BioSpectrum ASIA EDITION
the business of Bio & Health Sciences

Multiply Labs and Thermo Fisher automate cell therapy manufacturing

12 February 2024 | News

Automating Thermo Fisher’s cutting-edge, GMP-ready instruments using Multiply Labs’ robotic technology

Through integration with Multiply Labs' robotic technology, US-based Thermo Fisher Scientific’s advanced, industry-leading cell therapy instruments, including the Thermo Scientific Heracell VIOS Automated Access CO_2 Incubator and the Gibco Cell Therapy Systems (CTS) Rotea Counterflow Centrifugation System can now be fully automated for cell therapy manufacturing.

This collaboration is an important step forward for cell therapy development and manufacturing with a goal of supporting reduced costs, accelerated production timelines and improved scalability, helping innovative cell therapies reach more patients.

With the automated Heracell VIOS Incubator, up to 18 products can be hosted in parallel when using G-Rex100M bioreactors. This is a steep increase over traditional manual manufacturing, where one or two G-Rex100M bioreactors are used in parallel in a single incubator. The ability to support 18 products at once per incubator signals future scalability, as with two automated incubators, manufacturers would be able to create 36 products at the same time and scale upwards from there as incubators are added.

Furthermore, by automating Thermo Fisher’s CTS Rotea Counterflow Centrifugation System, key manufacturing steps including upstream and downstream cell processing, can be performed automatically. Therefore, automation supports not only increased throughput but also lower labour cost, as these important processes can be executed by a single manufacturing operator. For comparison, traditional manual manufacturing processes typically require 4-8 operators. An end-to-end automated workflow using robotic technology only requires 400-500 sq ft of space compared to the 1000-2000 sq ft of space required for human-operated workflows.