



# KELOWNA PROSTATE CANCER SUPPORT & AWARENESS GROUP

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The following is a very brief excerpt of information provided at the Virtual Prostate Cancer Meeting held on May 26, 2020.

**O**n May 26th, a Virtual Prostate Cancer Support Group meeting originating in Vancouver was held using ZOOM. The featured guest speaker was **Dr. Kishor Wasan**, speaking on his research investigating the use of statins or cholesterol lowering drugs in treating castrate resistant prostate cancer (CRPC).

Dr. Kishor referenced *\*Published Annu. Rev.Med. 2020. 71.33-45*

Prostate cancer is the most common nonskin malignancy in men. In 2019 the Canadian Cancer Society estimated that 22,900 Canadian men would be newly diagnosed with prostate cancer.

About 90% of prostate cancers are confined to the prostate and adjacent tissues, and for these cases, the prognosis is quite good. Management of localized prostate cancer consists primarily of surgery, radiation, drug therapy or active surveillance.

For the remaining 10% of cases with metastatic disease is generally incurable. In addition, prostate cancer has a predilection for bone metastases, which cause significant pain and morbidity. Dr. Wasan indicted that these 10% of cases is rising and may be quite higher.

The prostate is an androgen-dependent organ found only in men, and most prostate cancers maintain this androgen dependence, at least initially. Consequently, treatment of metastatic prostate cancer had been androgen-deprivation therapy (ADT), typically medical castration with a gonadotropin-releasing hormone (GnRH) antagonist (degarelix) or long acting agonists (leuprolide, goserelin, triptorelin, and histrelin).

Responses to ADT are generally good, as reflected in reduced prostate-specific antigen (PSA) in the circulation, improved bone pain, and stabilization of tumor burden.

Over time, the response to ADT wanes, and the cancer progresses as castration resistant prostate cancer (CRPC). CRPC accounts for most prostate cancer deaths, and for this reason, CRPC has been the focus of intense basic research and pharmaceutical development in the past several years.

#### **Take Home Messages -**

- Prostate cancer feeds off testosterone to grow

- In nearly 10-25% of prostate cancer patients treated with hormone therapy to block testosterone production (ADT; androgen-deprivation therapy), tumours eventually come back despite the therapy.

- How is it possible for prostate cancer to grow when its testosterone is cut off? The cancer changes cholesterol to testosterone to feed its growth.

- We're using widely available cholesterol-lowering drugs, called statins, to cut off cholesterol's pathways into the prostate cancer cells - starving the and stopping growth.

- The big question: Will men who are on both second-line hormone therapy *and* statins live longer?

- The answer is yes. Putting men on statins will prolong their lives.

- Because cholesterol is important for all types of cell growth, limiting the body's cholesterol

through statins is double-barreled: it means the cancer cells can't make their own testosterone, and it cripples their ability to grow.

- We have found a new route to block cholesterol from being utilized by prostate cancer cells.

#### **A Few Other Key Factors to Consider**

- During the transition to CRPC, androgen-responsive genes are expressed despite ADT.

- The adrenal is a major source of androgens and androgen precursors for men with CRPC.

- The major adrenal androgen precursors are DHEA, DHEAS, and 11OHAD

- A shift from AR (androgen receptor) to Glucocorticoid receptor dependency is observed in some CRPC tumors during treatment with potent androgen antagonists

#### **Conclusion -**

Cholesterol is essential for several cellular processes including de novo steroidogenesis.

Inhibiting cholesterol availability may be a viable therapeutic strategy alone or in combination for the treatment of castration-resistant prostate cancer.

**Editor's Note:** This two-hour virtual ZOOM Prostate Cancer Support Group meeting was extremely interesting and educational. I believe there were around 40 people in attendance for this meeting including someone from Newfoundland.

