



# Human Biology Database for Population-Scale Discovery

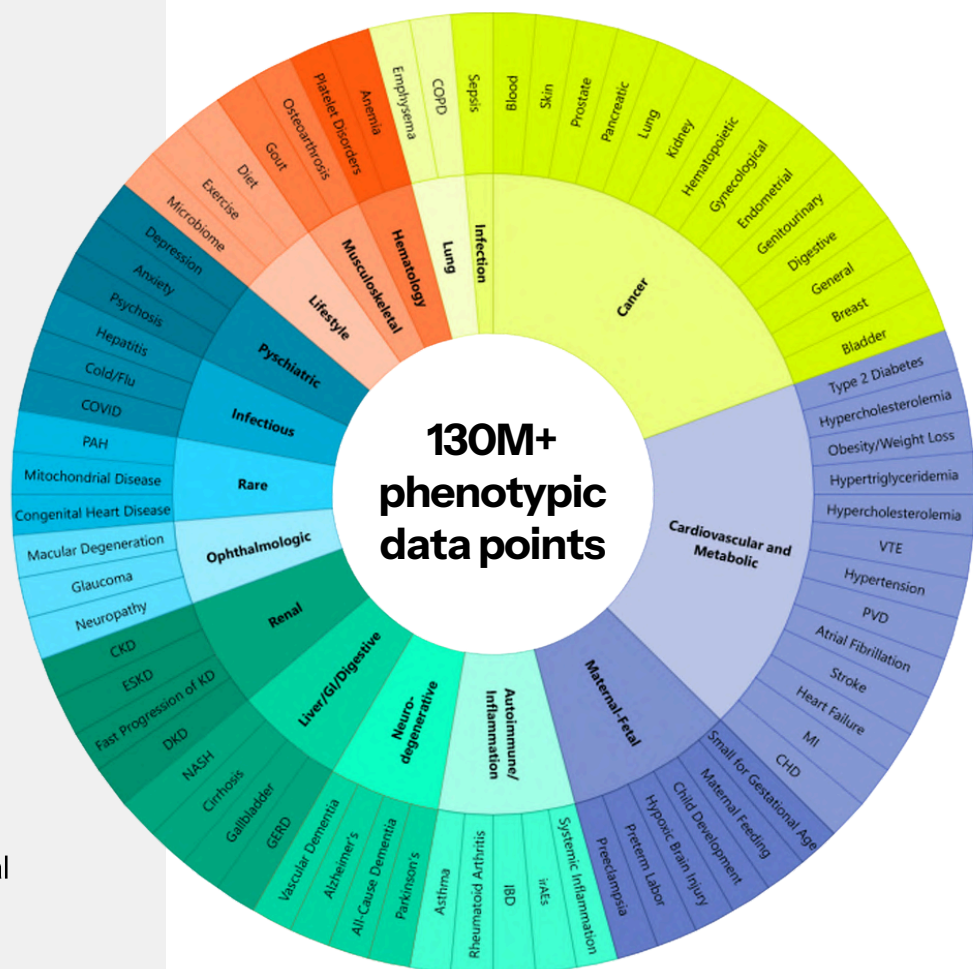
Greater discovery is enabled when data from individual disease and cohort studies can be homogenized and linked together, revealing biological commonalities and differences across diverse populations and diseases.

Sapient has built an expansive Human Biology Database for this purpose, comprised of data from more than 100,000 biosamples from individuals and studies around the world. The samples have been assayed using our next-generation mass spectrometry platform for nontargeted discovery of dynamic biomarkers.

## A deep biological data repository to **validate and mine discoveries**

Sapient's proprietary database includes disease-centric data for more than 60 diseases and disorders, as well as data from samples from healthy individuals across populations worldwide.

Biomarkers identified in a sponsor's new samples can be rapidly cross-validated in the database, where the same molecules have already been measured. Sapient can also begin by mining the database for key insights such as identifying potential new drug targets or understanding biological mechanisms of disease.



## Enhanced with **extensive phenotypic insight**

Sapient's Human Biology Database includes longitudinal information linked to the biosamples, with individuals clinically followed for a range of 10–30 years. Data on demographic features and lifestyle factors, along with clinical information on laboratory test values, medications, drug response, and clinical outcomes, is captured to deeply phenotype these individuals and provide further insight into factors influencing their health and disease.

The quality and depth of this data frequently exceeds that of EMR or EHR data, which can be fraught with gaps and inconsistencies from subjective interpretation. Sapient's database includes adjudicated clinical outcomes for individuals that have been commonly defined and agreed upon by physician review panels.

Additionally, we have mapped data from over 150,000 microbiomes for a subset of this population, and are continually adding new biosamples and data to further enrich the database.



**>10–30 years of patient follow-up with data on:**



**Demographic features**



**Lifestyle factors**



**Clinical outcomes**



**Protein measures**



**Microbiome**



**Genetics**



**Response to Intervention**

## Find new links between genetics & diseases

For a subset of individuals in our database, Sapient also has **genetic information** on small molecule biomarkers mined via genome-wide association studies (GWAS) that can unveil missing links between genetic variants and diverse diseases. For a sponsor's drug target of interest, Sapient can discover circulating biomarkers for target engagement.

**What can you discover with this unique breadth of human biology data?**

Sapient's Human Biology Database can be readily tapped to identify or confirm biomarkers with population-level insight, providing the statistical power to validate the specificity and sensitivity of key biomarkers uncovered through your study.



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