




Discovery ready human biology data & samples

Move from **hypotheses to human-validated evidence, fast.**

What is DynamIQ?

Insights **uncovered.**
Key findings **confirmed.**
A DynamIQ advantage **delivered.**

Modern drug development programs still face **high late-stage failure rates, largely because the drug does not produce the intended effect in humans** – even after promising preclinical data. The time, cost, and innovation investment lost is immense, and patient impact is delayed.

DynamIQ™ was built to change that.

As a **unique population-scale molecular-clinical database built on dynamic, functional multi-omics measures with longitudinal sampling**, Sapient's DynamIQ Insights Engine provides immediate access to real-world human biology data at depth and scale.

Whether used to contextualize disease and clinical links of biomarkers observed in your study, to validate early findings in independent patient cohorts, or to scout for targets and biomarkers without collecting new samples, our **DynamIQ database provides the mechanistically rich, human-relevant data needed to rapidly build evidence** that advances the right biomarkers and targets – faster and with far greater certainty.

A Multi-Omics & Real-World Database

Generated from **>67,000 longitudinally collected** human plasma samples and **diverse tumor & normal tissue samples**

A Virtual Biobank

Providing **streamlined access to clinically annotated FFPE tumors and tissues** across common and rare diseases

An Insights Engine

Using AI-powered analyses to:

- **Confirm biomarkers and preclinical findings** in real-world cohorts
- **Identify & validate** targets
- **Uncover** novel biology

Deeply phenotyped human biology datasets to **link molecular signatures with real-world clinical outcomes.**

Sapient's DynamiQ database is comprised of population-scale multi-omics and clinical data **generated from >67,000 longitudinally collected human plasma samples and complemented by diverse tumor and normal tissue samples.**

This large-scale reference dataset contains broad measures of metabolites, lipids, proteins, and cytokines – the ultimate effectors of health and disease – to enable **deep characterization of the dynamic molecular processes that modulate, or are modulated by, diseases and therapeutics.**

The characterized plasma samples are **linked with EHR data** including demographics, laboratory measures, diagnoses, medications, and clinical outcomes, enabling **biomarker discoveries to be contextualized and correlated with real-world patient journeys.**

By **grounding discovery in real-world human data**, DynamiQ enables teams to rapidly confirm biomarker-disease links, evaluate clinical relevance, and strengthen confidence in early-stage hypotheses.

Virtual biobank access to **mitigate study delays.**

In addition to our pre-characterized samples, Sapient's DynamiQ Tumor-Tissue virtual biobank offers **streamlined access to clinically annotated tumors and tissues across common & rare diseases.**

We help you rapidly tap into the vast inventory of existing archival samples – including tumors by grade and cancer type as well as normal human tissue for global differential analyses – to **accelerate your study timelines.**



CHARACTERIZED SAMPLES

>67,000 plasma samples collected longitudinally from **>12,000 patients**

Tumor samples across cancers and grades as well as **normal human tissue**

60+ diverse diseases represented

DATA LINKED TO SAMPLES

>15,000 metabolite & lipid measures

Protein measures (>5,400 in plasma, **>12,000** across tissues)

450+ inflammatory & neuro markers

DNA / RNA sequencing

Matched EHR data for plasma samples including lab measures, demographics, diagnoses, treatments & clinical outcomes

Discover more with mechanistic context. Validate what others can only hypothesize.

With DynamiQ, Sapient is **the only multi-omics partner that has the unique ability to both analyze your samples and validate the findings in independent real-world cohorts – as well as to uncover novel biology.**

This database acts as an Insights Engine to both **generate de novo discoveries and to confirm the human relevance of targets and biomarkers observed in client studies** – building mechanistic evidence to close translational gaps.



Use Case	DynamiQ Application	Unique Value
Confirm preclinical findings directly in human populations	Accelerate translation of identified targets and biomarkers with cross-validation in a real-world cohort to confirm observed signals are human-relevant.	Establish mechanistic confidence before committing to expensive development steps.
Identify disease subtypes and responder profiles	Run at-scale, cross-cohort analyses across longitudinal samples to map molecular networks underlying dynamic biomarker-disease and biomarker-response patterns observed in smaller-scale studies.	Add biological, clinical, and functional context to biomarkers used for patient stratification.
Identify druggable targets	Leverage the DynamiQ database and Tumor-Tissue virtual biobank to support rapid discovery and validation of tractable, disease-modifying targets.	Eliminate the time and cost of new sample collection for faster time-to-insight.
Build foundation models	Train AI models on deep, longitudinal multi-omic human datasets to uncover physiological differences among patients with similar diagnosis or lab values.	Map physiological diversity at a level not accessible through genomics or routine clinical measures.
Run virtual experiments	Use our large-scale, pre-characterized human biology datasets to perform in-silico, multi-omic experiments to rapidly test hypotheses and build mechanistic insight.	Accelerate early discovery and strengthen evidence for study continuation.

