



Multi-omics services for insights *beyond measure.*

Sapiient is a **leader in multi-omics data generation and insight delivery**, providing bespoke services that enable biopharma sponsors to go beyond the genome to accelerate precision drug development.

Utilizing high-throughput mass spectrometry, biocomputational frameworks, and a proprietary multi-omics database, Sapiient enables **comprehensive mapping of proteins, metabolites, lipids, and cytokines across thousands of samples for robust discovery of dynamic biomarkers, drug targets, and clinical signatures of drug response.**

Multi-Omics Services

Discovery Proteomics

Deep coverage across **>12K proteins & PTMs**

Precision Protein Assays

For **quantitative measure** of key proteins

Metabolomics & Lipidomics

Captures **>15K biomarkers** per biosample

Cytokine Multiplexing

>350 markers of inflammation & CNS disease

Biocomputational Analysis

ML analysis to **identify targets & biomarkers**

DynamiQ™ Insights Engine

Multi-omics database of **>62K samples** to assess biomarker dynamics at scale



We generate greater biological insight from every sample.

Sapient's integrated multi-omics services amplify your ability to identify biomarkers that can drive better disease understanding, stratify patients, and accelerate your therapies to market. **Our platform includes:**

High-Throughput Profiling with next-gen analytical technologies

Sapient uses nanoflow separation coupled to trapped ion mobility mass spectrometry for label-free, DIA proteomics. Mass spectrometry annotates proteins and post-translational modifications (PTMs) via direct peptide sequencing, enabling **precise protein identification and more in-depth analysis of protein function and regulation.**

Our proteomics methods are **scalable to fit your protein coverage and throughput needs, from high-throughput screenings to single, highly quantitative measures**, including for low-abundance cytokines and chemokines.

Additionally, Sapient's proprietary rapid LC-MS (rLC-MS) systems allow us to **measure thousands of small molecules per sample, capturing diverse classes of metabolites and lipids in a single run**, across thousands of samples at a time.

Our nontargeted screenings **lead us to the most biologically relevant molecules – including those that may not yet be characterized** – which amplifies potential to uncover novel biomarkers associated with disease mechanisms, disease progression, patient response, and more.

With **more than 13,000 reference standards in our in-house library**, we identify as many as **1,400 metabolites across large-scale studies** and provide putative structural insights for unknown molecules.



>12,000 proteins and PTMs

measured across diverse biological pathways, with scalable proteome coverage depth



>15,000 small molecule biomarkers

assayed per biosample in nontargeted method, including metabolites and lipids, in a single run



Diverse sample types

including liquid and tissue matrices from cellular, preclinical, and clinical studies



Capacity for rLC-MS to analyze **>5,000 biosamples per day**

Why dynamic biomarkers?

Biomarkers have been shown to improve drug approval rates by 2-10x, but while the vast majority of biomarker discovery has focused on genomics to date, **>80% of disease risk is non-genetic.**

Sapient focuses on dynamic biomarkers because they **read out both genetic and non-genetic factors of health, disease, and drug response.** Through large-scale profiling of these markers, we enable you to go beyond the genome to advance biomarker-guided drug development.



Biocomputational Analysis

to rapidly derive actionable insights

Our expert data science team **applies AI and machine learning approaches** to analyze and integrate the large-scale datasets we generate to identify drug targets and key biomarkers of interest.



Multi-scale analyses & models
distilling tens of thousands of multi-omics measures down to pathways and biomarkers



Mapping biomarker associations
across time, diseases, treatments, and more



DynamiQ™ Insights Engine

to validate biomarker discoveries

Sapient has built an expansive **in-house biorepository of serial samples in which we have collected metabolite, lipid, protein, cytokine, and other omics measures** and linked with real-world data including clinical outcomes.

We leverage this deeply phenotyped database for longitudinal analysis to uncover dynamic drivers of disease and drug response, **confirm biomarker findings in independent human samples, and identify clinical signatures to stratify patients and predict response.**

Curated to represent complex diseases including:

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



Multi-omics measures integrated from **62,000+ human biosamples**



4 – 10 years of follow-up
across individuals, with real-world data on:

- Adjudicated clinical outcomes
- Demographic features
- Lifestyle factors
- Response to intervention
- Human genetics, microbiome, etc.



68M+ phenotypic data points
linked to spectral data from biosamples



Rapidly growing database
with data for 60+ diseases and disorders
and new biosamples added every month

Why DynamIQ?



The **largest breadth** of dynamic molecular measures per sample.
Longitudinal views of **biomarker-disease and -treatment patterns.**
AI-ready datasets for robust discovery of new markers and targets.

An integrated approach to **amplify your discovery.**

Sapient's innovative technologies and approaches have removed traditional bioanalytical constraints to map dynamic biomarkers at **speed, scale, and in a time-efficient manner.**



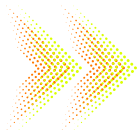
More measures with **next-generation analytical tools.**

We use our high throughput mass spectrometry systems to **capture thousands of proteins, metabolites, and lipids in every sample**, with rapid scalability to thousands of samples.



More actionable insight with expert **biocomputational analysis.**

Our data science team performs **integrative multi-omics data analysis**, including with other omics, preclinical, and clinical measures, to identify and map key biomarkers for your study.



More confidence using our **DynamiQ Insights Engine.**

Sapient's **longitudinal database of multi-omics and real-world data from 62,000+ biosamples** can be used to cross-validate and expand upon biomarker discoveries in independent cohorts.

Your partner to **discover more and develop faster.**



We are a collaborative partner in your mission to de-risk R&D and accelerate your most promising drugs. We can **apply and customize our discovery approaches in a multitude of ways to identify, validate, and translate robust biomarkers** to guide your studies.

This can include development of clinical assays in our CLIA-certified, CAP-accredited clinical laboratory.

The biomarkers we help you discover can be used to align the:

Right Disease

- Target ID and validation
- Disease mechanisms
- Early disease detection
- Disease progression

Right Patient

- Patient stratification
- Safety profiling
- Companion diagnostics
- Clinical trial enrichment

Right Therapy

- Dosing strategies
- Timing of treatments
- Target engagement
- Toxicology



Discover more today.

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