

Cancer changes lives, but so do you.

# How YOU are changing the cancer story

Research and Clinical Trials

Report to Donors 2017 

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# You've given the gift of HOPE

Hope is at the heart of cancer research. Hope for a future free from the devastating effects of the disease. But driving that hope in the here and now are people.

Behind every beaker and test tube is a human face. A researcher like Dr. John Bell working tirelessly for a cure so loved ones can stay together. A patient like Ramona who embarks bravely on a clinical trial, hoping for more time with her daughters.

And YOU—a donor, a champion, who makes it all possible! These are the faces of cancer research—the caring heart of science. And this is their story. YOUR story.

## Your Impact at a Glance

Every dollar you gave towards research and clinical trials in the past year stayed in our community. Here's what you've done.



You brought the latest cancer treatments into our community *sooner*.



You gave local researchers the opportunity to further their understanding of how cancer can be stopped.



You gave local families hope, and more time to do what they love with the people they love.

**Funds raised in 2016-2017 that went to local Cancer Research and Clinical Trials:**

# \$963,589



## With Your Help, Dr. Weberpals Advances Personalized Medicine



AS A SURGEON AND CLINICIAN, Dr. Weberpals's research focuses on gynecological cancers – studying tumours at the molecular level to determine what causes them to react differently to certain treatments.

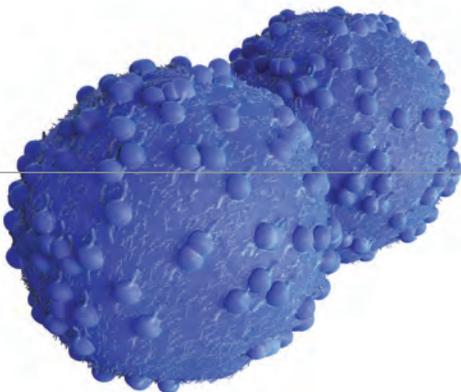
Dr. Weberpals received a research grant from the Cancer Foundation in 2013. The funding helped her reach an exciting milestone this year. She and her collaborators in pathology have found a new mutation in squamous cell cancer of the vulva that may open up new clinical trial options for patients with advanced disease.

“There is a real need for us to do more basic science so we can understand these tumours better,” she explains, “and understand which new drugs would be most effective for the patient. This would allow us to give a therapy to patients that has the greatest chance of working. This is the key to personalized medicine.”

◆ Thanks to you, Dr. Weberpals is putting patients—and their unique biologies—at the heart of research.

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**“In oncology, what we don’t know is so great, it’s endless. A good understanding of the tumour biology will help treat cancer in a more effective way.”**



**Malignant tumours are hugely complex, even within a single patient. They can have over a billion cells and hundreds of genetic mutations.**



## Thanks to You, Dr. Bell Hoping to Heal First Patients in Maraba Trial



LOCAL RESEARCHER DR. JOHN BELL and his team pioneered the development of oncolytic viruses over a decade ago supported by donors to the Cancer Foundation. That initial seed funding has since turned into a multi-million dollar project. Dr. Bell and his team have received \$41.4 million US of venture capital in 2016 to fund a first “in human” oncolytic trial called the Maraba trial.

The Maraba trial is the world’s first clinical trial of its kind that uses a combination of the Maraba virus and an adenovirus, designed to kill cancer cells and create an anti-cancer immune response.

“There’s no question,” says Dr. Bell, “that seed funding from donors to the Ottawa Regional Cancer Foundation was key to get us launched, and it still continues to play a role. There’s lots of new exciting ideas that we want to pursue that are not covered by those larger grants.”

◆ Dr. Bell pioneered oncolytic viruses thanks to the generosity of Cancer Foundation donors.

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**“There’s no question that seed funding from donors to the Cancer Foundation was key to get us launched, and it still continues to play a role.”**

### What does it all mean?

**Immunotherapy:** a treatment that triggers the immune system to attack cancer.

**Oncolytic virus:** a virus engineered to replicate inside cancer cells to destroy them, and, in the process, trigger an immune response.

