SOLUTION BRIEF

Drug Discovery with High-Performance Computing

Get to market quicker with proactive data strategies from Pure Storage®.

Discovering new drugs requires tremendous investment and the ability to face difficult odds, but advances in computing and data science can expedite the process and reduce time-to-market. *In silico* research and data-driven insights promise to both deliver new therapeutic targets faster and also re-purpose existing drugs. Combining the right approach to capturing, storing, and analyzing data with high-performance computing can make all the difference in delivering significant time and cost-savings for drug discovery programs.

3-D Modeling and High-Throughput Drug Screening

The expanded use of 3-D modeling during all phases of drug discovery is increasing storage needs. Three-dimensional modeling includes target identification and validation. It also provides assay development to guide high-throughput screening strategies, lead optimization, and candidate selection. The automated testing of thousands of chemical and biological compounds creates significant demands on an enterprise's infrastructure. An expandable data platform can make a world of difference for life sciences teams seeking target therapeutics results.

Expandable Data Storage

Scalable solutions from Pure Storage are ideally suited to support 3-D modeling and high-throughput drug screening. Pure FlashBlade® ensures that your data loads quickly, and delivers consistent, multi-dimensional performance, including high IOPS and low latency. FlashBlade delivers cloud-like simplicity and scalability with consistent high performance and control. Simply add blades to scale capacity and performance instantly. For maximum flexibility, Pure as-a-Service™ delivers storage as a service in a subscription model for which you're billed based on actual storage consumption with minimum commitments starting at 50TiB.

Unlimited Data Storage

Pure solutions are a perfect match for data-intensive research.

Up to 10x Faster Data Access

Deliver high IOPS and low latency access to all your data.

Power and Flexibility for AI

Future-proof infrastructure helps you expand AI and analytics.

Get a Stronger Data Foundation for Drug Discovery Advances

Support data and imaging infrastructure for 3-D modeling.

Expedite high-throughput screening and rapidly identify drug targets.

Apply AI throughout the drug discovery process.

AI and Drug Discovery

The use of artificial intelligence to support drug discovery requires high-performance computing and a data infrastructure to match. Storage and compute demands will continually increase as machine learning (ML) algorithms learn from drug candidates, patient records, images, and sequencing. Plus, wider use of natural language processing to extract information from thousands of scientific journal articles requires scalable compute resources. For example, when Folding@home needed robust infrastructure to map out protein structures and drug-protein interactions, Pure FlashBlade provided it.

Built for AI

To support AI in life sciences, teams need massive data pipelines now and into the future. FlashBlade is a high-performance infrastructure tuned to integrate with AI and ML. As teams train algorithms and introduce new use cases for machine learning, FlashBlade delivers ultra-fast, all-flash performance to billions of objects and files, enabling research teams to complete analytics in minutes instead of days. Additionally, Pure's AIRI® is the industry's first, full-stack AI-ready infrastructure that accelerates end-to-end GPU workflows.

With Pure, scientific research organizations have flexible options for data strategy. Enterprises can gain more physical storage with a hybrid solution that combines servers and storage, on-premises or in the cloud. Pure Cloud Block Store™ supports data resilience and disaster recovery. Scientific organizations and biotechnology companies benefit from continuous uptime, always-on encryption, regulatory compliance, and better total cost of ownership.

Additional Resources

- Learn more about life sciences solutions from Pure.
- Learn more about healthcare solutions from Pure.

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