KPC S&AG

KELOWNA PROSTATE CANCER SUPPORT & AWARENESS GROUP

Contact information – email – sbren@telus.net

Phone – 250-762-0607

www.kelownaprostate.com

Publisher/Editor – Bren Witt

VOLUME 26 – ISSUE 7 – (NUMBER 291 – MARCH 2024

We had a great meeting in February with over 30 in attendance at the meeting including some who were attending for the first time.

Our guest speaker was Dr. Hamid Raziee, a radiation oncologist at BC Cancer Kelowna. Dr. Razzie gave everyone present a very interesting, informative and educational presentation on several aspects of the prostate cancer including biopsies, explaining the Gleason Grade and Score as well as the many treatment options for prostate cancer, including surgery and the several different forms of radiation therapy available at BC Cancer Kelowna. The different types of radiation therapy in Kelowna include standard external beam radiation therapy that uses between 20 and up to 32 fractions or treatment days. SABR radiation (stereo tactic ablative radiotherapy) that delivers a higher dose of radiation but over a much shorter period of time 5 fractions or treatments that maybe given once a week for five treatments. He also spoke on the two types of brachytherapy available in Kelowna Low Dose Rate (LDR) Brachytherapy where small radioactive seeds are permanently implanted into the prostate gland and High Dose Rate (HDR) Brachytherapy where only one very powerful seed is used to treat the gland but is not permanently implanted. Dr. Razzie's presentation was then followed up with questions from those in attendance.

In my February Newsletter I mentioned the SIRvivor Exercise Program in Kelowna. Note: Seniors get a discount on this program and the program is also tax deductible.

A Roadmap for Individualized Malignant Prostate Cancer Care

The following information was obtained from the BC Cancer website and was published on January 4, 2024, and Vancouver Coastal Health Research Institute.

Characterized by additional aggressive cancer lesions in other parts of the body, the condition is found in around five to ten percent of prostate cancer patients at the time they are first diagnosed.

An important new study led by BC Cancer scientist *Dr. Alexander Wyatt* is the first to indicate that cancer complexity within the prostate may be driving tumour proliferation in this patient population more than previously understood. Published in the journal *Nature Cancer,* this finding paves the way for new inroads in the development of precision treatments for *de novo (new)* metastatic prostate cancer, as well as other aggressive cancers.

"Because the danger from the spread of tumours in *de novo (new)* metastatic prostate cancer is so pressing, treatment has often been directed more to targeting the metastatic cancer throughout the body than on the origins of the cancer within the prostate," notes Dr. Wyatt, an associate professor in the department of urologic sciences at the University of British Columbia and Vancouver Coastal Health Research Institute researcher a senior research scientist with the Vancouver Prostate Centre and with BC Cancer. "However, we found that the diverse pool of cancer cells found within the prostate could be associated with multiple waves of cancer spread throughout the body, along with sources of treatment resistance."

"This discovery indicates that there could be a biological and clinical rationale to remove or ablate the prostate to limit further spread of metastatic disease."

Using the analogy of a tree, Dr. Wyatt explains the original prostate cancer can be thought of as the tree trunk. Cancers that spread from the prostate to other areas of the body – such as the lymph nodes, bones and lungs – are its branches. So long as the trunk exists, the tree can continue to produce new branches. However, destroy the trunk, i.e. through the removal or destruction of the prostate itself, and a primary cancer driver could be cut off.

Collaboration supported groundbreaking prostate cancer research findings –

A key to Dr. Wyatt's research findings was having rare access to a pool of over 600 biological samples from 43 patients diagnosed with *de novo* metastatic prostate cancer. In collaboration with a team of Belgian researchers led by *Dr. Piet Ost,* Dr. Wyatt and his team at the Vancouver Prostate Centre were able to analyze the whole prostate, along with pelvic lymph nodes and blood samples, of patients from a Belgian study.

Due to the severity of the disease, *de novo* metastatic prostate cancer patients often do not undergo surgery to remove the prostate, but instead immediately receive hormone therapy and sometimes radiation to treat the presence of tumours throughout the body. However, the Belgian study involved the removal of the whole prostate and pelvic lymph nodes prior to subsequent treatments, giving Dr. Wyatt's team a glimpse of these tissues soon after diagnosis.

