

AstraZeneca Centre for Genomics Research

The Centre for Genomics Research is AstraZeneca's dedicated team specialising in discovering how genomics and multi-omics can influence health and disease, and using this information to inform research and development.



Drug targets informed by genetic insights are up to **7 times more likely to be approved**.¹

While 99.9% of our DNA is shared, the power to understand our health lies in the 0.1% that makes us unique. Genomic research decodes this variation, linking genetic data to clinical insights.

Our Data

1.7 million+

human genomes and matched clinical insights

680,000+

human genomes from understudied global communities

Genome data from

310+

AZ clinical trials



Our Global Footprint

60+
partnerships
across

19
countries
worldwide

6
countries with
employee
presence

Our data spans
therapy areas
including:



89,000+

COPD
patients



35,000+

Rheumatoid
arthritis patients



3,500+

Amyloidosis
patients



114,000+

Chronic kidney
disease patients



26,000+

Lung cancer
patients

Our Science

We are embedding genomics systematically from early discovery to late-stage development.

80+

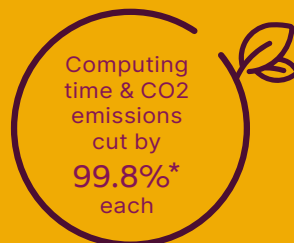
pipeline decisions supported by our genetics research since 2017

80+

published manuscripts

Our Technology

Advances in AI, machine learning, and data analytics allow us to turn massive data sets into actionable insights that we embed across our R&D.



We use environmentally sustainable algorithms to transform petabytes (millions of gigabytes) of genomic data into the discovery of potentially life-changing medicines.

*Compared to the industry standard statistical algorithm benchmarked against performing 1 trillion statistical tests

Enhancing early disease detection



Our AI tool, MILTON, integrates de-identified health records with genetic and protein data to predict 1000+ diseases up to 10-15 years before clinical diagnosis.

Democratising access



We provide valuable AI tools and genetic insights through open access platforms - including MILTON and AZPheWAS - to researchers worldwide.

1. Wang Q et al. Rare variant contribution to human disease in 281,104 UK Biobank exomes. Nature. 2021;597(527-532).