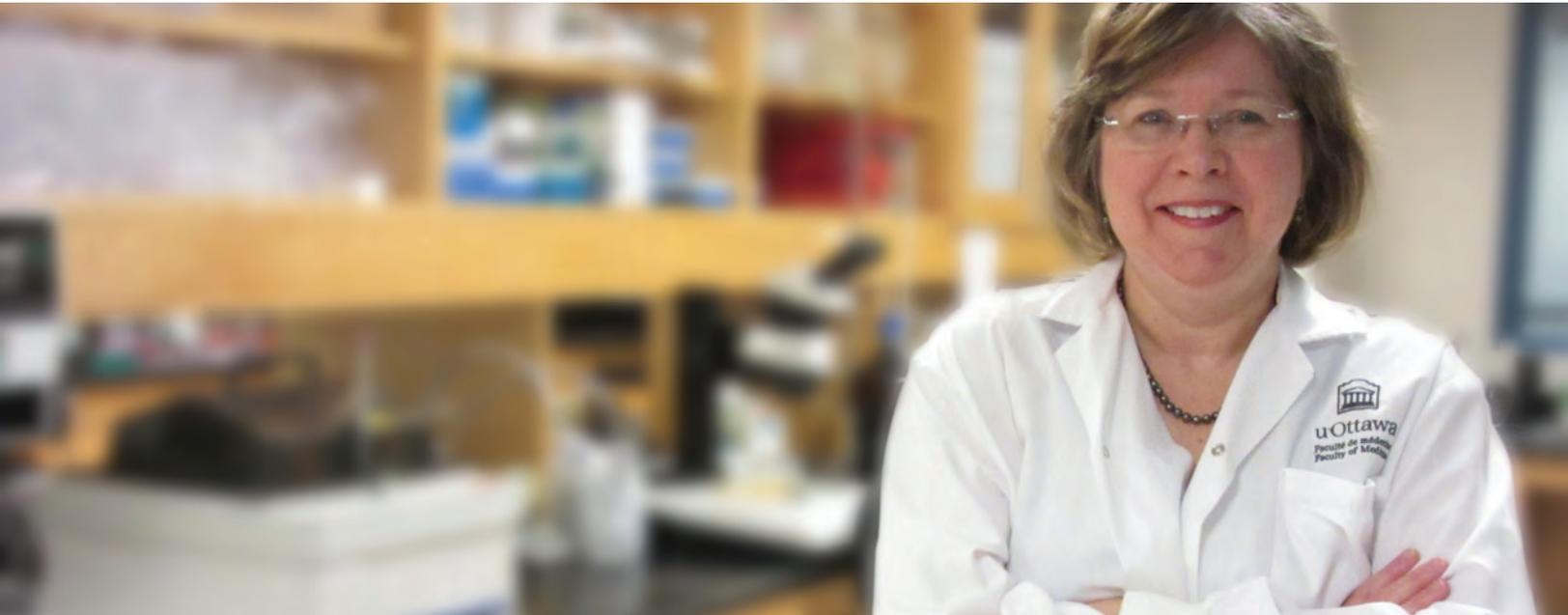
**Maraba virus:** a rhabdovirus discovered in sandflies of the Maraba region in Brazil, engineered as an oncolytic virus.

**Adenovirus:** a virus engineered and used as an oncolytic virus.

**Checkpoint inhibitor:** an immunotherapy drug that binds to a cancer cell’s checkpoint molecule, causing the cell to be considered a threat by the immune system.



## Dr. Vanderhyden: Celebrating a Breakthrough, Because of You



DR. BARBARA VANDERHYDEN HAS DEDICATED her career to unlocking the mysteries of cancer – and developing new ways to treat the disease. Now, she’s celebrating an exciting breakthrough in her research, thanks in part to your support.

“We just completed a small preclinical trial,” says Dr. Vanderhyden, “and it is showing that the immunotherapy we designed for ovarian cancer is working very well.”

Two years ago, immunotherapy treatments were virtually unavailable. Today, it has seen great advancements and has researchers and doctors alike excited. Immunotherapy drugs activate a person’s immune system to destroy cancer cells.

It’s a major step forward in cancer treatment. The immune system evolves, so as the cancer mutates to fool the therapy, the immune system can sustain its attack.

For Dr. Vanderhyden, the goal is eventually to try and use the new treatment in combination with oncolytic viruses. “This is a really exciting time for our lab. If this new antibody treatment works, then we should be able to try it in all different types of cancers.”

◆ Dr. Vanderhyden is developing an immunotherapy for ovarian cancer.

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**“I know that we are on the cusp of making a huge impact.”**




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**Early research, while sometimes very promising, is often underfunded due to the uncertainty of outcomes. Researchers are so grateful for your generosity.**



# You're Turning Science into Care for Local Cancer Patients



BY SUPPORTING LOCAL CLINICAL TRIALS, you've helped more than 1,600 cancer patients access potentially life-saving treatments this year. You also helped to open trials at the Irving Greenberg Family Cancer Centre at the Queensway Carleton Hospital, bringing care closer to home.

Thanks to strong donor support in our community, Ottawa is considered a centre of excellence, often chosen first to open new trials. These trials bring millions of investment dollars towards new therapies, giving patients and their doctors more options.

Trials give the people we love the latest treatments before they're standard of care, which can translate into a better quality of life for your loved ones, and more time spent together.

