NEWSLETTER OF PROSTATE CANCER SUPPORT OTTAWA

P.O. Box 23122, Ottawa, ON K2A 4E2 • (613) 828-0762 • www.pcsottawa.ca

2023 Wrap-up & 2024 Forecast

Message from the PCSO Chairman



It has been an interesting year, with COVID becoming less of a concern for many people, but making up for all the medical appointment cancellations has been slow, and it appears that delays are, at least for now, our new norm.

Our fundraising this year has been very successful. Our membership responded well to our Annual Appeal, and we received support from the golf tournament

sponsored by Luso-Canadian Entrepreneurs of The Ottawa Region (ELCRO), \$15,000, the Inaugural Bonspiel For Prostate Cancer Curl For Hope, hosted by the Carleton Height Curling Club - \$13,000 as well as a donation from a private estate. The two events identified are described elsewhere in this issue.

We are presently working on our plan to provide support to Prostate Cancer activities during 2024.

During 2023 were able to able to continue offering information and support, making use of Zoom videoconferencing to host hybrid sessions, where attendees could choose to attend in person or join the meeting remotely. Moving forward we will continue using this interim solution while investigating other options, as well as continuing to use St. Stephens Anglican Church when appropriate. In addition, we continued to leverage our website and email as our primary communications tools.

Many of you attended our information sessions on a regular basis, either to hear speakers or to participate in Sharing sessions. We had a good selection of speakers, who are identified elsewhere in the issue, and we're continuing to seek out new and interesting presenters — make sure to watch our website and emails for details.

The downside of using Zoom is the reduction of the personal conversations that take place during in-person meetings, and some of our members only wish to participate if the meetings are at St. Stephen's. We recently held a sharing session there without Zoom access, but there were a number of regular attendees who could not attend in person. We are working on finding a solution to offer an accessible Zoom access from the basement of St Stephens..

We have started the planning for some of our normal outreach activities, and have been able to place pamphlets designed for us by Prostate Cancer Foundation Canada into some of the regional hospitals. We will continue to try to place these pamphlets in other hospitals, as well as organizations such as the Royal Canadian Legion. (continued on page 2...).

Monthly Meetings

PCSO meetings continue to be held the 3rd Thursday of each month (except July and August). Unless otherwise announced on our website or via email, meetings that will be streamed via Zoom are being held at the Maplesoft-Jones Centre, 1500 Alta Vita Drive while Sharing Sessions, which are not live-streamed, will usually be held at St. Stephen's Anglican Church (930 Watson Street in Ottawa) although at times we may utilize Maplesoft for these as well. Check our website (www.pcsottawa.ca) regularly for updates

Other events, such as our Christmas and Summer social gatherings may be held at either location depending on availability. In addition to checking our website look for our regular email announcements. If you are not receiving emails from PCSO and would like to, simply drop us a line at news@pcsottawa.ca (all our email announcements include an unsubscribe feature, should you wish to discontinue receiving anything from us). Free parking is available at the rear of the church. A contribution for the St. Stephen's food bank is always appreciated.

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Prostate Cancer Support Ottawa



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The Walnut is the official newsletter of Prostate Cancer Support Ottawa (PCSO). The content in The Walnut is taken from reputable sources; regardless, PCSO does not assume responsibility or liability for the contents or opinions expressed herein. The views or opinions expressed are solely for the information of our members and are not intended for self-diagnosis or as an alternative to professional medical advice and care. Always seek the advice of your own physician or other qualified health care professional regarding ay medical questions or conditions.

PCSO is a volunteer organization of prostate cancer survivors and caregivers. We offer support to anyone in need of our services in the many communities of Eastern Ontario, the l'Outaouais and their environs, including:

Ottawa, Kanata, Deep River, Pembroke, Renfrew, Arnprior, Carleton Place, Kingston, Gananoque, Brockville, Prescott, Kemptville, Winchester, Perth, Smiths Falls, Merrickville, Cornwall, Russell, Embrun, Hawkesbury, Rockland, Gatineau and Shawville.

Executive Officers

Chair: Al Carl

Vice-Chair: Doug Nugent Past-Chair: Larry Peckford Treasurer: Dean Avery Secretary: Cyndi Beales-Alcock

Board of Directors:

Dean Avery, Cyndi Beales-Alcock, Ken Alcock, Al Carl, David Brittain, Hayden Brown, Jim Davidson, Terry Day, Charles Graham, Cheryl Keyworth, Erin McCuaig-Lambrinakos, Doug Nugent, Harvey Nuelle (emeritus board member).

Key Functions:

Peer Support Team Lead: Terry Day Newsletter Editor: Chuck Graham Website: Steph Boudreau IT & Database: Chuck Graham

PCSO Ottawa Mission Statement

The mission of Prostate Cancer Support Ottawa (hereafter PCSO), both for individuals and in the interests of the wider community, is to promote and deliver personal support, education, awareness and health advocacy on behalf of all men and their families that are affected by prostate cancer and to better prepare them to deal with their diagnosis and treatment in a positive and effective manner.

Confidentiality Statement

All information posted on the PCSO website (www.pcsottawa.ca) is intended for the general public. Any personal information provided to PCSO (e.g. name, address, telephone number, email address, etc.) either through direct contact, email or the membership form posted on our website, is not shared with nor provided to any other entity.

One in eight Canadian men will be diagnosed with prostate cancer in their lifetime. PCSO is a non-profit registered charity (BN 889638342 RR0001) run entirely by volunteers. We rely on the generosity of donors to support our mission. Your donation helps us continue to support men and their families dealing with prostate cancer and to fund the most promising local research projects and initiatives. Please see our website for details on how to make a secure and tax-deductible contribution via CanadaHelps.org. Thank you for your support!

