

## Dogs can potentially sniff out prostate cancer, French researchers say

June 2 2010, By Thomas H. Maugh II

Man's best friend may cement his position if early results from French researchers can be replicated. A team of researchers from Tenon Hospital in Paris reported Tuesday at a San Francisco meeting of the American Urological Association that dogs can be trained to detect the characteristic odor of unique chemicals released into urine by prostate tumors, setting the stage for a new way to identify men who are most at risk from the cancer.

If developed, the test might be more effective than the <u>PSA test</u> now used because it would have fewer false positives.

As surprising as the idea might sound, other researchers have already been studying the use of dogs to detect cancers of the breast, lung and bladder. Many tumors release characteristic chemicals that can be identified by the exquisitely sensitive canine nose. <u>Lung cancer</u> cells, for example, can release such chemicals into the air of the lungs, and they can then be detected on the victim's breath.

Dr. Jean-Nicolas Cornu of Tenon and his colleagues trained a Belgian Malinois -- a shepherd breed that has already been used for detecting bombs and in other cancer tests -- to identify urine from patients with confirmed prostate cancer, then to differentiate those samples from urine from healthy subjects.

Finally, they used one urine sample from a prostate cancer victim and four samples from healthy people, asking the dog to choose the correct



one. In 66 tests, the dog was correct 63 times. There were three false positives and no false negatives. That is, the dog correctly identified all the specimens from prostate cancer patients, but misidentified three from healthy men.

The whole training process took about a year, Cornu said, and the team is already training other dogs. The researchers are now attempting to identify what specific chemicals the dog is reacting to in hopes of developing an "electronic nose" that wouldn't require treats and potty breaks.

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