

Molecular Devices Introduces CellXpress.ai Automated Cell Culture System, a 3D Biology Innovation Hub for Fast, Reliable Drug Discoveries

Increases walk-away time while streamlining and scaling complex cell culture workflows

SAN JOSE, Calif., Oct. 16, 2023 – [Molecular Devices, LLC.](#), a leading high-performance life science solutions provider and an operating company in the life sciences segment of Danaher Corporation (NYSE:DHR), has launched the patent-pending CellXpress.ai™ Automated Cell Culture System—an end-to-end, machine learning-enabled solution that automates demanding feeding and passaging schedules with an integrated incubator, liquid handler, and imager, giving scientists more time and autonomy in the lab. The visionary goal for this instrument is to reduce reliance on animal models in drug development while enhancing productivity, optimizing efficiency, and fast-tracking potential therapeutics to pre-clinical trials using human-relevant models earlier in the process.

“In drug discovery, we recognize the significance of having advanced cell culture protocols for 3D biology models,” said Shantanu Dhamija, Vice President of Strategy and Innovation Molecular Devices. “However, these demanding workflows often burden researchers with repetitive and complex tasks, which can hinder meaningful insights if not properly controlled. By leveraging the power of automation and artificial intelligence, the CellXpress.ai cell culture system empowers researchers to achieve reliable, reproducible, and biologically relevant results at scale while streamlining routine responsibilities.”

Key features of the CellXpress.ai cell culture system include:

- **Reduced Labor Costs:** Until now, large-scale cell culture has demanded round-the-clock oversight. The CellXpress.ai cell culture system uses automation and AI to maintain this 24/7 schedule, improving workflows and making assays more reliable and reproducible.
- **Integrated AI-Powered Software:** The hub contains next-generation technology that reliably manages the entire cell journey. Integrated machine learning-enabled software facilitates the navigation and monitoring of complex cell culture workflows, including built-in protocols for generating 2D and 3D models.
- **Efficient Protocol Development:** Flexible decision-making—initiated by the operator or via machine learning-powered algorithms—allows for efficient, customizable protocol development for seamless, quality-controlled collaboration within research teams.
- **Reproducible Results:** Fully automated workflows deliver reproducible results across multiple team sites, instilling confidence in experimental outcomes, enabling faster decision-making, and achieving milestones more rapidly.
- **Complete Event Log and Digital Microscopy Records:** A comprehensive event log confirms on-time feedings and critical task execution, supplemented by detailed digital microscopy records.

Early CellXpress.ai cell culture system users include life science leader HeartBeat.bio.

“At HeartBeat.bio, we are thrilled to be one of the first external users of the CellXpress.ai Automated Cell Culture System,” said Michael Krebs, CEO of [HeartBeat.bio](https://www.heartbeat.bio). “Last year, we unveiled our partnership with Molecular Devices to create the world’s first fully integrated, high-throughput human cardiac organoid screening solution. With today’s official launch of the CellXpress.ai cell culture system, we have taken a significant step toward automating HeartBeat.bio’s proprietary Cardioid technology on this revolutionary platform, making highly-standardized organoids applicable for cardiac drug discovery and cardiotoxicity testing.”

To learn more or to join a community of researchers at the forefront of innovation using the CellXpress.ai cell culture system, visit [CellXpressAI.com](https://www.cellxpressai.com). Molecular Devices will also showcase the solution at the Society for Biomolecular Imaging and Informatics Conference 2023 in Boston, MA, during a dynamic lunch-and-learn session on Tuesday, October 31, from 1:00-1:45 p.m.

About Molecular Devices, LLC.

Molecular Devices is one of the world’s leading providers of high-performance bioanalytical measurement systems, software and consumables for life science research, pharmaceutical and biotherapeutic development. Included within a broad product portfolio are platforms for high-throughput screening, genomic and cellular analysis, colony selection and microplate detection. These leading-edge products enable scientists to improve productivity and effectiveness, ultimately accelerating research and the discovery of new therapeutics. Molecular Devices is committed to the continual development of innovative solutions for life science applications. The company is headquartered in Silicon Valley, California, with offices around the globe. For more information, please visit www.moleculardevices.com.

Molecular Devices is proud to be a part of Danaher, a global science and technology leader. Together, we combine our capabilities to accelerate the real-life impact of tomorrow’s science and technology to improve human health. For more information, please visit www.danaher.com.

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