



Stephanie Bernard
Laval University

\$534,800
2026-2031



Understanding and preventing gynecologic side effects of cancer treatment

Problem: Many people treated for breast cancer experience gynecologic side effects like dryness, irritation or pain that affect their daily lives, relationships and sexual and emotional well-being. Low estrogen is considered the main cause of these side effects, but growing evidence suggests that changes in nerves or muscles may also play a role.

Solution: Dr Stephanie Bernard and her team are working to better understand vulvar pain during breast cancer chemotherapy and hormone therapy. They will follow 186 people undergoing treatment to learn when pain begins, how it changes over time, what factors increase the risk of pain and how it affects people's sexual health and quality of life.

Impact: This research will identify and address vulvar pain early to help people with breast cancer get the care they need sooner. By improving detection and understanding who is most at risk, the work will support timely, personalized care, helping to reduce pain and improve quality of life and sexual health for people affected by cancer.

Why is this project important and what does this funding mean to you?

"This funding is foundational for my research program. As an early-career researcher, it allows me to launch a study addressing a long-neglected area of women's health after cancer treatment and it also represents recognition that survivorship research, as well as rehabilitation and supportive care, deserve a central place in cancer research."



Stopping cancer cells from spreading through the body

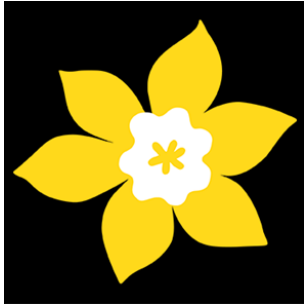
Problem: More people die from cancer metastasis – when the disease spreads – than from their original tumours. Cancer cells transition between two different states, one that helps them grow and one that helps them move. Some cells combine features of both states, which makes them effective at spreading and harder to treat. Without understanding how this works, we can't develop treatments to overcome this challenge.

Solution: Dr Loïc Binan and his colleagues aim to lock breast cancer cells into one or the other state so they are easier to treat. Each cell state is controlled by a different set of genes, so the researchers will study which combination of genes will be most effective in forcing cells into each state.

Impact: By locking cancer cells into a single state, those that can reproduce will not be able to spread and those that are already moving around the body will not be able to grow into new tumours. Once they understand which genes control each state, the team plans to test new molecules that can lock each state with the goal of identifying new treatment options for people affected by cancer.

Why is this project important and what does this funding mean to you?

"This funding is transformative for the lab: at this early stage, it allows me to focus on the science and kickstart my research program."



A weight-loss drug to improve outcomes for people with uterine cancer

Problem: Uterine cancer is strongly linked to obesity. Young people with this cancer often face additional health challenges, including infertility, diabetes and high blood pressure. For those who hope to have children, hormone therapy is often used instead of removing the uterus, but the cancer can return if the underlying cause is not addressed.

Solution: Dr Soyoun Rachel Kim and her team are testing whether adding a weight-loss drug (semaglutide) to hormone therapy can improve outcomes by targeting the underlying issue of obesity. In a clinical trial conducted at 7 cancer centres across Canada, people under 41 with early-stage uterine cancer and a body mass index of 27 or higher will receive hormone therapy along with weekly semaglutide injections. Researchers will then track cancer outcomes, side effects and pregnancy rates.

Impact: This study will determine whether weight loss can improve cancer outcomes, support fertility and reduce related health problems. By addressing cancer, obesity and fertility together, the team aims to improve prevention and long-term outcomes for young people with uterine cancer.

Why is it important to engage people affected by cancer in your work?

“People affected by cancer bring perspectives that researchers and clinicians cannot gain from data alone. By partnering with patients throughout the research process, we can ensure that the questions we ask, the outcomes we measure and the solutions we develop address what matters most to those living with cancer. Their lived experience is essential to making research more relevant, impactful and patient-centred.”



Managing physical and cognitive side effects in breast cancer survivors

Problem: Half of breast cancer survivors experience lasting physical and cognitive challenges that disrupt their daily life, work and social activities. Current research and available health interventions often overlook the combined impact of issues like weakness and memory loss after cancer treatment.

Solution: Dr Amy Kirkham and her team are studying how social, behavioural and biological factors contribute to long-term effects of breast cancer treatment with the goal of developing digital support tools. Their study will include data from cutting-edge lab tests, questionnaires and physical activity and sleep trackers from 200 breast cancer survivors as well as input from patients, caregivers, physicians and other experts.

