株式会社メガカリオン
www.megakaryon.com

News Release

17th February 2020

Megakaryon Raises Yen 2.8 Billion in Series D Financing

Megakaryon Corporation (Head office: Shimogyo-ku, Kyoto; President: Kenichi Akamatsu), working towards the commercialization of HLA(1)-compatible platelet preparation from human iPS(2) cells announced today that it has raised Yen 2.8 billion in Series D financing of third-party allotment of new shares. The fund raised is used for clinical development including pre-clinical studies and clinical trials and for developing commercial manufacturing technologies. The total amount raised through third-party allotment, including Series D is 10.2 billion yen.

INCJ, a Japanese sovereign wealth fund and our largest shareholder, led the round. Japan's leading venture capital firm SBI Investment, and our technology collaborators, Sekisui Chemical and Satake Chemical Equipment Mfg., also participated in Series D.

Series D：Third party assignee

Lead investor

・INCJ, Ltd.（Chiyoda-ku, Tokyo; Mikihide Katsumata, President）

Venture capital

・SBI INVESTMENT CO., LTD.（Minato-ku, Tokyo; Katsuya Kawashima, President）

Business Partners

・SEKISUI CHEMICAL CO., LTD.
（Kita-ku, Osaka; Teiji Koge, President）
・SATAKE CHEMICAL EQUIPMENT MFG., LTD.
（Toda, Saitama; Nishioka Mitsutoshi, President）

Transfusion medicine uses blood products including platelets as one of the most basic treatment modalities. But currently, all blood products required for transfusion is obtained by blood donation. Among all blood components, platelets have the shortest shelf life of 4 days including the day of donation. Due to this, careful attention is required on the demand and

supply at medical facilities. In addition, the increase in aging population and decreased birthrate is a matter of concern which will affect the number of blood donors in the long term. For patients undergoing multiple platelet transfusions, the presence of HLA[1] on platelets may produce antibodies against HLA and render transfusion ineffective. In this scenario, Megakaryon's iPS cell derived platelet preparations can potentially solve the supply and demand problems related to donated platelets and provide a source of HLA-compatible platelets.

Based on the concept of open innovation, we will combine outstanding Japanese technologies to obtain Japanese manufacturing and marketing approval for human iPS cell-derived platelet formulation, and consecutively promote international expansion to the United States, Europe and other foreign countries.

1) HLA

Human Leukocyte Antigen (HLA) is a group of cell surface proteins which was discovered in 1950s. Initially HLA was discovered on leucocytes, but subsequent studies show that HLA is present on all nucleated cells and plays an important role in the body's immune response in self and non-self recognition. HLA is encoded by a highly variable gene complex consisting of many genes. The variations in genes form the basis of providing immunity against wide range of antigens. HLA compatibility is important for hematopoietic stem cell transplantation, organ transplantation, regenerative medicine, etc., because any foreign entity that do not fit your HLA type will be recognized as foreign, triggering an immune response. HLA genes are inherited from both parents (50% from each parent) and the probability of HLA match between related individuals is low. The probability of HLA match between unrelated individuals is less than one in tens of thousands.

We are developing platelets derived from human iPS cells with a specific HLA type, as well as researching and developing universal HLA type human iPS cell-derived platelets that can be used regardless of HLA type of the recipient.

2) iPS cells

Induced pluripotent stem cells (iPS cells) are cells that have pluripotency by introducing several types of genes into somatic cells and have self-renewal ability to maintain them even after dividing and proliferating. In 2006, pluripotent cells were first produced from mouse fibroblasts (skin cells) by a research group at Kyoto University led by Professor Shinya Yamanaka. Theoretically, pluripotent cells can be induced to differentiate into all tissues and organs of the body. This property is used worldwide for realizing applications in regenerative medicine.

【Megakaryon Corporation】Website: http://www.megakaryon.com/

Megakaryon Corporation was established in 2011 with the aim of utilizing the technologies developed by Kyoto University and the University of Tokyo for producing platelets from human iPS cells for clinical application. By developing large-scale manufacturing of human iPS-derived platelets with no risk of infection, we aim to supply platelets to medical facilities around the world both in developed countries where declining birthrate and increased ageing population cause a concern due to decreased number of blood donations, and in developing countries where there is already a shortage of donated platelets.

Since 2013, Megakaryon Corporation is supported by Innovation Network Corporation of Japan (currently INCJ, Ltd.). In 2015, Megakaryon Corporation was certified by the Japanese Prime Minister as the first application of a specific core project under the National Strategic Special Zones Law for its initiative that contributes to strengthening Japan's competitiveness in the global medical field, as well as in research and development of innovative regenerative medicine, and the promotion of its commercialization.

In February 2020, our efforts for promoting open innovation was recognized by the Cabinet Office of Japan at the 2nd Japan Open Innovation Award and Megakaryon along with its partner companies have won the Minister of State Science and Technology Policy Award.

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