

# THE DIGITAL EXAMINER



Number 154-July 2012

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PCCN Calgary's  
next meeting is

Tuesday July 10th  
at 7:30 PM.

*More information at [www.pccncalgary.org](http://www.pccncalgary.org)*

## New Test could determine treatment

Short of a cure, the Holy Grail in prostate-cancer treatment is determining the cancer's aggressiveness from the start, and such a test is what a research team at the University of Pittsburgh School of Medicine has developed. In a clinical trial whose results are published online today in the American Journal of Pathology, the Pitt team found that analysis of genetic abnormalities not only in prostate-cancer cells but also in benign tissue adjacent to the tumor and even the patient's blood accurately can predict clinical outcomes of the cancer.

Genetic abnormalities signal whether the cancer is aggressive or indolent (relatively inactive). They also can predict relapse.

The lead investigator, Jian-Hua Luo, an associate professor in the school of medicine's Department of Pathology, said analysis of "copy number variations," in the genes of tumor, benign tissue and blood cells potentially can be used to determine the cancer risk, which in turn, can determine a more confident course of treatment.

"We found that the genetic abnormality is not just limited to the cancer but adjacent tissue and in a blood sample," he said.

Genetic analysis of tumor cells reveals a greater number of variations, or "CNV," whose characteristics identify how aggressive the cancer is. Surrounding tissue and the patient's blood contains CNV to a lesser degree but in quantities sufficient to predict accurately the cancer's eventual outcome.

For now, urologists rely on the PSA test -- serum prostate specific antigen -- to indi-

cate whether the patient might have or might develop prostate cancer. But once prostate cancer is diagnosed, doctors have no sure test to indicate how severe or potentially fatal it will be.

Doctors currently use a prostate-cancer rating system to help determine treatment. After the removal of a patient's prostate gland, if a relapse occurs, then doctors monitor how fast PSA levels double, which indicates its aggressiveness. Doubling in four months means the prostate cancer is high risk, which means potentially more aggressive treatment. It's considered indolent if it takes 15 months or longer for the PSA level to double, which could validate a wait-and-see approach.

The CNV test, by improving analysis of prostate cancer in a biopsy, would help doctors better determine a course of treatment. It also would complement the current prostate-cancer grading system, Dr. Luo said.

After reviewing study results, James D. Brooks, a professor of urology at Stanford University who wasn't involved in the research project, said the Pittsburgh project, if validated, could represent "the Holy Grail of prostate cancer" by specifying from the start whether aggressive treatment is necessary.

"It is very intriguing that they find a genetic alteration that correlates to the behavior of prostate cancer that can serve as a diagnostic test to help manage patients," Dr. Brooks said. Such tests "will help tailor a treatment to fit the patients -- less aggressive treatment in patients with the more

Our meeting will  
feature a video  
presentation by Dr.  
Laurence Klotz,

Chief, division of  
urology,  
Sunnybrook  
Medical Institute.

His presentation  
will focus on  
"Active  
Surveillance for  
Prostate Cancer."

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## PCCN Calgary meets on the second Tuesday of every month at 7:30 PM

indolent form and more aggressive in patients with more lethal prostate cancer."

The study involved genome analysis of 238 samples obtained from men undergoing radical prostatectomy, or removal of the prostate gland, along with 104 prostate tumor samples, 85 blood samples from patients with prostate cancer and 49 samples of benign prostate tissues adjacent to the tumor. Based on analysis of those results, the team used the CNV procedure to test 25 new prostate-cancer samples to verify accuracy.

The study also tested how well the CNV test predicted how fast PSA-levels doubled in patients who had had a relapse.

Dr. Luo said his team will do a more extensive clinical trial to see if predictable results of CNV hold up. In the initial study, test accuracy rates for the different cells ranged from 67 percent to 81 percent. If results in the expanded study prove equally strong, he said, he would hope the test could be used in the clinic within three years

### Upcoming meetings

**2nd Tuesday, July 10th 5:00PM—Pre-meeting Dinner** Get-together at the Salt and Pepper Restaurant—1413 9th Avenue SE. Join fellow members for pre-meeting social time, good food and drink. The restaurant is only a very short walk from Venue1008 where we hold our monthly meetings.

**2nd Tuesday, July 10th 6:30 PM PCCN Calgary Warriors** Venu1008—1008 14 St. SE. For those men and their families dealing with advanced prostate cancer we have the Calgary Warriors. The Warriors are a caring and compassionate group, well organized and full of information. They serve the very important needs of hormone refractory patients and all those who have interest in management of advanced prostate cancer.

**6:30PM— July 10th Active Surveillance Group** Venu1008—1008 14th Street SE. Men under active surveillance often have a whole set of questions and fears often not well addressed. This group will give men the opportunity to learn from others who chose this course for managing their prostate cancer. If you are under active surveillance, or if you are deciding on treatment and active surveillance is an option, this group is for you.

