

INTRODUCING  
XETABASE



# Zetta Genomics

A single solution for genomic data analysis

CLINICAL  
INTERPRETATION  
ANALYSIS

TRUSTED  
RESEARCH  
ENVIRONMENT

POPULATION  
BASED  
ANALYSIS

ZETTAGENOMICS.COM

We've created a **universal operating system** for analysing genomic data. A complete and secure environment for clinicians and researchers, creating wider access to analysis and data management for an ever-increasing usership

### AN END-TO-END PLATFORM

A comprehensive environment for secondary analysis, multi-omic support, and tertiary analysis, powered by the most advanced aggregated variant storage engine. This is combined with a high-performance database to store all relevant metadata and clinical information.

#### Featuring:

- Customisation to your needs
- Web app & programmatic access
- Robust API for integration
- Security, audit & authentication

### COMPANY ORIGINS

A spin-out of the University of Cambridge and inspired by our team's work in Genomics England's 100,000 Genomes Project, our expertise helped design the solution to tackle genomic data volume, complexity, and interpretation

In 2020 we created XetaBase, a high performance tertiary analysis platform scalable to 1 million genomes.

### USE CASE: CLINICAL DIAGNOSTICS

**“There is no software system like it anywhere in the world”**

“With the ability to rapidly access, interpret and interrogate genomic data, there is real potential to identify disease more accurately, intervene earlier and deliver more effective and less invasive treatments”

**Xiaowu Gai**  
 Director of Bioinformatics,  
 Center for Personalized Medicine,  
 Children's Hospital Los Angeles



#### Challenge

Establish a data management platform that could aggregate all of their data and allow them to store, manage and continually re-analyse WGS data from their pediatric patients, in order to offer timely diagnosis to patients as their condition changes.

#### Outcome

- Functional DSS for clinical interpretation
- Automated re-analysis of clinical cases
- Aggregated genomic and clinical information linked to previously reported clinical data

We understand the impact of the scale today's data, it's complexity and volume. No matter the scale, users must be able to handle, manipulate and investigate it with **maximum efficiency**. Which is why we have created this range of functionality:

## Core Features:

### VARIANT DATABASE

Securely manage and index massive data, providing a real-time query and analysis engine - can be extended with plug-ins and distributed scripts.

### METADATA MANAGEMENT

Store all relevant metadata and clinical information in a high-performance database that includes: Data Registry, Versioning, Audit, Jobs and QC.

### KNOWLEDGE BASE

Centralised database integrating >50 sources of key genomic and biological data for annotation and clinical prioritisation.

### REST API & WEB APPLICATION

Programmatic access and user-friendly GUI ensure intuitive accessibility for users of all experience levels to perform clinical & population analysis. Bespoke user customisations and plug-ins are easy to apply.

## Enhancements:

### MULTI-OMICS DATA MANAGEMENT

Scalable and secure management of genomic and multi-omics data in the cloud.

### COMPUTING ENGINE

Execute traceable, reproducible, and efficient complex analysis of large-scale genomic and clinical data.

### WORKFLOW MANAGER

Implement Nextflow workflows for secondary and tertiary analysis in the cloud.

### CUSTOMISABLE PLATFORM

Extend and customise the platform by integrating your custom tools and variant database plug-ins.

### INTEGRATED NOTEBOOKS

Hosted Jupyter Notebook service requiring no setup, providing secure, interactive access to data and computing resources



# Zetta Genomics

## UKCA APPROVED

XetaBase is officially registered with MHRA and UKCA marked. Conformance for an IVD software combines robust software development life cycle management with clinical risk management, as well as a quality management system that functions as the backbone of product management and services.

## ISO 27001 CERTIFIED

Zetta Genomics has successfully passed the Stage 1 ISO 27001 audit. This achievement marks a significant step in furthering our commitment to maintaining the highest standards of information security and data management.

## XETABASE TO SUIT ANY SCALE

To be officially announced in November! Contact us if you'd like more information. **We are excited to preview that we will soon offer a hosted version of XetaBase. From small teams to large organizations, we've got you covered.**

	XetaBase Cloud ACADEMIA	XetaBase Cloud PROFESSIONAL	XetaBase Enterprise
<b>Hosted:</b>	Hosted	Hosted/Self-Hosted	Self-Hosted/ On-Premises
<b>Audience:</b>	Any academic organisation	Small companies and Hospitals	Large Companies
<b>All XetaBase Features</b>	Yes	Yes	Yes
<b>Users:</b>	5	15	Unlimited
<b>Exomes/Genomes:</b>	5,000/1,000	15,000/5,000	Unlimited
<b>Data Workspaces:</b>	2	10	Unlimited
<b>Jobs &amp; Workflow:</b>	20 Hours/month	100 Hours/month	Unlimited
<b>Support:</b>	Basic	Basic	Enterprise
<b>Professional Services</b>	No	Limited	Unlimited



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