



Support our Docs! "42K for Cancer"

HELP WANTED !!!

This year three of our London Health Sciences Centre physicians will run the Boston Marathon for a cause as well as the glory. Together Dr. Joseph Chin (Surgeon), Dr. Eric Winqvist, (Medical Oncologist) and Dr. David D'Souza (Radiation Oncologist) cover all aspects of your prostate cancer care. Recognizing the need for funds and excited by recent work in London, "The Prostate Power Brokers" are challenging area men and their families to support them as they complete the gruelling course.

The Boston Marathon is the world's oldest annual marathon and ranks as one of the most prestigious athletic road events. The race is run over a road course of 42 kilometres. In 2007 it is expected that 20,000 athletes will compete on April 16th. Our physicians are raising \$42,000 and we are calling it 42K for Cancer. The funds raised will go towards translational research (often called bench to bedside). In the Fall

2006 issue of Man2Man we interviewed Dr. John Lewis and discussed his appointment to the Robert Hardie Chair in Prostate Cancer Research. These funds support his work.

Translational research helps knowledge and information move quickly from scientists and researchers in the laboratories to the clinical practitioners who can apply that knowledge to their patients. These practitioners can

then report back to the scientists about what does and what does not work, ultimately translating discoveries into improvements in diagnosis, treatment and prevention of cancer.

Dr. Chin, said "it has always been one of my goals to run in the Boston Marathon and if I can do that and also help raise funds to assist with Prostate Cancer Translational Research, it would make the aches and pains from training seem more worthwhile."

Dr. D'Souza is the veteran marathoner of the group. We expect him to lead the team in spirit as well as time.

Dr. Winqvist, fresh from the "Rock and Roll Marathon" in January, commented that "being given the opportunity to run in the Boston Marathon and at the same time help advance bench to bedside research in Prostate Cancer is a humbling experience." **MAN2MAN**



RUN DOC RUN !!



We encourage you to 'Support our Docs' by sponsoring their efforts to raise funds for Prostate Cancer Translational Research by completing the sponsorship card enclosed with this newsletter or by taking out an online sponsorship at www.lhsf.ca by clicking on the 42K for Cancer logo.



BROCK TALK

Dr. Gerald Brock is a urologist at St. Joseph's Health Care, London

Penile Rehabilitation: Fact or Fiction?

For those of us who have experienced sports related or other musculoskeletal injuries the concept of rehabilitation, in which instruction on the use of special equipment or specific exercises to speed recovery are demonstrated, seems very natural. The idea of penile rehab, however, simply does not.

Over the past three years, this innovative approach towards retaining and restoring erectile function and penile length loss from radiotherapy and/or surgical treatment in men with prostate cancer, has become more commonplace. London is now recognized by many physicians and patients, as a leader in developing this type of program in Canada and we've even started to branch out, providing our expertise to other communities across Canada. Calgary and Montreal are our first two satellite clinic locations, with Dr. Serge Carrier in Montreal (at McGill University) and Dr. Jay Lee in Calgary both planning to start these clinics, directed at treating symptoms in men following prostate cancer therapy, in the next few weeks.

The studies describing how well these approaches really work are still in the evolutionary phase, but do support a time sensitive nature to use of early pharmacotherapy (starting drugs like Viagra, Cialis or Levitra soon after the surgery) as having a measurable and meaningful enhancement in long-term recovery of erectile function. In some men who fail to respond initially to pills, starting injections allows them to become intimate with their partners soon after the radiation or surgery that would otherwise have taken months or years.

We're delighted with the support and encouragement we have received both from the medical community and from the public since starting these specialized clinics about a year ago. We're developing a tool kit which provides answers to the most commonly asked questions and insight into what the future holds for men and partners after prostate cancer treatment. It's been a terribly exciting year with LuAnn Pickard serving as our point person, meeting and educating hundreds of couples in the first year. LuAnn, armed with her nursing background and a wealth of knowledge in the field, has given public and nursing lectures around Southwestern Ontario. I look forward to our clinic expanding (if LuAnn can find the time!) and continuing to provide answers to important questions from couples post prostate cancer therapy in the months to come. **MAN2MAN**

MAN2MAN

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This publication should not be used for purposes of self-diagnosis or as an alternative to medical care. If you suspect you have cancer, consult a physician immediately.

Letters-to-the-editor or ideas for articles may be submitted, in writing, to the above address.

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What's NEW

The Virus Connection

A group of researchers at the Cleveland Clinic led by Eric Klein, MD, and Robert Silverman, PhD, are working on a possible cause of prostate cancer and a new virus discovered by their group. While the exact cause of prostate cancer is unknown, there is ample evidence that genetics and the environment both play a role in the origin and evolution of prostate cancer. There is recent scientific and clinical evidence suggesting that certain genetic factors predispose a person to certain infections and certain infection may be an important factor in the development of prostate cancer. Such genes known as 'susceptibility genes' include HPC1, which has been well characterized. HPC1 controls the code for the enzyme RNaseL which is an antiviral gene

that plays a key role in a person's inborn response to viral infections.