**7:30 PM - July 10th our regular Monthly Meeting with a special presentation featuring a video on Active Surveillance.**

### PSA Testing—the debate continues.

Last week, the US Preventive Services Task Force (USPSTF) released new recommendations that men no longer undergo blood tests to measure levels of prostate-specific antigen (PSA), a protein produced by the prostate gland. These recommendations contradict the prostate cancer screening guidelines developed by Memorial Sloan-Kettering experts, which have been in place for about three years.



"We remain committed to our guidelines, which are based on years of careful studies and extensive review by

our Medical Board," says **Howard I. Scher, Chief of the Genitourinary Oncology Service in Memorial Sloan-Kettering's Department of Medicine.**

The USPSTF concluded that there is "moderate or high certainty" that prostate cancer screening as currently conducted in the United States has no net benefit or that the harms resulting from screening outweigh the benefits. The group based its analysis on data that weighed the risks and benefits of conducting PSA tests and digital rectal exams on an annual basis starting at age 50 – or at age 45 for men at higher risk – which is the current practice of many physicians. The risks cited are due in large part to false-positive tests that result in unnecessary procedures and to treatment for cancers that are unlikely to become life-threatening.

"There is no doubt that prostate cancer screening can be associated with harm, mainly the risk of diagnosis and treatment of cancers that pose little risk to life or health, while the treatment carries immediate risks of harm to normal body functions," Dr. Scher says. "But the answer is not to stop screening altogether; it's to do so more intelligently."

Memorial Sloan-Kettering experts concur with the recommendations against current screening practices in the United States. But they believe that the USPSTF has oversimplified the matter and did not take into account a more-selective and targeted approach to

screening and treatment based on the assessment of the risk of having a clinically significant prostate cancer for each individual.

#### Evidence of the Benefits of Screening

Clinical trials have demonstrated that screening with PSA can reduce the risk of prostate cancer death by 20 to 44 percent over ten to 14 years when compared with not screening. Men who stand to benefit the most from early detection are those who are at high risk of dying from prostate cancer, including men with a family history of the disease, men with a genetic predisposition to prostate cancer, and African American men.

In addition to these risk factors, research carried out by Memorial Sloan-Kettering investigators has shown that a man's PSA level between the ages of 45 and 60 is the most powerful predictor of his lifetime risk of developing a life-threatening prostate cancer or dying from the disease.

Rather than a uniform screening approach for the whole population, Memorial Sloan-Kettering guidelines recommend that men have an initial PSA test in their 40s, and that those at low-risk have testing less frequently, whereas men at intermediate to high risk have more frequent evaluations.

"Using this approach, the harms associated with over-treatment of low-risk cancer can be significantly or dramatically reduced by using an approach known as 'active surveillance,' or watchful waiting, which involves no immediate treatment but careful monitoring for changes in the cancer that show it has become more aggressive," Dr. Scher says. "Definitive treatment of the prostate is only considered if it becomes measurably more threatening. We recommend that men found to have low-risk cancers strongly consider active surveillance rather than immediate therapy."

"The mortality rate from prostate cancer in this country has declined steadily over the past 20 years with the widespread use of PSA testing," Dr. Scher adds, "and the incidence of the disease and the mortality rate is likely to rise if testing substantially decreases."

## Inner Peace

If you can start the day without caffeine,

If you can always be cheerful, ignoring aches and pains,

If you can resist complaining and boring people with your troubles,

If you can eat the same food every day and be grateful for it,

If you can understand when your loved ones are too busy to give you any time,

If you can take criticism and blame without resentment ,

If you can conquer tension without medical help,

If you can relax without alcohol,

If you can sleep without the aid of drugs,

...Then You Are Probably ..... The Family Dog!





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**Thanks!** To our chairman **Ron Gorham** and his team of volunteers for another very successful PCCN Calgary Show and Shine (our 4th). These events don't just happen—it takes dedication, commitment and many hours of planning and hard work. Hat's off to Ron for a job well done and to Grey Eagle Casino for their excellent cooperation!

**Now if Ron can just do something about the weather!!!**

**GETCHECKED.CA**

The Man Van™ is a valuable resource offered by the Prostate Cancer Centre to



provide on-site free baseline PSA blood tests for men over 40. The Man Van™ makes appearances at select events, but can also be found around the community each month. For the current schedule please visit [GETCHECKED.CA](http://GETCHECKED.CA)

**Many thanks to our friends and supporters!**

PCCN Calgary is an Alberta non-profit organization and a registered charity. Our work is focused on improving and supporting the lives of those affected by prostate cancer. We are independent from the health care system and do not receive any government funding. We pay for the programs and services we offer through generous donations from caring businesses and people like you. If you wish to support our efforts please send your donation to:

**PCCN Calgary Society,  
PO Box 72126, RPO Glenmore Landing  
Calgary AB, T2V 5H9**

**Charitable Number: 86926 1602 RR 0001**

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