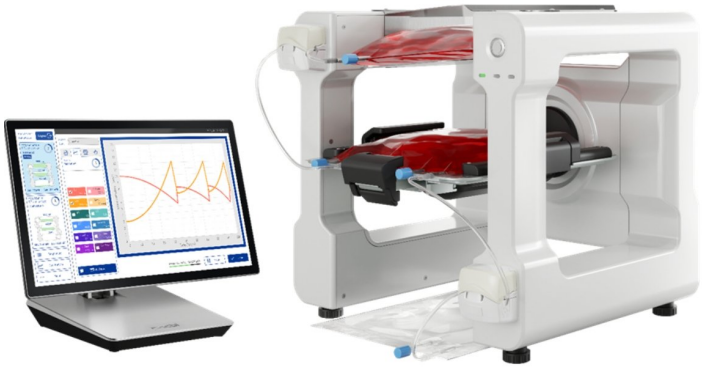
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Japan's PHC partners with CCRM in Canada to develop primary T-cell expansion culture processes

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To establish new culture processes to improve cell culture efficiency and quality for cell and gene therapy products



Japan-based PHC Corporation has signed a Master Collaboration Agreement with CCRM (based in Canada) to work together on the development of primary T-cell expansion culture processes that will seek to accelerate the manufacturing of cell and gene therapy (CGT) products. This joint initiative will integrate LiCellGrow, PHC's cell expansion system under development, with CCRM's deep knowledge of regenerative medicine and biomanufacturing to establish new culture processes to improve cell culture efficiency and quality for CGTs.

The joint research with CCRM will allow PHC to analyse culture conditions using "LiCellGrow" to establish optimal culture processes for primary T-cells. The collaboration will seek to accelerate LiCellGrow's development, contributing to improved cell quality, enhanced manufacturing efficiency, and cost reduction in the production of cell-based therapeutics.

PHC has developed proprietary In-Line monitoring technology to track key indicators of cell metabolism in real-time, which can help researchers address issues like cell quality and reproducibility, and establish optimal cell culture methods. This technology enables precise, continuous measurement of glucose uptake and lactate production during cell culture, providing a more precise understanding of changes in cell metabolism over time than is possible to observe using traditional sampling methods. In 2024, PHC launched the live-cell metabolic analyser LiCellMo incorporating this technology in the United States, Canada, Europe and some Asian markets including Japan, China, Singapore and Taiwan.

Building on this technology, the company is also developing LiCellGrow, a cell expansion system designed to exchange media automatically based on the metabolic state of the cells and to maintain the culture environment in an optimal state. PHC aims to further expand its product lineup to seamlessly support research, process development, and commercial manufacturing of cell-based therapeutics.