Cellares Cell Therapy Suite

Integrated software suite for fully automated, scalable, and high-throughput cell therapy manufacturing and quality control as part of the Cellares IDMO platform.

https://www.cellares.com/

Overview

The Cellares Cell Therapy Suite is the integrated software component of the Cellares Integrated Development and Manufacturing Organization (IDMO) model, which utilizes the proprietary Cell Shuttle™ and Cell Q™ automated hardware platforms. The software is designed to industrialize cell therapy production, addressing challenges related to scalability, high costs, and process failure rates in manual manufacturing.

Product Overview and Key Benefits

The suite provides end-to-end automation for cell therapy manufacturing, enabling a **10x increase in productivity** and up to a **50% reduction in batch price** compared to conventional CDMOs. The automation reduces labor and facility size requirements by up to 90% and lowers the process failure rate from approximately 20% to less than 5% by eliminating human error and contamination risk. The platform is cGMP-compliant and has an FDA-designated Advanced Manufacturing Technology status, which can accelerate the time to IND and BLA.

Main Features and Capabilities

Process Design Studio: A flexible software tool that supports process customization, digital process development, and Design of Experiments (DOE) for up to 90% of cell therapy modalities.
Integrated MES: Allows for batch scheduling across the entire Cell Shuttle fleet, managing high-throughput manufacturing of up to 16 batches in parallel.
Real-time Process Monitoring: Provides in-process data tracking and analysis, enabling operators to check the status of the manufacturing run as it happens.
Auto-generation of Electronic Batch Records: Automatically transitions from paper-based to electronic batch records, auto-populating up to 80% of the content for audit-readiness and compliance.

Automated QC Testing (Cell Q™): The integrated software for the Cell Q platform automates the vast majority of in-process and final product release QC assays, supporting up to 6,000 batches per year.
Reagent and Supply Chain Management: Integrated software handles reagent scheduling, inventory, and supply chain management for up to 200 automation-friendly reagent bottles.

Target Users and Use Cases

The Cellares Cell Therapy Suite is primarily used by the Cellares IDMO to serve **academic institutions, biotech, and pharmaceutical companies** (including 5 out of 8 of the world's largest pharmaceutical companies) and **CDMOs**. The platform supports the manufacturing of various cell therapy modalities, including Autologous & Allogeneic, CAR-T, TCR, HSC, NK, TIL, Treg, and γδ T cells.

Key Features

- Process Design Studio (Digital Process Development)
- Integrated MES for Batch Scheduling
- Real-time Process Monitoring and Data Tracking
- Auto-generation of Electronic Batch Records
- Automated QC Testing (Cell Q)
- Reagent Scheduling and Inventory Management
- High-throughput Parallel Manufacturing (up to 16 batches)
- Closed-platform End-to-End Automation

Pricing

Model: enterprise

Capacity reservation and supply agreement model (IDMO) with flexible service tiers (Shared, Hybrid, Dedicated). Pricing is structured to achieve up to a 50% reduction in batch price compared to conventional CDMOs, with no clean room fees during clinical manufacture. A global capacity reservation and supply agreement with Bristol Myers Squibb was valued up to $380M.

Target Company Size: startup, enterprise

Integrations

ERP, MES, LIMS, Tecan, Advanced Instruments, Cytek Biosciences, Slingshot Biosciences, AltemisLab

Compliance & Certifications

cGMP, FDA-Advanced-Manufacturing-Technology