX platform**
- **The consortium is supported by the Israeli Innovation Authority as part of its Bio-Convergence Program, and includes industry and academic leaders in AI and genome editing**

HAIFA, Israel, June 3 , 2020 - Pluristem Therapeutics Inc. (Nasdaq:PSTI) (TASE:PSTI), a leading regenerative medicine company developing a platform of novel biological products, today announced that it was selected as a member of the CRISPR-IL consortium, a group funded by the Israeli Innovation Authority. CRISPR-IL brings together the leading experts in life science and computer science from academia, medicine, and industry, to develop artificial intelligence (AI) based end-to-end genome-editing solutions. These next-generation, multi-species genome editing products for human, plant, and animal DNA, have applications in the pharma, agriculture, and aquaculture industries. Pluristem's Vice President Research & Intellectual Property, Racheli Ofir, will lead CRISPR-IL's pharma working group.

CRISPR-IL is funded by the Israeli Innovation Authority with a total budget of NIS36 million, or approximately US$10 million, for a period of 18 months, with a potential for extension of an additional 18 months and additional budget from the Israeli Innovation Authority. CRISPR-IL participants include leading companies, and medical and academic institutions. In addition to Pluristem, key participants from industry include BTG – Bio-technology General Israel, Colors Farm, Hazera Seeds, NRgene, Evogene, TargetGene Biotechnologies and Rahan Meristem Ltd.; medical institutions include Sheba Medical Center and Schneider Children's Medical Center; and members from academia include Bar-Ilan University, Ben Gurion University of the Negev, Hebrew University of Jerusalem, the Weizmann Institute of Science, IDC Herzliya, and Tel-Aviv University.

CRISPR is a genome-editing technology for detecting and modifying DNA sequences. It is used as a tool to enable genetic changes. The technology enables the development of unique bio-based products and novel therapeutics while reducing the time and cost of development.

Current CRISPR-based workflows target precise areas within the DNA; however, these workflows still face several challenges, which prevent more extensive use of this tool, including: (i) accidental off-target modification, (ii) inefficient modifications and (iii) inaccurate measuring tools to ascertain if the modification was effective as intended. The CRISPR-IL consortium intends to develop an AI-based system to provide users improved genome-editing workflows. The system aims to provide end-to-end solutions, from the user interface to an accurate measurement tool. The system is expected to include the computational design of on-target DNA modification, with minimal accidental, off-target modifications, improve modification efficiency and provide an accurate measuring tool to ensure the desired modification was made.

“CRISPR gene editing technology creates new technological options in healthcare that are both personalized and regenerative. We see cell therapy and gene editing as highly synergistic methods to treat and cure diseases using advanced technologies. Pluristem is honored to bring its allogeneic cell therapy and manufacturing expertise to the CRISPR-IL consortium and to lead the development of next generation of allogeneic cell therapies for treating the diseases of today and the future,” stated Pluristem CEO and President, Yaky Yanay. “Our future product development strategy leverages our well established PLX platform to integrate CRISPR technology, opening new opportunities for Pluristem to provide an expanded pipeline of products.”

About Pluristem Therapeutics

Pluristem Therapeutics Inc. is a leading regenerative medicine company developing novel placenta-based cell therapy product candidates. The Company has reported robust clinical trial data in multiple indications for its patented PLX cell product candidates and is currently conducting late stage clinical trials in several indications. PLX cell product candidates are believed to release a range of therapeutic proteins in response to inflammation, ischemia, muscle trauma, hematological disorders and radiation damage. The cells are grown using the Company's proprietary three-dimensional expansion technology and can be administered to patients off-the-shelf, without tissue matching. Pluristem has a strong intellectual property position; a Company-owned and operated GMP-certified manufacturing and research facility; strategic relationships with major research institutions; and a seasoned management team.

Safe Harbor Statement

This press release contains express or implied forward-looking statements within the Private Securities Litigation Reform Act of 1995 and other U.S. Federal securities laws. For example, Pluristem is using forward-looking statements when it discusses the potential of CRISPR gene editing technology and its potential integration with Pluristem’s PLX platform leading to new

opportunities and an expanded pipeline of products. 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; Pluristem may encounter delays or obstacles in launching and/or successfully completing its clinical trials; Pluristem's products may not be approved by regulatory agencies, Pluristem's technology may not be validated as it progresses further and its methods may not be accepted by the scientific community; Pluristem may be unable to retain or attract key employees whose knowledge is essential to the development of its products; unforeseen scientific difficulties may develop with Pluristem's process; Pluristem's products may wind up being more expensive than it anticipates; 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; Pluristem's patents may not be sufficient; Pluristem's products may harm recipients; changes in legislation may adversely impact Pluristem; 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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