Message from PCSO Chairman (continued)

We had an excellent response from our members as Survivors at the 2023 Ottawa Motorcycle Ride for Dad. Thank you to those who attended this event. Once again Doug Nugent and Chuck Graham manned the PCSO Awareness Booth at the Chesterville arena at the end of the Ride

If you know of other organizations that would allow us to distribute these materials to their members or employees, please let us know at info@pcsottawa.ca.

In September we once again partnered with the Winchester Black Walnut group for the annual PSA Clinic and Prostate Cancer Awareness event, hosted by the Winchester and District Memorial Hospital (see the 'Activities & Events section for more details). We are actively looking for another hospital to host a similar PSA event, and negotiations are ongoing with one hospital in the Ottawa Valley. More details will be provided if we are successful in signing an agreement!

We planned to hold our annual barbeque in August at the Ottawa Cancer Foundation Community Cancer Hub located in the Maplesoft Jones Centre, but the weather did not cooperate. After a couple of re-scheduling attempts, we eventually held it indoors in September at St. Stephens It was well attended. The annual Christmas party was also well attended despite the weather and ongoing medical concerns.

Sadly, we had to say "Salut" to Rob Taylor from our Board of Directors as of end of December. We thank Rob for his sage advice over the last couple of years.

Our current BOD includes:

Al Carl - Chair

Doug Nugent - Vice Chair

Cynthia Beales-Alcock - Secretary

Dean Avery - Treasurer

Terry Day - Peer Support Team Lead

Larry Peckford - Past Chair (ex-officio)

David Brittain

Jim Davidson

Charles Graham - Walnut Editor and Email/Database coordinator

Erin McCuaig-Lambrinakos

Harvey Nuelle – Emeritus board member

Hayden Brown, who ran the Curling bonspiel in support of PCS Ottawa, has recently agreed to join the BOD.

Ken Alcock, who has served as Ride Captain for Ottawa Ride for Dad recently joined the BOD.

Cheryl Keyworth recently joined as well.

Continue to watch our website for more information.

Al Carl, Chair, PCSO



PCSO is currently developing a survey to get a better understanding of how we're doing as an organization, such as what services do members use, what services would they like to see us offer, what type of presentations have you enjoyed, what topics would you like to see us cover, etc.

The survey will be conducted via an online platform and all responses will be kept anonymous. We will present the overall results to the membership at a future meeting.

From the Editor: Cancer Care Ontario Position on Prostate Cancer Screening Unchanged

Chuck Graham, Walnut Editor & PCSO Board Member



You've probably seen recent TV commercials from Cancer Care Ontario in which the importance of early cancer detection is being showcased. The current difficulties of finding a family physician or gaining timely access to diagnostic services or treatment notwithstanding, these reminders obviously make perfect sense to those of us who have dealt with a cancer diagnosis.

On the Cancer Care Ontario website (www.cancercareontario.ca) there is a tab at the top of the main page entitled 'Types of Cancer'. Selecting this tab brings you to a page where one can select from 13 types of cancer (including prostate) to find information on prevention, diagnosis, treatment, after treatment and facts about the particular cancer. Selecting Prostate Cancer brings up a page with a

somewhat limited amount of information; selecting 'Diagnosis' displays a message that reads in part "During diagnosis, a person may need many tests to confirm the cancer ... If you are waiting for a diagnosis, talk to your doctor or nurse practitioner about managing stress during this difficult time". A little succinct but to the point. It then takes a bit of searching on the Cancer Care Ontario to find the provincial medical system's current position on the value of PSA testing (I ended up typing in 'PSA' in the search windows at the top of the main page of the website).

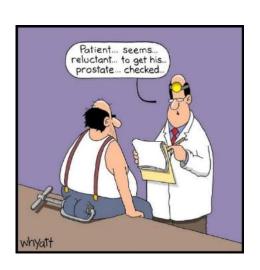
What I found was a paper from 2017 that is literally entitled "Position Statement on Prostate Cancer Screening using the Prostate-Specific Antigen (PSA) Test". The document consists of 6 bullet statements with various references to a number of studies and papers on the subject of PSA testing, some of which date back to 2011. The last bullet states the following (I have been unable to find a more recent statement or position paper so I'll assume the position hasn't changed):

Given the potential harms of screening, including over-diagnosis and over-treatment, Cancer Care Ontario does not support an organized, population-based screening program for prostate cancer. Individual decisions to screen should be made as a part of a shared decision-making process involving a discussion between a man and his primary care provider.

This, in my non-medical professional mind, gives me the feeling that not much has changed in Ontario since I was diagnosed back in 2012 at the ripe old age of 48. And what can we as prostate cancer survivors do about this? Perhaps not much, changes to provincial medical policy, as with most policy changes, take time and effort and PSA screening likely isn't a priority. Hiring more family doctors, better utilization of nurse-practitioners and improving overall access to medical care in general are probably more important at the moment. What we can do is continue to be advocates for early detection by talking with our family members, friends, co-workers, neighbours etc., about our personal prostate cancer experiences and encourage them to talk to their doctor about PSA screening. To be clear, I completely agree that unnecessary treatment and/or overtreatment should be avoided whenever possible; however, does the early detection of prostate cancer not at least in some way balance out the potential risk of overtreatment? Those of us who have been through prostate cancer, and who likely benefitted from its early detection, know the real answer to the value of the PSA test. We know it's not a perfect test, there will be false-positives, men and their families may experience anxiety while awaiting test results or selecting appropriate treatment options, and treatment itself (when necessary) is not without risks and side-effects. However, consider for a moment that without the PSA test, there would undoubtedly be less of us reading this newsletter.

The Cancer Care Ontario position paper on PSA testing can be found at www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/42981

The Lighter side of Prostate Cancer







The Walnut • 2023 Wrap-up & 2024 Forecast

Activities and Events

As mentioned in the Chair's message, PCSO was involved in a number of activities and events during 2023. Below is a review of some of these, which by the way are generally open to everyone in the PCSO family (another reason to check our website regularly and sign up for email updates!).





