

The Digital Examiner



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Prostate Cancer
Canada Network
Calgary



Greetings prostate cancer community, friends and neighbours. On behalf of myself and the entire PROSTAID Calgary Board of Directors I want to wish you a very Merry Christmas and a safe and happy holiday

season.

PROSTAID Calgary is very proud to announce that Dr. Siraj Husain has been selected as the 2016 recipient of our Pathfinder's Award. The award will be presented to Dr. Husain at our December General Meeting. Please Note: December's meetings have been moved to THURSDAY December 15.

Details about the Pathfinder's Award Event are included on page 4.

PROSTAID Calgary would like to extend our thanks and gratitude to our community partner and friend, W. Brett Wilson. Brett joined us as our Guest Speaker at our November 8th General Meeting and gave a candid and highly personal account of his prostate cancer journey. As a two time graduate of prostate cancer, Brett's story resonated with our guests and things got real for a lot of men in the audience. Prostate cancer is not an easy conversation, but Brett tackled it head on. By using his unique brand of self-deprecating humour Brett truly connected with our guests. Throughout his talk, Brett's core message rang clear: Early detection saves lives.

In his talk, Brett encourages men over 40 to seek out general health check-ups — and in particular, to monitor their PSA levels and to conduct Digital Rectal Exams. As the wife of a two time prostate cancer graduate, I share Brett's beliefs. I firmly believe that a PSA test at the age of 49 helped save my husband's life.

Knowledge is power — Know Your PSA!

Brett's presentation is now available to view on PROSTAID's website and our YouTube page.

[Click here to view on Prostaidd Calgary](#)

[Click here to view on our YouTube page.](#)

PROSTAID Calgary relies on the generosity of the community to keep our programs running. Donating is easy! Just give Kelly a call **403-455-1916** or email

info@ProstaiddCalgary.org

or visit

http://prostaiddcalgary.org/c_donate.php

Kelly Fedorowich

Executive Director

December 2016

Number 207

Thursday, December 15, 2016 Schedule

Please note the change of date!

- 7:30- 9:00PM 2016 Pathfinder's Award Ceremony**
Room 205 (Lecture Room)
Kerby Centre
- 6:30- 7:25PM Newly Diagnosed & Active Surveillance Group** Room 311
Kerby Centre
- 6:30- 7:25PM Warriors (Advanced Disease)**
Room 318 (Board Room)
Kerby Centre
- No Meeting Wives, Partners & Caregivers**
December Meeting Cancelled

PROSTAID Calgary's 2016 Pathfinder's Award Recipient Dr. Siraj Husain

Date: Thursday, December 15
Location: Kerby Centre

Established in 2014, PROSTAID Calgary's Pathfinder's Award recognizes individuals who have contributed significant service to helping men and their families deal with prostate cancer. This year, the recipient is Dr. Siraj Husain. Dr. Husain has demonstrated the highest level of excellence and leadership, and contributed significant advancements in prostate cancer research and treatment. We are proud to recognize his notable efforts!

Join us on THURSDAY December 15 as we celebrate and honour Dr. Husain and his many accomplishments. *See page 4.*

Kerby Centre is located at 1133 7th Ave SW. Parking is FREE in lots on both sides of 7th Ave. The WEST LRT conveniently stops at the front doors of the Kerby Centre.

Our General Meetings are open to the public and free. Cookies, fruit and refreshments are served.

Ladies, family members, and caregivers are always welcome!

Researcher Hopes Liquid Biopsies Will Make Mark in Prostate Cancer

Dr. Howard I Scher, MD spoke on predicting sensitivity to prostate cancer treatment in a presentation during the 2016 OncoLive State of the Science Summit on Genitourinary Cancers. Below he explains the biology known thus far about multiple prostate cancer subtypes and how liquid biopsies will likely shape the future treatment landscape of the disease.

Dr. Scher: We know that androgen receptor (AR) directed therapies, when given the first time, work very well. However, when you go from one to the other, the response rate is significantly lower. Most patients don't respond well, but there is a subset for which it does work well. The question is, "How do we identify those patients ahead of time so they benefit?" How do we identify the patients unlikely to benefit, so they will be spared of the toxicity and cost of treatment?

If we look at the genetics of prostate cancers from patients who are first diagnosed with tumours localized to the prostate versus those with metastatic disease, and we look at the metastatic lesion in addition to the primary site—or we look at patients with metastatic castration-resistant prostate cancer (mCRPC)—we see that the frequency and types of changes are very different.

If we are focused on mCRPC, it is imperative that we study the cancer at the time we are making a decision to choose drug A versus drug B versus drug C. In many tumours, this is done via a biopsy of a metastatic lesion, but the most common metastatic spread is to the bone in prostate cancer. Here, the ability to do consistent molecular profiling is actually quite low. Our experience using directed biopsies, where we know exactly where the lesion is, is only about 50%. It's an invasive procedure and is costly. If a patient has 10 individual lesions, they are not all biologically the same. Inadvertently, we may biopsy a lesion, identify a specific gene or pathway, and that pathway is not the key driver of the resistant cell population.

