Our March General Meeting speaker

Dr. Matt Pyatt, Naturopathic Doctor, Grassroots Naturopathic Medicine Health Clinic.

Healing can be both an art and a science. Dr. Pyatt focuses on overall health and wellness through individualized patient care and health education. Join us to learn how complementary therapies can support all phases of your prostate cancer journey, and stimulate your natural immune responses – improving energy, stamina, mental health and overall wellness.

New Blood Test for PCa

Schulich School of Medicine & Dentistry professor Hon Leong is looking to alleviate such unnecessary procedures with the creation of a new blood test. His non-invasive, inexpensive procedure could detect the potential for cancer earlier, thus providing a window of opportunity to allow clinicians to focus on high-risk prostate cancer patients, before the cancer spreads to the bone and lymph nodes.

Basic PSA tests look for protein produced by cells in the prostate gland – high levels are a warning sign for cancer. However, these elevated levels could indicate other benign conditions like inflammation or enlargement. With Leong’s potentially more accurate prostate cancer-screening tool, his blood test measures actual prostate cancer fragments.

In his study, Leong and his team at Lawson Heath Research Institute ran the blood test on a mix of 50 non-cancer and cancer patients. Leong’s test – looking for circulating tumour fragments, which he calls microparticles – was 90 per cent accurate in identifying the patients with actual prostate cancer. There were also no false positives found by the test.

“We expected it (the results) because of the markers we’re using,” said Leong, who was recently named one of Prostate Cancer Canada’s Rising Stars, receiving $150,000 each year for three years through its Movember Foundation. “It’s in contrast to the PSA, which looks at proteins secreted by not only normal cells but also prostate cancer cells. So if you have an elevated PSA it doesn’t necessarily mean you have cancer, just that you have something wrong with your prostate.

“What this test does is just look for actual prostate cancer fragments in the blood, and only for that.”

Based on these early results, and with the new funding allowing his study groups to grow the number of patients tested to well over 1,000 men (75 per cent of whom will have prostate cancer as confirmed by biopsy), Leong is confident his fragment method can more accurately identify prostate cancer than the PSA. He is anticipating an 80-90 per cent accuracy rate with these larger groups.
Could duration of hormone therapy for PCa be halved?

When men have cancer that is confined to the prostate gland but at high risk of worsening, one treatment option is radiation therapy plus drugs that cut testosterone levels, because this male hormone feeds the cancer.

Right now, doctors routinely give that hormonal therapy for two to three years, during which time men may suffer unpleasant side effects.

But that routine is based on a clinical trial from the 1990s that found that adding three years of hormonal therapy to radiation could cure certain prostate cancers. That doesn't necessarily mean three years is ideal.

"We're still trying to figure out what duration of therapy is best," said Dr. Bruce Roth, an oncologist and professor of medicine at Washington University School of Medicine in St. Louis.

Because hormonal therapy has significant side effects—from erectile dysfunction and hot flashes, to drops in bone density and muscle mass—everyone would like the treatment period to be as short as possible.

That's what led to the new study, which Dr. Abdenour Nabid, an associate professor at Sherbrooke University Hospital in Canada, is presenting Thursday at the annual Genitourinary Cancers Symposium in Orlando, Fla. "These side effects can be huge for men," Nabid said.

In the study, Nabid's team randomly assigned 630 prostate cancer patients to one of two groups. One group received radiation plus testosterone-lowering medication for three years; the other got hormonal therapy for just 18 months.

Overall, there were no signs that the shorter therapy put men's lives at risk. After 6.5 years, 77 percent of the men who got three years of hormonal therapy were still alive as were 76 percent of those who received the 18-month regimen.

Stress can fuel prostate cancer

Behavioral stress can accelerate the development of prostate cancer and weaken the effectiveness of drugs designed to fight the disease, researchers have discovered.

Men with prostate cancer have increased levels of stress and anxiety, acknowledged George Kulik, DVM, PhD, associate professor of cancer biology at Wake Forest Baptist Medical Center in Winston-Salem, North Carolina, and colleagues in The Journal of Clinical Investigation (2013;123[2]:874-886). They also pointed out that men who take beta-blockers, which interfere with signaling from the stress hormones adrenaline and noradrenaline, have a lower incidence of prostate cancer.

Kulik's team tested the effects of behavioral stress in two different mouse models of prostate cancer. In one model, mice were implanted with human prostate cancer cells and given ZSTK474, currently in clinical trial for treatment of the disease. An inhibitor of the P13K pathway, ZSTK474 destroyed prostate cancer cells and inhibited tumor growth when the mice were kept calm and free of stress with a selective beta2 adrenergic receptor antagonist. When the mice were stressed, however, cancer cell death did not occur and ZSTK474 did not inhibit tumor growth.

The second model involved mice that were genetically modified to develop prostate cancer. The size of their prostate tumors increased when the mice were stressed (exposed to the scent of a predator). The tumors did decrease in size when the mice received bicalutamide, a nonsteroidal antiandrogen, but if the mice were subjected to repeated stress, they exhibited a significantly reduced response to the drug.

Noting that stress did not promote prostate tumor growth in either model in which beta-blockers were used, Kulik commented in a statement issued by his medical center, "Providing beta-blockers to prostate cancer patients who [have] increased [adrenaline] levels could improve the effectiveness of anticancer therapies."

He added that his group's findings could be used to identify men with prostate cancer who would benefit from stress reduction or from pharmacologic inhibition of stress-inducing signaling.

Rocco Rossi appointed President and CEO of Prostate Cancer Canada

Prostate Cancer Canada (PCC) is pleased to announce the appointment of Rocco Rossi as its President and CEO.