With the success of this event, it's safe to say that Carleton Heights will be looking at running another bonspiel for PCSO next year. Plans are being formulated to coordinate with other area clubs to run parallel events.

Curl For Hope – Inaugural Curling Bonspiel for Prostate Cancer Carleton Heights Curling Club Joins Forces with Prostate Cancer Support Ottawa, Over \$13,400 raised!

This event was the brainchild of Hayden Brown a long-time member of the Carleton Heights Curling club who recently joined PCSO. Carleton Heights has a long history of fund raising, having raised over \$640,000 over 20 years for Breast Cancer.



Hayden Brown -Carleton Heights Curling Club

Sixteen teams from the Carleton Heights, City View and Rideau curling clubs were out on November 25th, 2023 to have fun and to raise funds for Prostate Cancer Support Ottawa.

With all the online donations and fundraising during the day, including friendly





Curlers in action

donation competitions amongst the teams, selling 50/50 tickets, and having auctions of baked goods,

Hayden Brown and his team raised over \$13,400 for PCS Ottawa. This would not

have been possible without the contributions from our generous donors and corporate sponsors (Royal LePage TEAM Realty and Executive Golf).

Hayden wanted to make sure we included a big THANK YOU Judy DiMillo and her army of volunteers. From the first cup of coffee and muffins in the morning to the last piece of cake at the banquet she ran the food and other aspects of this bonspiel like a well-oiled machine. Credit has to go to the women of our club. The bonspiel

would not have been possible without her and the team of volunteers (and of course we can't forget Don Richardson's lasagna! What a great meal!).

Doug Nugent, Chuck Graham and Al Carl were there to run our booth and talk to the participants and their supporters. It was a great day, and Hayden Brown and his team are already planning for the 2024 event in the fall. Well done Hayden.



One of Curling Teams at the Bonspiel



Are you receiving a paper copy of The Walnut via regular mail but have access to the internet? Current and past versions of our newsletter are available on our website at www.pcsottawa.ca/the-walnut.

Help us keep our costs down by letting us know if we can take you off our paper copy mailing list. Please contact us at news@pcsottawa.ca

ELCRO Charity Golf Tournament for Prostate Cancer

On July 14 2023 the Empresários Luso Canadianos Da Região De Ottawa / Luso Canadian Entrepreneurs of The Ottawa Region ("ELCRO") hosted their 13th Annual Portuguese Week Charity Golf Tournament. ELCRO is a non-profit organization whose mission is to promote, encourage and support fellowship among Portuguese people in business in the Ottawa region (https://elcro.ca/).

As a result of this event, ELCRO has donated a total of \$15,000 to PCS Ottawa. This very generous donation will be used to support Prostate Cancer activities in the Ottawa Region.

We thank the membership of ELCRO very much for their generous donation and look forward to a continuing relationship with their organization.



Empresários Luso-Canadianos da Região de Ottawa Luso-Canadian Entrepreneurs of the Ottawa Region



2023 Ottawa Motorcycle Ride for Dad



On June 3rd 2023 PCSO members once again formed an honour guard of prostate cancer survivors at the start of the Ottawa

Motorcycle Ride for Dad to show their appreciation on behalf of all those affected by prostate cancer for Ride for Dad's continued efforts to save men's lives by funding prostate cancer research and raising awareness about the disease across Canada. PCSO BOD members Doug Nugent and Chuck Graham have continued their work as part of the Ottawa MRFD executive committee, supporting the planning activities and lending their experience to the awareness aspect of the MRFD mission.



Almost 800 bikes turned out for the ride in 2023.



It takes a lot of work from an army of volunteers to make the ride a success.



Ottawa MRFD riders have raised over \$7.7 million

One of the main goals of the Ride For Dad is to award research grants for new and innovative breakthrough science. To date, Ride for Dad supporters across Canada have raised over \$40 million for prostate cancer research and awareness. The funded research is making a significant difference both in the areas where the funds are raised and right across Canada. One such life-changing research project, SABR (Stereotactic Ablative Body Radiotherapy), reduces the number of radiation treatments men need from 39 to just 5 (for specific types of prostate cancer). Ride for Dad has been the major sponsor of the Canadian portion of this international trial therapy.

Plans for the 2024 event are well underway. The ride date is Saturday, June 1st and will be leaving from the grounds of the Ottawa General Hospital, with the wrap-up party being held at the Canadian Tire Centre!

PC Awareness Event and Free PSA Clinic

On September 9th 2023 PCSO members once again joined the Ottawa Ride for Dad, Nation Valley ATV Club and the Black Walnut Group for another successful Prostate Cancer Awareness Event and Free PSA Clinic held at the Winchester District Memorial Hospital. This year saw one of the best turnouts ever with a total of 220 men being tested with 20 of those being flagged with a high PSA number. All the men received a letter with their test results and recommendations for follow-up if warranted.



WDMH Staff Volunteers

This was the 9th year in what has effectively become an annual event that owes its continued success to the support of WDMH CEO Cholly Boland and especially the hospital staff who generously volunteer their time to register participants, take the blood samples, prepare them for transport to the lab, review the results and then process all the follow-up letters. Kudos and a big thanks to all the hospital staff and all the volunteers. Plans are already

underway to repeat the event in September 2024.

As mentioned in the Chairman's message on page 1, PCSO has begun actively pursuing other Ottawa Valley area hospitals in the hopes of finding a location to host a similar PSA event.



Plans for the 2024 PSA Awareness Event & Clinic are well underway. Mark your calendar for Saturday September 7th and watch for announcements.



The PCSO Prostate Cancer Awareness Booth on display inside the WDMH



RFD and PCSO members at the PSA Clinic



Nation Valley ATV Club Members lending a hand

Gary Janz, co-founder, MRFD with Dr. Ehab Elzayat, WDMH staff urologist who reviews the PSA tests, along with PCSO and Ottawa RFD members.





