Expert Analysis for ScaleBio QuantumScale Data

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Scale Biosciences' QuantumScale enables economical profiling for up to 4 million cells per run. But as studies reach the million-cell mark, standard processing isn't enough. Specialised high-performance analysis is needed. This is why we provide a dedicated analysis service for QuantumScale data, which includes:

QC & Read Depth Optimisation

We ensure your Quantum Barcoding was successful by validating:

Cell Recovery Rates: We ensure cell recovery matches the expected levels based on the initial input of cells.

Reads Per Cell: We assess sequencing depth to ensure sufficient reads per cell for robust downstream analysis.

Multiplexing Check: We evaluate the barcode demultiplexing efficiency and estimate multiplet rates to ensure they remain within the recommended thresholds.

Robust Computational Infrastructure

As a leading bioinformatics provider, we have the high-capacity computational infrastructure necessary for managing large datasets, like those generated by QuantumScale.

We also provide secure data storage, storing all raw data and processed outputs in your secure data analysis report, accessible via a password-protected HTML link.

High Dimensional Cell Clustering

With millions of cells, rare populations (the "needle in the haystack") become statistically significant.

Our team uses high-performance clustering as well as manual and automated cell type annotation methods to identify and annotate:

Sub-populations across multiple cell types and conditions.

Lineage trajectories in large-scale developmental or cancer models.

Association Testing for Complex Screens

The power of QuantumScale lies in its ability to run thousands of conditions. We provide:

Treatment vs. Control Analysis: Differential expression testing tailored for massive sample multiplexing.

Per-Cell-Type Sensitivity: Assessing how a drug or CRISPR perturbation affects specific lineages differently.

Ready to scale your next project? Get in touch today!

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