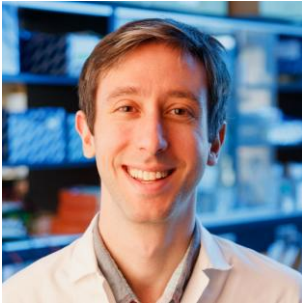
Impact: This research will help people live fuller lives with and beyond breast cancer and improve overall survivorship care by reducing the impact of long-term treatment side effects. These interventions will address the body and mind together, providing accessible and tailored digital tools to people who need them.

Why is it important to engage people affected by cancer in your work?

“Engaging people affected by cancer as true partners is essential to meaningful research. From the outset, our 3 patient advisors have shaped every stage of this project, ensuring our questions, methods and solutions reflect real lived experiences rather than assumptions. In cancer research more broadly, this collaboration prevents tokenism, reduces power imbalances and produces interventions that are relevant, acceptable and effective for diverse survivors and caregivers. Their insights help us create tools that respect cultural, geographic and socioeconomic realities, ultimately leading to better uptake, improved quality of life and more equitable survivorship care across Canada.”

Yale Michaels
University of Manitoba
Harinad Maganti
University of Ottawa

\$550,000
2026-2031



Faster, cheaper and easier treatment for blood cancers

Problem: Many people with blood cancers can benefit from CAR T cell therapy, a treatment that takes a person's own immune cells and modifies them to fight cancer. But CAR T is expensive, takes time to make and depends on having enough healthy immune cells – something people living with cancer may not have. This means that not all people who might benefit from CAR T are able to receive it.

Solution: Umbilical cords are a rich and easy-to-access source of stem cells, which can mature into many different cell types. Dr Yale Michaels and Dr Harinad Maganti have created a way to make cancer-killing T cells using stem cells from umbilical cord blood. They are now studying the best ways to engineer these cells so they can be transplanted into anyone without having to rely on each person's own cells.

Impact: This new approach may allow the researchers to develop CAR T cell therapies without needing people's own immune cells, making treatment faster, drastically more affordable and available to more people living with blood cancers.

Why is this project important and what does this funding mean to you?

"We are deeply grateful to receive the Canadian Cancer Society Emerging Scholar Research Grant. This funding will allow us to develop more cost-effective cancer treatments that are accessible to the patients who need them. This grant solidifies a multi-province collaboration and will help accelerate our cancer research careers."

Eva Michaud

The Research Institute of the McGill University Health Centre (RI-MUHC)

Côme Tholomier

Jewish General Hospital

\$529,680

2026-2031



Better tests and treatments to prevent bladder cancer recurrence

Problem: Bladder cancer is one of the most common cancers and often returns within a few years of treatment. The standard treatment uses a bacterium called BCG delivered directly to the bladder. If it fails, many people have few options other than surgery to remove the bladder. Right now, there is no good way to predict who will respond to standard treatment.

Solution: Dr Eva Michaud and Dr Côme Tholomier are studying an immune system molecule called IgA that helps the body interact with bacteria. Men and women often have different levels of IgA, which could help explain why bladder cancer is more likely to be aggressive in women than in men. The researchers are mapping interactions between IgA, the tumour microbiome and the immune system.

Impact: Mapping IgA interactions could help doctors identify who is most likely to respond to BCG treatment and which cancers are most likely to return. It can also help researchers create new treatment strategies specifically for men or women and develop precision immunotherapies for people with bladder cancer.

Why is this project important and what does this funding mean to you?

"We are incredibly grateful for this support. Bladder cancer patients currently have very limited tools to predict whether treatment will work and women continue to experience poorer outcomes that remain poorly understood. This funding gives us the opportunity to explore new biological pathways that could lead to more equitable, personalized care for all patients."



Tracking glioblastoma stem cells to find new treatments

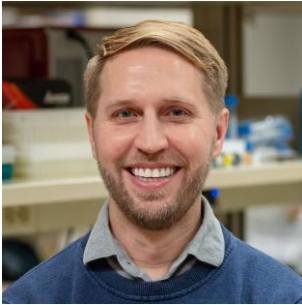
Problem: Glioblastoma (GBM) is one of the deadliest and hardest-to-treat brain cancers, with most people surviving less than 2 years after diagnosis. Unlike many other cancers, GBM does not respond well to immunotherapy. This is because some immune cells struggle to reach GBM tumours at all, whereas others are “turned off” by the cancer itself.

