

BREAKTHROUGH

SPRING 2021

A HISTORIC GIFT TRANSFORMING LUNG CANCER RESEARCH



**BC
CANCER** FOUNDATION

BC CANCER
EXPERTS TAKE
ON COVID

THREE FAMILIES'
MISSION TO SAVE
YOUNG LIVES
and more

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About the BC Cancer Foundation

The BC Cancer Foundation is the fundraising partner of BC Cancer. Together with our donors, we are changing the outcome for people affected by cancer in B.C.

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OPENING THOUGHTS



As we pass the one-year mark living through a global pandemic, the effects on our community are difficult to ignore.

The short-term impacts of COVID-19 have hindered many services that people depend on including practical resources such as transportation, accommodation and access to financial assistance.

And when we take a closer look at our cancer community, it's clear the pandemic continues to add to the burden of the most vulnerable. The demands on counselling, spiritual care, psychiatry have never been greater and the pandemic has exacerbated common struggles cancer patients face during 'normal' times.

COVID-19 has made us all feel more anxious than usual.

Imagine facing the most challenging health issue of your life without a support network because the risk is simply too high for your compromised immune system. Imagine nearing the end of life,

unable to fulfill your bucket list or spend your final days in the warm embrace of extended family and friends.

We can all help.

We can reach out virtually or by phone to people in our lives facing cancer right now.

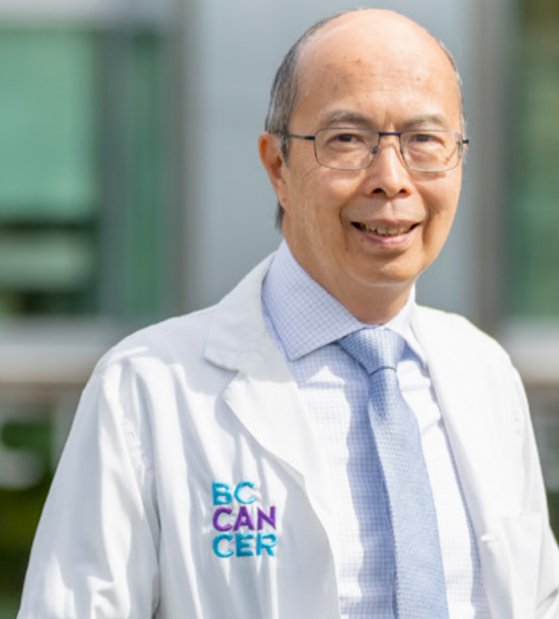
We can give generously to BC Cancer's supportive care team – our unsung heroes.

To those facing cancer who may be struggling right now, please know, you have a community of 90,000 strong who care about you and are contributing to offer hope and improved outcomes.

Sincerely,

Sarah Roth, President & CEO,
BC Cancer Foundation

BREATH-BASED TECH FOR RAPID COVID TEST



Dr. Stephen Lam

"I am proud to see this research work is happening in Vancouver, British Columbia," said Terry Hui, President and CEO, Concord Pacific. "It has big potential for not only protecting front line workers but helping communities get back to normal with quick testing at special occasions like weddings and public events like the Concord Pacific Vancouver Dragon Boat Festival."

An innovative COVID-19 breath test pilot, developed by BC Cancer researchers, received a new infusion of funds from Concord Pacific to expedite the tech.

Currently, British Columbians have access to two COVID-19 tests: the dreaded nasal swab and a gargle test. Both require a lab to process and return results, typically within 24 hours.

With kick-starter funds from The Beedie Foundation, a BC Cancer team led by Dr. Renelle Myers launched a pilot featuring technology that collects breath as a person exhales into a small tube for quick analysis.

Their test could return results within a couple of minutes.

"As the pandemic began to emerge, we knew that our technology, developed to detect early signs of lung cancer, had great potential to help find a rapid, non-invasive, highly accurate COVID-19 test," says Dr. Stephen Lam, a clinician scientist at BC Cancer and study co-lead.

Drs. Myers and Lam have already tested 300 study participants of their 1,000-participant goal. Their collected data will be used to optimize the testing technology to identify COVID-19 positive or negative results and to understand the metabolic pathways of the infection.

The aim is to emerge with a simple, inexpensive, highly accurate and portable test that can be deployed anywhere and determines results in minutes.

With success gained through COVID-19, this breakthrough technology can now be applied to test early stages of lung cancer – this is the power of innovation and collaboration.

