

Fujifilm establishes the Bio Science & Engineering Laboratories U.S.A. to start full-scale translational research for biotherapeutics in the United States

Strengthening fundamental research capabilities in the areas of gene therapy, cell therapy and regenerative medicine applications and promoting industry-leading advanced research by incorporating cutting-edge technologies in the U.S. and fusing the group technologies

Tokyo, December 5 2019— FUJIFILM Corporation (President: Kenji Sueno) announced that it has begun full-scale research activities to advance the field of translational research for biotherapeutics at its newly established “Bio Science & Engineering Laboratories U.S.A.” (“US Bio Center”) located in Madison, Wisconsin. The goal of the Fujifilm US Bio Center will be to further strengthen its fundamental research efforts to support the broad goals of Fujifilm in the areas gene therapy, cell therapy and regenerative medicine applications.

The US Bio Center is a research hub that conducts early-stage fundamental research through production process development, in addition to translational research for new drug discovery support solutions using induced pluripotent stem cells (iPSCs). The company will further enhance research capabilities of the Fujifilm group through its two research hubs in Japan and the United States.

FUJIFILM Group companies are actively pursuing R&D in the fields of biotherapeutics and life sciences. This latest move to establish a research center in the United States, the largest market in biotherapeutics and life sciences, will enable greater integration of the Fujifilm Group companies’ collective knowledge to collaborate on cutting-edge research in an effort to support the development of regenerative medicine applications and advanced therapies.

Positioning the US Bio Center as a core research base, the company will further strengthen its capabilities in the field of translational research for biotherapeutics by conducting integrated research on cells and cell culture medium. Tapping into image analysis technology that the company has nurtured over many years, as well as cutting-edge AI and ICT technologies, Fujifilm will conduct research utilizing bio-informatics, including cellular metabolism and gene expression, cell-engineering such as genome editing technology, manufacturing automation technology and new drug discovery support technology using iPSCs. Furthermore, the US Bio Center will collaborate with the Bio Science & Engineering Center*1 (“Japan Bio Center”) to promote industry-leading advanced research on a global scale.

Working toward establishing therapeutic options that fulfill unmet medical needs, Fujifilm will continue to pool the fundamental technologies of the Group to further improving product performance and accelerating the creation of new products and services.

Prior to the establishment of the US Bio Center in March 2018, the company brought together its cell researchers and production process developers to establish the Japan Bio Center in the FUJIFILM Advanced Research Laboratories (Kanagawa Prefecture). With its structure catering to fundamental cell research through to the development of mass production technology required for commercial

products, the Japan Bio Center promotes R&D for developing cell culture processes, tailored to various cell types, from the ground up and achieving mass production of cultured cells. The company has also been conducting advanced research through combining proprietary technologies and knowledge of Group companies including FUJIFILM Diosynth Biotechnologies, a leading bio-pharmaceutical CDMO^{*2}, FUJIFILM Cellular Dynamics, Inc., a leader in the field of iPSC development and manufacturing, FUJIFILM Irvine Scientific, Inc., a leader in development and manufacturer of cell culture media, FUJIFILM Wako Pure Chemical Corporation, a leading laboratory chemical company and Japan Tissue Engineering Co. Ltd., the first company to commercialize regenerative medicine products in Japan.

Fujifilm is evolving its advanced and diverse technologies, developed through the photographic film business, while bringing together technologies held by Group companies to develop innovative products and services and provide new value to our society.

- *1 The Japan Bio Center was initially established as the Bio-Science & Technology Development Center, and merged with the Pharmaceutical and Healthcare Research Center, which handled R&D for pharmaceuticals, cosmetics and dietary supplements, in April 2019 to adopt the current name.
- *2 CDMO stands for Contract Development & Manufacturing Organization. CDMO supports clients such as pharmaceutical companies with a wide range of services from cell line development in the early stage of pharmaceutical development to process development, stability testing, investigational drug development / manufacturing and commercial drug manufacturing

[Overview of the US Bio Center]

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| 1 | Name | Bio Science & Engineering Laboratories U.S.A. |
| 2 | Operation commencement | Full-scale operation commencement in December 2019 |
| 3 | Location | Madison, Wisconsin, U.S.A. Boston area, Massachusetts, U.S.A. (to be opened in the future) |
| 4 | Research description | Fundamental research using cell engineering, process engineering, bioinformatics and AI automation for the business fields including regenerative medicine and contract development / manufacturing of biopharmaceuticals Fundamental research for new drug discovery support technology using iPSC |

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