Soley Therapeutics and Oracle collaborate to Advance AI-Driven Drug Discovery

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The collaboration seeks to accelerate Soley's ability to predict, design, and develop novel therapeutics for complex diseases

Soley Therapeutics, a biotechnology company specializing in decoding cellular language at scale for efficient drug discovery and development, has announced a collaboration with Oracle to accelerate the development of its AI platform. Soley plans to leverage advanced technology from Oracle Cloud Infrastructure (OCI) and NVIDIA to scale Soley's drug discovery efforts with the goal to unlock new treatment possibilities for complex diseases.

In 2020, Soley Therapeutics spun out of University of California, led by its co-founders Yerem Yeghiazarians, MD and Kurosh Ameri, PhD. In less than three years, Soley's unique approach resulted in the development of several promising novel chemical scaffolds, multiple lead candidates, and a Development Candidate in oncology targeting a novel mechanism of action. At the heart of Soley's breakthroughs is its proprietary AI platform, which captures, deciphers, and models cellular communication to predict cell fate—a critical insight for designing effective drugs.

Through the technical components of this collaboration, Soley will deploy to OCI's virtual cloud network, which is a private and flexible data center in the cloud. To safeguard its proprietary data, Soley will leverage OCI Zero Trust Packet Routing, enabling it to define security attributes and implement natural language policies that restrict network traffic based on resource and data access. To process petabytes of biological data, Soley plans to leverage OCI's scalable AI offerings, including the NVIDIA Blackwell accelerated computing platform and NVIDIA AI Enterprise software suite. This full-stack includes access to NVIDIA NIM Microservices for Drug Discovery. Soley expects to scale the biological data accessible to the AI platform via OCI FastConnect, which is a dedicated, private connection with fast port speeds and no per-byte charge for bidirectional data movement.

“We are proud to collaborate with Soley’s talented team to accelerate innovation in addressing critical oncology and non-oncology conditions ,” said Dan Spellman, Vice President of AI and OCI, Healthcare & Life Sciences at Oracle. “By leveraging Oracle’s differentiated AI and cloud technologies combined with our deeper engineering engagement, we’re enabling Soley to take its groundbreaking research to the next level, with the goal of providing faster insights and better treatment options for patients. This collaboration is a powerful step toward the future of medicine.”

“Soley’s orthogonal platform is based on our decades of scientific expertise understanding commonality of diseases in cardiovascular medicine, stem cell biology, neurodegenerative diseases, metabolic diseases, and cancer. We are very excited to collaborate with Oracle and NVIDIA to combine our deep scientific knowhow with industry leading AI storage and compute to further decode the cell language at scale and transform traditional drug discovery approaches in complex diseases,” said Yerem Yeghiazarians, MD, Co-Founder and CEO, Soley Therapeutics. “Cells are the strongest and smartest computers ever created, and they have the unique ability to sense different drugs in the environment and determine their fate towards death or survival by specific flow of information within the cell. We have learned how to listen to cell language and to decode this flow of information by using the cell’s sensing and anticipatory capabilities to efficiently discover and develop efficacious drugs. Our platform is widely applicable to cancer and non-cancer indications. We believe that Soley’s approach is paradigm shifting and will become the engine for continuous and efficient drug discovery.”

To learn more about Soley Therapeutics https://soleytherapeutics.com/, please send e-mail to contact@soley.ai, and please visit the Oracle booth (#1515) at NVIDIA GTC.

Dan Spellman

Vice President of AI and OCI, Healthcare & Life Sciences, Oracle

Dan leads AI and OCI engagements for healthcare and life sciences at Oracle, including collaborations with partners such as NVIDIA. This aligns a life-long love of cutting-edge technology with a passion for applying that to help transform healthcare and save lives.