Normally, when a person is exposed or challenged by a viral infection, the RNaseL would be activated. Activation of RNaseL and another 'defence tool', interferon, will inhibit spread of the virus by degrading some of the genetic material and by causing the infective host cell to die. In the laboratory, it has been shown that mice which are deficient in RNaseL are more prone to viral infections.

In humans there is evidence that those who have different 'copies' of the RNaseL gene have different risks for prostate cancer. For example, the 'normal arrangement' is the RR-genotype. Men who have the "RQ" genotype with one copy of the gene having a substituted amino acid in the RNaseL

protein have a 50% chance greater risk of prostate cancer. More strikingly, men with two copies of the altered gene, the "QQ" genotype, carry double the risk compared to normal men. It was this observation in the variance of this antiviral gene predisposing men to prostate cancer that led Dr. Klein and his colleagues to investigate this area for a cause of prostate cancer.

In their laboratory, they use a powerful tool known as the ViroChip. The ViroChip contains the precisely determined sequences from all known viruses in the plant, animal and human kingdoms, totalling close to 1,000 viruses. Researchers can use a process known as hybridization with genetic material (for example, RNA from tumour tissue or tissue fluid) with the chip that will allow


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**Got a Bike?
Why not join us.**

May 27, 2007

The Motorcycle Ride for Dad
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2006 cheque presentation.



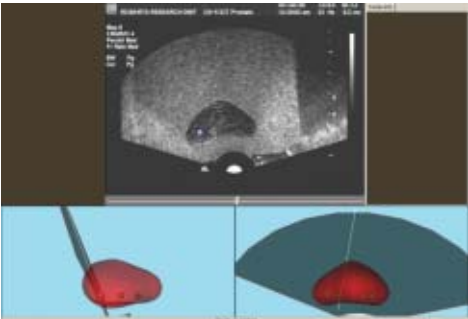


A Better Biopsy

Biopsy of the prostate is a vital step in the diagnosis of prostate cancer. Prostate-specific antigen (PSA) tests and digital rectal exams (DREs) are important screening tools for cancer, but only examining biopsy samples of tissue from the prostate can definitively diagnose cancer. Unfortunately, the current biopsy procedure is constrained to using 2-dimensional (2D) ultrasound images to navigate through the prostate and guide the biopsy needle. Since men are 3-dimensional (3D) beings—as are our prostates—only using 2D guidance limits the ability of urologists or radiologists to accurately and repeatedly hit a desired 3D biopsy target.

Why is this important? Well, early stage prostate cancer is often not visible in the ultrasound images used to guide the biopsy needle. Because of this, urologists will take eight to ten biopsy tissue samples from regions of the prostate that are most likely to harbour disease, regardless of whether tumours are visible or not. Physicians try to spread out where they place the biopsy needles within these 3D regions to increase their likelihood of finding cancer; however, limited to 2D guidance, even with carefully placed needles, as many as 30% of biopsy patients currently undergo a second or

repeat biopsy months later. For repeat procedures, urologists will either try to avoid previous biopsy locations to see if there is cancer elsewhere, or if some suspicious cells were found in the initial biopsy, then the same spot will be targeted directly. Planning repeat biopsies on patients is compromised with the current system, because physicians only have a 2D record of



Schematic drawing of biopsy needle targeting a specific area of the prostate with 3D ultrasound guidance.

where the initial biopsy needles were placed. These 2D biopsy records do not provide adequate information to plan the new 3D targets for the repeat procedure.

In joint research between the London Health Sciences Centre and the Robarts Research Institute, funded by the Prostate Cancer Research Foundation of Canada, we are developing a 3D prostate biopsy system that enhances the current procedure by adding 3D mapping of the prostate. The 3D system does

not require additional ultrasound equipment for the biopsy procedure, except for a small tracking chip containing software that can follow the 3D location of the ultrasound probe as it is moved. By combining the outer boundary of the prostate visible in the 2D ultrasound image with the 3D position of the ultrasound probe, we are able to map out the 3D shape and structure of each patient's prostate. This mapping provides a 3D coordinate system that can tell physicians exactly where they are in the prostate as they manoeuvre the ultrasound biopsy probe during the procedure. The belief is that this added information will help physicians to more accurately guide biopsy needles to the desired regions of the prostate and allow them to verify that they hit the desired 3D targets. Furthermore, the biopsy system can record the 3D location of each biopsy sample, which should improve the ability to plan and guide repeat biopsy procedures. It is our hope that providing physicians with the 3-dimensional tools to perform biopsies will improve the accuracy and efficiency of prostate cancer detection. **MAN2MAN**

Dr. Derek Cool, Robarts Research Institute, and Dr. Joseph Chin, Chief, Surgical Oncology, London Health Sciences Centre.



Martin Keen

Media Advisor
1946-2006

All of us involved in putting together this newsletter sadly miss Martin's wit and wisdom in assisting us to establish the identity of the Prostate Cancer Centre.

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Meet THE STREAM TEAM

"We have a very talented, dedicated and zealous group of people here at the PCC," smiles 'captain' Joe Chin. "But we needed a name just like any other team. I came up with 'The Stream Team'. I'm not going to explain it. Think about it. You'll get it."