A number of us have been focusing on what has been categorized as the liquid biopsy. Obviously, taking a blood test is much easier than biopsying a metastatic lesion. There are a number of different tumour products that can be identified in blood. These include circulating tumour cells (CTCs), DNA, and RNA from tumours, and vesicles called exosomes that contain DNA, RNA, and protein, which help you characterize the disease.

Our focus has been primarily on CTCs and there are 2 techniques used. One is called a capture, or selection, method where you will use an antibody to capture cells that express the particular target of that antibody and then characterize in different ways. You can look at it on a slide, visually in a chamber, or deposit it on a slide.

The method that we are most recently using is called a nonselection method where you take a blood sample, deposit the cancer cells on a slide, perform various stains, and use software that can identify and localize each of the cancer cells present.

With this technology, we have been studying a protein made by the AR-V7 splice variant. This is a testosterone receptor (Androgen Receptor-Variant 7) on the tumour cell circulating in the blood. The AR loses the portion of the protein that binds testosterone and the antiandrogen such as enzalutamide (Xtandi) or bicalutamide (Casodex), which inhibit its function. When the AR-V7 splice variant is present, it alone can drive the cancer without a ligand (a molecule that binds to another, usually larger, molecule). The AR-V7 encodes for a protein that you can identify in cells. It can also do a pathological complete response reaction to identify the gene.

What we have been focusing on is looking at cells where AR-V7 is present and looking at patients who are first progressing on hormones, those who received 1 first-generation hormonal agent, and patients who had 2 of the life-prolonging agents. By drawing blood at each of these time points, we have seen the frequency of this splice variant is relatively low in the first-line setting. It gets higher with each course. Each time we identify it, the patients treated with AR-signaling directed therapy do not respond.

In contrast, there is no relationship between presence of AR-V7 and response to chemotherapy—in this case, docetaxel or cabazitaxel (Jevtana). What we have shown is that the survival of patients is improved in patients with AR-V7 present who receive a taxane, and it is inferior for those who receive AR-directed therapy.

It is very important to understand that the splice variant is in the tumour cell's nucleus where it binds to DNA and functions, in order to be very specific to the test results. If AR-V7 is present, then we know that these are patients who should not be treated with an AR-directed drug. This was one experience that we published earlier this year, now it is going through a validation process to confirm that this is true.

In this particular case, we are trying to predict and identify what biologic feature in this patient's case will predict for response or nonresponse of a particular drug.

You can actually look at a patient's blood and you can see the cells that are very homogenous and look very similar. Those are tumours that tend to respond to a targeted agent—particularly those who are more advanced. It looks as if you are treating 20 cancers at once.

But recently the focus is the heterogeneity—how chaotic does it look? The earlier in the cancer growth it is, the less chaotic it is. As it moves down the road in second- and third-line settings, it gets much more heterogeneous. That's where you can make the argument that a cytotoxic (toxic to living cells) or biologic agent may be preferable. Those are the types of questions being asked.

Liquid biopsies have been discussed in great detail this year. What role do you see them having in prostate cancer?

In lung cancer, there were two liquid biopsy tests approved as companion tests. These are tests for CTC DNA, which are looking for a specific mutation. In prostate cancer, the numbers of mutations that clearly predict for sensitivity are fewer. It's harder to identify the types of changes that are predictive using CTC DNA, even though the technology is improving very quickly.

Research has shown that they can see if there is overexpression or amplification of the AR, which is turning out to be a predictor of nonresponse. Now, the assays have to get to the point of establishing analytical validity, which means they are done at a performance level that's consistent anywhere the assay is done.

In many cases, that's almost harder to do to get to that level of performance than it is to develop the drug. The whole field of companion diagnostics is really where the field is headed.

Ideally, you would like to be able to do a blood test and say, "This is the drug for you." You want to be able to monitor the change over time in a tumour to understand when a drug should be added to what patients are already getting versus changing therapy completely.

Written by Gina Columbus @ginacolumbusonc

Published Online: Monday, Nov 21, 2016

[See more at OnLive.com](#)

Cops and Loggers Among Higher Risk Occupations for Prostate Cancer: Study

Policing and logging may be some of the highest-risk careers for prostate cancer, according to new research that also found a higher risk of aggressive tumours in bus and truck drivers — possibly because of the "whole body vibration" phenomenon.

The study, which involved nearly 2,000 men is one of the largest exploring possible links between occupation and the most frequently diagnosed cancer among Canadian men.