Canada's Largest Philanthropic Gift to Lung Cancer

On February 4th, to mark World Cancer Day, the BC Cancer Foundation announced a historic philanthropic investment of \$15.3 million from the Leon Judah Blackmore Foundation to advance lung cancer research and care.

This transformational donation is Canada's largest known philanthropic investment specifically supporting lung cancer and will place BC Cancer at the global forefront of innovation in early detection, treatment and high impact research.

Lung cancer is the leading cause of cancer-related death in B.C., across Canada and worldwide. Six British Columbians die of lung cancer every day.

"Far too many families in B.C. and around the world have experienced pain and loss at the hands of lung cancer," says Sarah Roth, president & CEO, BC Cancer Foundation. "On behalf of all individuals with this devastating illness, I thank the Leon Judah Blackmore Foundation for the hope they've provided."

Leading the vision is Dr. Stephen Lam, Leon Judah Blackmore Chair in Lung Cancer Research, BC Cancer, who is at the global helm of lung cancer research and treatment.

"This is a significant moment for people facing lung cancer as we will seek out and find more cures," says Dr. Lam. "With this investment, B.C. can build on our unique breadth of expertise to develop innovative early detection methods through breath and microbiome research, artificial intelligence, new therapeutics to prevent and cure lung cancers, and methods to stop tumour resistance and recurrence."

Drs. Wan Lam, Stephen Lam,
Calum MacAulay and William Lockwood



A Beacon of Hope

Alan Soon's Story

Alan Soon was diagnosed with advanced stage lung cancer in 2019. However, today, thanks to the innovative care at BC Cancer, Alan's cancer is stable allowing him to invest more energy in enjoying life with his wife and their two teenage children.

Alan believes the transformational donation from the Leon Judah Blackmore Foundation is "a real game-changer."

"A donation of this scope gives hope to late-stage patients like me," he says. "It shows empathy to people with a cancer



Alan Soon with his family

that has long been stigmatized and has not seen an equitable level of support. We hope that new treatment development will allow us to live with lung cancer as a chronic disease and to die with it, not of it."



Nicola Brailsford

A History of Giving

The Leon Judah Blackmore Foundation



As a young boy, Leon Judah Blackmore arrived in Winnipeg with his mother and six siblings, fleeing the Holocaust in Poland.

He moved to Vancouver as a young adult, where he built a legacy in business, notably as a real estate developer in Greater Vancouver and Victoria.

Giving back was a tenet passed down from Leon's mother, which he took very seriously, giving generously to people and organizations that have an impact in improving health and the community.

Leon became personally inspired by Dr. Lam's work into lung cancer screening more than a decade ago. Leon was an early participant in a pilot study to identify individuals at the highest risk of developing lung cancer and was a strong believer in Dr. Lam's research and his ability to revolutionize the science, knowledge, prevention and care for individuals impacted by this deadly disease.

Over the past 15 years, Leon and the Leon Judah Blackmore Foundation have donated a collective \$18.9 million to the BC Cancer Foundation.

"Leon was inspired by Dr. Stephen Lam and BC Cancer, he believed that they could completely change the story for lung cancer, and we were compelled to give knowing how many lives this will help here in B.C., across Canada and around the world," says Nicola Brailsford, CEO & Trustee, Leon Judah Blackmore Foundation.



To learn more about how you can support lung cancer research,
contact Elissa Morrisette at 604.707.5992 or elissa.morrisette@bccancer.bc.ca

TESTICULAR CANCER

A New Era of Testicular Cancer Treatment

*Drs. Lucia Nappi and
Christian Kollmannsberger*

Testicular cancer diagnoses are on the rise, but thanks to the world-class expertise at BC Cancer, positive outcomes are more prevalent than ever.

BC Cancer is world-leading in testicular cancer research and treatment having recently published the largest knowledge advancement in testicular cancer in over 25 years. At the centre of this breakthrough is a biomarker, which uses micro-RNAs found in blood to detect tumours and inform treatment, and in many cases sparing patients from unnecessary chemotherapy or radiation.

At the helm of this research is BC Cancer's Dr. Lucia Nappi, a global expert in micro-RNA research, who has played a pivotal role in activating a clinical trial to test the efficacy of the biomarker. Her

research, in collaboration with BC Cancer oncologist, Dr. Christian Kollmannsberger, is showing promise for enhancing the long-term health of patients across the province.

