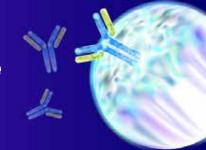


CASE STUDY

A robust and high-throughput pipeline for immune repertoire data analysis



Specification

Our client needed a robust and high-throughput pipeline for immune repertoire data analysis in their cloud environment. The pipeline had to be:

- Extremely efficient to enable the processing of hundreds of millions of reads
- Easily scalable to accommodate the ever-increasing amount and diversity of data
- Customized processing options and visualizations

Our approach

To assure reproducible and scalable data analysis, our experts built the pipeline using the Snakemake workflow manager. By implementing approaches beyond those available publicly, the BISC team increased data analysis throughput and so enabled the efficient processing of enormous amounts of data sets. With the customized workflow that generates a report easily understandable by the customer, the pipeline is supporting the discovery of novel antibodies via biopanning, i.e., by analyzing the enrichment of specific clones across multiple rounds of binding.

Results

With the ability to discover more novel antibodies faster, our client gained a competitive advantage in the field of antibody therapeutics discovery and development.