



# An Interview with Dr. John Lewis,

## Robert Hardie Chair in Prostate Cancer Research



**Q** *Welcome back to Canada John. I believe you grew up in Owen Sound and have recently been working in California. What prompted you to leave CA and accept this position?*

**A** To be honest it was the whole package. London has world class researchers and physicians and the facilities are outstanding. I was extremely impressed with the degree of innovation and cooperation between the basic (lab) and clinical (physician) researchers. I completed my undergraduate degree here in London and as you have said I have family in Ontario. I'll miss the surfing but I'm looking forward to more windsurfing!

**Q** *Can you tell me a little bit about your current research interests?*

**A** Non-invasive imaging holds great promise for early detection and treatment of cancer. Many safe and pow-

erful imaging agents designed to light up new and growing blood vessels are critical for early detection and treatment.

Angiogenesis, or new blood vessel growth, is required for many kinds of tumours to grow and by reducing this growth we can reduce the tumour size there-

by improving patient survival. Anti-angiogenic therapy is therefore of great interest to me.

I also have a great interest in metastasis, the spread of cancer to other parts of the body. It is really one of the most deadly aspects of cancer. We've shown that if we can stop tumour cells from moving we can reduce metastasis. The discovery of a therapy to keep the cancer cells from moving from the original tumour site will be a critical scientific breakthrough.

**Q** *We hear a lot about bench to bedside research. Is it the same as translational research?*

**A** Yes it is. There seems to have been a bit of a disconnect between the bench researchers and those who provide the patient care. At the bench side of things we are looking at the molecular reasons why cancers develop.

While these lessons will be important for developing new therapies for the clinic, often times what we discover in the lab is a decade or three from being utilized.

Translational research involves looking at problems from

### Robert Hardie Chair in Prostate Cancer Research Appointed

In June 2002 Robert Hardie, Research Coordinator with the Urology Clinical Trials Group had the good fortune to win \$10 million in Lotto 6/49. Not only did Bob continue to work (for which his patients and colleagues were extremely grateful) but he also donated \$1 million to establish The Robert Hardie Chair in Prostate Cancer Research, which is fulfilling a critical step in the development



Robert Hardie and Dr. John Lewis

of a world-class research and care facility here in Southwestern Ontario.



## **BROCK TALK**

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

### **Not What I Would Have Predicted!**

Life is a journey. Experience the moment. If I only knew then what I know now! Sound familiar? This common theme is repeated to me over and over again each clinic day. Without your health everything else really pales in importance. It's too bad this message often falls on deaf ears and is only truly appreciated by those with health issues. In a normal clinic day I speak with between 30 and 50 men about their prostates, bladders, kidneys and penises. It really isn't the sort of career I planned to have entering medical school or even when I decided to study urology.

In 1993, Erectile Dysfunction (ED) did not exist. Impotence was what we called it and there were few treatment approaches that did not rely on surgery or use of injecting drugs into the penis to induce a partial erection for those who refused the implants. My career plans changed because of the people I met along the way and the evolving techniques and developments in the field of sexual medicine. I have never regretted that choice.

Over the past decade, a vastly enhanced understanding of why ED occurs following prostate cancer therapy and the discovery of pills able to turbocharge the body's natural erection pathways has grown. Novel approaches to restore sexual function to men with ED following therapy are now available for most. In fact at St. Joe's we've developed a new evening symptom management clinic focused on providing information and therapy to handle these treatment side effects and in its pilot format appears to be highly valued by the community.

Although the data is still evolving, it appears that early treatment with drugs like Viagra, Cialis and Levitra following prostate cancer surgery may increase the chance of retaining normal sexual function in those men undergoing nerve sparing surgery, whether done by the standard approach, laparoscopy or robotic techniques. Use of these drugs has recently been shown to improve the ability of the blood vessel lining tissue called endothelium to work and dilate blood vessels, and as a consequence, induce erection. In addition, new information seems to show these agents may improve nerve recovery after surgical injury through improved nerve blood flow.

It really is an exciting time. The advice I receive from my patients is make sure you stop along the way and enjoy the sights. Be your own advocate by reading and listening to others who have experienced what you're going through. Ask about new studies, new agents and new ideas. We are very fortunate in London to have world class prostate cancer care and leading experts who can offer our region cutting edge treatment approaches. It would be a shame not to make full use of this opportunity.... **MAN2MAN**



is published by the Prostate Cancer Centre.  
We may be reached at:

Prostate Cancer Centre  
800 Commissioners Road,  
London, Ontario N6A 4G5  
T: 519.685.8448  
F: 519.685.8120

None of the contents of this newsletter may be reproduced, stored in a retrieval system or transmitted in any form by any means without the permission of the publisher.

