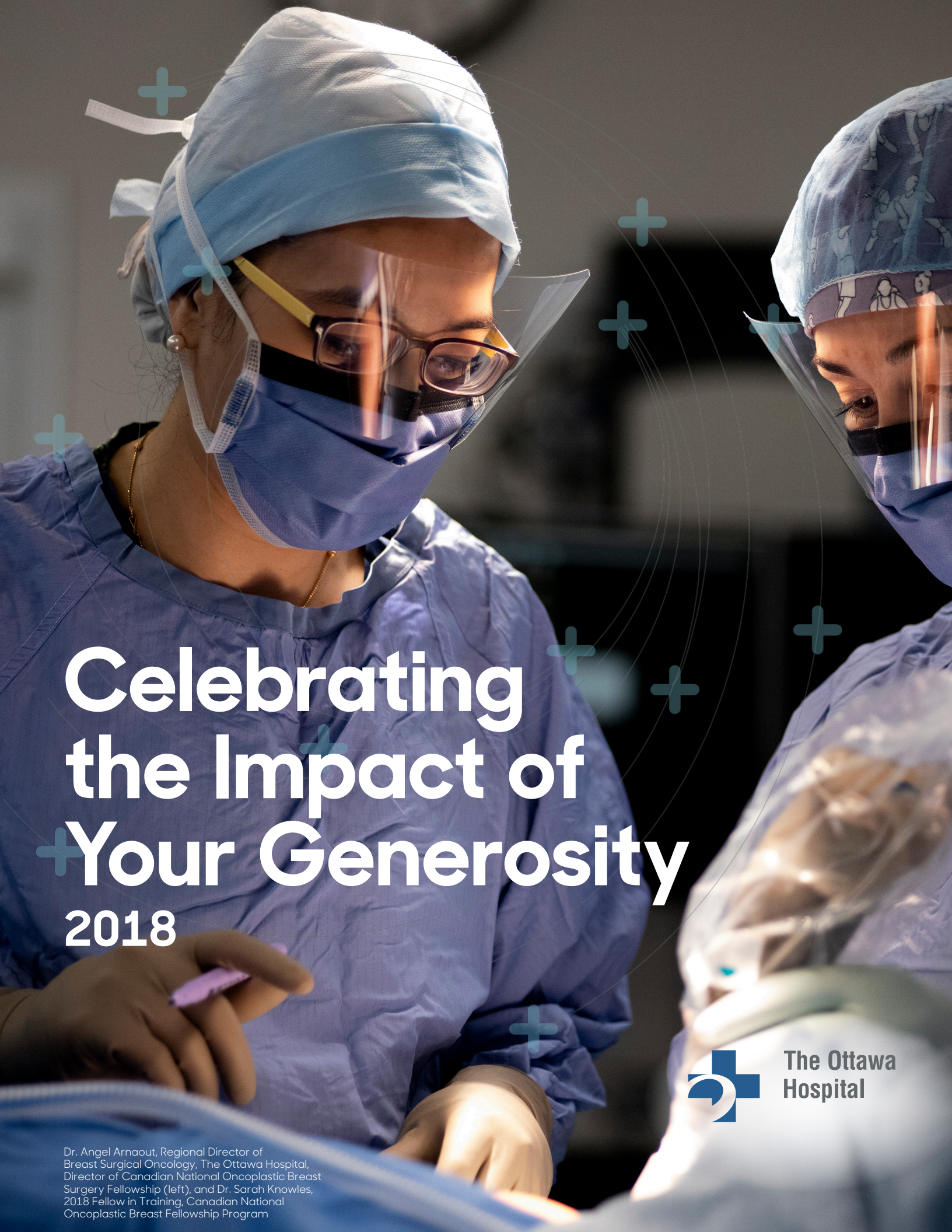


Celebrating the Impact of Your Generosity

2018

The Ottawa Hospital

Dr. Angel Arnaout, Regional Director of Breast Surgical Oncology, The Ottawa Hospital, Director of Canadian National Oncoplastic Breast Surgery Fellowship (left), and Dr. Sarah Knowles, 2018 Fellow in Training, Canadian National Oncoplastic Breast Fellowship Program

YOUR PHILANTHROPY MAKES EXTRAORDINARY CARE POSSIBLE

Everything is possible with your support – and we can't be a great hospital without you.