Contextualize and extend findings with DynamiQ™ insights.

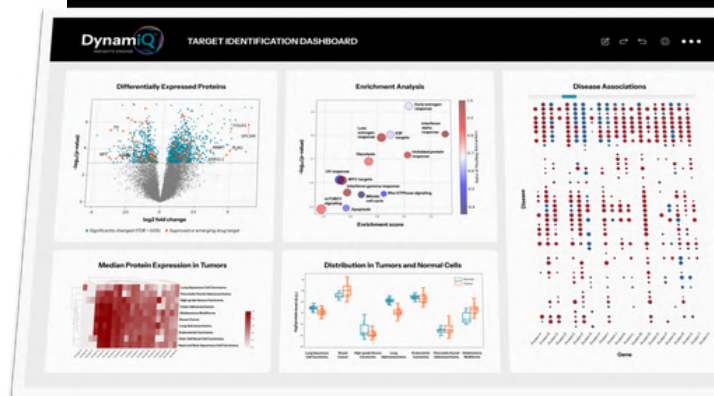
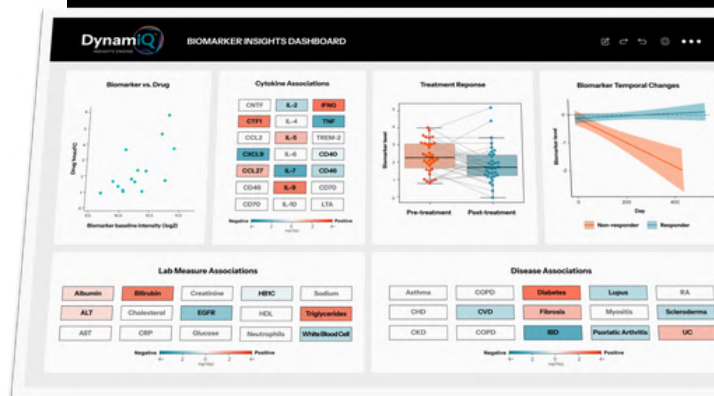
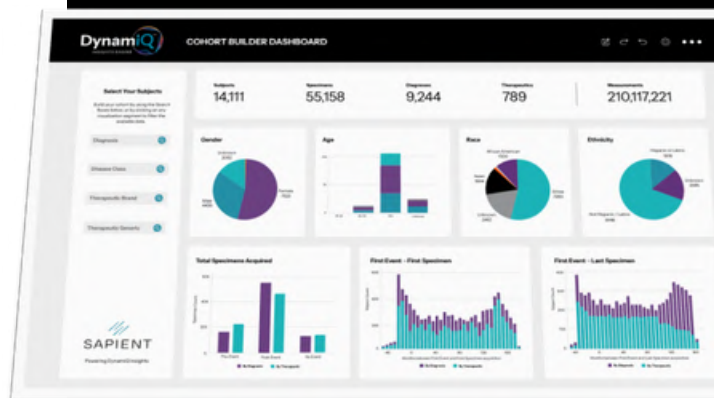
We built DynamiQ to **transform the pace and precision of drug development by grounding every insight in deeply phenotyped, real-world human biology** – helping programs move from hypotheses to human-validated evidence faster and with more confidence.

Interested? Here's where to start.

Schedule a time for a guided demo using our **DynamiQ Cohort Builder**, where we can curate a proposed set of samples to analyze based on your biological question and therapeutic area of interest. Our database has representation across diverse demographics and diseases including:

- Cardiovascular / Metabolic
- Cancer
- Neurodegenerative
- Liver / GI / Digestive
- Ophthalmologic
- Lung
- Autoimmune / Inflammation
- Renal
- Rare Disease
- Infectious
- Musculoskeletal
- Hematology

Contact discover@sapient.bio to schedule a meeting.



The SAPIENT logo consists of four parallel, slanted lines in shades of blue and green above the word "SAPIENT" in a large, white, sans-serif font.

Discover more today.

+ sapient.bio/DynamiQ

+ discover@sapient.bio

+ 858.290.7010