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.

#### EDITORIAL BOARD

Dr Joseph Chin  
Chief, Surgical Oncology,  
London Regional Cancer Program,  
London Health Sciences Centre

John Hastie  
Patient Representative

Dr Steve Pautler  
Urologist, St Joseph's Health Care, London

Nancy Pus, RN, BScN, CCRC,  
Manager, Prostate Cancer Centre

Dr Eric Winquist  
Head, GU Disease Site Team,  
London Regional Cancer Program  
London Health Sciences Centre

Martin Keen  
Media Advisor

#### Supported by:

The University of Western Ontario,  
Division of Urology.



#### Design and printing by:

Annex Publishing & Printing Inc.,  
Simcoe, Ontario



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



**OVER \$470K Raised to Date**

Mark your calendar for June 17, 2007.



Off to a good start...



...and then comes the food.

## Dr. John Lewis

CONTINUED FROM COVER

both the laboratory and the clinic sides and finding ways to accelerate this process.

**Q** Can you tell us about your research goals here in London?

**A** Early detection of prostate cancer. Currently we are generally unable to detect cancers until there is a clump of millions of cells. The cancer is well developed by that time. I am looking at proteins that are involved in new blood vessel growth. In the very early stages of tumour growth, one of these proteins may allow us to improve our detection methods and hopefully the success of prostate cancer screening programs such as those at the Prostate Cancer Centre here in London.

**Q** How do you see the researchers and clinicians working together?

**A** I see my role as a sounding board for the clinicians. If, for

example, they see tumours behaving in a particular manner, through our discussions we would see if there was a research project that we could develop and work on together. Conversely, if I or one of my colleagues makes an interesting observation in the lab regarding cancer cells, we can discuss this with the physicians who are in the best position to comment on whether our ideas make sense from a clinical perspective.

**Q** How do you work with research teams in other parts of the world?

**A** Collaboration is extremely important in science. One lab cannot have all areas of expertise. Here in London, for example, there is considerable expertise in advanced imaging techniques. Researchers at the Scripps Research Institute in California have expertise in targeting cancer cells. Through this collaboration we can bring fresh insight to our work. The continuous exchange of results and ideas around the world benefits everyone.

**Q** I understand you and your wife, who is also a scientist, will be moving to London shortly.

**A** We are hoping to move to London later this year and I expect to have my laboratory established by the end of the year.

*Thank you, John, for a look into your world of Prostate Cancer Research. All of us at the Prostate Cancer Centre wish you every success in your vital work and we are very pleased that you have accepted this position. It sounds as though you are on the brink of exciting discoveries.*

**Interview conducted by John Hastie and Nancy Pus.**

**The laboratory is scheduled to open in December of this year. It has been equipped through funds raised by the annual Do It For Dad Fun Run/Walk. Thank you to all participants, sponsors and volunteers. MAN2MAN**

# Prostate Cancer Imaging with ProstateScint

A fundamental question that oncologists ask about every cancer patient concerns the exact location and spatial distribution of the cancer. This concern is especially pertinent for the surgical and radiation oncologists who have a primary need to know exactly where the disease is in order to treat it most effectively and monitor the outcome. A variety of imaging tests are used to address these challenges.

Images based on cancer-induced disruption; such as CT, MR or ultrasound, of normal anatomy are limited in that they do not detect early involvement of tissue. On the other hand, images depicting disorders of function; such as bone scans, do not usually accurately locate the abnormality in an anatomic framework. Usually, some combination of both kinds of images ultimately informs both the treatment and follow-up.

The conventional and established functional images, such as bone scans for detection of metastatic disease, are sensitive but non-specific: this means that abnormalities can appear on the scan for reasons other than the suspected cancer. For instance, physical injury, infections or

arthritis could be confused with metastatic prostate cancer. In a bid to make functional images more specific, scientists have spent many years developing radioactively labeled monoclonal antibodies (MoAbs); the design of



these antibodies is such that they recognize a unique antigen on the cancer cell type in question and localize on it. In the case of prostate cancer, the MoAb is commercially known as ProstateScint.

Early ProstateScint images were very difficult to interpret because the complex anatomy of the pelvis was not visible and the interpreter of the images had to infer anatomy from a few landmarks, such as the largest blood vessels in the pelvis or the location of the bladder. Most nuclear physicians declined to interpret these early images because they felt there was too much room for error.

