

NeuralMesh™ Delivers the Scale, Stability, and Speed For Breakthrough Research

WEKA's NeuralMesh™ offers consistent, predictable performance across petabyte scale datasets to reduce healthcare and life sciences (HCLS) project times from weeks to days and accelerate time to new drug discoveries with the highest-performance, lowest-latency data storage system.

Key Benefits of NeuralMesh

Optimize Data Management With Zero Tuning Required

- Ingest, analyze, and offload petabytes of data
- Access raw files without administrative burden

Streamline Multi-Protocol Operations Efficiently

- Eliminate redundant data copies post acquisition
- Reduce end-to-end pipeline latency by up to 10x

Handle Small Files and Metadata Efficiently

- Scale to billions of files in a single directory
- Access trillions of files cluster-wide in a flash

Support On-Premises, Cloud, and Hybrid Pipelines

- Simplify research operations with seamless cloud bursting
- Protects investments as hardware stacks evolve

Achieve Exceptional Performance Density

- Condense hardware stack
- Scale to petabyte-sized datasets linearly
- Minimize physical footprint

Deploy Across Highly Regulated Environments

- Ensure encrypted access
- Retain sensitive, proprietary data across decades for regulatory compliance

Automate Tiering to Reduce Operational Complexity

- Eliminate the need for third party data movers
- Gain faster access if needed or store for cheaper if idle

Reduce the Overall Cost of Archive Data

- Support transparent single namespace between NVMe and object storage
- Optimize usage of GPUs

10x

Acceleration in drug discovery research

68%

Reduction in overall power consumption

500+

Petabytes of imagery in a single database

75%

Decrease in total infrastructure cost

40x

Speed improvement in GB-sized file access

HCLS Customers Leveraging NeuralMesh

Pharmaceutical Discovery & Small Molecule Science

NeuralMesh's distributed metadata architecture allows faster AI/ML training and inference jobs, increasing rates of innovation

Genomics & Bioinformatics

NeuralMesh bypasses local SSD bottlenecks with a single storage environment, seamlessly moving I/O directly to GPU servers for extreme performance

Biomedical Research & Precision Health Imaging

NeuralMesh reduces data copying times by allowing ingest and full-cycle processing to all reside on the same storage system

Microscopy & Cryo-EM Labs

NeuralMesh moves data quickly from imaging scopes over a POSIX-compliant filesystem optimized for small and large files/IO, decreasing job run time