I am thrilled to present this year's impact report, which highlights examples of extraordinary care at The Ottawa Hospital that your generosity made possible. The stories you'll read reflect how your compassion, interest, and dedication make the hospital a leader in patient care in our region and beyond.

Our reputation for the calibre of research we perform, enables us to recruit internationally recognized scientists and clinicians to collaborate and build on that research. You, our community, then benefit directly from this research, as discoveries at the lab bench lead to innovative clinical trials that our patients have the opportunity to participate in.

These trials advance new treatments, expedite approval of new drugs, and change the standard of health care provided to our patients. We are doing clinical trials with immunotherapy that weren't even a possibility a decade ago that are now leading to effective standardized cancer treatments. This is largely thanks to you, because clinical trials are not funded by government or external sources. They can only happen with community donations.

I am thrilled that we opened two new state-of-the-art centres this past year – the NeuroMuscular Centre (May) and the Rose Ages Breast Health Centre (September) – to meet the needs of thousands of patients across our region. These new centres now give patients access to the latest and best treatments available, and access to clinical trials. These centres could not have opened without your philanthropy.

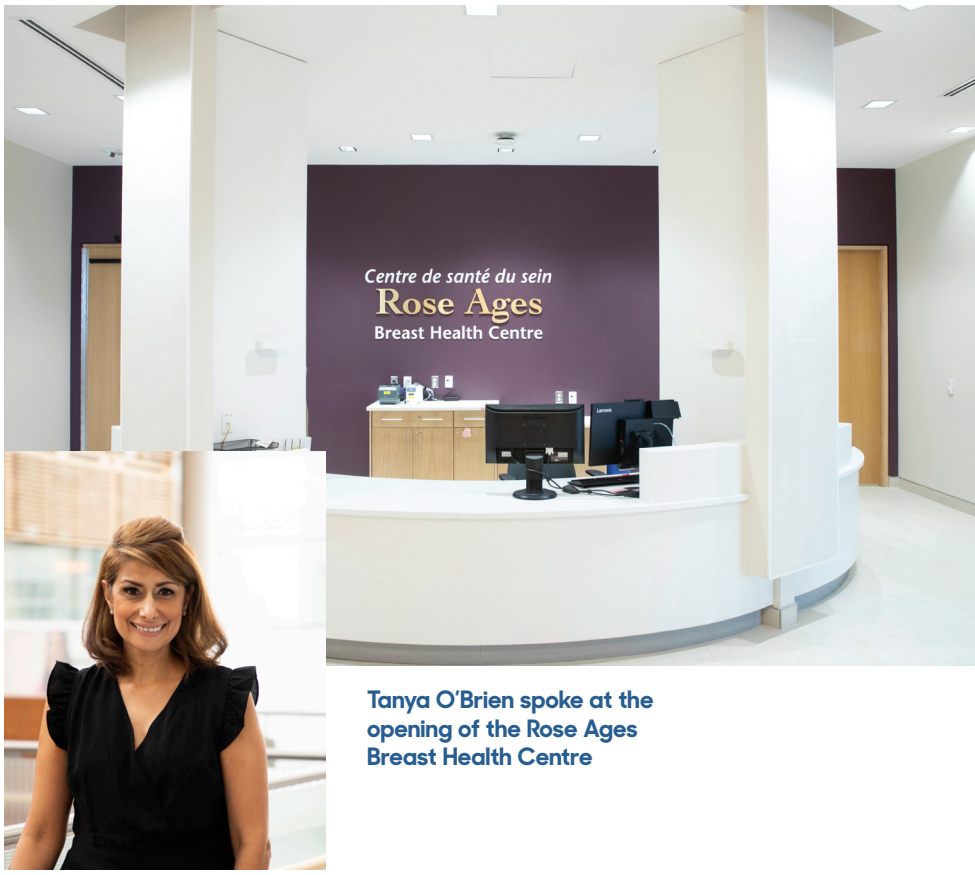
Thank you. We are privileged to have the support of a generous community who is helping this city build a vibrant hospital for today and for tomorrow.