## WITT'S WIT (ON THE LIGHTER SIDE) -

### As I Get Older, I Realize:

1. I talk to myself, because sometimes I need expert advice.
2. Sometimes I roll my eyes out loud.
3. I don't need anger management; I need people to stop pissing me off.
4. The biggest lie I tell myself is. "I don't need to write that down, I'll remember it."
5. When I was a child I thought naptime was punishment. Now it's like a mini vacation.
6. The day the world runs out of wine is just too terrible to think about.
7. Even duct tape can't fix stupid, but it can muffle the sound.
8. "Getting Lucky" means walking into a room and remembering why I'm there.

### An Accurate, Noninvasive Urine Test for Prostate Cancer!

The following information was obtained off the Internet and originated with [Newsroompost.com](http://Newsroompost.com)

**W**ashington D.C.: Researchers have made considerable advancement towards the development of a simple, noninvasive

liquid biopsy test that detects prostate cancer from RNA and other specific metabolic chemicals in urine.

The study was published in the journal of *Scientific Reports*.

The investigators at the *Johns Hopkins Kimmel Cancer Centre* have emphasized that this is a proof-of-principle study for the urine test, and must be validated in additional, larger studies before it is ready for clinical use.

The researchers used RNA deep-sequencing and mass spectrometry to identify a previously unknown profile of RNAs and dietary byproducts, known as metabolites, among 126 patients and healthy, normal people.

The cohort included 64 patients with prostate cancer, 31 with benign prostatic hyperplasia and prostatitis diseases, and 31 healthy people with none of these conditions.

RNA alone was not sufficient to positively identify cancer, but the addition of a group of disease-specific metabolites provided separation of cancer from other diseases and healthy people.

"A simple and noninvasive urine test for prostate cancer would be a significant step forward in diagnosis. Tissue biopsies are invasive and notoriously difficult because they often miss cancer cells, and existing tests, such as PSA (prostate-specific antigen) elevation, are not very helpful in identifying cancer," says Ranjan Perera, Ph.D, the study's senior author.

"We discovered cancer-specific changes in urinary RNAs and metabolites that - if confirmed in a larger, separate group of patients - will allow us to develop a urinary test for prostate cancer in the future," said Bongyong Lee, Ph.D, the study's first author and a senior scientist at the Cancer and Blood Disorders institute.

**Editor's Note:** It will probably be several years before this test is commercially available, because of the need for larger trial studies involving many more people.

### BC Cancer Systemic Therapy Update - May 2020

The following is an excerpt of information from the BC Cancer website.

On May 1, 2020 BC Cancer approved ERELEDA (Apalutamide) for non-metastatic Castration-Resistant Prostate Cancer. Apalutamide is an oral nonsteroidal androgen receptor inhibitor. Patients with castration-sensitive prostate cancer are routinely treated with androgen-deprivation therapy (ADT). [anti-hormone therapy]. A proportion of these patients will develop treatment resistance in the absence of metastases - this is termed *non-metastatic castration-resistant prostate cancer* (nmCRPC). Patients with nmCRPC and a prostate specific antigen (PSA) doubling time of less than 10 months are at a high risk of developing metastatic disease despite continuation of ADT; thus, apalutamide fills a need in this patient population.

**NOTE:** Don't forget this year's virtual Father's Day Walk Run for Prostate Cancer on June 21st.

The Kelowna Prostate Cancer Support & Awareness group does not recommend treatment modalities or physicians: However, all information is fully shared and is confidential. The information contained in this newsletter is not intended to replace the services of your health professionals regarding matters of your personal health.

The Kelowna Prostate Cancer Support & Awareness Group would like to thank Janssen - and TerSera for their support and their educational grants towards our newsletters and our support group.



### UP COMING MEETING DATES FOR 2020 -

**Due to the COVID-19 virus we are still NOT holding monthly Support group Meetings, hopefully we will be able to get back to normal sometime in the Fall.**

**NOTE: This is the last Newsletter until September we would like to wish everyone a safe Summer.**

#### Meeting Location:

Our meetings take place in the Harvest Room at the Trinity Baptist Church located at the corner of Springfield Rd. and Spall Rd.

**NOTE:** Many of our past newsletters are available for viewing and printing through our website. - [www.kelownaprostate.com](http://www.kelownaprostate.com)

- A big *Thank You to Doris at Affordable Web Design for all her work on our website.*



