



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP170267

Project Title:
Chemically based disruption of oncogenic beta-catenin activity in liver tissue

Award Mechanism:
Individual Investigator

Principal Investigator:
Lum, Lawrence

Entity:
The University of Texas Southwestern Medical Center

Lay Summary:

A significant percentage of cancers of the liver and the colon are caused by genetic mutations that compromise the same cell-to-cell communication process that normally ensures the orderly regeneration of cells in each organ. Despite our understanding of the root causes for these cancers, the management of these diseases nevertheless relies on drugs that are not specifically tailored for these mutations thus frequently incurring unwanted toxicities and eliciting unpredictable mechanisms of drug resistance. Our study will directly test the ability of two novel classes of chemicals that emerged from a large chemical screening effort to identify agents that could counteract the cell growth-promoting effects of the most frequent liver-cancer associated mutation found in the CTNNB1 gene. The study will include the use of state of the art chemistry, cell biology, and pre-clinical cancer testing methodology. We anticipate the outcomes of this study to be pivotal to the development of agents that can be used for individualized patient management in both liver and colorectal cancer.