

NEWS RELEASE

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Supporting miracles with Personalized Onco-Genomics

VANCOUVER – It's not every day a miracle happens. With government funding of \$3 million to the BC Cancer Foundation, the Personalized Onco-Genomics program and high priority cancer projects are receiving a boost from the BC Cancer Foundation to help the BC Cancer Agency continue to find unique cures for the hardest to beat cancers, Premier Christy Clark announced today.

"The future of cancer care is personalized, leading to the best, targeted treatments for the most challenging cases – and we've already seen a number of success stories coming out of this program," said Premier Clark. "A growing, diverse economy gives us the ability to support the BC Cancer Foundation in spearheading significant research projects that cure illness, improve treatments, and save lives."

This investment adds to the \$2 million provided to the BC Cancer Foundation to support breast cancer research, which was announced in October 2015. Funding by the Province helps to support the world-leading cancer research community. Research work of this magnitude is due to the skilled researchers at BC Cancer Agency and the depth of talent existing in British Columbia. Leading edge research will be showcased at the upcoming #BCTECH Summit in Vancouver from Jan. 18-19, 2016.

"As we move forward with our comprehensive technology strategy, it's clear that British Columbians continue to benefit from projects undertaken by the best and brightest researchers," said Health Minister Terry Lake. "We are seeing proof on the ground that innovations in personalized health care from the BC Cancer Agency make a big difference– giving hope to those with the most aggressive or recurring forms of cancer."

The goals of the Personalized Onco-Genomics (POG) project are to apply advanced genome sequencing techniques to patients in real-time: decode the genome (the entire DNA inside the cell of each patient's cancer) to understand what is enabling it to grow, and to develop treatment strategies to block its growth.

"On behalf of over 100,000 BC Cancer Foundation donors and every patient who will take part in POG over the coming years, I'd like to thank Premier Clark and Minister Lake for this critical donation to support world-leading cancer research taking place here in our province," said Lou Del Gobbo, interim president & CEO, BC Cancer Foundation.

By understanding the genetic makeup of a patient's tumour, researchers hope to pinpoint potential drug therapies that would be the most effective for that specific tumour at that time, and spare patients and the health care system from treatments that have little or no clinical benefit.

Under the program, every patient is their own personalized clinical trial, allowing the research team to rapidly translate the results into care and targeted treatment.

"As a non-smoker diagnosed with stage-4 lung cancer at 41, I was shocked," said Jen Strack, "POG has been a huge blessing for me, it's such an amazing program that the BC Cancer Agency offers and it's given me life and hope."

The program is expanding from its current 350 patients to 2,000 patients over the next five years. The highly experimental research program supports BC Cancer Agency patients with metastatic disease.

Currently, the study can enroll six to eight patients per week. So far the program has treated patients with 50 different types of cancer.

Learn more:

To learn more about Personalized Onco-Genomics, please visit: <u>www.bccancerfoundation.com/POG</u>

A backgrounder follows.

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BACKGROUNDER

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POG breakthroughs: Unlocking the mysteries of cancer

The Personalized Onco-Genomics (POG) program at the BC Cancer Agency has identified lifealtering treatment option for patients with advanced cancer. With BC Cancer Foundation funding, the BC Cancer Agency set forth with a world-leading clinical study as POG began integrating genomic sequencing into patient care and clinical decision-making for individuals with advanced and hard-to-treat cancers.

Zuri Scrivens was 33 when she was diagnosed with breast cancer. When the cancer reappeared at 35, she was enrolled in POG in 2013 to explore the possible benefits of metformin, a drug normally used to treat diabetes. She is also on letrozole, a drug that is used for the treatment of estrogen-positive breast cancer. Her cancer is now in remission.

POG has given patient Trish Keating a new reason to hope as the genomic sequencing of her aggressive colorectal cancer identified a unique protein function at play. This critical detail pointed to an outside-of-the-box treatment option in 2015, which dramatically reduced her cancer to barely detectable levels in just weeks.

For patients like Jen Strack, a non-smoker who was diagnosed in August 2013 with stage-4 lung cancer that wasn't responding with standard chemotherapy, POG has literally been a lifesaver. After a year, it became clear that new solutions were needed. She enrolled in POG which pointed to a phase I clinical trial that unfortunately didn't work, however her POG results also identified a different drug for her and the results have been dramatic shrinkage of the main tumour within one month. Each scan since has shown reductions in her tumours.

The treatment is a first for cancer care and the long-term outcomes remain unknown.

Since the clinical trials program launched in 2012, over 350 patients have enrolled in POG, representing 50 different cancer types. The next phase of this program, led by BC Cancer Agency medical oncologist Dr. Janessa Laskin and Genome Sciences Centre director Dr. Marco Marra, will see the number of patients expand to 2,000 over five years, setting a global precedent both in terms of the diversity of cancers investigated and the number of participants.

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