Solution: Dr Reza Mirzaei and his team are focusing on GBM stem cells – a diverse group of tumour cells that resist treatment, drive recurrence and suppress immune responses. The team will use a genetic tagging system – like tracking luggage at an airport – to follow many cells at once and evaluate how each affects anti-cancer immunity. They will study how the cancer shuts down immune cells and look for ways to switch them back on.

Impact: By uncovering the barriers that prevent immunotherapy from working in GBM and finding ways to overcome them, the researchers will help guide the development of more effective immune-based treatments and offer renewed hope for people with GBM.

Why is this project important and what does this funding mean to you?

“Glioblastoma remains one of the most devastating cancers and people with GBM currently have very few effective treatment options. This funding will allow our team to investigate why immunotherapy fails in most people with GBM and to identify new targets that could help the immune system recognize and attack these tumours. Our ultimate goal is to translate these discoveries into more effective treatments that improve survival and quality of life for people with GBM and their families.”



Understanding breast cancer cells' "sleep mode"

Problem: Certain breast cancer cells can enter a "sleep mode" for years after successful treatment, making it difficult to predict if or when the cancer will return. These dormant cells can hide in other parts of the body, like the lungs, and become active again years later. It's not fully understood what keeps these cells dormant or triggers them to reactivate.

Solution: Dr Jason Northey and his team are working to understand what factors might be helping cancer cells stay in "sleep mode". Studies suggest that stiffer tissue and hormone signals may contribute to these cells' ability to survive in new locations. The research team will examine how hormone changes and tissue stiffness influence where cancer cells hide in the lungs and identify which genes are involved in this process.

Impact: Understanding why cancer cells can remain dormant for years and what reactivates them will help improve treatment and prevent cancer recurrence. This research could help find new ways to prevent cancer from coming back and improve outcomes for people with breast cancer.

Why is this project important and what does this funding mean to you?

"For many breast cancer survivors, the fear of the disease returning is a constant looming threat. Our research looks closely at why hidden, 'sleeping' cancer cells suddenly wake up years later, triggered by things like tissue stiffness and hormone changes. We are incredibly grateful for this funding which is vital to our search for ways to identify these 'sleeping' cancer cells, keep them from 're-awakening', and destroy them completely – ultimately transforming care and giving patients the peace of mind they deserve."



An AI tool to help people find the cancer care they need

Problem: People affected by cancer often need support that goes beyond treating their tumour – from counselling to reliable transportation. Even when help is available, many people struggle to find it or aren't sure which resources to trust. This can delay care, increase suffering and place unnecessary strain on health systems.

Solution: Dr John-Jose Nunez and his colleagues are working with clinicians and people affected by cancer to develop an AI-powered assistant to help individuals navigate available supports. The tool will use a person's information to anticipate their care needs, recommend helpful resources and answer questions in easy-to-understand language.

Impact: By helping people find the information and support they need quickly and easily, the AI-powered assistant will remove barriers that might otherwise stop people from receiving care. This tool will ensure people can access and continue their treatments, improving outcomes while enhancing emotional wellbeing. At the same time, it will reduce pressure on health systems with limited resources by streamlining navigation.

Why is this project important and what does this funding mean to you?

"A patient at a recent engagement session said it best: 'Being so overwhelmed with my diagnosis... I have barely had any time to understand what's going on. Not knowing what I need or what to ask for.' This funding lets us build a trusted personal assistant that helps patients connect with the support and resources they need right when they need them."



Improving cancer screening for people who have previously had cancer

Problem: Many people who have previously had cancer are at risk of developing new cancers. Breast and colorectal cancers are common new cancers and are often diagnosed late, when treatment is less effective. Current screening guidelines do not consider the unique risks people who have previously had cancer face and therefore may not meet their needs.

Solution: Dr Dylan O'Sullivan and his colleagues are exploring ways to improve breast and colorectal cancer screening guidelines for people who have had cancer in the past. They will identify who is more or less likely to follow existing guidelines, who might benefit from more or different types of screening and what prevents people from receiving the screening they need.

