



Case Study

Revolutionizing Cancer Research

GenAI-powered protocols slash costs and time

The Challenges

Enabling simplicity and speed

A well-crafted clinical study protocol increases the likelihood of success in clinical trials. These documents outline key procedures for obtaining participant consent, measuring study outcomes, and maintaining data quality — serving as the foundation for ethical research and regulatory approval.

For a Fortune 100 pharmaceutical company focused on cancer drug development, producing these protocols quickly and accurately was essential. With a team of 70 medical writers manually drafting protocols by referencing dense technical documents, medical literature, and past studies, the process was slow and resource-intensive.

To meet strict regulatory requirements while accelerating timelines, the client needed a technology solution that could understand complex medical

contexts, align with evolving compliance guidelines, and work across historical and proprietary data. Generative AI (GenAI) offered a promising path forward, but applying it to regulated drug development workflows presented significant challenges.

That's when the client turned to Persistent for help.



The Turning Point

Partnering with Google Cloud

With deep expertise in AI and Life Sciences, Persistent was uniquely positioned to lead the transformation. We deployed NOVA, our proprietary GenAI accelerator, built on a multi-agent framework that interacts seamlessly with diverse data sources and formats.

To meet the client's stringent data privacy and scalability requirements, we built the solution on Google Cloud Platform, combining:

- Google Vertex AI for advanced reasoning, multilingual processing, and natural language generation
- Google BigQuery to securely access and analyze large volumes of sensitive medical and regulatory data

- Google Cloud Run to ensure real-time and batch synchronization with scalable, low-latency infrastructure

The result was a GenAI-powered tool that transformed protocol development. More than just a writing assistant, it acted as a research companion — helping medical writers search, summarize, and reference information from trusted sources like WHO, PubMed, and internal knowledge bases.

With built-in capabilities for intelligent search and context-aware content generation, the solution significantly improved accuracy and speed. Protocol creation time was cut in half — turning a task that once took weeks into one completed in days — while ensuring regulatory alignment and citation quality throughout.

The Outcomes

Delivering faster breakthroughs in healthcare

The GenAI protocol generator delivered measurable impact:

80%

faster protocol creation, enabling the team to move from draft to completion in a fraction of the time

40%

improvement in quality, supported by accurate, well-referenced content

60%

cost savings compared to manual protocol development

As with any transformation, the value lies not only in speed and savings, but in what that enables. By accelerating the creation of high-quality clinical protocols, the client is better equipped to initiate trials sooner and pursue regulatory approvals more efficiently.

For one of the world's leading pharmaceutical companies, the return on investment was clear. But the potential payoff is even greater — for patients waiting on the next breakthrough in cancer care.

Re(AI)magingTM the World



Accelerate clinical trials with GenAI powered protocol creation.

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About Persistent

Persistent Systems (BSE: 533179 and NSE: PERSISTENT) is a global services and solutions company delivering AI-led, platform-driven Digital Engineering and Enterprise Modernization to businesses across industries. With over 25,000 employees located in 18 countries, the Company is committed to innovation and client success. Persistent offers a comprehensive suite of services, including software engineering, product development, data and analytics, CX transformation, cloud computing, and intelligent automation. The Company is part of the MSCI India Index and is included in key indices of the National Stock Exchange of India, including the Nifty Midcap 50, Nifty IT, and Nifty MidCap Liquid 15, as well as several on the BSE such as the S&P BSE 100 and S&P BSE SENSEX Next 50. Persistent is also a constituent of the Dow Jones Sustainability World Index. The Company has achieved carbon neutrality, reinforcing its commitment to sustainability and responsible business practices. Persistent has also been named one of America's Greatest Workplaces for Inclusion & Diversity 2025 by Newsweek and Plant A Insights Group. As a participant of the United Nations Global Compact, the Company is committed to aligning strategies and operations with universal principles on human rights, labor, environment, and anti-corruption, as well as take actions that advance societal goals. With 468% growth in brand value since 2020, Persistent is the fastest-growing IT services brand in 'Brand Finance India 100' 2025 Report.

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