

Thermo Fisher launches cell therapy processing system

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Thermo Fisher Scientific has announced the launch of its Gibco CTS Rotea Counterflow Centrifugation System, a modular, closed cell therapy processing system that enables scalable, cost-effective cell therapy development and manufacturing.

The CTS Rotea system is the first Gibco instrument for cell therapy processing applications and facilitates workflows from research through GMP clinical development and commercial manufacturing.

As of mid-2020, 675 clinical trials were underway globally for cell therapy and cell-based immune-oncology, according to the Alliance for Regenerative Medicine. Yet few cell therapies in development become commercially available due to several factors: safety and efficacy requirements, difficulties in transferring research protocols to manufacturing processes, lack of scalability of these therapies, high cost of facilities, labor and equipment, and complexity of the processes involved.

Using a modular, closed system for cell processing enables time-consuming processes to be decoupled from rapid processes, improving facility and equipment utilization and reducing the capital investment required. Use of the same system from research through process development and commercial manufacturing lowers the risk of process delays associated with changing systems. Sterile, closed, single-use kits enable cell processing in grade C clean rooms, leading to cost-effective transfer and scale-out of processes.

The multifunctional and highly flexible CTS Rotea system can easily integrate into existing workflows, process low- to midrange input volumes, and deliver low output volumes. Consisting of an instrument, closed sterile single use kit, and user programmable software, the CTS Rotea system provides processing flexibility to support a broad range of protocols for cell separation, washing and concentration with a cell recovery yield of greater than 95 percent while maintaining cell viability.