Gratefully,

Tim Kluke
President and CEO, The Ottawa Hospital Foundation

Rose Ages Breast Health Centre welcomes patients

Tanya O'Brien is the seventh woman in her family to be diagnosed with breast cancer. She received treatment at The Ottawa Hospital and recently celebrated five years cancer-free. Thanks to your incredible generosity, the $14 million Rose Ages Breast Health Centre opened in September at the General Campus, ready for thousands of women in our region who need it. The Centre houses dedicated breast ultrasound units, digital mammography units, has 3D breast biopsy capability, and the ability to accurately localize tumours with radioactive seeds. The installation of a state-of-the-art 3 Tesla MRI, again funded exclusively by our community, will be installed in the coming months. These new technologies offer patients, like Tanya, the very best chance of survival.



Tanya O'Brien spoke at the opening of the Rose Ages Breast Health Centre

"I have been CEO for 17 years, and each year I am more inspired by the incredible caring and giving of the community we live in. We cannot create a great hospital without great community support. And I am proud that our community has committed to making The Ottawa Hospital the best it can be."

- Dr. Jack Kitts, President and CEO, The Ottawa Hospital

Ready for patients, ready for research

More than 10,000 people in eastern Ontario are affected by neuromuscular diseases, such as ALS, myotonic dystrophy, or muscular dystrophy, which weaken the muscles and cause difficulty with walking, swallowing, breathing, and cardiac processes, and are often fatal. Previously, patients had to go elsewhere to participate in clinical trials. Dr. Jodi Warman Chardon teamed up with senior scientist Dr. Robin Parks, and together they led the charge to open a centre of excellence for neuromuscular disease treatment and research. Thanks to donor support, The Ottawa Hospital NeuroMuscular Centre – the largest neuromuscular centre in Canada– opened its doors to patients in May 2018.

Read more about these stories at **www.TOHImpactReport.ca**

Preemie babies Isaac and Joseph in the NICU

Heartbreak and gratitude inspire NICU gift

Jessica and Jacob Shabinsky were expecting twins on February 15, 2016, but Jessica went into labour early. Isaac (4 pounds) and Joseph (2.5 pounds) were born on December 8, 2015 – 10 weeks early. The tiny babies were cared for in the neonatal intensive care unit (NICU) at the General Campus. Sadly, baby Joseph struggled and passed away on January 10. Today, however, little Isaac is a thriving three-year-old. The Shabinsky family was so grateful for the care the boys received that they made a major gift to the NICU, and inspired family, friends, and community to generously support the $5 million project. Thanks to their incredible generosity, the NICU will undergo a transformational renovation.

In 2010, the community rallied to purchase the state-of-the-art CyberKnife, only one of three in Canada. Over the last year, 360 patients have received 1,825 treatments. Although 90 percent of the treatments were for benign and malignant brain tumours, the CyberKnife was also used for lesions on the liver, kidney, adrenal gland, prostate, pancreas, spine, lymph nodes, lung, and other soft tissue.

High-powered radiation robot destroys tumours in inoperable places

"Cyberknife allows us to treat things that technically we could never treat before," said Dr. John Sinclair, Director of Cerebrovascular Surgery at The Ottawa Hospital. "With this image guided system, we can treat things like lungs that move when you breathe, and other organs that are constantly in motion." Radiologists can put markers in an organ, like the lung. The CyberKnife radiation guide on the end of the robotic arm finds the marker and moves when the body moves. This has opened up radiosurgery to different types of disease sites with the advantage of being more accurate than regular radiation. With precision less than a millimetre, very high doses of radiation can be directed right to the lesion with almost no spill over to normal tissue, which gives a much better clinical response.

Revolutionary CAR-T cell therapy offers hope for blood cancer patients who are out of options

When Stefany Dupont's leukemia returned after her bone marrow transplant, the prognosis was dire. However, she was eligible for a novel immunotherapy treatment using her own immune cells (T-cells) to treat her cancer, called CAR-T cell therapy. This immunotherapy has had amazing results in children and adolescents with leukemia and blood cancers, putting many into long lasting remission. It saved Stefany's life. The treatment, recently available in the United States, has not yet been approved by Health Canada. But Dr. Natasha Kekre, a hematologist and associate scientist, is working to bring CAR-T cell clinical trials to The Ottawa Hospital where the cells can also be manufactured in our unique cell manufacturing facility. This trial could begin recruiting patients in 2019.

