



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP110098

Project Title:
Determining the Functional Role of microRNAs in Viral Tumorigenesis.

Award Mechanism:
Individual Investigator

Principal Investigator:
Sullivan, Christopher S

Entity:
The University of Texas at Austin

Lay Summary:

microRNAs (miRNAs) are an exciting new class of gene products, previously unappreciated, that play a profound role in numerous and diverse cancers. We and others have shown viruses that cause human cancers (tumor viruses) encode miRNAs, however their functions are mostly unknown. The primary goals of this project seek to provide a comprehensive understanding of tumor viral miRNA function, and a catalog of cancer-relevant host transcripts that are targeted during infection. In addition, we will uncover the degree to which host miRNAs are utilized by a model tumor virus to control the infectious cycle and evade host defenses. Successful completion of this application will lead to new candidate therapeutic targets, including viral miRNAs and their host targets that are most related to tumorigenesis. These primary objectives will be met in three years, but it is anticipated that these studies will generate new insights into the mechanisms of viral and non-viral-mediated tumorigenesis that will open up exciting areas of future research.