



## BIOMARKERS FOR PANCREATIC CANCER

# Pancreatic Cancer Diagnostic Biomarkers

### Brief Description of Technology

Biomarkers for screening individuals at high risk of developing pancreatic cancer.

#### BUSINESS OPPORTUNITY

Exclusive license  
Sponsored research

#### TECHNOLOGY TYPE

Oncology  
Diagnostic  
Biomarker  
Pancreatic cancer

#### STAGE OF DEVELOPMENT

Discovery and retrospective validation complete

#### PATENT INFORMATION

WO 2016049045

#### INVESTIGATORS

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#### LEARN MORE

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### Technology Overview

Drs. Paul Lampe and Sunil Hingorani have identified and validated pancreatic ductal adenocarcinoma (PDA) biomarkers ERBB2, TNC, and ESR1, for specific and sensitive detection, diagnosis, and prognosis. The researchers discovered and validated these biomarkers by using a customized high-dimensional antibody microarray platform to interrogate plasma samples from (i) a highly faithful mouse model of PDA representing pre-invasive and early invasive stages of PDA; (ii) 87 pre-diagnostic human plasma samples and 87 matched control; and (iii) 24 samples from patients with PDA and 24 unmatched controls. Collectively, these analyses uncovered biologically and potentially clinically relevant markers, detectable up to 4 years before death from PDA, with sensitivity and specificity of 68% for prediagnostic and 86% for diagnostic samples.

### Applications

- Monitoring high risk patients and those at risk of relapse

### Advantages

- Effective method for diagnosis and triage of pancreatic cancer patients
- Early detection of pancreatic cancer
- Minimally invasive blood test easily incorporated into routine lab work

### Market Overview

About 53,000 individuals per year are diagnosed with pancreatic ductal adenocarcinoma (PDA). It is the fourth leading cause of cancer-related death in the United States with a dismal 5-year survival rate of 6%. This high mortality is the direct reflection of inadequate diagnostic tools. Surgical resection, though potentially curative if PDA is diagnosed early, is currently an option for under 20% of the patients as the majority present with unresectable late-stage disease. Thus, there is an urgent need to develop accurate biomarkers for screening individuals at high risk of developing pancreatic cancer.