RFD Co-Chair Mike Anderson getting checked while Co-Chair Tina Gibson provides "emotional support"

Prostate Cancer Support Groups Across Canada



Okay, this doesn't really fall under the 'Activities and Events' category but it's a good reminder. Let's face it, not everyone lives in the Ottawa region or the Outaouais. If you, or someone you know, lives elsewhere in Canada and is looking for a support group be sure to check out the "Get Support" section on the Prostate Cancer Foundation Canada website at www.prostatecanada.ca.

The "Find a Group" page lists contact information for local support groups across the country. With local support group meetings in every province, and virtual nationwide support groups for

everywhere in between, there's a prostate cancer support group for everyone. The PCF Canada website is also a great place to find additional resources and information about prostate cancer. Be sure to check it out.

Annual Summer Barbecue

Our annual Summer Barbecue went through some challenges this past year. We initially decided to move the date from the long-standing 3rd Friday in June to late August in order to try and accommodate more people's schedules. However, due to inclement weather (both forecasted and realized) we were forced to re-schedule this outdoor event twice. On our third try we decided to stop tempting fate and moved the event location from the traditional outdoor venue at the much enjoyed Maplesoft-Jones centre to our regular meeting location at St. Stephens Church



Thankfully, the Church was available and the caterers were able to accommodate the last minute change of venue. Even with the constant re-scheduling the turnout was great, the food was excellent and everyone really seemed to enjoy themselves (despite the lack of green grass, sunshine and fresh air we normally enjoy). For 2024 we are once again planning to host the event in August. Be sure to check our website for details during the summer.

Remember, this event is open to everyone in the PCSO family, whether you regularly attend meetings, only attend occasionally or haven't attended in a while. This is an opportunity to catch up, enjoy some company and have some great food. Our current plan is to hold our 2024 BBQ in August as well (subject to change of course, so look for those email announcements!).



Annual Christmas Gathering

In December we once again held our annual Christmas Gathering at St. Stephen's Anglican. It was another wonderful occasion for everyone to socialize, catch up with old friends and make some new ones.



The food and drink were outstanding as always. A number of people were involved in making this a great even but we'd like to give a special thank you to David Cook for literally doing the cooking and David Brittain for selecting and purchasing some excellent wine.

Also thanks to all of you who stuck around to clean up and put away all the chair and tables. "Many hands make light work" was certainly evident that evening!

Tom and Janet Clapp enjoying themselves

In past years we enjoyed live music from Hal Floysvik and his Original Trillium Dixieland Jazz Band who donated their time to entertain us. Unfortunately, much like the Beatles of yesteryear, the Trillium band is going through some changes as members retire and as a result weren't available. Luckily, our own Doug Nugent was able to find an amazingly talented replacement act in the form of Keith Glass, singer-songwriter and former guitarist with Canadian country music group Prairie Oyster. Keith put on a great little show for us and everyone really seemed to enjoy it; so much so that we hope to have Keith perform at some of our future events.

Keith Glass performing on stage at St. Stephens

Presentations in 2023 - Speakers from the Past Year

As mentioned elsewhere in this newsletter, our speaker presentations are being held at the Maplesoft-Jones Centre in order to take advantage of their Zoom videoconferencing capabilities. This allowed us to offer the choice of attending in-person or joining us over Zoom. At times running a live-streamed event proved to have its technical challenges but we're getting better at it each time.

On January 19th 2023, Dr. Mark Corkum, radiation oncologist at the Ottawa Hospital, discussed the many myths and misconceptions about prostate brachytherapy as a treatment option for men with prostate cancer. His presentation also covered technical advancements in prostate brachytherapy available in Ottawa. Dr. Corkum returned to give his presentation in February of 2024. His presentation has been posted to Youtube and can be accessed directly through our website at www.pcsottawa.ca/resources/videos





On March 16th Dr. Linda Carlson, Professor in Psychosocial Oncology in the Oncology department of the Cumming School of Medicine at the University of Calgary presented Managing Anxiety and Difficult Emotions with Mindfulness. Her discussion focussed on "Mindfulness-Based Cancer Recovery", a step-by-step mindfulness-based stress reduction (MBSR) program based on a therapeutic combination of mindfulness meditation and gentle yoga that seeks to help patients cope with treatment and reclaim their lives.

In May 2023 our guest Speaker was Dr. Rayan Delbani from the Division of Palliative Care at the Ottawa Hospital. Her topic was **Modern Day Palliative Medicine**. Her presentation included integrating the humanities in medicine and medical training, which is one Dr. Delbani's areas of research. Her talk also explored the use of anti-inflammatories in palliative medicine.





For October our guest speaker was Dr. Richard Wassersug, PhD who presented "ADT & Me - With Some Asides On Other Topics that Should Interest Most Every Prostate Cancer Patient". Dr. Wassersug is Canada's leading expert on the impact of ADT on prostate cancer patients, and Co-lead of the highly successful Life on ADT Educational Program in Canada. Richard has been on various forms of ADT hormone therapy almost continuously for over 20 years and has authored or co-authored over 40 papers in the peer-reviewed medical literature related to testosterone. His talk integrated his personal story with his research and the supportive care initiatives that he has helped develop for other prostate cancer patients.

The warmer weather finally showed up in June and before the summer break we took some time to talk about anxiety and our mental health. Our guest speaker was Sean Tobin, senior mental health practitioner at Public Safety Canada, who presented a talk entitled **Strategies to Manage Anxiety** which is based on the Acceptance and Commitment Therapy (ACT) approach to dealing with anxiety. ACT is an innovative acceptance-based behavior therapy that focuses on decreasing the behavior regulatory function of anxiety and related cognition. This approach touches on mindfulness and teaches acceptance of reality, and recommitting to one's values to help clients enjoy the present moment instead of focusing on their anxious thoughts Sean is an excellent speaker and facilitator who really knows how to engage an audience.





