



BIOMARKERS

Colon Cancer Biomarkers

Brief Description of Technology

Validated 5-protein panel for early detection of colon cancer and adenoma.

BUSINESS OPPORTUNITY

Exclusive license
Sponsored research

TECHNOLOGY TYPE

Biomarkers
Oncology

STAGE OF DEVELOPMENT

Development of multiplex assay
for high throughput testing

PATENT INFORMATION

WO 2016040178

LEARN MORE

Tech ID: 14-033
partnering@fredhutch.org
206-667-4304

Technology Overview

Dr. Lampe's laboratory has identified and validated a five protein panel for early detection of adenoma and colon cancer: BAG4, IL6ST, VWF, EGFR and glycosylated CD44. This biomarker panel has been confirmed in two independent studies of patient plasma samples in a custom high-dimensional antibody microarray containing 3,200 different antibodies: [i] pre-diagnostic plasma samples from 79 individuals diagnosed with colon cancer <3 years following sample collection and 79 cancer-free controls and [ii] 120 plasma samples from people diagnosed with adenoma or cancer, and 60 controls. This biomarker panel has the potential to revolutionize the diagnosis of colon cancer. The panel has a specificity of 90% and sensitivities of 83-89% [adenoma] and 86-95% [cancer].

Applications

- Colon cancer
- Adenoma

Advantages

- Minimally invasive colon cancer screening mechanism
- Can be worked into routine laboratory work
- Early detection of adenoma and colon cancer

Market Overview

Colon cancer is the third leading cause of cancer-related deaths in the United States and approximately 150,000 new cases are diagnosed each year. Early detection drastically increases the odds of survival.

Investigator Overview

Paul Lampe, PhD, Public Health Sciences and Human Biology Divisions