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Korea's Seegene unveils next-gen fully automated PCR solution Cureca

10 April 2025 | News

To help reduce the risk of human error and enable continuous, high-throughput PCR testing 24 hours a day, seven days a week

Seegene Inc., a global leader in molecular diagnostics (MDx), is advancing its vision for innovation in laboratory automation with the development of CURECA — a next-generation system currently under development, designed to streamline automation in Polymerase Chain Reaction (PCR) testing and laboratory environments.

The company announced that it will showcase a conceptual video introducing the CURECA system at the European Society of Clinical Microbiology and Infectious Diseases (ESCMID Global 2025), held April 11-15 in Vienna, Austria. The video will outline the system's design goals and envisioned workflow. A physical demonstration of the system is expected to take place in July 2025 at the Association for Diagnostics & Laboratory Medicine (ADLM 2025) in Chicago.

CURECA — short for Continuous Unlimited Random access Expandable and Customisable full Automation — is Seegene's envisioned PCR testing solution, intended to enable full automation of the PCR testing workflow. The system is expected to include two core components: the Customisable Pre-treatment System (CPS), responsible for sample loading and pre-treatment processing; and Customisable and Expandable Full Automation (CEFA), which would carry out sample loading and preparation for nucleic acid extraction, PCR setup, gene amplification, and result analysis.

Seegene aims to lead innovation in automating pre-treatment processing for all PCR specimen types through the development of CPS. The system is designed to automate key steps such as sample sorting, centrifugation, vortexing and heat treatment. CPS may also operate independently of the full CURECA system and be applied to other laboratory testing areas such as hematology, biochemistry, and immunodiagnostics — broadening its potential utility in clinical laboratory workflows.