In November Mr. Bear Johal, CEO and co-founder of Osbon Medical, gave a presentation on Vacuum Therapy for Penile Rehabilitation. As those who have been through prostate cancer surgery know, a radical prostatectomy can result in both erectile dysfunction and loss of penile length. Vacuum Erection Devices (VEDs) are recommended by doctors as a highly effective treatment to promote natural arterial blood flow necessary for healing and maintenance of length. Mr. Johal specified that the Osbon ErecAid System is a Medical Grade, FDA-Approved VED with a 90% success rate across all patients and is the market leading solution for Penile Rehabilitation & non-surgical treatment of Erectile Dysfunction.

Sharing Sessions

In between the speaker-based Zoom meetings several in-person sharing sessions were held. These continue to be popular, well-attended opportunities to get together, share prostate cancer stories, ask questions, and express our thoughts in a safe, welcoming environment. These sessions are particularly popular with the newly diagnosed as it allows them to make connections while giving those that have been through or undergoing treatment a forum to discuss their experiences. More sharing sessions are planned for 2024, keep an eye on our website for details and look for our email updates. As always, partners, family members, caregivers, etc. are encouraged to attend as well.



MEDICAL NEWS MEDIC

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NEWSROOM

Articles of Interest from Ottawa and Around The Globe



NEWS MEDICAL NEWS

Next-Generation Cancer-Fighting Viruses Could be Fine-Tuned With a Pill

Originally published 2 June 2023 on the Ottawa Hospital Research Institute website (www.ohri.ca/newsroom)

A research team at The Ottawa Hospital led by Dr. John Bell is developing powerful next-generation cancer biotherapeutics. These cancer-fighting (oncolytic) viruses can infect and kill cancer cells without harming normal tissues, while also delivering therapeutic / toxic genes to tumours and stimulating an anti-cancer immune response. These viruses have shown promise in laboratory and clinical studies, and the next generation could be even better thanks to an innovative synthetic biology approach developed by Dr. John Bell and his team.

As outlined in their detailed abstract, "Synthetic virology approaches to improve the safety and efficacy of oncolytic virus therapies*", Dr. Bell's team engineered several new oncolytic viruses that can be fine-tuned with readily available oral drugs. This means that a patient could be given an infusion of a very powerful oncolytic virus, while also receiving a pill to control exactly how much that virus replicates, and another pill to control how much the virus expresses additional cancer-fighting genes.

The large coding potential of vaccinia virus (VV) vectors is a defining feature. However, limited regulatory switches are available to control viral replication as well as timing and dosing of transgene expression in order to facilitate safe and efficacious payload delivery. Herein, we adapt drug-controlled gene switches to enable control of virally encoded transgene expression, including systems controlled by the FDA-approved rapamycin and doxycycline. Using ribosome profiling to characterize viral promoter strength, we rationally design fusions of the operator element of different drug-inducible systems with VV promoters to produce synthetic promoters yielding robust inducible expression with undetectable baseline levels. We also generate chimeric synthetic promoters facilitating additional regulatory layers for VV-encoded synthetic transgene networks. The switches are applied to enable inducible expression of fusogenic proteins, dose-controlled delivery of toxic cytokines, and chemical regulation of VV replication. This toolbox enables the precise modulation of transgene circuitry in VV-vectored oncolytic virus design.



"This kind of technology could help to create safer and more effective cancer biotherapeutics, including engineered immune cells and bacteria in addition to oncolytic viruses," said Dr. Bell, senior scientist at The Ottawa

The research program at the Bell Lab at the TOH Research Institute is directed towards the identification and characterization of novel cancer killing therapeutic viruses that selectively infect and kill cancer cells,

while leaving healthy cells and tissues unharmed.

Not only does Dr. Bell and his team discover and design new therapeutic viruses, but they also manufacture them for eventual clinical translation and commercialization.

*The full abstract can be found on the Nature Communications website at www.nature.com/articles/s41467-023-38651-x



The Bell Lab research team: (clockwise from bottom left): Mathieu J. F. Crupi, Xiaohong He, Julia Petryk, Marie Marotel, Stephen Boulton, Nikolas T. Martin, John C Bell, Reza Rezaei. Missing from photo: Taha Azad, Ragunath Singaravelu, Ricardo Marius, Kemal Alper Onsu.

Improving Physical Fitness with Cardio May Cut Prostate Cancer Risk by More Than a Third

by Andy Corbley, originally posted on the Good News Network, 31 Jan 2024 (www.goodnewsnetwork.org, Copyright 1997–2024 GNN, LLC)

A study conducted by the Swedish School of Sport and Health Sciences (GIH) has found that those who increased their annual cardiorespiratory fitness activity (CRF) by 3% or more were up to 35% less likely to develop prostate cancer.

This small-change-big-result finding, that was established by the Swedish team and published in the British Journal of Sports Medicine, hopes to encourage men to improve their fitness in a bid to steer clear of the disease.

There are relatively few known risk factors for prostate cancer, which is the second-leading cause of cancer death in American men, behind only lung cancer. The American Cancer Society's estimates are that 35,000 men will die this year in the nation from prostate cancer, and nearly 300,000 will develop it.

While evidence exists as to the beneficial effects of physical activity on the risk of several cancers, associations with prostate cancer are less clear-cut.

The majority of previous studies have assessed fitness only at a single point in time, and none have looked at the potential impact of fitness on both the risk of developing and dying from prostate cancer.



Men in the study had their cardiorespiratory fitness measured on stationary bikes – photo credit, Sam Moghadam Khamseh – Unsplash

Therefore, the GIH researchers sought to discover whether improvements in men's fitness could offset the risk of developing the disease.

"This is the largest study to examine the relationships between change in CRF (cardiorespiratory fitness) and cancer incidence and mortality, and the first study to examine change in CRF specifically on prostate cancer incidence and mortality," said Dr. Kate Bolam, a lead author from the Department of Physical Activity and Health at GIH.

