

Omics Accelerator

For emerging biotechs, the primary constraint is not scientific potential but the operational runway required to prove it. In a market where every dollar of Series A or B funding must drive asset valuation, spending 6–12 months building custom cloud infrastructure is a strategic liability.

The Omics Accelerator is designed to eliminate this "infrastructure tax," providing small-to-mid-cap pharmaceutical and biotechnology organizations with a fully managed, Big Pharma-grade computational environment from day one, ensuring you reach your next funding milestone before the runway ends.

KEY TAKEAWAYS

- **Zero IT Headcount:** Eliminate the need for a \$400k+/year DevOps team by deploying a fully managed, "Platform-in-a-Box" environment.
- **Up to 3x Faster to IND*:** Transition from raw data collection to target validation and IND submission up to three times faster than a DIY approach.
- **Investor-Ready Due Diligence:** Ensure every analysis is audit-ready and traceable from day one, simplifying M&A or IPO with structured, traceable technical diligence.

**Based on internal benchmarks. Customer results may vary.*

THE REAL-WORLD CHALLENGE

Emerging biotechs are in a 'Race to Valuation.' They generate massive multiomics datasets but often lack the IT staff to manage them. Building a DIY platform burns critical cash runway and delays your IND filing. Teams need to demonstrate data ROI to secure the next funding round—but are stuck acting as system administrators instead of scientists.

THE SOLUTION:

A "Bioinformatics Platform in a Box"

The Omics Accelerator replaces the need for a \$400k+/year DevOps team with a fully managed, pre-packaged R&D platform. It combines the following DNAnexus components to take you from "Zero to IND" 3x faster.

KEY CAPABILITIES

- **High-throughput Execution Engine:** A scalable, cloud-native engine to run high-throughput pipelines (genomics, transcriptomics, proteomics) without managing servers.
- **Conversational Cohort Exploration:** An interactive cohort browser and exploration tool. Use the Omics Data Assistant (ODA) to ask natural language questions of your data and visualize results instantly, bypassing complex coding.
- **AI/ML Accelerator + AutoML Assistant:** Built-in conversational machine learning and data interrogation that democratizes discovery, allowing biologists to build predictive models and identify novel mechanisms of action 5x faster.
- **GxP Module:** A pre-validated compliance layer that ensures your data is audit-ready for regulatory submission from day one.
- **Deployment Flexibility:** High-performance, intelligent storage that scales with your multimodal data.
- **Services:** Includes **500 Professional Services Hours** to handle initial data ingestion and pipeline setup, ensuring you are productive immediately.

USE CASE: THE "UNDRUGGABLE" TARGET

A lean biotech targeting "undruggable" proteins needs to cross-reference internal imaging with external Real-World Evidence (RWE). Instead of building a custom stack, they use the Omics Accelerator to establish an "Omics Mesh." They ingest data into the DNAnexus Platform, use the Cohort Browser to slice cohorts by phenotype, and employ the AutoML Assistant to validate pathway hypotheses in weeks, de-risking the asset for Series B funding.

KEY BENEFITS

- **Multimodal Ingestion:** Native handling of diverse data types—from high-throughput phenotypic screening (images) to RNA-seq and RWE.
- **Scalability on Demand:** Start with 10 TB of mouse data today; scale to 2 PB of clinical trial data tomorrow—without changing platforms.
- **Fully-Managed Environment:** We handle the security, compliance, and cloud maintenance so your scientists just log in and work.

Why DNAnexus

DNAnexus is the only platform that offers "Partnership at Scale." We don't just give you a login; we provide the scientific scaffolding—prebuilt pipelines and data models—that allow a five-person biotech to operate with the throughput of a 500-person organization.



Next Step: Would you like to see a demo of how the Omics Data Assistant (ODA) can visualize your lead compound's efficacy data in under 5 minutes?