Stefany Dupont's life was saved with CAR-T cell therapy

3D-printed uterus used in complex surgery is a Canadian first

Maureen was told by five doctors that she needed a hysterectomy. However, with the help of a 3D-printed model (created with MRI and CT scans of her uterus), Dr. Sony Singh removed all 50 tumours and left Maureen's uterus intact, allowing her to carry a baby if she decides to. "We're going to be one of the first hospitals internationally to study how we can provide this improved care by using 3D-printed models in planning surgery for women's health," said Dr. Sony Singh, Dr. Elaine Jolly Research Chair in Gynecologic Surgery and Director of Surgical Services at the Shirley E. Greenberg Women's Health Centre. With generous community support, The Ottawa Hospital purchased a 3D printer in 2016, launching the first hospital integrated medical 3D-printing program in Canada.

Research associate Dr. Teresa Flaxman holds 3D-printed uterus.

"Exemplary" HIV and prostate cancer treatment spans decades

Lorne Blahut is grateful for care he received.

Lorne Blahut said he can't brag enough about the treatment and care he has received over the past two decades at The Ottawa Hospital for HIV and prostate cancer. He said the care was full person – physical, mental and emotional. Donor support is helping us establish a Research Chair in Gay Men's Health to create the first national comprehensive health-care agenda that will help improve access to, and delivery of, gay-relevant health care for men of all ages.

Oncologist Dr. Michael Ong runs immunotherapy trials for melanoma.

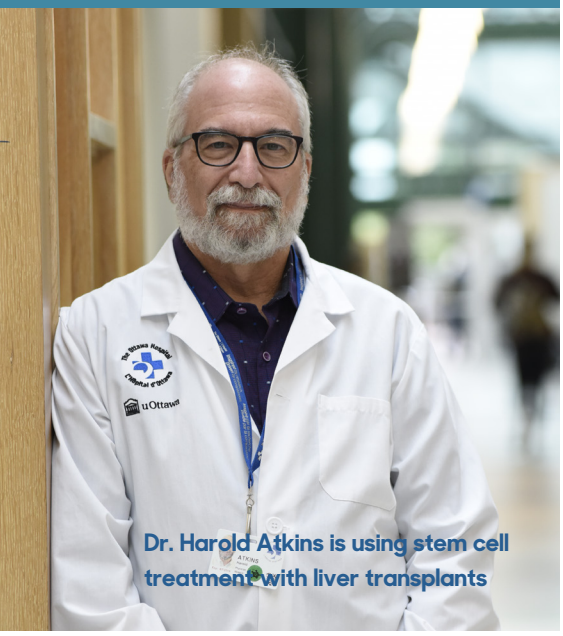
"Donor support is the key ingredient that enables our researchers to push back the boundaries of science and make potentially life-changing discoveries. Investments in research will benefit our loved ones, as well as future generations around the world."

–Dr. Duncan Stewart, CEO and Scientific Director, Ottawa Hospital Research Institute, Executive Vice-President, The Ottawa Hospital

Immunotherapy eradicates cop's melanoma

After Ian McDonell's stage 4 melanoma spread to his brain, the Ottawa police constable started immunotherapy treatment. Months later, PET, MRI, and CT scans showed that his tumours shrank, then disappeared entirely. The Ottawa Hospital is a leader in cancer immunotherapy research, developing new therapies, and offering experimental treatments to patients. Currently, there are 69 active cancer immunotherapy clinical trials being conducted at the hospital with hundreds of patients enrolled. Many novel immunotherapy trials in the past few years have led to standard-of-care cancer treatments that are proving to have long-term success for people like Ian.

Clinical trials are critical to advancing new treatments and the approval of new drugs. At present, there are 200 active cancer clinical trials with a total of 1,771 patients involved in these trials. However, cancer is only one of the many illnesses that researchers and clinicians are looking at improving treatments for. In 2018, over 600 active clinical trials for various illnesses were conducted at The Ottawa Hospital with 10,869 patients enrolled. Researchers are also leading and participating in numerous international clinical trials.



Dr. Harold Atkins is using stem cell treatment with liver transplants

Made-in-Ottawa stem cell treatment for MS may help liver transplant patients

The made-in-Ottawa innovative stem cell transplant treatment for multiple sclerosis (MS), designed by Drs. Harold Atkins and Mark Freedman at The Ottawa Hospital, successfully halted an aggressive form of MS in 56 people from across Canada. Dr. Atkins is now one of the leading investigators in clinical trials to find out if this treatment will help people who have had a liver transplant. These patients have to take immune-suppressive drugs for the rest of their lives to prevent their body from rejecting the liver, making them more susceptible to diabetes, cancer, and other serious illnesses. These clinical trials will determine if using the patient's own stem cells will reeducate their immune system to accept the new liver, making rejection unlikely and immune-suppressive medications unnecessary.

