Castor Launches Catalyst Built with Google Cloud AI to Cut Costs, Time and Errors through “Self-Driving” Clinical Studies

NEW YORK – Oct. 16, 2025 – Castor today announced the launch of Castor Catalyst, its AI-powered platform developed on Google Cloud’s infrastructure and AI, designed to automate the most burdensome tasks in clinical studies. In a turbulent environment for life sciences, Catalyst addresses the industry’s most pressing human and data bottlenecks by creating self-driving, human-supervised clinical studies that dramatically reduce time, cost and errors associated with study-related tasks.

The traditional clinical trial methodology is fraught with manual efforts, repetitive tasks and a patchwork of systems that fail to communicate. This fragmentation has created problems with staff burnout while causing trial delays and blown up budgets.

Castor is helping to solve this crisis by pioneering the self-driving clinical trial. This approach uses an orchestration framework that enables specialized AI agents to automate repetitive clinical research tasks, with a human operator overseeing high-risk actions. The platform's initial focus is on transforming the generation of real-world evidence (RWE). The core agent, Castor Catalyst, launches with data-entry and verification skills used with patient-mediated retrieval pathways to generate regulatory-grade RWE data.

This entire solution is powered by a foundation on Google Cloud's AI and data technologies:

- The agents are driven by Google’s Gemini models, built and scaled on Vertex AI.
- Google’s BigQuery handles massive data processing and analytics workloads.
- Operating on Google Cloud's secure, compliant infrastructure with support for standards like HL7 FHIR, the platform ensures seamless EHR integration and provides full observability, auditability, and regulatory readiness for submission-grade RWE.

“*For years, the industry has faced an onslaught of innovation that has been difficult to translate into real-world impact*” said Derk Arts, CEO of Castor. "*Our AI capabilities are powered by a new event-driven data infrastructure that we've been building for over 18 months, because without a detailed understanding of what's actually happening in a study, you simply can't apply AI effectively."*

“Our goal is to reduce the human burden in clinical trials, empowering research teams to focus on patients and science, not endless clicks and admin. By automating repetitive tasks in a quality controlled manner, we believe a 50% reduction in manual effort is achievable in Phase 2/3 studies within the next 5 years, ultimately helping to bring impactful drugs to humankind safely, faster and more affordably."

"Catalyst, built on Google Cloud's scalable and compliant infrastructure, removes the human and data bottlenecks that have historically plagued clinical development,” said Shweta Maniar, global director, Strategic Industries, Life Sciences, Google Cloud. “This solution is accelerating self-driving studies for customers, turning what once took months of manual effort into automated, quality-controlled workflows."

A striking example of this impact can be seen in the Omnia Health BEACON GLP-1 therapy study, a decentralized, real-world outcomes study evaluating GLP-1 therapies in obesity management. In a fully automated workflow, Catalyst is enrolling, screening, consenting, retrieving medical records, processing the data, pushing it into the EDC, and initiating an ePRO cadence. This level of automation compresses a process that traditionally takes four weeks and 40 hours of human time into less than four hours, with safety and regulatory compliance ensured through a fully validated, secure, and auditable digital environment.

Castor has already deployed Catalyst across multiple therapeutic areas, including oncology, obesity, and rare disease. To provide an end-to-end solution for these studies, Castor has partnered with multiple large retail pharmacies as well as specialized recruitment providers.

About Castor
Castor is a leading provider of clinical trial technology, offering a modern, flexible, and unified platform that empowers sponsors to design and execute studies their way. From traditional site-based trials to fully decentralized, direct-to-patient models, Castor provides the compliant ecosystem for any study design.

Learn more at www.castoredc.com or explore **Catalyst**, our AI-powered platform for self-driving, human-supervised studies, at https://www.castoredc.com/catalyst-ai-rwe/

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