



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP160493

Project Title:
Characterization and pharmacological targeting of the oncogenic activity
of Jumonji enzymes

Award Mechanism:
Individual Investigator

Principal Investigator:
Martinez, Elisabeth

Entity:
The University of Texas Southwestern Medical Center

Lay Summary:

We have discovered and characterized a new inhibitor of a set of enzymes that are over-expressed in many cancers and in drug-resistant and radiation resistant tumors and which drive their aberrant growth, the Jumonji histone demethylases. The compound has potent and selective anti-cancer activity in cancer cells and in animal models but does not affect normal cells. In this application, we will determine how the drug specifically inhibits cancer, will identify its main cellular targets and will explore its use as a potential sensitizer for radiation therapy and for chemo-resistant cancers, laying the foundation for future clinical applications.