



Study Shows Blood Test Can Detect 8 Types of Cancer

New CancerSEEK Test greater than 99% Specific for Pancreatic Cancer

WOODBURY, New York (January 18, 2018) - Lustgarten Foundation funded researchers at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins have designed a multi-analyte blood test that can detect the presence of pancreatic cancer as part of a panel of eight common cancers (pancreas, ovary, liver, stomach, esophagus, colorectum, lung and breast) as reported in the online edition of *Science* today. The test utilizes combined assays for genetic alterations and protein biomarkers and has the capacity not only to identify the presence of relatively early cancer, but also to localize the organ of origin of these cancers.

“The potential this has for pancreatic cancer is unprecedented,” says Anne Marie Lennon, M.D., Ph.D., Associate Professor of Medicine, Director, Pancreatic Cyst Center of the Ludwig Center at the Johns Hopkins Kimmel Cancer Center. “We know that in 80-85 percent of pancreatic cancer cases, it’s detected too late, leaving the patient with few options. Developing a blood screening test for pancreatic cancer has been an urgent goal, because catching the disease early will be the way we get to long-term survival.”

The test results for pancreatic cancer were very promising. The sensitivity of the detection method was 70% and the specificity was greater than 99%. Sensitivity and specificity are terms used to evaluate a clinical test. Sensitivity is the ability of a test to correctly identify those with the disease (true positive), whereas test specificity is the ability of the test to correctly identify those without the disease (true negative). New blood tests for cancer must have very high specificity; otherwise, too many healthy individuals will receive positive test results, leading to unnecessary follow-up procedures and anxiety.

The CancerSEEK test was developed by scientists at Johns Hopkins, and evaluated in over 1,000 patients with one of eight common cancers. These included 93 patients with stage I to I-III pancreatic cancer who were enrolled in the study and compared with 812 healthy control individuals with no known history of cancer, high-grade dysplasia, autoimmune disease, or chronic kidney disease. Scientists were able to identify 72% of these patients with pancreatic cancer.

STUDY SIGNIFICANCE

This study lays the conceptual and practical foundation for a single, blood screening test for multiple cancers that could be offered as part of routine medical checks. The estimated cost for the test will eventually be less than \$500 which is comparable to or lower than other screening tests for single cancers, such as a colonoscopy. To actually establish the clinical utility of CancerSEEK and to demonstrate that it can save lives, prospective studies of all cancer types in a large population will be required, which the Lustgarten Foundation is currently helping to fund.

About the Lustgarten Foundation

The Lustgarten Foundation is America’s largest private foundation dedicated to funding pancreatic cancer research. Based in Woodbury, N.Y., the Foundation supports research to find a cure for pancreatic cancer, facilitates dialogue within the medical and scientific community, and educates the public about the

disease through awareness campaigns and fundraising events. Since its inception, the Lustgarten Foundation has directed \$154 million to research and assembled the best scientific minds with the hope that one day, a cure can be found. Thanks to private funding, 100 percent of every dollar donated to the Foundation goes directly to pancreatic cancer research. For more information, please visit www.lustgarten.org.