

CellFiber Co., Ltd. and CiRA Foundation announce research collaboration to co-develop iPSCs culture technology

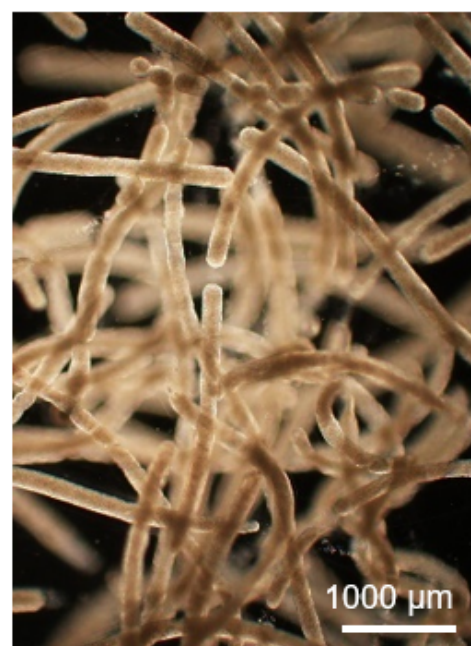
Collaboration focused on developing efficient iPSCs culture technology to enhance CiRA Foundation's philosophy "Provide the best iPS cell technology with affordable price"

Tokyo, Japan – Cellfiber Co., Ltd., a start-up founded out of University of Tokyo with a unique cell culturing technology that can enable dramatic cost reduction of cells in a small footprint, and CiRA Foundation, which is founded by an offshoot of CiRA's R&D and clinical departments to be a "bridge" between academia and industry to "provide the best iPS cell technology with affordable price," announced a collaborative research effort to develop an efficient iPSCs production process.



Existing iPSCs culture methodology heavily relies on manual production, so rationalization & improvement of production efficiency is required. CellFiber owns proprietary technology for mass culturing of cells and currently develops automated cGMP equipment suitable for manufacturing. "With CiRA foundation's iPSCs knowledge and experience, we aim to develop advanced mass culturing process of iPSCs," says Yu Yanagisawa, CEO of CellFiber.

CellFiber's technology consists of a porous, hollow and uniform gel tube that encapsulates the cells for culture. The tube is very small in diameter but stretches for kilometers. The CellFiber technology holds an advantage over existing expansion technologies, as it protects the cells from shear stresses which are inherent in the standard bioreactor and thus enables higher density cell culture requiring a significantly smaller footprint for manufacturing and improving yield. Additionally, it provides a consistent microenvironment from lab bench to scale-up GMP, reducing process development timelines and challenges.



iPSCs culture with CellFiber

The collaboration will accelerate to deliver high quality and affordable iPSCs to patients and researchers. iPSCs in regenerative medicine are expected to find cures for debilitating diseases like cancer, diabetes, cardiovascular, Parkinson's, and other intractable disease. When safe and efficient production process is developed, it will make cell and gene therapies more affordable, and treatments will be delivered to patients who await.

Ultimately, the collaboration is expected to develop a fully automated culturing process eliminating the need for manual operation, and to find the way to differentiate iPSCs targeting necessary cells for implantation in patients. This collaboration is the first step towards solving these challenges.

CiRA Foundation said, "to make iPSCs treatment more routine, every entity must collaborate to improve technical capabilities. We appreciate to have an opportunity to collaborate with CellFiber. Last November, we started our collaboration. And since January this year, CellFiber's scientist is working closely with us in our facility. We are hopeful this collaboration will accelerate the development of efficient iPSCs culture technology"

CellFiber Co., Ltd.

Established: April 1st, 2015

Address: 216 UT South Clinical Research Bldg., 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8435 Japan

CEO / CAO: Yu Yanagisawa, Aki Adachi

Business: Research, development, production and sale of biomaterials including cells and soft materials

Website: <https://cellfiber.jp/en/>

Center for iPS Cell Research and Application Foundation (CiRA Foundation)

Established: September 6th, 2019

Address: 53 Shogoin Kawahara-cho, Sakyo-ku, Kyoto 606-8397, Japan

Representative Director: Shinya Yamanaka

Services: Cell production, quality evaluation, cell stock management, management of cell processing facility and research & development

Website: <https://www.cira-foundation.or.jp/>