Impact: The team will study the effects of improved adherence to screening guidelines and enhanced access to screening for people with a history of cancer. Ultimately, they will produce evidence-based recommendations to personalize breast and colorectal cancer screening for those with a history of cancer – helping increase survival and improve outcomes for people living with and beyond cancer.

Why is this project important and what does this funding mean to you?

“For people living with and beyond cancer and for their healthcare providers, there is a great deal of uncertainty when it comes to screening for new cancers. The goal of this project is to reduce that uncertainty by generating the evidence needed to improve early detection, survival and quality of life for people living with and beyond cancer.”



Developing ultrasensitive liquid biopsies for lung cancer

Problem: Lung cancer is the leading cause of cancer-related death in Canada. For people with non-small cell lung cancer (NSCLC), current scans can't reliably predict who will respond to treatment or detect cancer recurrence. This makes it difficult to personalize care and improve survival.

Solution: Dr Alexandre Cheng and his team are developing a non-invasive blood test that detects fragments of tumor DNA circulating in the bloodstream. This ultrasensitive test will help track how people with NSCLC respond to treatment and detect the disease after therapy, even when tumours have shrunk or only very small amounts of DNA are present.

Impact: This project will make cancer monitoring more personalized and accessible for people with NSCLC, helping to improve outcomes. Working with patient partners and advocacy group collaborators, results will be shared with broader audiences through knowledge campaigns.

Why is this project important and what does this funding mean to you?

"For people with lung cancer, we often can't tell whether a treatment is working or whether the cancer is coming back until it's too late to change course. We're building a blood test sensitive enough to detect the faintest traces of a tumour so doctors can act early and personalize each person's care. This funding from CCS gives our team the time and freedom to make progress in making this a reality."

Ambreen Sayani
Women's College Hospital

\$550,000
2026-2031



Improving access to high-quality lung cancer prevention and early detection

Problem: Lung cancer is often diagnosed late, when treatment is less effective. Screening can diagnose lung cancer earlier and quitting smoking can stop the disease from developing or progressing. These approaches work best when offered together, but right now they are usually delivered separately.

Solution: Dr Ambreen Sayani and her team are working with health care providers, policymakers and people with lived and living experience to design a novel model for lung cancer prevention. The innovative model will bring together lung cancer screening and smoking cessation treatment into one coordinated approach. They will test the model in a variety of settings to see how well it works for different groups.

Impact: By linking lung cancer screening and smoking cessation services, we can identify people at risk sooner and increase opportunities for early detection when treatment is most effective. This integrated approach has the potential to save lives and advance Canada's goal of reducing lung cancer mortality by 30% by 2035.

Why is this project important and what does this funding mean to you?

"This funding gives us an important opportunity to improve how people access lung cancer prevention and early detection services. By developing a more effective model of care, we can help more people get the information, support and screening they need at the right time, ultimately saving lives."

Cédric Tremblay
University of Manitoba

\$550,000
2026-2031



Targeting leukemia resistance and preventing relapse

Problem: Many people with leukemia initially respond well to chemotherapy but the disease often returns and becomes fatal. In these cases, treatment destroys almost all cancer cells – but a few adapt, survive and eventually drive relapse. Understanding how these cells evade treatment will enable the development of more effective therapies.

Solution: Dr Cédric Tremblay and his team are combining genetically engineered models to understand how leukemia begins with personalized patient avatars to test real-world treatments. They will examine individual leukemia cells using advanced research techniques to understand how they escape chemotherapy and uncover vulnerabilities that could be targeted with new treatments.

Impact: This research aims to stop leukemia relapse at its source by identifying and targeting the cancer cells that survive chemotherapy. Uncovering new vulnerabilities in these resistant cells could lead to more effective, less toxic treatments – helping people with acute leukemia live longer, healthier lives.

Why is it important to engage people affected by cancer in your work?

"Patient partners play a critical role in shaping our research. Their perspective keeps our research grounded in the needs and priorities of the community we ultimately aim to help."



Helping young people with cancer express their wishes for future care

Problem: Adolescents and young adults with advanced cancer often have worse medical and emotional outcomes than people diagnosed at other ages. Most have never formally shared their thoughts, wishes and preferences for future care decisions. Not having this information makes it harder to meet their needs and can negatively impact them, their families and their care teams.

Solution: Working with people who have lived experience, Dr Perri Tutelman and her research team are developing a digital tool to help adolescents and young adults express their care preferences. They will implement the tool in 4 cancer centres as a trial; after that, they hope to make it freely available in cancer centres across Canada.