"Improvements in cardiorespiratory fitness in adult men should be encouraged and may reduce the risk of prostate cancer."

They analyzed data from a national occupational health profile in Sweden, containing information on physical activity, lifestyle, perceived health, measurements of body mass and height, and the results of at least two CRF tests.

The tests measured CRF performance in Zone 2 and the VO2 max of 57,652 Swedish men as they peddled on a stationary bike.

The participants were then divided into groups according to whether their fitness levels had changed, and followed them from the date of their last assessment to the date of their prostate cancer diagnosis, their death from any cause, or until 31 December 2019— whichever came first.

During an average period of nearly seven years, the researchers saw that 592 men—1% of the total sample—were diagnosed with prostate cancer and 46 died of their disease.

A Pair of Innovative Studies at the Ottawa General Hospital Research Institute

1. Made-in-Ottawa Al Tool Could Help Critically III Patients

An innovative tool developed by researchers at The Ottawa Hospital is closer to helping critically ill patients following its approval by Health Canada.

The tool addresses the major challenge of determining when a patient on a breathing machine is ready to breathe on their own. This is a high-stakes decision because the longer a patient stays on a breathing tube, the more difficult it is for them to recover, but if the tube is removed too early, it may have to be reinserted. This can be devastating for the patient and their family and is associated with worse outcomes and higher hospital costs.

The new tool, developed by Dr. Andrew Seely, uses artificial intelligence to analyze patterns in patient vital sign data to help predict when a patient is ready to breathe on their own. A promising pilot study at TOH is expected to be published in the coming year and a randomized trial in 10 hospitals is expected to start soon.

On September 28th, 2023, Canadian medical technology company Therapeutic Monitoring Systems Inc. (TMS) announced the Health Canada approval of this clinical decision support tool which has been named "Extubation Advisor". It is the world's first medical software tool to provide doctors with extubation decision support (removing an endotracheal tube (ETT), helping them to safely liberate critically ill patients from a breathing machine.

In addition to his role as a critical care physician, surgeon and scientist at The Ottawa Hospital and uOttawa, Dr. Seely is also CEO of Therapeutic Monitoring Systems, which is commercializing this research.



"Currently, one in every seven ICU patients experiences extubation failure. Prolonged ventilation harms patients, and early extubation requiring reintubation can be a devastating blow to their recovery," says Dr. Andrew Seely. "We've developed the first medical device to offer extubation decision support, which we believe will help standardize and improve care."

2. Cancer + Past Stroke Increases Stroke Risk Nearly 3-fold

A study co-led by Drs Deborah Siegal and Rinku Sutradhar found that people who had a stroke prior to a cancer diagnosis were nearly three times more likely to have a future stroke compared to other cancer patients. They also found the more recent the stroke, the greater

the risk of a future stroke.



Dr. Deborah Siegal, scientist and hematologist at The Ottawa Hospital, associate professor at the University of Ottawa.

In the study published in Stroke, the research team looked at data from 65,525 Ontarians diagnosed with cancer between 2010 and 2020. They matched 13,070 patients with a history of stroke to similar patients with no stroke history. Among those with a history of stroke, diagnoses of gynecologic and lung cancer came with the highest risks of future strokes.

Cancer is an established risk factor for stroke but there is currently no way to predict the risk of stroke after cancer diagnosis. The researchers plan to use these findings to create a stroke risk prediction tool to identify individuals at high risk and inform the development of evidence-based preventative treatments.

Speaking on her study Dr. Siegal stated, "Our findings suggest that patients with a recent history of stroke have a high risk of recurrent stroke after a new cancer diagnosis and may benefit from more intensive stroke prevention strategies".

This study was funded by Ontario Academic Health Sciences Hamilton Academic Health Sciences Organization Alternate Funding Plan grant, and supported by ICES. All research at The Ottawa Hospital is enabled by generous donors to The Ottawa Hospital Foundation.

Promising New Options for Treating Aggressive Prostate Cancer

Results of a Clinical Trial Published in the New England Journal of Medicine and Led by Cedars-Sinai Cancer Investigators Point to 2 Potential Treatment Options That Improve Patient Outcomes. Cedars-Sinai Cancer investigators have identified two promising new treatment options for men with recurrent prostate cancer - both of which helped patients live longer without their disease progressing than the current standard treatment. The results of their international Phase III clinical trial were published in the New England Journal of

Medicine in October of 2023.



"If these treatments are approved by the Food and Drug Administration, our results will be practice changing," said Stephen Freedland, MD, associate director for Training and Education and the Warschaw, Robertson, Law Families Chair in Prostate Cancer at Cedars-Sinai, and lead author of the study. "In the study, both of these new options improved metastasis-free survival while preserving quality of life."

Cancer of the prostate, a walnut-sized gland that helps make semen, will be diagnosed in 288,300 men in the U.S. in 2023, according to American Cancer Society estimates. For some, treatment may never be needed because they have a slow-growing form of the disease, but those with more aggressive prostate cancer are often first treated with surgery or radiation therapy.

"Unfortunately, in about a third of those patients, the cancer recurs within 10 years," Freedland said.

Patients with aggressive recurrence are treated with androgen deprivation therapy (ADT), also known as hormone therapy, which reduces the patient's production of the male sex hormone testosterone. Testosterone helps prostate cancer cells grow and spread, and the hormone therapy effectively reduces the growth-stimulating effects. But Freedland said ADT has two downsides: It doesn't completely eliminate testosterone, and it can cause many side effects.

"When you go on ADT, the testosterone level in the blood is reduced, but not completely eliminated," Freedland said. "And the concern is that the testosterone that remains may still be enough to stimulate tumor growth. Also, patients don't love the idea of being on hormones."

In this study of 1,068 prostate cancer patients from 244 sites in 17 countries, Freedland and fellow investigators tested two experimental interventions—one to address each of these issues.