For patients like Ryan Steele, diagnosed with testicular cancer at 19, the news of this advancement brings a sense of relief.

"Although the majority of testicular cancer happens to younger men, I think it is very important to continually seek better cures for men who go through this," says Ryan. "Also, it's so important for men to see their doctor when something doesn't feel right. I can only imagine what would have happened to me if I didn't go to my doctor sooner."

To learn more about how you can support world-class testicular cancer research, contact Alyson Killam at 604.788.0897 or akillam@bccancer.bc.ca



ADVANCED CARE CLOSER TO HOME for Patients in the North

This past March, The Prince George Community Foundation and Rio Tinto announced a \$155,000 donation to BC Cancer – Prince George Centre for the North. This marks the largest donation from the Prince George Community Foundation to date and will benefit research and clinical trials in precision radiation, while helping to elevate BC Cancer – Prince George as a world leader in radiation therapy.

In addition to enhanced care and better outcomes for patients with metastatic cancer, this gift will bring care closer to home for remote and Indigenous communities in the area.

"More than half of British Columbians diagnosed with cancer will receive radiation therapy as part of their treatment," says Dr. Robert Olson, radiation oncologist at BC Cancer – Prince George. "This generous gift helps ensure we can deliver the best care to people facing cancer in our community and lead to better outcomes for patients."

Over the past 25 years, the Prince George Community Foundation has given back to the community by supporting numerous charities. This gift will continually support efforts to increase research capacity and academic output in the north and establish BC Cancer – Prince George as a hub of innovation in cancer treatment and care.



Online Cheque Presentation



Dr. Rob Olson

To learn more about how you can support the Northern Precision Radiation Program, contact Pardeep Khrod at 250.878.5490 or pardeep.khrod@bccancer.bc.ca

For families who have experienced the heartbreak of a childhood cancer, hope is on the horizon thanks to a research partnership between BC Children's Hospital and BC Cancer that is designed to enhance our understanding of pediatric acute myeloid leukemia (pAML) and improve outcomes.

Known as the most serious and hard-to-treat form of childhood leukemia, pAML is often defined by its low survival rates, high risks of recurrence and increased medical issues later in life.

This research partnership is harnessing the power of BC Cancer's Personalized Onco-Genomics (POG) program to genetically sequence cells of pAML patients to help inform treatment.

Dr. Rebecca Deyell, pediatric oncologist/hematologist and clinician

investigator at BC Children's Hospital and Research Institute, is encouraged by the program's potential to drastically improve the lives of families facing pAML.

"The advantage of targeted therapies in young patients is their ability to specifically hone in on cancer cells and causing few other side effects to healthy cells," says Dr. Deyell. "In the future, this may allow us to improve cure rates and decrease the intensive conventional chemotherapy and bone marrow transplants we currently use, in hopes of curing patients."

While this important research progresses, three B.C. families who have faced pAML have joined forces to raise \$100,000 with the goal of ensuring all young patients have access to the genomic analysis program.

SAVING YOUNG LIVES IN BRITISH COLUMBIA



Lazaridis family

THE FAMILIES AT THE FOREFRONT

One couple raising funds to change pAML outcomes is Kat Ast and Jeff Kindree, who tragically lost their son, Bo, just days after his third birthday. Diagnosed at 11 months old, BC Cancer's pAML whole-genome sequencing (WGS) program wasn't yet available for Bo. Today, Kat and Jeff are hopeful that greater access to the genomic analysis program will help save more young lives.

"We have to do what we can to prevent other children and families from experiencing this immense pain and loss," says Kat. "In honour of Bo, we have set up this fund to give children with pAML the best chance at surviving."

The other two families behind the

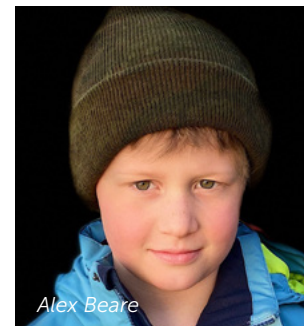
fundraiser, the Beare-Stoffelsmas and Lazaridis, will always remember the devastation the disease brought to their families, even in the years since their son's Alex and Theo have recovered. Both families are hopeful that the genomic analysis program will save more children from the intensive conventional treatments that can result in months of turmoil and stress.