There is now a new generation of hybrid imagers on the market, which are able to acquire both a nuclear image (ProstateScint) and a CT in a single examination. It is then possible to view the fused images and thereby provide accurate combined functional and anatomical information. This technology is promoting a second look at ProstateScint imaging. At LHSC, we are currently using this method to assess men who were previously treated by either radical prostatectomy or radiation therapy and who now have a recurrent rising PSA. When the ProstateScint images show abnormality that is limited to the prostate bed, then local therapy is more likely to benefit the patient;

whereas, if there are also positive lymph nodes in the pelvis or abdomen then systemic treatment may be required.

The ProstateScint scan still has limitations despite the advance of hybrid imaging: the examination takes more than two hours to complete at present and the associated CT scan has limited image resolution. However, research underway in engineering and informatics is providing insight as to how both of these limitations may be overcome in the future. [MAN2MAN](#)

**Dr. A. A. Driedger**  
Professor of Nuclear Medicine/Oncology  
and Director of Clinical Research in  
Nuclear Medicine,  
University of Western Ontario

# The Proscint Experience

By John Hastie


I was first diagnosed with prostate cancer at the age of 59. Since then, I have undergone pelvic lymph node removal, radiation, cryosurgery and hormone treatment. Faced with a rising PSA after a fairly lengthy period of hormone treatment, Dr. Joseph Chin determined I was eligible for a trial of Proscint and referred me to Dr. Al Driedger. It appears the cancer may have resurfaced. Although Proscint has been around for some time, it has only recently been available in Canada. As Dr. Driedger mentions in his article, the new imaging techniques have made a vast difference in interpretation.

My first visit to the Nuclear Medicine Department at the South Street Campus of London Health

Sciences Centre lasted about one hour. Jane, the technician, carefully explained everything to me so there were no surprises. First, I was injected with a MoAb that had been labelled with a radioactive tracer ( $^{111}\text{In}$ ) and felt little or no discomfort other than a cool sensation in the arm and a metallic taste in my mouth. The first image was then taken of my full body, lasting approximately 30 minutes in the scanner. Quite relaxing and comfortable. I was to return to the imaging department in three days with instructions to follow a light diet (my wife would know what this encompasses) with no red meat.

On my second visit after a fleet enema (not so comfortable and relaxing), a small amount of

blood was drawn and the red blood cells labelled with another radioactive tracer ( $^{99\text{m}}\text{Tc}$ ) prior to re-injection. This took about 45 minutes, enough time to read the paper. A second scan was taken, this time concentrating on the abdomen, and lasting another 30 minutes. After this scan had been reviewed by the doctor a final one-hour scan was performed. This last one was a bit long and uncomfortable as I was required to keep my hands and arms over my head for the entire time (a challenge at any age).

The procedure is a massive step forward in imaging and I feel privileged to have met Dr. Driedger and his team as well as to have undergone the experience. Stay tuned for the results! 

## What's NEW

### Clinical trials to advance prostate cancer care: up-and-coming studies in London

One of the most important ways to improve the care and outcome for men with prostate cancer is to investigate new treatments through clinical trials. Clinical trials may test a new treatment on its own or in comparison to what is currently considered the "standard of care". Clinical trials are carried out with strict quality controls and monitoring for both side effects and effectiveness of the treatments being studied.

Within London, we are committed to making clinical trials options available to men at all stages of their disease. Below is a list of

some of the new clinical trials we have recently opened or will be opening in London over the coming months. Men who are considering treatment options for their prostate cancer should discuss available clinical trials with their urologist or oncologist. The website: [www.ontario-cancertrials.ca](http://www.ontario-cancertrials.ca) has good information about clinical trials and a database of clinical trials open for various cancers (including prostate) in London and across Ontario.

**Trials that are currently open or will soon open for enrolment at LHSC:**

1. Localized and locally

advanced prostate cancer.

There are two trials opening for men with early and intermediate stage localized prostate cancer comparing conventional radiation schedules (39-41 treatments) to shorter radiation schedules (20-28 treatments) using high precision, image guided radiotherapy. Both trials are being opened in conjunction with other centres in Canada and North America and will be enrolling many hundreds of patients between these centres.

2. In men with more advanced ("high risk") localized prostate cancer, two trials (one for

CONTINUED ON PAGE 7

## 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. John Lewis, Ph.D.**

Robert Hardie Chair in Prostate Cancer Research, London Regional Cancer Program London Health Sciences Centre

After obtaining an Honours B.Sc. at UWO, he went west to Victoria, B.C., where he obtained his Ph.D. in Biochemistry. Dr. Lewis then pursued a postdoctoral fellowship at The Scripps Research Institute in La Jolla, Calif., where he studied nanotechnology and cancer imaging. He returned to Canada and accepted the Hardie Chair position where he plans to investigate non-invasive methods for early detection of prostate cancers.

