



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP160150

Project Title:
Radiogenomic Screen to Identify Novel Proliferation-associated
Glioblastoma Genomic Therapeutic Targets: Discovery and Mechanistic
Validation Study

Award Mechanism:
Individual Investigator

Principal Investigator:
Colen, Rivka R

Entity:
The University of Texas M.D. Anderson Cancer Center

Lay Summary:

The purpose of the research is to uncover and validate novel, relevant, and clinically meaningful genomic targets that can be subsequently developed into a therapeutic and more personalized treatment for Glioblastoma, the most common primary brain tumor. Currently, the absence of a validated method for early and cost-effective genomic target identification and selection remains a critical barrier to the development of targeted therapeutics and personalized medicine; thus, despite recent advances in novel sequencing and microarray technologies, little progress has been made and the clinical course and everyday life of a cancer patient remains largely unchanged. This study is needed to address this critical barrier and utilizes imaging based-phenome to genome correlations to identify novel cancer-driving DNA and RNA based genomic alterations; the proposed study will result in validated novel genomic targets for subsequent transfer for the development of novel therapeutics and clinical trials.