



## CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:  
DP140031

Project Title:  
Pre-IND Development, Phase I Clinical Trials, & Predictive Biomarker Evaluation, for Engineered Human Arginase Targeting the Metabolic Vulnerability of Tumors

Award Mechanism:  
Established Company

Principal Investigator:  
Wooldridge, James

Entity:  
AERase, Inc.

### Lay Summary:

The mission of AERase, Inc. a recently established biopharmaceutical company located in Austin, TX, is to develop novel cancer treatments by exploiting the unique metabolism of cancer cells. Cancer cells, unlike normal cells, lack the ability to make certain amino acids (AA), the building blocks of proteins. Efforts have been made to exploit this vulnerability, seen in many different cancers, by depriving tumors of key AA using naturally occurring compounds. The use of these compounds has been complicated by poor activity, (human-derived drugs) and by the development of immune reactions, (microbe-derived drugs), nonetheless tumor shrinkage has been seen in several different cancer types, such as melanoma, and liver cancer. AERase, Inc. has developed a variation on a human molecule that promises to be effective in the depletion of a key AA and to be unlikely to cause an immune reaction. Before this compound can be used as a cancer treatment, it must be manufactured and tested in animals and humans. During drug development, AERase, Inc. will do cell and animal studies at contract laboratories in TX. The human trials proposed will include clinical sites in TX, and use contract research and other providers in TX. To guide product development the company has recruited key personnel to TX from companies in other states, and the company expects to grow from its current staff of 4 to a permanent staff of 10, based in TX, to support development of this novel cancer treatment.