

PRESS RELEASE / PRESSEINFORMATION

AI-powered workflows developed for advanced cell culture research

New Mateo FL digital fluorescence microscope offers researchers reliable, reproducible advanced cell checks.

26 July 2024, Wetzlar, Germany – Leica Microsystems, a leader in microscopy and scientific instrumentation, has released Mateo FL, an AI-powered digital fluorescence microscope for cell culture checks in advanced research applications. Mateo FL combines transmitted light for label-free imaging with multi-channel fluorescence and automated analysis tools, optimizing the way labs approach downstream experiments using cell culture.

Similar to its sister product in Leica's growing digital microscope range, Mateo TL, Mateo FL combines ease of use with a modern, compact design. Mateo FL offers features for more advanced cell checks, including multi-modal capabilities, AI-powered confluency checks, swift and accurate cell counting, and smart measurements for transfection efficiency. These two products in the Mateo family grant researchers the flexibility to choose the solution that best aligns with their experimental needs.

"Mateo FL is a smart digital solution that offers all levels of researchers unparalleled ease in their work, allowing them to get their results straight away," said James O'Brien, Vice President of Life Sciences and Applied Solutions at Leica Microsystems. "Mateo FL helps scientists to accelerate their experiments, tackle contamination, and protect data integrity—ensuring consistent, reliable and reproducible results in the lab."

Mateo FL's range of automated workflows offer reproducible results, even in challenging cell culture samples. Users can obtain an accurate, automated cell count in 5 seconds, saving an average of 15 minutes of manual cell counting. The new automated phase contrast function also saves time and effort in the process of image acquisition.

The instrument's compact and integrated design reduces contamination risks by at least 50%. Workflow efficiency can be doubled by capturing both monochrome and color images without physically swapping devices mid-experiment.

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Mateo FL comes with built-in audit trails and user management functionalities that support FDA 21 CFR Part 11 compliance, making it an ideal choice for work where secure data tracking is an important requirement, such as the pharmaceutical research industry.

For more information on Mateo FL, visit <https://www.leica-microsystems.com/products/light-microscopes/p/mateo/>

Image caption:




About Leica Microsystems

Leica Microsystems develops and manufactures microscopes and scientific instruments for the analysis of microstructures and nanostructures. Ever since the company started as a family business in the nineteenth century, its instruments have been widely recognized for their optical precision and innovative technology. It is one of the market leaders in compound and stereo microscopy, digital microscopy, confocal laser scanning microscopy with related imaging systems, electron microscopy sample preparation, and surgical microscopes.

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From Eye to Insight



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Leica Microsystems has six major plants and product development sites around the world. The company is represented in over 100 countries, has sales and service organizations in 20 countries, and has an international network of distribution partners. Its headquarters are in Wetzlar, Germany.

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