



# Advancing research in autoimmune and inflammatory diseases

## Unlock the potential of genomic data

The information within the human genome can help us diagnose rare diseases, identify individuals at risk for developing certain conditions and create effective treatment regimens. But genomic data alone often exhibit inconsistent quality, low diversity and no information on the patient journey. Optum clinicogenomics data sets overcome these limitations. They link high-quality genomic data and other -omics data (transcriptomics, epigenomics, etc.) with longitudinal clinical and claims data.

## Clinicogenomics data as a catalyst for research

These research-ready, de-identified clinicogenomics data sets allow for:

- Genotypic and phenotypic research across all stages of therapy development and use in the real world
- Improved understanding of medical conditions and the criteria used to diagnose them
- The creation of cohorts that reflect the real-world populations a researcher wants to study

## Gene-environment interactions play a substantial role in complex conditions

Precision medicine and biologic or other targeted treatments are on the rise, and so are the costs to bring them to market. Research shows that two-thirds of the 2021 FDA-approved drugs were supported by human genetics evidence.<sup>1</sup>

The causes of autoimmunity and inflammatory conditions are complicated to both understand and translate into treatments.<sup>2</sup> Data plays a crucial role in looking at lifestyle, comorbidities and environmental factors. Now with clinicogenomics data from Optum, researchers can explore the clinical and genomic pillars that enable precision medicine and reveal which patient populations should receive targeted treatments – ultimately helping to drive value.

## Clinicogenomics data sets for autoimmune and inflammatory conditions

	Inflammatory bowel disease (IBD)	Atopic dermatitis	Lupus
Clinical data	●	●	●
Claims data	●	●	●
Genomic data	●	●	●
Transcriptomic data	●	●	●



Capabilities include whole genome sequencing and, in some cases, RNA sequencing from diseased and healthy tissues.

1. Human genetics evidence supports two-thirds of the 2021 FDA-approved drugs. *Nature Reviews Drug Discovery*. Published July 8, 2022. [nature.com/articles/d41573-022-00120-3](https://www.nature.com/articles/d41573-022-00120-3).

2. Cracking the genetic code of autoimmune disease. *Nature Outlook: Autoimmune Disease*. Published July 14, 2021. [nature.com/articles/d41586-021-01839-6](https://www.nature.com/articles/d41586-021-01839-6).

## Research-ready, on-demand data sets

- Ignite discovery using consistently high-quality, next-generation sequencing. Transcriptomic data from both diseased and healthy tissues are available for select cohorts.
- Access a highly characterized, relevant cohort without recruitment time and cost. Data sets are often ready for timely delivery.
- Explore robust, longitudinal phenotypic data that's linked to genomic data and designed to help you answer specific research questions about populations that matter.

## Two solutions to help you find the answers you need

Life sciences leaders trust our robust real-world data and experienced consultants to connect the dots in ways that answer tough questions, illuminate new possibilities and improve patients' lives.

The Optum clinicogenomics portfolio offers solutions that scale to help you find answers to the questions you have today – and the questions you didn't even know you could ask.



**Custom research projects** give you the flexibility to work with us on more complex initiatives that help answer unique questions. These projects can range from light-touch analytics on demand to end-to-end research work or a deep dive into a specific area.



**On-demand data sets** are easy to access, research ready and syndicated for large market opportunities.

## Fuel your next discovery

Optum clinicogenomics expands our capacity to deliver data-driven insights in ways that streamline the process of drug research and development. Partner with Optum clinicogenomics to:

- Understand differential expression patterns in diseased versus healthy tissues
- Discover high-value biomarkers for drug development
- Require fewer internal resources for data storage
- Waste less time on unproductive research and development
- Accelerate speed to market for innovative, targeted therapies
- Execute more cost-effective, time-efficient external control arms for clinical trials

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Discover more at [optum.com/clinicogenomics](https://optum.com/clinicogenomics)



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