## **RESEARCH HIGHLIGHTS**

## In the news

## WITHIN SPITTING DISTANCE

Two new studies make saliva the flavour of the month — both suggest that biomarkers in saliva samples could be used for cancer detection.

Joseph Califano and colleagues, whose findings are published in Clinical Cancer Research, looked in saliva samples for hypermethylated genes that discriminate between patients with head and neck cancer and healthy controls. They tested the power of their approach with panels of the 3-5 most predictive genes. Although the sensitivity of this approach was lower than a similar one using blood samples, the specificity was higher. "Few tests can be perfect 100 percent of the time in identifying both normal and cancerous cells," says Califano. "Because head and neck cancers are not widespread, it makes more sense to screen those at high risk and to focus on a test's ability to accurately rule out healthy people" (http://www.sciencedaily.com, 5 January 2008).

In the other study, published in Cancer Investigation, Charles Streckfus, William Dubinsky and colleagues use the proteins in saliva in a similar way to identify patients with breast cancer. "Saliva is a complex mixture of proteins," said Dubinsky (http://www.hindu.com, 12 January 2008), and from saliva the authors identified 49 proteins that are differentially expressed between women with ductal carcinoma in situ and controls. The sensitivity of this approach remains to be seen, but previous work using just one protein achieved 85% detection.

The use of lab-on-a-chip technology in this study, and the noninvasive nature of the procedure, has led to speculation about widespread screening by dentists. "Why is it convenient to make such a test in the dental office? Because people visit it more often than they ever see the physician" (http://www.pravda.ru, 11 January 2008).

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