

# Serum test could identify lung cancer in people who never smoked

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A panel of biomarkers appears to be able to identify the presence of lung cancer in the blood samples of people who have never smoked, according to data presented at the AACR 102nd Annual Meeting 2011, held here April 2-6.

While [lung cancer](#) has long been linked to smoking, approximately one-fourth of patients with lung cancer have never smoked. Researchers are working on ways to identify the presence of lung cancer in these patients.

Charlie Birse, Ph.D., associate director of product development at Celera Corporation, and colleagues are investigating the potential for a serum test that would examine the reliability of a proprietary panel of biomarkers for lung cancer. The goal is to administer this test in patients with suspect chest scans using computed axial tomography (CT) technology.

"In addition to intentional CT scans for lung cancer, many people undergo chest scans for [heart disease](#) prevention or other conditions and incidental nodules appear in the lungs that may or may not be benign," said Birse. "This panel of biomarkers would allow these imaging tests to be further evaluated and provide a degree of certainty in diagnosis."

Birse and colleagues examined more than 600 specimens. Samples were randomly divided into a training set comprised of patients with non-small cell lung cancer (NSCLC) who were smokers and matched controls followed by a testing set of additional NSCLC cases and matched controls. Once the researchers established the biomarkers, they conducted additional studies in 80 people who have never smoked, 40 of whom had varied stages of cancer and histological cell types and 40 control subjects matched by age and gender.

Researchers found strong performance with a sensitivity and a specificity of 83 percent in

identifying lung cancer. All stages of lung cancer and histological cell types were distinguished.

"While promising, these findings still need to be confirmed in larger sets," Birse said.

Provided by American Association for Cancer Research

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