Members of the WNT Signaling Pathway as Predictive Markers and Therapeutic Targets in Glioblastoma Multiforme

**UA ID** Technology #ua18-229

**Invention:** This technology is a set of biomarkers to predict radiotherapy and chemotherapy outcomes in individual Glioblastoma Multiforme patients to better assess their prognosis and therapy.

**Background:** Glioblastoma Multiforme (GBM) is the most aggressive form of brain cancer and is currently treated through surgical intervention, chemotherapy and radiotherapy. The effectiveness of chemotherapy and radiotherapy fluctuates depending on the patient. While some patients benefit from them, others do not see any positive effects. The technology presented here is a set of biomarkers in Wnt signaling pathway and it provides a means of effectively predicting which patients will be long-term survivors after chemotherapy and radiotherapy. It can also potentially be used to predict patient responses to drugs that inhibit Wnt signaling pathway.

**Applications:**
- Prediction of chemotherapy and radiotherapy effectiveness in GBM patients
- Companion diagnostic for inhibitors to Wnt pathway

**Advantages:**
- Provides a more precise prediction of treatment outcomes
- Avoids the use of unnecessary or excessive treatments

**Licensing Manager:**
Lisa Lin
lisal@tla.arizona.edu
(520) 626-6969
Inventors

Michael Hammer
Research Scientist, Arizona Research Labs, Interdisciplinary

Christopher Morrison
Resident Fellow, Radiation Oncology

Daruka Mahadevan
Professor, Cancer Center Division

Baldassarre Stea
Professor & Department Head, Radiation Oncology

Eric Weterings
Assistant Professor, Radiation Oncology