

About PrognomiQ

[PrognomiQ](#) is a healthcare company focused on harnessing the power of multi-omics data to transform the detection and early treatment selection and monitoring of cancer and other complex diseases. Seer spun out PrognomiQ in September 2020 with the vision of it using Seer's Proteograph, which uniquely captures the complexity of the proteome by enabling unbiased proteomic analysis at the depth, breadth, and scale needed to gather rich information at the amino acid and peptide level. PrognomiQ uses leading edge biomarker discovery technologies in proteomics, metabolomics, epigenomics, transcriptomics and genomics technologies, combined with leading machine learning and AI capabilities, to develop multi-omics products that improve human health.

The Need for Early Detection & Treatment

According to the [American Cancer Society](#), early diagnosis improves cancer outcomes by providing care at the earliest possible stage, when cure rates are highest, and is therefore an important public health strategy in all settings. Unfortunately, challenges with cancer detection, including compliance with current screening methods, have led to many cancers only being discovered at late stages of cancer, when survival rates are lowest, underscoring the need for better and more broadly adopted methods for earlier cancer detection. Cancer detection through liquid biopsies offer a less invasive and accessible strategy for earlier detection and treatment. Liquid biopsy product development has advanced tremendously through insights provided by large-scale genomic data collection, yet despite these advancements, there are still opportunities to improve disease detection performance by enabling researchers and clinicians to fully leverage proteomic and other molecular phenotypic information – providing the functional context to make sense of large-scale genomic information.

Transforming Care with Multi-omics

PrognomiQ leverages the latest advances in proteomics to generate direct phenotypic data on a person's biological state, including state of disease. This rich proteomic information can be further complemented by additional molecular phenotypic data sources, including metabolomics, epigenomics and transcriptomics. The resulting multi-omics data sets provide unparalleled levels of biological insights, related to the mechanisms of the most complex diseases – to generate novel biological content that could lead to transformative new approaches to diagnostics and therapy development. PrognomiQ believes that early detection and treatment of complex diseases can only be unlocked through the insights provided by high-quality multi-omics data that combines molecular phenotypic data with genomic data. This powerful multi-omics platform is the engine to develop transformative healthcare products that could impact millions of lives.

More About the Science

PrognomiQ's platform is unique in that it is taking an untargeted or unbiased approach to broadly sample the proteomic, metabolome, epigenome, transcriptome and genome for biomarkers – and accomplishing this at large scale. Thus, the platform can discover novel biological content, particularly molecular phenotype content that goes beyond the targeted proteomic and other molecular phenotype approaches commonly used. Following is a glossary of terms, breaking down the science:

- **Proteomics** is the large-scale study of proteomes. A proteome is a set of proteins produced in an organism, system or biological context. The field of proteomics is particularly important because most diseases are manifested at the level of protein activity.
- **Metabolomics** is the large-scale study of small molecules, commonly known as metabolites, within cells, biofluids, tissues or organisms. Collectively, these small molecules and their interactions within a biological system are known as the metabolome.
- **Epigenomics** is the study of the complete set of epigenetic modifications on the genetic material of a cell, known as the epigenome.
- **Transcriptomics** is the study of the transcriptome – the complete set of RNA transcripts that are produced by the genome, under specific circumstances or in a specific cell – using high-throughput methods, such as microarray analysis.
- **Genomics** is an interdisciplinary field of biology focusing on the structure, function, evolution, mapping and editing of genomes. A genome is an organism's complete set of DNA, including all of its genes as well as its hierarchical, three-dimensional structural configuration.

A company study presented at the AACR 2022 meeting demonstrated the promise of a broad multi-omics approach, focused on molecular phenotype information, to identify previously known and, more importantly, novel bio-marker candidates that were significantly different between healthy and pancreatic cancer patients.

COMPANY SNAPSHOT

PrognomiQ's mission is to **transform lives** with earlier detection and treatment of cancer and other complex diseases, made possible through the power of multi-omics data.

PrognomiQ was **founded in 2020** and is a privately held company, with headquarters in San Mateo, CA.

The company's management, board and scientific advisors include a multidisciplinary group of **world-renowned experts** in proteomics, multi-omics, data sciences and clinical medicine.