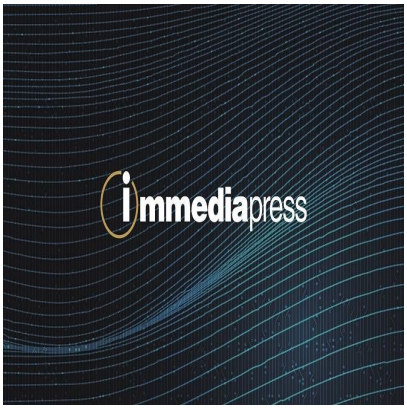

Bota Launches SAION AI â?? Physical AI Platform for Biomanufacturing

Descrizione

COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

SAN FRANCISCO and HANGZHOU, China, March 10, 2026 /PRNewswire/ â?? As AI reshapes the digital world through cognitive and generative capabilities, a new frontier emerges: Physical AI â?? an intelligent system that perceives, reasons through, and acts in the physical world.

Today, Bota launches SAION AI, the first Physical AI platform for biomanufacturing.

SAION AI is not limited to in silico design. Instead, it is a full-stack Physical AI platform integrating cognition, orchestration, and closed-loop execution through end-to-end experimentation, and continuously optimizing biological discovery and biomanufacturing.

SAION AI is built on a three-layer architecture: Cognition, Orchestration, Execution.

Powered by large language models , the platform unifies scientific reasoning with real-world experimental execution. This architecture enables seamless orchestration from biological system understanding to laboratory experiments, forming a self-optimizing closed loop for biomanufacturing.

Cognition: Multi-Scale Biological Understanding

The Cognition Layer is built on data from Botaâ??s Cell2Cloud Biofoundry, integrating tens of millions of experimental data points, millions of scientific publications and patents, and public biological databases. Combined with leading AI4Science models, SAION AI develops multi-scale understanding across the geneâ??proteinâ??cellâ??fermentation continuum, enabling systematic design and data-driven scientific decisions.

Orchestration: Intelligent Research Coordination

The Orchestration Layer centers on the Agent harness orchestration engine, powered by the LLM reasoning to coordinate multi-agent collaboration, tool invocation, and end-to-end scientific workflows.

The Layer decomposes complex objectives into structured tasks and integrates 316 specialized scientific tools, enabling dynamic routing and automated research workflows with fault tolerance.

Execution: Autonomous Experimental Operation

Through Botaâ??s proprietary Biological Protocol Language, SAION AI converts experimental designs into standardized instructions that directly drive laboratory hardware, feeding real-world data back into the Cognition Layer, enabling continuous model improvement and R&D acceleration.

Real-world Performance

SAION AI has demonstrated SOTA performance across multiple life science AI benchmarks, validating its capabilities as an AI Scientist system.

Key Results

Real-world validation confirms SAION AI can autonomously complete full research â?? from literature review to wet-lab assembly â?? with >90% accuracy.

Toward Autonomous Biomanufacturing

SAION AIâ??s launch moves biomanufacturing beyond traditional trial-and-error experimentation toward an intelligent engineering discipline, where AI and physical laboratories interact to accelerate discovery and industrial scale-up.

SAION AI DEMO

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