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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.

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-5386, U-5703, U-5704, U-5705, U-6409, U-6410, U-6411

Aaron Duffy

Technology Manager
aaron.duffy@tvc.utah.edu
801-585-1377

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

Aiello, K. and Alter, O. (2016). Platform-independent genome-wide pattern of DNA copy-number alterations predicting astrocytoma survival and response to treatment revealed by the GSVD formulated as a comparative spectral decomposition. Public Library of Science. doi: [10.1371/journal.pone.0164546](https://doi.org/10.1371/journal.pone.0164546).

For a complete list of publications, please visit [the inventor's publication page](#).

INVENTOR PROFILE

Orly Alter, Ph.D., [Adjunct Associate Professor – Human Genetics](#)

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