Studies dating back to the 1980s have shown farmers have a higher-than-normal risk of dying from this cancer. However, other attempts have been "inconsistent or inconclusive," and few job-based studies have taken into account the aggressiveness of the cancer when it was diagnosed. The new study involved 1,937 men aged 75 and younger newly diagnosed in 2005 -09, and a similar number of age-matched, healthy men randomly selected from electoral lists.

The study focused on each of the occupations they had held in the past — "What were your tasks? What were the chemicals you were using? Were you sitting? Walking?"

For the men with prostate cancer, the researchers also looked at their Gleason scores — the higher the number assigned to a tumour, the greater the risk of it spreading.

They found police officers, detectives and men working in forestry and logging were about twice as likely to have been diagnosed with prostate cancer as men never employed in those jobs.

Painters and decorators were three times more likely to develop prostate cancer. But there was also excess risk in several white-collar jobs, including public service, banking and finance — "jobs that typically entail few chemical exposures," they noted, but tend to be sedentary desk jobs. Lack of physical activity in general, and obesity are thought to increase the risk.

Men who had worked as gas station attendants were more than four times as likely to be diagnosed with high-grade tumours, while bus drivers had triple the risk.

The researchers are now trying to tease out "biologically plausible" explanations.

They previously published on a phenomenon known as occupational whole body vibration (WBV), whereby "mechanical energy is transmitted to the body" via vibrating surfaces, through the feet (if standing) or the trunk (if sitting).

Vibration has been linked with prostate abnormalities, such as prostatitis, inflammation of the prostate gland. Testosterone, another risk factor, also increases with WBV exposure.

The phenomenon might also be at play for men in forestry and logging.

"We might wonder, could it be the vibration from the saws they are using," Parent said. Alternatively, "Could it be the emissions from the engines, the diesel exhaust?"

For police, harmful exposures might include polycyclic aromatic hydrocarbons in exhausts, or non-ionizing radiation from radar guns, although the researchers acknowledge, "the intensity of exposure associated with the use of radar guns is generally very low."

Driving a bus and policing also can mean night and shift work, which can disrupt the body's circadian rhythm and lead to lower levels of the sleep hormone melatonin, which helps regulate hormonal functions, including the hormones that regulate the prostate. Drivers also spend much of their day sitting and are exposed to diesel emissions containing known carcinogens. The fact they had more aggressive tumours suggests they may wait longer to get screened.

National Post, Nov 2, 2016 By Sharon Kirkey

[Article has been abridged. Click here to read in its entirety.](#)

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**PROSTAIID Calgary's 2016
PATHFINDER'S Award Ceremony
December 15, 2016**



We are very pleased to announce that Dr. Siraj Husain is the recipient of this year's Pathfinder's Award. As many of you know, Dr. Husain is a Radiation On-

colologist at the Tom Baker Cancer Centre and a world leader in the field of Brachytherapy. Throughout his career, Dr. Husain has demonstrated the highest level of excellence and leadership, and contributed significant advancements in prostate cancer research and treatment. We are proud to recognize his notable efforts!

Date: Thursday, December 15

Location: Kerby Centre, 1133 7 Ave SW

Lecture Room (Room 205)

Time: 7:30-9pm

Join us for an evening of socializing as we honour Dr. Siraj Husain.

Wine and light snacks will be served.

The event is free to attend and everyone is welcome.

NO MEETINGS ON DECEMBER 13, 2016

**Jewish Book Festival at the JCC
December 4-11, 2016**

Saturday, Dec. 10 6:30 – 8:00 pm

1607—90 Ave SW

Havdalah of Humour, Healing & Hot Chocolate!

Embroidered Comic Book by Sima Elizabeth Shefrin

Elizabeth Shefrin is an artist who wrote a book called Embroidered Cancer Comic.

As soon as the author's husband was diagnosed with prostate cancer, they started making cancer jokes. Every time they laughed, one of them would say "That goes in a comic."

There was no comic yet, but eventually Elizabeth, a long-time fabric artist, got out her needle and started embroidering the original illustrations which would become the Embroidered Cancer Comic. "It's so important that we laugh as well as cry", said Shefrin. Decreased libido is a common effect of cancer treatment, but it can be awkward to talk about it and it is often brushed under the carpet. Shefrin doesn't shy away from these most intimate topics, and in this book she shares with gentle humour how her husband's cancer treatment affected their sex life.

Elizabeth Shefrin is well known for her community art projects in the Vancouver area, especially the Middle East Peace Quilt, an international community art project which toured North America for ten years. She is also an acclaimed children's book illustrator.

PROSTAIID Calgary will have representatives in attendance at the Calgary JCC on December 10 as part of the Havdalah of Humour, Healing & Hot Chocolate.

Date: Saturday, December 10

Time: 6:30pm-8pm

Location: Calgary JCC, 1607 – 90 Avenue SW

The 23rd Annual Jewish Book Festival runs from Dec 4-11, 2016 at the Calgary Jewish Community Centre 1067-90 Ave. SW

[Click here for complete information about the Festival.](#)

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