Access to the whole prostate was a crucial piece of the puzzle to understanding the development and spread of the disease. Dr. Wyatt

and his team discovered that biopsies of several different regions were required to see the full breadth of cancer variation within a single prostate, as different areas contained divergent cancer mutations.

"One of the unique aspects of our study is that colleagues in Belgium made available to us a rare library of tissue and blood samples from *de novo* metastatic prostate cancer prostate cancer patients," noted Dr. Wyatt.

Thanks to these tissue samples, Dr. Wyatt and his team developed a roadmap of the spreading branches of cancer from the prostate.

"While we developed this roadmap for prostate cancer, it may well have applications in other forms of cancer," he said.

"We expect these findings will heighten the attention given to cancer variation as a driver of metastatic prostate cancer," added Dr. Wyat. "In addition, it is anticipated that downstream changes to clinical best practices may include the collection and analysis of additional prostate biopsies from each patient to better inform treatment decision-making."

"These insights will help to further in the development of individualized prostate cancer care."

The team is now applying their roadmap to study blood and tissue samples from approximately 500 *de novo* metastatic prostate cancer patients in British Columbia. With access to two to eight biopsy cores from the prostate of each patient, the team will have greater than average biological source material to study cancer mutations and heterogeneity.

WITT'S WIT (ON THE LIGHTER SIDE) –

But Enough About Me

Bob was sitting at the bar staring at his drink when a large trouble making biker steps up next to him, grabs his drink and gulps it down in one swig and menacingly says, "Thanks Loser, whatcha going to do about it?" Bob bursts into tears. "Common man," the biker says, "I didn't think you'd CRY; I can't stand to see a man crying. What's your problem?" "This is the worst day of my life," Bob says. "I'm a complete failure, I was late to a meeting and my boss fired me. When I went to the parking lot, I found my car had been stolen and I don't have any insurance. I left my wallet in the cab I took home. I found my wife in bed with the mailman and then my dog bit me. So, I came to this bar to work up the courage to put and end to it all. I buy a drink; drop a capsule in and sit here watching the poison dissolve; and then you show up and drank the whole thing! **"But enough about me, how's your day going?"**

Prostate Cancer Information –

The following is an excerpt of information was obtained from ESSA Pharma. on how their drug EPI-7386 works to kill prostate cancer cells.

Prostate cancer is the number one diagnosed cancer among men in Canada today and is the second most frequently diagnosed cancer among men in the United States. Currently, standard prostate cancer treatment often includes the administration of androgen deprivation therapy (ADT) and antiandrogen therapies. While initially effective, these treatments often become ineffective due to resistance mechanisms that occur in patients involving the ligand-binding domain of the androgen receptor.

Androgen Receptor Pathway

Prostate cancer is primarily driven by an active androgen receptor (AR). The AR is composed of three domains: the ligand-binding domain (LBD) which binds to androgen hormones, the DNA-binding domain which binds to DNA in cells and the N-terminal domain (NTD) which is necessary for AR gene transcription.

Currently approved androgen treatments suppress AR activity by interfering with the production of androgens or preventing androgens from binding to the LBD.

ESSA is developing an investigational treatment for prostate cancer, EPI-7386, which blocks the N-terminal domain of the androgen receptor, located on the opposite end of the receptor from the ligand-binding domain. EPI-7386 inhibits androgen receptor-driven biology, which may provide a benefit to prostate cancer patients at various stages of the disease.

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 educational grants that go towards our newsletters and our support group.

UP COMING MEETING DATES FOR 2023 – 2024

NOTE: - April 13 – May 11 – June 8

Meeting Location:

Our meetings take place in the Harvest Room at Trinity Church located at the corner of Springfield Road and Spall Road. Please enter through the South Entrance off the main parking lot and follow the signs upstairs to the Harvest Room. Our meetings begin at 9:00 A.M. and the doors open at 8:30 A.M. There is elevator access if needed.

NOTE: Many of our past newsletters are available for viewing and printing through our website. – www.kelownaprostate.com

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