"We are so grateful to the researchers that are trying to develop better treatments that increase survival rates and reduce long-term health risks," says Theo's parents. "We have seen firsthand the devastation this disease causes children and their families—advancements in research need to continue."

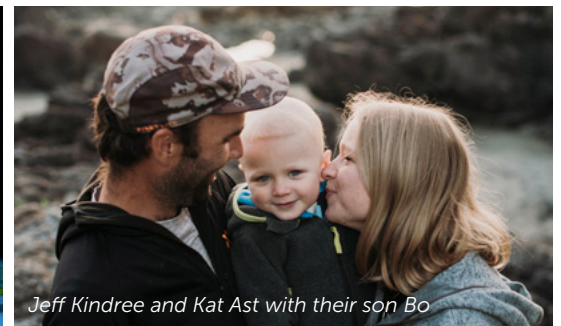
Beare-Stoffelsmas family



Dr. Rebecca Deyell



Alex Beare



Jeff Kindree and Kat Ast with their son Bo

To learn more about how you can support this important research and our fundraising families, contact Rhea Siu at 604.877.6157 or rhea.siu@bccancer.bc.ca

An innovative treatment to assess breast cancer treatment response



*Dr. Jenny Ko, Medical Oncologist
and Director of the Clinical Trials Unit
at BC Cancer – Abbotsford*

This year over 5,500 British Columbians that will be diagnosed with a women's cancer.

Long-time advocates of breast cancer research and care, Abbotsford's Crystal Gala Foundation recently donated \$100,000 to advance an innovative study at BC Cancer.

The Breast Optical Probe Study at BC Cancer – Abbotsford uses a specially engineered probe to accurately assess a breast tumour's response to treatment in patients with advanced breast cancer, who are undergoing chemotherapy before surgery.

The hand-held device can differentiate between normal and cancerous tissues using light properties, helping experts more accurately determine if a tumour

has shrunk or changed, in response to chemotherapy or if further treatment needs to continue.

The probe can provide a detailed, faster result than the more common methods in breast cancer detection, which often include mammography, ultrasound and magnetic resonance imaging (MRI).

"It's a tool we can use in the clinic in real-time, as opposed to sending someone to radiology or another department," says Dr. Jenny Ko, Medical Oncologist and Director of the Clinical Trials Unit at BC Cancer – Abbotsford. "And it has the potential to possibly expand to be used with other tissues, beyond breast tumours."



The probe will be located at BC Cancer – Abbotsford for the duration of the study with this next phase in the research made possible by the generous donation from the Crystal Gala Foundation.

The study has so far recruited 30 patients, with the goal to recruit 60-90 patients in the next 2-3 years.

To give to breast cancer research,
contact Rhea Siu at 604.877.6157
or rhea.siu@bccancer.bc.ca



Dani Weintraub



Dani's Legacy: Changing mesothelioma outcomes

I ncreasingly throughout 2013, Dani Weintraub Grand hadn't been feeling well. Consumed with life's demands and work she loved – planning fundraising events for the BC Cancer Foundation – she could not have imagined she was experiencing symptoms of a rare and fatal cancer.

At work, Dani was the bright light who kept spirits high – she filled a room with cheer and was the go-to for a candy or hug. Her husband Jacob and her family had no indication she was suffering from a life-threatening cancer.

Admitted to VGH Emergency in November things started to move at warp speed, descending rapidly into a family's worst nightmare.

Dani was told she had Stage IV ovarian cancer. While absorbing the shock, Dani and Jacob and their family and friends held out hope for a life-saving option.

Then, just days before surgery, Dani's diagnosis radically changed: she had peritoneal mesothelioma – an extremely rare cancer affecting approximately 20 Canadians per year, often young women.

Patients with peritoneal mesothelioma rarely experience symptoms until it is advanced. Misdiagnosis and no effective treatments are the reality due to a lack of research funding.

A complex surgery was her only hope. Dani travelled to Pittsburgh where she underwent the 14-hour procedure.

For six months, Dani received care at BC Cancer, while her father searched for an expert offering hope knowing, the imminence of recurrence. His search led to a pair of brilliant and compassionate researchers in Vancouver: Dr. Colin Collins, UBC and Vancouver Prostate Centre and Dr. Yuzhuo Wang, BC Cancer.

Dr. Collins is renowned for research on translational genomics; inventing methods for predicting risk of prostate cancer metastasis, key aspects of modern DNA sequencing and establishing that ctDNA can be detected in the blood of men with prostate cancer.