Impact: Having a tool designed by and for young people with advanced cancer will allow those people to express their wishes for the future. This will support better care planning and emotional wellbeing for not only adolescents and young adults with advanced cancer, but also their families and care providers.

Why is this project important and what does this funding mean to you?

“Conversations about future care, including the possibility that treatment may not go as hoped, are some of the hardest that young people with cancer, their families and their healthcare teams will have. This funding will help us create and implement tools to make those conversations easier so every young person has the opportunity to share what matters most to them.”



Improving the accuracy of urine DNA tests for bladder cancer

Problem: Diagnosing and treating early-stage bladder cancer often involves frequent hospital visits and uncomfortable, invasive procedures. There is an urgent need for better tests to detect cancer and monitor treatment response. Urine-based DNA testing is a promising non-invasive option – but further research is needed to support routine clinical use.

Solution: Dr Gillian Vandekerkhove and her team are working to better understand the different sources of DNA in urine and how they affect bladder cancer testing. Using a highly sensitive DNA test, they will analyze urine, blood, saliva and tumour samples from people with early stage-bladder cancer, including those undergoing treatment, to distinguish cancer-related DNA changes from normal ones.

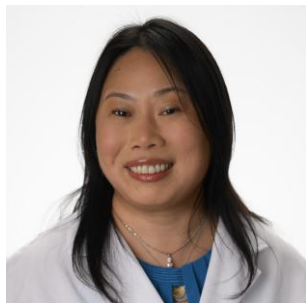
Impact: More accurate and reliable urine DNA tests could reduce the need for painful, invasive procedures to diagnose and monitor bladder cancer. This could mean more bladder cancers are diagnosed early, when treatment is more effective, and would also improve people's quality of life.

Why is this project important and what does this funding mean to you?

"This Canadian Cancer Society funding is foundational for establishing my early-career research program in urothelial cancer. It provides the stability required to optimize and apply urine-based liquid biopsy approaches and build long-term research capacity in this area."

Stephanie Xie
Princess Margaret Cancer Centre - UHN

\$600,000
2026-2031



Targeting inflammation to treat tough blood cancers

Problem: Rates of acute myeloid leukemia (AML), an aggressive blood cancer, are on the rise globally. Right now, only 23% of people diagnosed with AML survive longer than 5 years after diagnosis. Inflammation helps AML cells resist treatment, but researchers don't yet know how and no anti-inflammatory therapies are in use for AML.

Solution: Dr Stephanie Xie and her team are studying how inflammation caused by poor diet or infections influence AML and why some people with AML respond better to treatment than others. They will also explore whether an existing drug with anti-inflammatory properties, GLP1-RA, can break the inflammation cycle and treat AML.

Impact: AML has high recurrence rates, low long-term survival and often requires invasive treatments. Understanding how inflammation drives AML could lead to new therapies and help identify people who might benefit from anti-inflammatory treatment. If GLP1-RA can break the inflammation cycle, it could offer a new, lower-risk treatment option for AML and eventually other inflammation-driven cancers.

Why is this project important and what does this funding mean to you?

"This award gives our lab the momentum to uncover how inflammation drives aggressive blood cancers and possibly fast-track new uses for existing drugs."



Stopping the spread of cancer disinformation

Problem: Many people encounter false or misleading information about cancer online. These claims often target people affected by cancer at challenging moments and can lead to delayed or missed treatments, emotional distress and financial harm.

Solution: Dr Marco Zenone and his team will study how cancer disinformation spreads by examining who is spreading it, the tactics they use and the systems that help it reach people. Working with clinicians and people affected by cancer, they aim to develop strategies to better identify and confront cancer disinformation before it causes harm.

Impact: Understanding the upstream drivers of disinformation spread will help create safer environments for people with cancer. Identifying the people, organizations and systems behind cancer disinformation will make it easier to challenge harmful claims and hold those responsible accountable. This work aims to help create a more trustworthy online environment so that people with cancer and their families can focus on making informed decisions rather than navigating misinformation.

Why is this project important and what does this funding mean to you?

"I'm incredibly grateful for this support because it allows us to address a problem that should never have existed in the first place. No one facing a cancer diagnosis should also have to worry about being exploited by disinformation or false hope."