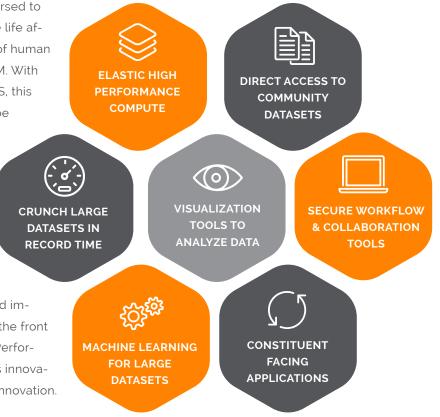# SCALING GENOMICS WITH HIGH PERFORMANCE COMPUTING ON AWS

Make Foghorn your Go-To for your Scaling Genomics Design and Implementation Needs on AWS

Mapping the human genome was one of the most revolutionary advances in modern medicine and biotechnology. By further understanding the building blocks of life, DNA sections can be parsed to produce new gene therapies, pharmaceuticals and produce life affirming advances to all life on Earth. The initial sequencing of human DNA in the early 2000s took 15 months and cost over $300M. With advances in compute power, like the EC2 offering from AWS, this same sequencing has left Moore's law in the dust and can be accomplished in hours and cost under $1,000.[1]

By harnessing the transformative power of AWS, biotechnology companies can realize life affirming innovation leaps. Foghorn Consulting has helped the nation's leading biotech and pharmaceutical companies to maximize the performance of today's AWS while minimizing the costs. Yes, the Cloud of today and especially AWS is one of the most potent weapons we have in fighting disease, and improving life for all of humankind. Foghorn is proud to be on the front line with life affirming companies. Scaling Genomics, High Performance Computing, On-Demand Infrastructure. AWS powers innovation and Foghorn empowers customers to help accelerate innovation.

AWS HELPS FIGHT DISEASE AND IMPROVE HEALTHCARE OUTCOMES

ELASTIC HIGH PERFORMANCE COMPUTE

DIRECT ACCESS TO COMMUNITY DATASETS

CRUNCH LARGE DATASETS IN RECORD TIME

VISUALIZATION TOOLS TO ANALYZE DATA

SECURE WORKFLOW & COLLABORATION TOOLS

MACHINE LEARNING FOR LARGE DATASETS

CONSTITUENT FACING APPLICATIONS

aws partner network

Premier
Consulting
Partner

DevOps Competency
Security Competency
Solution Provider

Foghorn Consulting is an AWS APN Premier Consulting Partner with DevOps and Security Competencies. Their seasoned Cloud and DevOps Engineers design, build and deploy digital transformations that accelerate innovation in the cloud. Over the past decade they have been at the leading edge of Digital Transformation and designed competition rattling and compliant solutions for many of the countries leading Life Science companies.

Low Overhead with Elastic HPC

With burst prone workloads and a need for speed, AWS is a perfect fit for scaling genomics and crunching large datasets quickly. Foghorn has deep experience delivering powerful and compliant outcomes for biotech and big pharma. Together they design, build and run powerful ecosystems, to take medicines and cures to new frontiers.

TOOLS FOR AN ELASTIC AND PERFORMANT CLOUD

AWS EKS > Run Kubernetes at Scale

AWS EC2/EMR/Batch > Massive Compute Capacity

AWS SPOT Instances > Save 90% over On-demand EC2

AWS API Gateway > Secure Front Door for your Application

AWS Lambda > Serverless Application Infrastructure

AWS CloudFront > Global Content Delivery Network

AWS S3 > Scalable Storage Infrastructure

AWS Workspaces > Remote Workforce with Cloud Desktops

AWS Chime > Online Meeting and Video Conferencing

AWS Sagemaker > Deploy Machine Learning Models Fast

AWS DUE DILIGENCE CHECKLIST FOR SCALING GENOMICS

> Is your organization working from DevOps philosophy?

> What existing infrastructure investments can be utilized?

> Is your data available to cloud resources?

> Are costs and cloud resource parameters optimized?

> Can disparate stakeholders be unified under comprehensive Cloud Governance Strategy?

> Are blueprints for HPC job and cloud resource management and scheduling optimized?

> Are ETL data pipelines optimized?

> Is digested data accessible for scientists?

> Does your organization have the inhouse resources to execute?

1.https://www.genome.gov/about-genomics/fact-sheets/Sequencing-Human-Genome-cost

For a deeper look at Foghorn's capabilities for Scaling Genomics please visit: https://foghornconsulting. com/healthcare-and-life-sciences/

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