In the randomized clinical trial, one-third of the patients received ADT plus a medication called enzalutamide, which blocks the effects of testosterone. Enzalutamide keeps any testosterone remaining in the blood from stimulating the growth of cancer cells.

Another third of the patients received enzalutamide alone. This option relied on the medication to block the effects of testosterone even though testosterone levels in the patients' blood were not reduced.

"We wanted to see whether enzalutamide on its own was so effective that we didn't need the ADT," Freedland said.

The final group of patients received ADT alone, which is the current standard treatment.

Investigators found that the combination of ADT plus enzalutamide reduced the risk of metastasis or death by 58% over ADT alone. They found that enzalutamide alone reduced the risk of metastasis or death by 37% over ADT alone. Both treatments maintained quality of life relative to the ADT alone.

"While the combination therapy offers greater risk reduction, some men might prefer enzalutamide alone. It does a good job of preventing cancer spread or death, with different side effects that may be more acceptable for some men," Freedland said.

The next step is for the makers of enzalutamide to apply for FDA approval, so the experimental therapy can come into wide use, Freedland said.

"Optimizing therapy for patients with aggressive recurrence after their prostate cancer is initially treated has been an unmet need," said Dan Theodorescu, MD, PhD, director of Cedars-Sinai Cancer and the PHASE ONE Distinguished Chair. "The results of this trial point the way to two options which the study showed were more effective than current standard of care, giving these patients and their providers the opportunity to choose a potentially improved course of therapy that best meets their needs."

(Note: Funding: The study was sponsored by Pfizer and Astellas Pharma, the co-developers of enzalutamide)

Big Breakthrough In Cancer Treatment: Scientists Destroy 99% of Cancer Cells in The Lab

Story by Henrik Rothen, reported on MSN Health, January 2024.

Scientists have made a significant breakthrough in cancer treatment by using a special type of molecule that vibrates to destroy cancer cells. This new method, developed by a team from Rice University, Texas A&M University, and the University of Texas, involves stimulating aminocyanine molecules with a specific kind of light, causing them to vibrate intensely and break apart cancer cell membranes. Aminocyanine molecules, commonly used as synthetic dyes in bioimaging to detect cancer, have shown remarkable effectiveness in attaching themselves to the outside of cells.

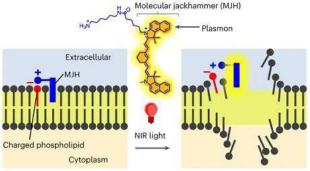
When exposed to near-infrared light, these molecules vibrate in unison, creating a force strong enough to disrupt the cancer cells' structure.

This approach, termed the "molecular jackhammer" method, has proven to be significantly more effective and faster than previous molecular machines used in cancer treatment.

The near-infrared light used in this method is particularly beneficial as it can penetrate deeper into the body, potentially treating cancers in bones and organs without invasive surgery.

In laboratory tests, this method achieved a 99% success rate in destroying cultured cancer cells. It was also tested on mice with melanoma tumors, resulting in half of the animals becoming cancer-free. The researchers believe this technique is difficult for cancer cells to resist or adapt to, making it a promising avenue for future cancer treatments.

The study, published in Nature Chemistry, opens up new possibilities for treating cancer using mechanical forces at a molecular level. This innovative approach could revolutionize cancer treatment, offering a new, more direct way to target and destroy cancer cells.



A graphical rendering showing how the 'molecular jackhammer' destroys cancer cells.

The published study stated the following in it's abstract: "Through the actuation of vibronic modes in cell-membrane-associated aminocyanines, using near-infrared light, a distinct type of molecular mechanical action can be exploited to rapidly kill cells by necrosis. Vibronic-driven action (VDA) is distinct from both photodynamic therapy and photothermal therapy as its mechanical effect on the cell membrane is not abrogated by inhibitors of reactive oxygen species and it does not induce thermal killing.

Subpicosecond concerted whole-molecule vibrations of VDA-induced mechanical disruption can be achieved using very low concentrations (500 nM) of aminocyanines or low doses of light (12 J cm-2, 80 mW cm-2 for 2.5 min), resulting in complete eradication of human melanoma cells in vitro. Also, 50% tumour-free efficacy in mouse models for melanoma was achieved. The molecules that destroy cell membranes through VDA have been

termed molecular jackhammers because they undergo concerted whole-molecule vibrations. Given that a cell is unlikely to develop resistance to such molecular mechanical forces, molecular jackhammers present an alternative modality for inducing cancer cell death".

The original story can be viewed on-line at https://www.msn.com/en-ca/health/other/big-breakthrough-in-cancer-treatment-scientists-destroy-99-of-cancer-cells-in-the-lab/ar-AA1m5dUm?cvid=d4b4b8845d8c491ca2579dcfae3f118f&ocid=winp2fptaskbar&ei=8&sc=shoreline

The published abstract can be viewed at https://www.nature.com/articles/s41557-023-01383-y

What to Eat if You Have Prostate Cancer

By Diana Rodriguez, with additional reporting by Andrea Peirce, as posted on Everyday Health (www.everydayhealth.com)

Medically Reviewed by Walter Tsang, MD of American College of Lifestyle Medicine on October 2, 2023



While there's no such thing as a prostate cancer diet, some nutrition choices are better than others if you are managing the disease. This article provides tips on how to choose the best foods and the healthiest ways to cook them.

The best diet for when you're living with prostate cancer follows the same guidelines as any for maintaining good health. The diet should be low in fat and calories; rich in fruits, vegetables, and whole grains; and focused on "real" foods, rather than processed ones, according to the U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion.