Bone research gets a break at The Ottawa Hospital

New orthopaedic research chair positions hospital as a leader in bone stem cell research

Bone stem cell expert Dr. Daniel Coutu is the inaugural holder of the Research Chair in Regenerative Orthopaedic Surgery, a position made possible thanks to the $2.2 million donated by our generous community. "I came to The Ottawa Hospital because I saw a great opportunity to collaborate with world-leading stem cell biologists, orthopaedic surgeons, and many others," said Dr. Coutu, who was recruited from Switzerland in June. "This kind of collaboration is essential for bringing innovative new therapies to patients." He has begun leading research to help us understand how bone regenerates, repairs, and heals. He'll also investigate the impact trauma, aging, and chronic degeneration has on bones.

Dr. Daniel Coutu, new Research Chair in Regenerative Orthopaedic Surgery

"We, in the Division of Orthopaedic Surgery, are extremely excited to support the recruitment of this scientist whose research will lead to discoveries that will translate into effective treatment of orthopaedic-related injuries and trauma."

- Dr. Paul E. Beaulé, Head, Orthopaedic Surgery, The Ottawa Hospital

Dr. Chris Morash preparing for surgery with the da Vinci Surgical Suite

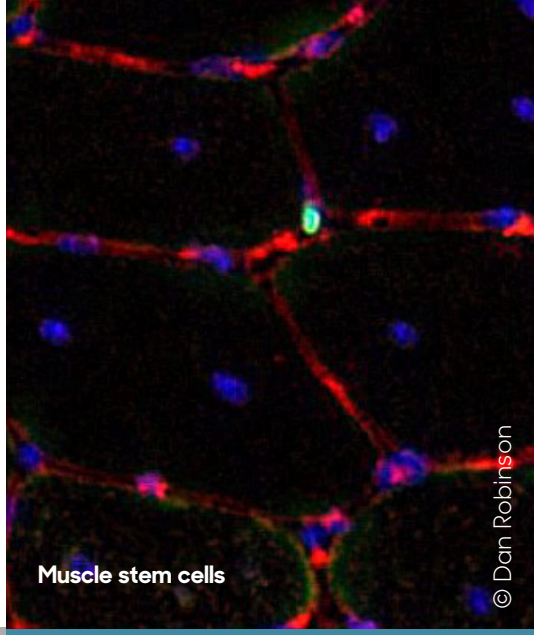
Minimally invasive robotic surgeries successful in thousands of 'hard-to-reach' operations

"The robotics program at The Ottawa Hospital allows us to offer our patients the only minimally invasive surgical option for prostate cancer in our region," said urological oncologist Dr. Chris Morash. "We are not only seeing great results every day for our patients, but at the same time we are able to do groundbreaking research on the effects and outcomes of robotic surgery. We are at the forefront of prostate cancer surgery centres in the country."

Dr. Morash and his team of expert prostate cancer surgeons have performed more than 1,200 prostatectomies using the da Vinci Surgical System, which was purchased in 2011 solely with funds raised by the community. Thanks to you, more than 2,000 patients have now been treated using this leading-edge robotic technology for prostate cancer, head and neck cancers, as well as gynecological cancers.

State-of-the-art microscope helps researchers identify cancer cells

Thanks to the generous donations of individuals and local businesses, The Ottawa Hospital was able to purchase a sophisticated mass cytometer that will provide unprecedented insight into the inner workings of stem cells, as well as other kinds of cells. This piece of equipment is more powerful and efficient than what is currently available and can analyze up to 40 proteins at a time in a single cell. It will allow scientists to study distinct and rare populations of stem cells in ways that were not possible before, which will accelerate the development of new treatments.



Muscle stem cells

© Dan Robinson

Senior scientist Dr. Douglas Manuel and his team have built an online calculator that empowers individuals to predict their risk of cardiovascular disease. This group of conditions, which includes heart attack and stroke, is the number one killer in Canada.

On MoneySense's "Charity100" ratings, which rates **charity and fundraising efficiencies,** we get **the highest awarded grade in its class**

AHP HIGH PERFORMER 2017 REPORT ON GIVING

The Ottawa Hospital

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