Mr. Rossi is a passionate leader with strong experience in both the not-for-profit and private sectors. He was recently awarded the Queen's Diamond Jubilee medal in recognition of his community contributions and philanthropic work. Mr. Rossi is a past CEO of the Heart & Stroke Foundation of Ontario where he significantly grew annual revenues, enabling record investments to
We are delighted to have Rocco Rossi join Prostate Cancer Canada in this important leadership role. His creative approach to fund raising will greatly increase the capacity of Prostate Cancer Canada to be a truly national organization devoted to the mission of eliminating the disease that will affect one in seven Canadian men in their lifetime," said Donald McInnes, Board Chair of Prostate Cancer Canada. "Mr. Rossi is a highly successful, motivated and committed leader who is the right person to help take the fight against prostate cancer to a new level."

"It is a tremendous honour to become part of this vital cause focused on the health of fathers, brothers, sons and husbands everywhere. I look forward to working with an incredible team of volunteers, donors, researchers, employees and our partners to end prostate cancer," said Rocco Rossi following acceptance of the position of President and CEO.

In addition to his role as President and CEO of Prostate Cancer Canada Mr. Rossi will assume the critical job of Managing Director of Prostate Cancer Canada Network (PCCN).

## Does Proscar boost PCa survival?

Men with prostate cancer taking the drug finasteride (Proscar) don't survive longer than similar men not taking the drug, a new study finds.

Although Proscar is touted to reduce the odds of being diagnosed with prostate cancer, once diagnosed, men do not appear to gain a benefit from the drug, researchers say. However, they don't face lowered survival from the drug, a researcher added.

"There is no evidence that finasteride is worse than placebo, in terms of overall survival," said lead author Phyllis Goodman, a biostatistician at the Fred Hutchinson Cancer Research Center, in Seattle.

"If you are inclined to give finasteride to prevent cancer, survival shouldn't be a reason not to do it," she said. "You may not be improving survival in the long run, but you are avoiding having to deal with a diagnosis of prostate cancer."

Based on the new finding, one expert doesn't recommend men take Proscar.

"This lessens the importance of finasteride, because if you wanted to use it as a preventive measure you hope the death rate would go down," said Dr. Anthony D'Amico, chief of genitourinary radiation oncology at Brigham and Women's Hospital, in Boston.

One problem with the study is that it deals with overall deaths -- not deaths specifically caused by prostate cancer. So it's hard to tell how effective Proscar really is, D'Amico said.

"Without a survival improvement it's hard to justify using the drug," he said. "Let me see what the cancer-specific survival looks like and then we can decide if it's appropriate at all."

The results of the study were presented Thursday at the annual Genitourinary Cancers Symposium in Orlando, Fla. The data and conclusions should be viewed as preliminary until published in a peer-reviewed journal.

For the U.S. National Cancer Institute-funded study, researchers collected data on deaths of men taking Proscar or an inactive placebo who were located in a Social Security database of deaths.

The investigators found that among 18,000 men who had been taking Proscar for seven years, there were more than 5,000 deaths. Of these, 2,584 deaths were among men taking Proscar and 2,544 deaths were among men taking placebo.

Over 15 years of follow-up, the survival rate was 78 percent for men in both groups, the study found.

Although men suffering from the most aggressive prostate cancers saw no benefit from Proscar, men with less aggressive cancer taking the drug did have a significant survival advantage, compared to men receiving placebo, the researchers found. In 2011, the U.S. Food and Drug Administration placed a black-box warning on Proscar for a slight but statistically significant risk that its use could cause aggressive prostate cancer. The drug has several side effects including impotence and loss of interest in sex.

In the new study, the bottom line for the researchers is that "finasteride administration for seven years does not appear to affect mortality but significantly reduces the risk of a prostate cancer diagnosis."

Another expert gave his perspective on the drug.

"At this point, I think that the data is showing that the drug may not be of any significance to patients," said Dr. Louis Kavoussi, chairman of urology at North Shore-LIJ Arthur Smith Institute for Urology in New Hyde Park, N.Y. However, Proscar may slow the progression of prostate cancer, he said. "There are individuals who may benefit from being put on this drug and may rest a little bit easier at night knowing that it may not have a negative outcome on their long-term survival," Kavoussi said.

## Watch for us on TV!

If you are a subscriber to SHAW CABLE, watch for our 30 second "Early Detection" public service message running on 16 US channels (A&E, CNN, etc.)
Meet Dean McKenzie, a director of PCCN Calgary

Dean McKenzie was born in Winnipeg, Manitoba but has lived in Calgary for over 40 years. After graduating with a degree in Visual Communications from the Alberta College of Art and Design, he has made his career in the marketing communications industry for nearly 30 years.

Dean’s involvement with PCC Calgary began shortly after his father’s diagnosis and subsequent successful treatment for prostate cancer in 2002/3. “I have an incredible respect and admiration for the men and their families who have dealt with or are dealing with this debilitating disease. Through my involvement with PCC I can stay up to date on the latest research and treatments available. It’s encouraging that men are starting to take ownership of their health and awareness of prostate cancer issues are finally coming to the fore.”

Beyond his role on the Board of PCC Calgary, Dean has created or overseen the production of a number of campaigns for the local chapter. Over the course of his career, Dean has worked for such respected clients as WestJet Airlines, which he and his business partner launched in 1996, SAIT, which they re-branded in 1997, Mac’s Convenience Stores, MacEwan University, which they are presently re-branding, Calaway Park and the University of Lethbridge. In addition to his seat on the board of PCC Calgary, Dean also sits on the Board of Enerjet Airlines and is Secretary and lead designer of the Lion’s Festival of Lights. Dean is married and has two grown children.