Dr. Eric Winqvist

Medical Oncologist
Medical Director, Genito Urinary Disease
Site Team
London Regional Cancer Program
London Health Sciences Centre

After obtaining his MD at the University of Alberta Dr. Winqvist completed postgraduate training in internal medicine and oncology at the University of Toronto and Princess Margaret Hospital. Dr. Winqvist is married with three children and is a self-described golf addict.

What CD do you currently have in your CD player?

OK computer by Radiohead.

What non-medical book are you currently reading?

Chickensoup for the Golfer's Soul (from my Mum on my birthday!)

What was the best job you had as a kid? What was the worst?

Best Job: Bellhop.

Worst job: Road work construction labourer.

What is your idea of the perfect holiday?

Myself and family in the Canadian Rockies in the summertime.

Who in the world do you most admire?

Terry Fox.

If you weren't in research what would you be doing?

I want to say an academic university professor, but I would probably be a prosecuting attorney.

What are your hidden talents?

I play the guitar and have an incredible memory for trivia (just don't ask me to remember your name!).

What qualities do you most admire in other people?

Persistence, patience and maintaining a positive outlook.

What is your all-time favourite movie?

Apocalypse Now.

What do you do to keep fit?

Running (as long as my knees will last anyway...)

ASKADOC

Question:

"Now that I've been diagnosed with prostate cancer, what kind of exercise can I do?"

Dr. David D'Souza answers:

Exercise maintains and improves overall health in all people including those with prostate cancer. It is generally safe to maintain exercise/activities that you are already doing, but it is best to discuss it with your doctor. During treatment there may be temporary changes that affect what you can do. For example, you may not be allowed to lift heavy objects (like weights) for a period of time or changes in bladder function may be an issue on the golf course.

Even if you have been relatively inactive, I would encourage you to consider starting some activity. Again it is best discussed with your family doctor or cancer specialist. It is often helpful to have the advice of a personal trainer/coach who can customize a program for you if you're unsure what exercise is best for you. Remember when starting a new activity it is important to ease into exercise gradually – don't get carried away!

Many men with prostate cancer receive hormone therapy which affects testosterone levels. Over time, there can be potential negative changes in bone density, muscle mass, percentage body fat and problems with fatigue. Research has shown that a resistance exercise program (such as lifting light weights) can reduce the extent of these changes and help with overall balance.

Even after active treatment, exercise is important. Many women who have undergone treatment for breast cancer enjoy the exercise and camaraderie of dragon boat racing. Being active has been shown to improve the quality of life in cancer survivors and has benefits in lowering the risk of other health problems like heart disease. Some men view a diagnosis of prostate cancer as a wake-up call to make lifestyle changes. Exercise is one of the cornerstones of a healthy lifestyle and it is never too late to start!

The Virus Connection

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determination of what expressed viral genes are in the sample, and will then allow identification of which family of viruses they belong to, and also allow cloning and identification of the exact sequence of the viruses.

Dr. Klein's group used surgical tissue sample from radical prostatectomy specimens from men who had been determined to have either the RR, RQ, or QQ genotypes of the RNaseL gene (see above for explanation). With the material from the first 19 men, they identified eight with a new virus which they have named XMRV and the most significant finding is that seven of the

eight men with the new virus had the QQ genotype, which is the type thought to be more predisposed to prostate cancer. Dr. Klein and colleagues have now screened more than 150 men and so far have found that about half the men with the QQ genotype tested positive for this particular XMRV virus compared to only one patient in men without the QQ variant. The group have demonstrated that the XMRV virus tend to live in the fibroblast cells adjacent to the cancer rather than directly in the cancer tissue. The researchers hypothesize that the virus may be exerting some effect on the microen-

vironment around the tumour cells, leading to an environment to encourage further cancer growth. The hypotheses are now being tested with further experiments and clinical studies.

These developments of the possible cause of prostate cancer are certainly exciting and represent one step closer to discovery of the exact cause of prostate cancer. These findings may eventually possibly lead to effective prevention strategies for prostate cancer. **MAN2MAN**

Dr. Joseph Chin, Chief, Surgical Oncology, London Health Sciences Centre.



9th Annual Family Walk & Run

Sunday, June 17th, 2007

Looking for something to do on Father's Day?

Why not get the family involved in the 9th Annual Do It For Dad Family Walk and Run for prostate cancer research and education.

Starting at the TD Waterhouse Stadium and winding its way through the beautiful University of Western Ontario grounds, this run has become a popular event among participants young and old.

For more information please visit our web-site at www.doitfordad.net or call **519 685 8054**.



With this team registration is a breeze.



Here's my dad!

Together, let's help men beat the odds !



*We wish to acknowledge and thank AstraZeneca Canada Inc.,
makers of Casodex and Zoladex for their continuous
support of prostate cancer patient initiatives.*



Prostate Cancer Centre
London Regional Cancer Program

A partnership of London Health Sciences Centre and St. Joseph's Health Care London