

News & Publications

Foresight Diagnostics Patent Issued for Minimal Residual Disease Detection Technology

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Foresight Diagnostics, Inc, a leader in cancer diagnostics and cancer relapse testing, announced today that the U.S. Patent and Trademark Office (USPTO) has granted the company patent No. 11,447,833 for the detection of minimal residual disease (MRD) using its personalized phased variant detection platform. "We are pleased that the USPTO has recognized the novel nature of our proprietary technology and are excited about the impact we believe this technology will have on the lives of cancer patients," said Dr. Jake Chabon, Ph.D., Chief Executive Officer of Foresight Diagnostics.

This granted patent covers Foresight's PhasED-Seq technology and the workflow behind the Foresight Solid Tumor Recurrence Test, an assay used to detect minimum residual disease (MRD) from the plasma of cancer patients using DNA sequencing. The test is custom designed for each patient to track phased variants identified from tumor tissue samples using whole genome sequencing. The test offers unprecedented sensitivity for MRD detection, enabling a limit of detection below one part per million.

"Ultra-sensitive MRD tests are essential to detect residual disease and recurrence following completion of curative intent therapies," said Dr. Ash Alizadeh, MD/Ph.D., co-founder and Chief Medical Advisor at Foresight. "PhasED-Seq has been used in more than 20 different clinical studies, and can predict cancer relapse when tumor burden is low and patients are more likely to favorably respond to anti-tumor therapy. Sensitivity for MRD detection is important for all types of cancer and is particularly critical for cancers that shed relatively small amounts of circulating tumor DNA (ctDNA) into the bloodstream such as lung and breast cancer"

"Issuance of this patent by the USPTO is an important milestone in our quest to bring Foresight's best-in-class MRD testing to cancer patients," said Dr. Chabon. "The increased sensitivity of the PhasED-Seq MRD testing platform has the potential to dramatically improve patient outcomes, both in terms of identifying candidates for new therapeutic regimens as well as relieving patient anxiety around cancer relapse. We've seen significant commercial interest in our MRD testing platform from both academic and industry partners and are already planning discussions with the FDA to identify the most expedient regulatory pathway to bring this test to patients. We're excited to see how oncologists and drug developers can use PhasED-Seq to enhance cancer care."

About Foresight Diagnostics

Foresight Diagnostics is a privately held cancer diagnostics company and CLIA-registered laboratory. The company has developed a novel liquid biopsy testing platform for the measurement of minimal residual disease (MRD) that is significantly more sensitive (with a detection limit below 0.0001% or one part-per-million) than existing tests. The improved sensitivity of the Foresight MRD assays can provide actionable information to physicians and biopharmaceutical companies to enable more personalized treatment approaches for patients with solid tumors and B-cell malignancies. For more information, please visit foresight-dx.com and follow us on [Twitter](#) and [LinkedIn](#).

About PhasED-Seq

The Foresight MRD platform is based on the Phased variant Enrichment and Detection by Sequencing (PhasED-Seq) technology. PhasED-Seq lowers the error profile of mutation detection in sequencing data by requiring the concordant detection of two separate non-reference events in an individual DNA molecule. By detecting more than one mutation, PhasED-Seq can more accurately distinguish tumor-derived cell free DNA (i.e., ctDNA) from healthy cell free DNA - enabling detection of ctDNA at levels below one part-per-million (<.0001%). PhasED-Seq has been exclusively validated in thousands of patient samples.

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