Initiation of Exploratory Clinical Trial of Muse Cell Product Targeting Acute Myocardial Infarction

Life Science Institute, Inc.

Life Science Institute, Inc. (Head Office: Chiyoda-ku, Tokyo, President: Seiichi Kiso, hereinafter referred to as “the Company”) is pleased to announce that the Company, which has been promoting the research and development of regenerative medicine products using Muse cells, will begin exploratory clinical trials of the Muse cell-based formulation “CL2020” for patients with acute myocardial infarction at Gifu University Hospital and other institutions.

Muse cells (multilineage differentiating stress enduring cells), which were discovered by a team led by Professor Mari Dezawa of Tohoku University in 2010, are a new type of pluripotent stem cells that can be differentiated into various cells of the human body. Muse cells are natural stem cells originally present in mesenchymal tissues of the body and have advantageous characteristics, such as few concerns about tumor generation, no need to induce differentiation to a target cell and the ability to accumulate at the site of an injury simply by intravenous administration to engraft and repair the injured tissue.

In the studies conducted so far using myocardial infarction model animals, intravenous administration of CL2020 was confirmed to exert effects that improve cardiac function.

Heart disease is the second leading cause of death in Japan, about 20% of which is due to acute myocardial infarction. It has been reported that the incidence of cardiovascular accidents (cardiac death, reinfarction, heart failure) has increased markedly despite the availability of standard treatment, especially in cases of myocardial infarction exhibiting deterioration of cardiac function. Therefore, CL2020, which is expected to repair damaged cardiac tissue to improve heart function, will be a new option for myocardial infarction treatment.

[Overview of the exploratory clinical trial]
Target disease: acute myocardial infarction
Purpose: To examine the safety, tolerability (acceptability even if an event occurs) and efficacy of a single administration of CL2020 in patients with acute myocardial infarction.

The Company will continue to develop the healthcare business for the next generation, including Muse cells, and utilize various resources to promote business that realizes a KAITEKI society.