“Even during the last days of Dani's life, I just never thought she could leave us if we had both prayers and a medical route. With the BC Cancer's advanced genomic profiling, international consulting and Dr. Collins and his team there was still a ray of hope,” says Mark.

Sadly, Dani passed away on June 16, 2014.

With resolve only a grieving parent can conjure, Mark sought solutions that would protect other families from a similar tragedy.

Dr. Collins agreed to head a research project and the BC Cancer Foundation provided \$250,000 to honour Dani. The team leveraged initial funding to nearly \$700,000 with support from Mitacs and WorkSafe BC.

HOPE FOR THE FUTURE

Dr. Collins' team has made progress. They've created a consortium with partners in the U.S., UK, and Turkey to collect critical mesothelioma specimens. With Dr. Wang,

they've shown that 30-50% of mesothelioma patients might benefit from immunotherapy or PARP inhibitors.

The team now will explore the predictive power of ctDNA and microRNA for mesothelioma. They will test if microRNAs and ctDNA can be found in blood. The goal is to study 100 patients and identify bio-markers to aid in early detection, precise diagnosis and targeted treatment.

“The dream is to utilize microRNA or ctDNA for early detection and diagnosis and to then utilize these and other genomic technologies for precision medicine,” says Dr. Collins.

Early detection and monitoring are critical because the majority of mesothelioma cancers are caused by exposure to asbestos. Monitoring high-risk populations for early signs of cancer will have a global impact.

As one of the BC Cancer Foundation's enthusiastic fundraisers, Dani would have fervently encouraged support for this groundbreaking research as she deeply believed that saving one life was akin to saving an entire world.

Help fuel innovative research that gives patients with rare cancers hope, contact Fatima Hassam today at 604.877.6226 or fatima.hassam@bccancer.bc.ca



Expanded pharmacy opens to help save more lives

Thanks to an outpouring of local support, the Dukh Nivaran Pharmacy at BC Cancer – Surrey was officially unveiled in January 2021.

The state-of-the-art on-site pharmacy, where life-saving chemotherapy treatments are prepared, will help save more lives throughout the Fraser Health region.

In November, communities rallied together and raised \$188,565 through the RED FM Gurpurab Radiothon; since 2018, the annual fundraising event has collectively raised over \$563,000 to help make the expanded pharmacy a reality and support the growing number of cancer patients in Surrey and surrounding cities.

BC Cancer estimates that over 10,000 new cases of cancer will be diagnosed in the Fraser Health region this year.

In fact, over the next decade the Fraser Health region will see the most significant increase in cancer diagnoses in the province with a 35% increase in patients by 2031.

“I want to thank RED FM and each of the generous individuals who made this critical expansion of the pharmacy possible,” says Sarah Roth, president and CEO, BC Cancer Foundation. “You have given the experts at BC Cancer the ability to provide more advanced treatments during an unprecedented time where the health of our communities has never mattered more.”

The Dukh Nivaran Pharmacy is expected to prepare more than 20,000 IV chemo medications and more than 20,000 oral prescriptions this year.

“I am extremely proud of our community for coming together to help expand care in the region and make a real difference for families impacted by cancer,” says Kulwinder Sanghera, president, RED FM.

To learn how you can support research and care in the Fraser Region, contact Terry McKaig at 604.816.4535 or terry.mckaig@bccancer.bc.ca



Sabrina, Jessica and baby Zephyr

Jessica & Sabrina

At the age of 11, Jessica Cheng's life changed when her mother Sabrina was diagnosed with breast cancer.

After a series of grueling treatments, Sabrina's prognosis was positive with no evidence of disease.

Fifteen years later, Sabrina's cancer returned.

However, with the support of BC Cancer experts, Sabrina underwent surgery and her cancer was successfully removed. She was also able to avoid chemotherapy and radiation, and was able to get back to enjoying her retirement and staying active.

Both Jessica and Sabrina will be participating in Workout to Conquer Cancer to get moving and raise funds for other families facing cancer.

Learn about this inclusive challenge that anyone can participate in at workouttoconquercancer.ca.



**WORKOUT
TO CONQUER
CANCER**

Let's get moving!
Join the challenge at:
workouttoconquercancer.ca

HELP POWER CANCER RESEARCH.



PRESENTED BY



Join BC's newest ride for a cure.

Sign up at tourdecure.ca

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