Sometimes, a trial is the last treatment option for a difficult, metastasized cancer. When these trials work, patients get more time to live to the next breakthrough and another life-saving trial.

As a supporter of clinical trials, you're a true Champion of survivors like Denis!

◆ Denis Raymond is thriving today (and full of humour!) in spite of his initial brain cancer diagnosis thanks to a local clinical trial made possible by you.

**Fact:**  
**You've helped open 50 new clinical trials in our community in 2016—that's 40% more than 2015.**

## Did you know?

It can take many years for a drug to go through the different phases of a trial before it is approved for clinical use.

## The 3 most common phases of a clinical trial

1. Phase 1 tests the safe dosage of a drug on humans.
2. Phase 2 seeks to confirm the hypothesis driving the new treatment.
3. Phase 3 compares the new treatment to the current standard of care.





## Patients at the Forefront of Science: How You've Changed Ramona's Story



AFTER RAMONA BIETLOT WAS DIAGNOSED with melanoma, she began a standard treatment called Interferon. Although the treatment initially kept her cancer at bay, her quality of life suffered immensely.

“It was a struggle to decide, given the low efficacy of Interferon versus the side effects: extreme chills, aches, pains, extreme fatigue, nausea, dry mouth, lack of appetite. But I felt something's better than nothing.”

And then, in the spring of 2016, Ramona's cancer spread to her neck and liver. That's when Dr. Xinni Song suggested she join an immunotherapy clinical trial, made possible in part by donors to the Cancer Foundation.

Side effects of the new immunotherapy trial were minimal, and even before her first scan, Ramona could feel with her fingers that the tumour on her neck had shrunk.

Last fall, Ramona was showing no signs of cancer – her scans were clear.

To this day, she feels great, having recently returned from a holiday. She's enjoying life, and she's back at work, thankful to be active in her community once more.

“It's good to feel human again. I feel so normal that I hardly ever think about the cancer,” says Ramona.

On behalf of Ramona: THANK YOU for being her Champion!

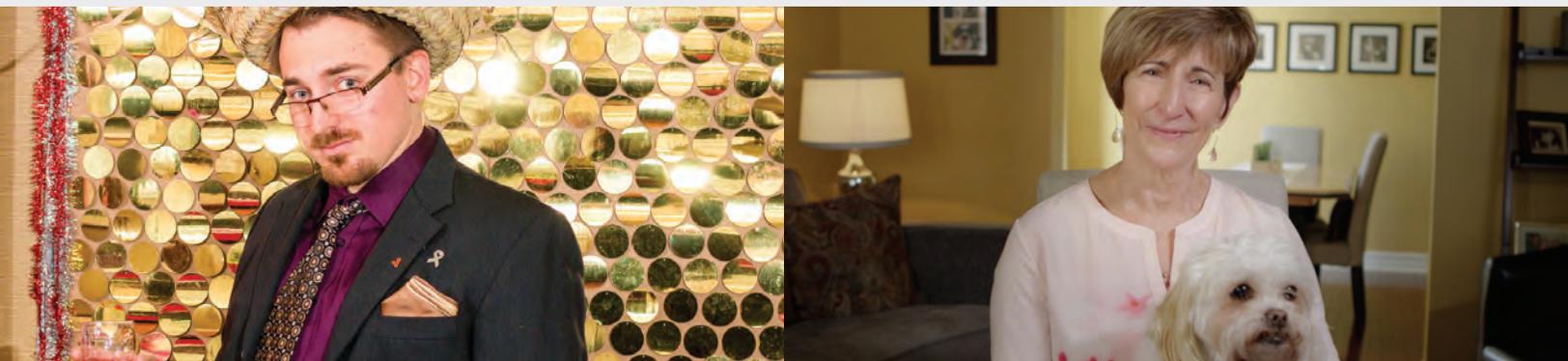
◆ Ramona is grateful to her many Champions for the gift of hope.

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**“This clinical trial gives us hope. It's good to feel human again.”**



**Trials cost close to \$5,000 per patient. This includes everything from tracking and administration, dispensing the drugs, following the patients from a quality of life standpoint, making sure tests and scans are completed and coordinating with investigators.**



## More Survivors, Thanks to You

What a difference you're making in the lives of thousands through your support of local cancer research and clinical trials. Together, we're working towards a future where those touched by cancer can thrive and survive. We're excited for the possibilities of tomorrow, and we hope you are, too!  
Thank you for choosing to support local families facing cancer.

For further information please contact:

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CANCER CHANGES LIVES, BUT SO DO YOU.

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Ottawa Regional  
**Cancer  
Foundation**

The Ottawa Regional Cancer Foundation is committed to helping families who are touched by cancer, by improving local cancer care, providing unique programs and helping extend lives by bringing new and innovative treatments to our community through local clinical trials and research.