

October 30, 2018

**Otsuka Pharmaceutical Factory starts joint development of regenerative medicine products with Adipo Medical Technology**

Otsuka Pharmaceutical Factory, Inc. (Head Office: Naruto, Tokushima, Japan; President and Representative Director: Shinichi Ogasawara; “OPF”) concluded a joint development agreement with Adipo Medical Technology, Inc. (Head Office: Higashiosaka, Osaka, Japan; President and Representative Director: Hachiro Seno; “AMT”) and started to jointly develop regenerative medicine products<sup>\*1</sup> using human adipose tissue-derived multi-lineage progenitor cells.<sup>\*2</sup>

We expect that the regenerative medicine product could be a safe therapy with less physical burden on patients with severe cardiac failure whose symptoms are hard to control and on patients with decompensated cirrhosis<sup>\*3</sup> whose condition is not likely to improve, with existing treatments. We first aim to obtain an early marketing approval in the area of heart disease.

AMT was established as a result of success of the research on “Development of allogeneic adipose tissue-derived multi-lineage progenitor cells as a cellular medicinal product applied for severe heart failure (Project leader: Akifumi Matsuyama, Professor of Regenerative Medicine, School of Medicine, Fujita Health University) which was adopted as “Adaptable and Seamless Technology Transfer Program through Target-driven R&D (A-STEP)<sup>\*4</sup>” by the National Research and Development Agency, Japan Agency for Medical Research and Development (AMED). We believe that combining human adipose tissue-derived multi-lineage progenitor cells developed by Professor Matsuyama and AMT with OPF’s solution for cell suspension<sup>\*5</sup> will realize a regenerative medicine product which can be administered in a better condition to the patients.

OPF will work on developing research on innovative products that meet unmet medical needs of diseases for which effective treatments are not yet available through promoting R&D of the regenerative medicine product and its commercialization.

Based on the corporate philosophy of “Otsuka-people creating new products for better health worldwide,” the Otsuka Group is dedicated to contributing to the health of people around the world.

\*1 Regenerative medicine products: In the Law on Securing Quality, Efficacy, and Safety of Products Including Pharmaceuticals and Medical Devices (Pharmaceuticals and Medical Devices Law), the “Regenerative medicine product” refers to the items obtained after culturing or others processed within human cells which are intended to be used for “reconstruction, repairing, augmentation or formation of the structure or function of the bodies of humans,” and “treatment or prevention of disease in humans,” or the items intended for the treatment of disease in humans to which genes are introduced for expression in their cells.

\*2 Adipose tissue-Derived Multi-lineage Progenitor Cells (ADMPC): The cell was developed by Professor Matsuyama and AMT. The cell is obtained from an adipose tissue, which is highly capable of changing into various cells. The cells have been confirmed to differentiate into neural cells, hepatocytes, etc. other than cardiomyocytes.

\*3 Decompensated cirrhosis: An advanced stage of cirrhosis with a condition in which the liver and its surrounding organs are severely damaged and with symptoms such as variceal hemorrhage, ascites, hepatic encephalopathy, jaundice, and hemorrhagic tendency

\*4 This program was transferred from the National Research and Development Agency Japan Science and Technology Agency (JST) to AMED with the establishment of AMED in April 2015.

\*5 Solution for cell suspension: Solution prepared for cell dispersion

## Company Profile

### Adipo Medical Technology, Inc.

Established	:	April 1, 2015
Capital	:	17.5 million yen
Representative	:	Hachiro Seno, President and Representative Director
Head Office	:	Ajirokita 2-chome, Higashiosaka, Osaka, 577-0058 Japan
Employees	:	5
Business Description	:	Manufacture and sale of pharmaceutical products (regenerative medicine products)

### Otsuka Pharmaceutical Factory, Inc.

Established	:	October 17, 1969 (founded September 1, 1921)
Capital	:	80 million yen
Representative	:	Shinichi Ogasawara, President and Representative Director
Head Office	:	115 Kuguhara, Tateiwa, Muya-cho, Naruto, Tokushima, 772-8601 Japan
Employees	:	2,297 (as of December 31, 2017)
Business Description	:	Manufacture, sale, import and export of clinical nutrition products and other pharmaceutical products, medical devices, functional foods, etc.
URL	:	<a href="https://www.otsukakj.jp/en/">https://www.otsukakj.jp/en/</a>