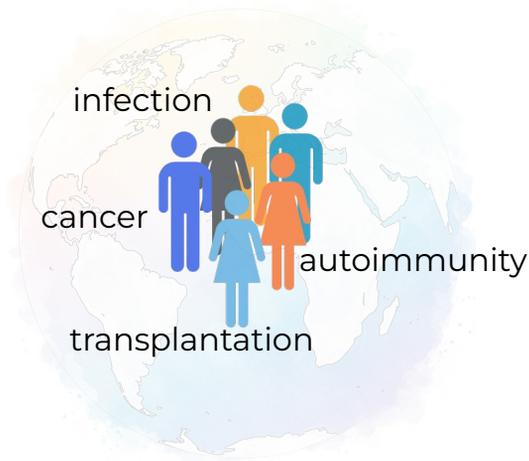


Harnessing the power of immunogenetics to improve human health

Current immune profiling technologies lack resolution needed to understand the impact of immune system diversity on human health, obscuring associations between immune function and clinical outcomes and impeding development of effective biomarkers, treatments, and prophylactics.



CLAIRity adaptive immune receptor profiling

ProfilAIR

The first RNA-based assay for profiling complete immune receptor transcripts

GenotypAIR



The first assay for complete genomic characterization of immune receptor loci

Tracking immune response dynamics



Identifying key correlates of a response

We empower labs and clinics to make better drugs and improve patient care through a deeper understanding of how the immune system works.

Unravelling the critical genetic causes

Building better models for precision medicine

- Searching for biomarkers?
- Designing a new vaccine or therapeutic?
- Developing a clinical test?
- Doing basic research?

- Better biomarkers = better models
- More effective drugs - improved outcomes
- Greater precision, more personalization
- Novel discoveries

Clareo Biosciences offers the complete picture of adaptive immune receptor response dynamics and diversity

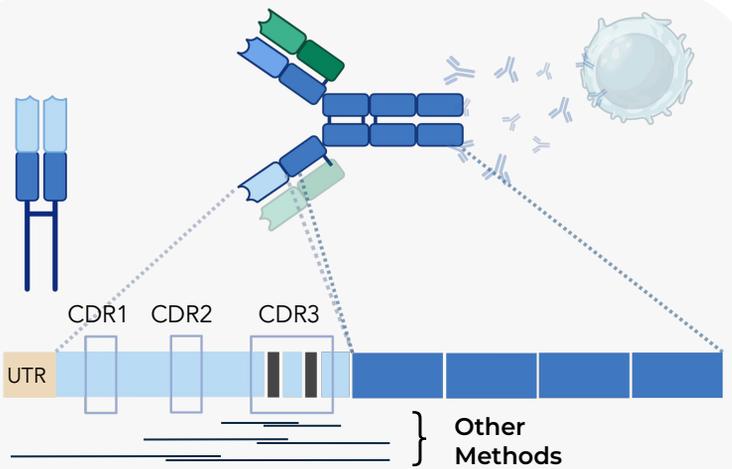
- Innovative immunogenomic profiling technologies
 - High-resolution personalized sequence data
 - Online analyses and specialist support

ProfilAIR

The first RNA-based assay for profiling complete immune receptor transcripts

Sequence variation in expressed V, D, J, and C genes influences disease responses. Our **ProfilAIR** technology provides complete coverage of these regions, enabling:

- Accurate V(D)J allele discrimination
- Improved characterization of clonal lineages
- Variant detection in 5' untranslated regions (UTR)
- Resolution of subsotype and constant domain allelic variation
- Transparent data analysis workflows and deliverables (raw and curated data)



Link information on antigen binding and effector functions in a single transcript

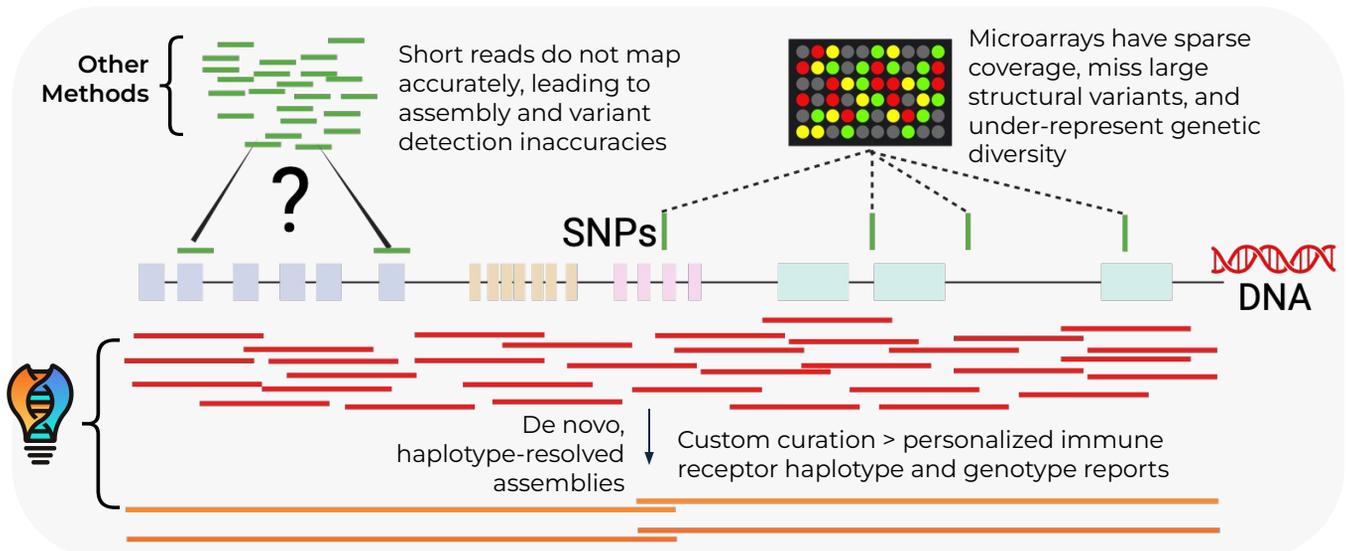
GenotypAIR



The first assay for complete genomic characterization of immune receptor loci

The adaptive immune receptor loci are among the most genetically diverse and complex regions in the human genome. Our **GenotypAIR** technology unlocks direct connections between an individual's genome and their immune response, delivering:

- Cost-effective comprehensive characterization of personalized immunogenetic profiles
- High-resolution immune receptor gene curation
- Complete genotyping of coding and non-coding single-nucleotide and large structural variants, including novel variation



Key Resources

- Watson CT, et al. Looking to the future of antibody genetics: resolving the roles of immunoglobulin diversity in gene regulation, function, and immunity. *Genes Immun.* 2024.
- Smith ML, et al. FLAIRR-Seq: A Method for Single-Molecule Resolution of Near Full-Length Antibody H Chain Repertoires. *J Immunol.* 2023.
- Watson CT, et al. Genetic variation in the immunoglobulin heavy chain locus shapes the human antibody repertoire. *Nature.* 2023.
- Watson CT, et al. Targeted long-read sequencing facilitates phased diploid assembly and genotyping of the human T cell receptor alpha, delta, and beta loci. *Genome Med.* 2023.



Schedule a meeting with ClareoBio to discuss how we can enhance your immune profiling research.