Of course, there are specific foods to avoid when talking about prostate cancer. According to a study published in 2020 in the journal *Cancer Epidemiology, Biomarkers & Prevention*, which

followed men with nonmetastatic prostate cancer, eating red meat and processed foods may be associated with a higher risk of developing advanced prostate cancer. And, the American Cancer Society (ACS) notes that eating a healthy diet is particularly important for people undergoing cancer treatment, because it can help the body function at its best and be better equipped to fight off infections. It can also help with maintaining strength and energy and coping with treatment side effects.

Key Elements of an Ideal Diet for People With Prostate Cancer:

The truth is, there's no specific diet that will help you prevent or treat prostate cancer, but these general guidelines from the University of California in San Francisco (UCSF) can help. Good nutrition may lower your risk of developing cancer, as well as reduce the risk of the disease progressing after a diagnosis.

More research still needs to be done to determine whether diet can meaningfully affect prostate cancer risk and prognosis. Steven Canfield, MD, chair of urology at McGovern Medical School at The University of Texas Health Science Center in Houston, says that while there have been a lot of studies looking at specific diets for prostate cancer, they haven't been very revealing. "Unfortunately, none of them have really panned out to show any significant prevention," says Dr. Canfield.

But, he adds an exception. "It does seem to be that what's good for your heart is good for your prostate."

The UCSF Helen Diller Family Comprehensive Cancer Center developed dietary guidelines for prostate cancer that recommend a wide variety of vegetables and whole grains, healthy sources of protein (such as beans, fish, and skinless poultry), and healthy fats (from foods such as olive oil, nuts, and avocados).

If these diet recommendations sound a lot like a Mediterranean diet, your instincts are right. There's evidence that this food plan helps lower the risk of death from prostate cancer.

Most of these guidelines are for men starting out with a diagnosis of localized stage 1 or 2 prostate cancer, says June M. Chan, doctor of science in epidemiology and a professor in the department of urology at UCSF.

Eat fruits and greens: The UCSF guidelines suggest eating at least five servings of fruit and vegetables a day, including lots of cruciferous vegetables, such as broccoli, cabbage, and cauliflower. Add plenty of antioxidant-rich fruits, such as berries, cherries, plums, prunes, and red grapes.

Opt for fish and plants over meat: All people with cancer, including those with prostate cancer, will benefit from a plant-based diet — getting protein primarily from beans, flaxseed, low-fat dairy products, and nuts.



In particular, you should eat less red meat and try to reduce your saturated fat intake overall. Research shows that eating a high-fat diet is linked to prostate cancer progression. Steer clear of whole milk and other high-fat dairy products, such as butter and cheese.

If fish isn't already a staple in your diet, consider this: Eating fish is associated with a reduced risk of death from prostate cancer, according to a review published in August 2023 in the journal *Frontiers in Nutrion*.

Use healthier oils and lighter cooking methods: Cook meals using canola oil or olive oil in place of saturated fats, such as butter or shortening. How you cook matters, too: Use low-fat cooking methods, such as broiling or baking, rather than frying.

Skip grilling: Cooking meat at high temperatures, as with grilling, produces carcinogenic chemicals, according to the ACS. If you do prepare meat on the grill, the American Institute for Cancer Research suggests marinating and partially precooking the meat on the stove to minimize the char buildup (blackened areas) from the grill.

How to Adjust to New Dietary Needs With Prostate Cancer:

Your prostate cancer treatment may affect your appetite and your ability to get the nutrition you need. It may also wreak havoc on your gastrointestinal function. Here are some tips that may help.

Curb weight loss: If you're losing your appetite and losing weight, think again about what you're cooking and how you're preparing food. Experiment with seasoning foods differently so they taste better, or add sauces and herbs to mask certain flavors. Cook with higher-calorie foods (within the healthy guidelines above) that don't require eating large portions to meet caloric needs.

Manage fiber intake for diarrhea relief: Some men experience loose stools, bleeding from the rectum, and loss of control over bowel movements after getting external beam radiation treatments for prostate cancer. If this happens to you, choose fiber-rich foods, such as fruits, vegetables, and whole grains, drink plenty of water, and exercise regularly to reduce your risk of becoming constipated.

Should You Take Dietary Supplements for Prostate Cancer? Maybe Not

"One of the other developments in the last 5 to 10 years," says Dr. Chan, "has been broader recognition that single supplements seem unlikely to offer a reduction in the risk of prostate cancer development."

She cites the large national Selenium and Vitamin E Cancer Prevention Trial from 2008 and 2011, which "provided no evidence that selenium or vitamin E supplements offer protection against the development of prostate cancer." And furthermore, a study of 4,459 men initially diagnosed with nonmetastatic prostate cancer concluded that those who started taking selenium supplements after being diagnosed had a greater risk of death from prostate cancer.

The bottom line: Healthy, balanced, and heart-healthy meals consisting of whole foods are the way to go for prostate cancer.

The original article can be found at https://www.everydayhealth.com/prostate-cancer/cooking-for-prostate-cancer-patient.aspx

7 Quick Facts about Prostate Cancer

Here's something most of us already know, but it doesn't hurt to be reminded (especially if we remember to pass this on to others). According to the Canadian Cancer Society, prostate cancer continued to be the most common type of cancer among men. Thankfully, when detected early prostate cancer has a high probability of survival (about 93% at least five years after diagnosis in Canada), giving men a higher likelihood of survival than ever before. Here are seven facts about prostate cancer that can help you and your family better understand risk factors, detection, and treatment options.

- 1. Prostate cancer can be inherited.
 - 2. Treatment may not be the first course of action.
 - 3. Most men survive prostate cancer.
 - 4. It's more common in African-American men.
 - 5. Younger men can develop prostate cancer.
 - 6. Early prostate cancer usually has no symptoms.
 - 7. Potential side effects from prostate cancer radiation treatments can be reduced.

Source: Canadian Cancer Society 2023 statistics and Health Canda



Did you enjoy this issue of The Walnut? If so let us know. Have an idea for a future Walnut article, want to submit a story? Feel free to drop us a line at info@pcsottawa.ca

