

## James & Esther King Biomedical Research Program

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*Cancer Research Institute  
M.D. Anderson Cancer Center  
Orlando*

*2009 Program  
Technology Transfer Commercialization Partnership  
(1-year project)*

**Project Title:** A Novel Biomarker for the Detection of Lung Cancer

**Project Summary:** Lung cancer is the leading cause of cancer-related death in the USA. The American Cancer Society estimates that nearly 160,000 lung cancer deaths occur each year due to tobacco use. For a variety of reasons, tobacco use continues to be widespread, and early cancer detection is a pressing need. When a diagnosis of lung cancer is made, patients receive treatment and wait to see if the cancer returns. At the early stages of recurrence, however, the symptoms of most lung tumors may be vague. Once symptoms develop, the cancer is usually advanced and opportunities for successful treatment decrease. X-rays, CT scans, and molecular markers can help detect cancer at earlier stages, when cancer survival is more promising. However, these tests are not always precise. We have preliminary results that suggest a simple blood test may have the ability to accurately detect cancer. The question we want to address with this research is: can this blood test be used to detect lung cancer? The long-term goal of this study is to establish a commercially available diagnostic laboratory test to aid existing methods for the detection of lung cancer. Specific goals for this study are:

1. To evaluate a newly identified cancer protein as a marker for lung cancer.
2. To monitor the effectiveness of lung cancer treatment.