



# KELOWNA PROSTATE CANCER SUPPORT & AWARENESS GROUP

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**I**t's hard to believe that it has been 24 months since we last held an in-person meeting of the Kelowna Prostate Cancer Support & Awareness Group. Our last meeting took place on February 8, 2020. Who would have ever guessed at that time that COVID-19 would turn into being a worldwide pandemic affecting million of people? I don't believe at that time that anyone would have guessed that COVID-19 and the many variants of the disease would still be with us and affecting so many people two years later.

We hope that everyone receiving this newsletter is still keeping safe and that no one has been affected by COVID-19.

If anyone wishes to have their name removed from this contact list, please phone or email me and I will remove your contact information.

## **41<sup>st</sup> Anniversary of a Lifesaving Discovery**

The following is information that was published in *Discovery - Winter 2021 by Johns Hopkins Medicine*, also with information from *OncologyLive May 2015*

*A Fortunate Discovery on February 13, 1981: The day Dr. Patrick Walsh and Dr. Pieter Donker discovered the location of the branches to the corpora cavernosa.*

In 1980, few men with prostate cancer were treated with curative intent.

**R**adiation therapy in that era was underpowered and unable to control the disease, and although surgery had the potential to cure, it was rough: life-threatening bleeding during the operation, and severe incontinence plus lifetime impotence afterward. "Most men felt that the cure was worse than the disease," says *Patrick Walsh, MD, University Distinguished Service Professor of Urology Emeritus, at the Brady Urological Institute at Johns Hopkins University in Baltimore, Maryland*, "and what they feared most was the loss of sexual function.

Surgeons knew why this happened – injury to the nerves that controlled erections – but they were mistaken about where it happened. They thought these nerves lived inside the prostate and were an unavoidable casualty of removing cancer. They didn't realize that the nerves were outside the prostate – and as they were removing the prostate, they were cutting them and leaving them in place.

Anatomy texts from the period provided little information about the area around the prostate, because following death, the abdominal contents settle into the pelvis, compressing the bladder into a thick pancake of tissue that defied study.

Surgeons operated without a guide, blind in a sea of blood. Patients suffered the consequences.

In 1974 Dr. Walsh took charge of the Brady Urological Institute at Johns Hopkins University in Baltimore, Maryland, and spent the next few decades refining the radical prostatectomy into a safe, effective, and tolerable procedure. He decided to study the veins surrounding the prostate in hopes of finding some way to prevent the blood loss.

Walsh's technique for reducing blood loss transformed the radical prostatectomy from a dangerous operation to a safe one, but it did not reduce the risk of impotence, because it was thought that the nerves that were responsible for erections ran through the prostate.

Walsh learned otherwise in 1977 when one of his patients reported that he had regained sexual function shortly after surgery. That one report proved that the nerves responsible for sexual function do not run through the prostate and that all prostatectomy patients could experience full recovery.

All of this changed on February 13, 1981, when a major discovery was made by Walsh and Professor Pieter Donker, the retired Chair of Urology at the University of Leiden, the Netherlands. Walsh was in Leiden for five days as a Visiting Professor at the Boerhaave Surgical Symposium, operating, lecturing, and visiting laboratories. On his last day there, he went to the anatomy laboratory where Donker was working. The precise location of the nerves to the bladder had never been found because of difficulties using the adult cadaver. So Donker, with the help of a dissecting microscope, was painstakingly identifying them in a stillborn infant, where they were easier to locate. Walsh asked if Donker could show him the location of the branches to the nerves that control erections. "I've never looked," Donker replied. Together, they found them three hours later - outside the prostate! Over the next year Donker and Walsh worked long-distance to confirm the findings, and Walsh developed the technique to use the neurovascular bundle to identify them during surgery. On April 26, 1982, Walsh performed the first purposeful nerve-sparing operation. This man recovered his potency, and he remains cancer free today.

