PERSONALIZED CANCER DIAGNOSTICS AND PROGNOSTICS

DIAGNOSTICS

Proprietary algorithms that analyze cancer data using genomic signatures to predict patient’s survival, response to treatment, and help develop companion diagnostics for drugs.

TECHNOLOGY SUMMARY

Diagnosis, prognosis, and treatment of solid tumors, such as glioblastoma (GBM) and ovarian serous cystadenocarcinoma (OV), has remained largely unchanged for decades, despite the increased availability of patient genomic data. Many tumors develop resistance to platinum-based drugs, the current first-line treatment, yet no tool exists that distinguishes between resistant and sensitive tumors prior to treatment.

This technology provides a computational assessment of cancer genomic profiles for personalized prognostics and drug companion diagnostics. Comparing patient data to proprietary signatures, the algorithm predicts patient response to chemotherapy. Predicting patient response to treatment helps guide clinician decisions and ultimately improves patient outcomes.

FEATURES AND BENEFITS

- Guides treatment plan by identifying patients who will not respond to current first-line treatments.
- Increases accuracy of patient prognosis predictions.
- Facilitates approval of new drugs as a companion diagnostic.

RECENT PUBLICATIONS


For a complete list of publications, please visit the inventor’s publication page.

INVENTOR PROFILE

Orly Alter, Ph.D., Adjunct Associate Professor – Human Genetics

STAGE OF DEVELOPMENT

- Personal prognosis tool fully developed for Glioblastoma and Ovarian Cancer.
- Tools in development for additional cancers.

IP PROTECTION

Nationalized PCT Portfolio Pending in the United States and Europe
Genetic alterations in glioblastoma WO2013067050A1
Genetic alterations in ovarian cancer WO2016168525A1
Advanced tensor decompositions for computational assessment and prediction from data WO2016168526A1

LEARN MORE

Reference Numbers: U-5703, U-5704, U-5705, U-5386, U-6409, U-6410, U-6411

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