What CD do you currently have in your CD player?

**Radiohead – Live in Vancouver.**

What non-medical book are you currently reading?

**The Spartans by Paul Cartledge.**

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

**Best – I counted fishing boats from a plane for the Ministry of Natural Resources.**

**Worst – Bartender at a Karaoke Bar.**

What is your idea of the perfect holiday?

**Being immersed in a new culture and language near the ocean, mountains or desert.**

Who in the world do you most admire?

**Jonas Salk.**

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

**Medicine.**

What are your hidden talents?

**Juggling knives and/or produce.**

What qualities do you most admire in other people?

**Integrity, passion, and the ability to laugh at ones self.**

What is your all-time favourite movie?

**L.A. Story**

What do you do to keep fit?

**Mountain biking, rock climbing and running.**

## ASKADOC

### **Question:**

"Four years after radiotherapy for prostate cancer my PSA is increasing. What does it mean and what can be done?"

### **Dr. Joseph Chin answers:**

A PSA that is higher on at least three readings in a row likely suggests the radiotherapy may not have completely killed all the cancer cells. The cancer may be either: (1) still in the prostate ("local recurrence"), (2) away from the prostate ("distant metastases") or (3) a combination of the above.

How high and how quickly the PSA has gone up, the time interval since radiotherapy, the original PSA and Gleason score, and digital rectal examination findings, all provide clues.

### **Management:**

Repeating bone and CT scans will help rule out or confirm *obvious* metastatic disease. The patient's age and general health must be considered.

- For very elderly patients or those with serious medical problems, a conservative approach with "careful surveillance" may be best.
- Those with distant metastasis would benefit from hormone therapy.
- Those relatively young and healthy, with a slowly rising PSA level of less than 10, may be candidates for treatments aimed at eliminating or destroying the cancerous prostate gland. A repeat prostate biopsy would be required to confirm there are "live" cancer cells in the prostate. If the cancer seems confined to the prostate, again, age and general health become key factors in deciding on the form of "local" therapy. For the young and robust, one may consider complete surgical removal of the prostate. For others, cryosurgery or "HIFU" (high intensity focused ultrasound) aimed at destroying the prostate may be less invasive.

**Dr. Joseph Chin**  
Chief Surgical Oncology  
London Regional Cancer Program  
London Health Sciences Centre

# Clinical trials

CONTINUED FROM PAGE 5

men receiving radiation, one for men being treated with surgery) will be opening soon that examine the benefit of adding a chemotherapy drug (Taxotere) along with hormone therapy versus hormone therapy alone added to surgery or radiation.

### 3. Recurrent prostate cancer.

There are a number of clinical trials potentially available as treatment options for men who have received external radiation treatments previously and have early recurrence of cancer in the prostate only. These trials include High Intensity Focused Ultrasound (HIFU) treatment, photodynamic therapy treatment (PDT) and brachytherapy treatment.

### 4. For men experiencing prostate cancer progression, despite being on hormone therapy with prostate cancer, there are clinical trials that are using bone-protecting drugs and alternative hormone treatments. Another trial will be examining the benefit of adding in a "bone-seeking" radioactive material (strontium or samarium) to conventional bone-protecting drugs in men with prostate cancer spread to bone.

### 5. Men on hormone therapy for prostate cancer. Men on long-term hormone therapy may experience bone loss (osteoporosis) and may be at a higher risk of fractures as a result. There are a number of trials that are open or are opening try to examine the benefit of providing bone-protecting drugs (bisphosphonates) to men on long-term hormone therapy.

If you are interested in participating in any of these trials, please talk to your oncologist or urologist. **MAN2MAN**

**Dr. Glen Bauman**  
Director of Research  
London Regional Cancer Program  
London Health Sciences Centre

# 2006 Lexus of London Charity Golf Classic

## OVER \$300K Raised to Date!!

### Sharpen up your game for June 4, 2007.



New friends Walter Gretzky and Pauline Yorke.



Golf is a friendly game??



Liane Parker, PCC Research Co-ordinator, and Rick Vaive, former captain of the Toronto Maple Leafs, enjoying the festivities.

# 2007 IS



## THE PURSUIT OF PERFECTION.

519-680-1900  
696 Wharncliffe Road South

[www.lexusoflondon.com](http://www.lexusoflondon.com)



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