It's no exaggeration to say that this discovery revolutionized the field of prostate cancer treatment. In 1982, only 7 percent of men with prostate cancer underwent surgery. However – with the timely development of PSA testing to identify men with curable disease – by 1992, 70 percent of men in their fifties and 50 percent of men in their sixties underwent surgery. That year, 100,000 radical prostatectomies were performed. By 2002, deaths from prostate cancer had declined by 30 percent – more than for any other cancer in men or women during the same time interval.

**Editor's Note:** Please remember the surgeon's job is to remove the gland and get rid of the cancer. Sometimes, both sides of the nerves can be saved, however, if cancer is found in the nerves in some cases only one side can be saved and in other cases both sides of the nerves have to be sacrificed. That is up to the surgeon and what they find once they begin the surgery. Remember we are all different and every case is unique.

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

Passengers travelling first class on British Airways Boeing 747s are worried about a re-design which means some lavatories have windows. A woman travelling to New York complained there were no blinds. She was told by a stewardess, "Madam, if some pervert is clinging to the side of this aircraft at 35,000 feet, they deserve to see everything.

## Urine Test for Prostate Cancer Signals Amount of Aggressive Tumor

The following is an excerpt of information contained in the Us Too Hot Sheet Dec. 2021. Originated from *Medscape Medical News Nov. 2021.*

A potential new urine biomarker for prostate cancer (PCa) not only spots the presence of aggressive tumors, but also indicates the amount of these tumors according to a recent report.

In a study of biopsy and post-prostatectomy (post-RP) samples, researchers found that the multigene Prostate Urine Risk-4 (PUR-4) signature was strongly associated with the presence and amount of Gleason pattern 4 tumors, but not tumors of less aggressive history.

Given that increased Gleason pattern 4 tumor burden is associated with disease progression in men at intermediate risk, the results suggest that "PUR can show us which men at intermediate risk may require treatment and which may instead be managed conservatively with surveillance (AS)," said senior author *Jeremy Clark, PhD, of Norwich Medical School of East Anglia, UK.* "PUR will also be useful for monitoring disease in men that do not currently require treatment and flag up the emergence and expansion of aggressive disease," he said.

"The PUR biomarker, one of several emerging alternatives to PSA, is a 4-group classifier based on 36 genes," Clark and his colleagues explain. Its categories correspond to the probabilities of the presence of normal tissue (PUR-

1), and D'Amico low-risk (PUR-2), intermediate risk PUR-3), and high-risk (PUR-4) PCa.

Clark's research team earlier found that the PUR-4 signature could predict disease progression in men on AS for PCa up to 5 years after a single urine sample. For their latest study, they sought to understand the relationship between PUR-4 and the amount and grade of tumor.

On the basis of biopsy samples from 215 men with PCa, the researchers found that PUR-4 signature values correlated significantly with increasing Gleason grade (GG).

"Since Gleason Grade 2 and Gleason Grade 3 contain both Gleason pattern 3&4 cancer these observations suggest that Gleason Pattern 4 cancer may be contributing to PUR-4 status," the authors write.

The researchers also examined post RP specimens from 9 men – 3 with Gleason Grade 1, 4 with Gleason Grade 2, and 2 with Gleason Grade 3 tumors as determined on the basis of presurgical biopsy.

"Our study shows that the PUR test can assess the amount of Gleason pattern 4 without the need for a biopsy," Clark told *Medscape Medical News*. "It could therefore be a very useful tool indeed for assessing a man's risk of dying from PCa."

"The PUR test is now undergoing validation in an international study that is expected to last another 2 years," Clark said. If successful the test would stand out for several reasons: (1) it is based on many genes, so it is able to spot malignancies that other test, which

rely on just a few genes, may not pick up, and (2), although it is sensitive to the amount of Gleason pattern 4 tumor, it does not seem to detect the clinically less significant Gleason pattern 3 cancers.

We have an at-home collection kit – the men do not have to come to a hospital to provide a urine sample," Clark said.

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 2022 –

**Due to the COVID-19 virus we are still NOT holding monthly Support group Meetings.**

**NOTE:** I will be in touch with everyone whenever it is safe to get back to holding regular meetings.

**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.*