



Regenerative Orthopaedic Surgery Chair

When we launched our \$3 million campaign to raise funds for a Research Chair in Regenerative Orthopaedic Surgery we saw an excellent opportunity to capitalize on both the exceptional surgical expertise of our Division of Orthopaedic Surgery and our internationally-renowned regenerative medicine program. We envisioned a position focused on basic science research at the cellular level to determine the capacity of bone to repair, restore, and regenerate; stem cell research that will one day help us accelerate recovery from traumatic injury, delay or halt arthritis and preserve joints.

Our physicians believe so strongly in the value of this research that members of the Division of Orthopaedic Surgery collectively contributed \$1 million to kick off our fundraising efforts.

Now, we are delighted to report that with your further support, we have raised more than \$2.3 million for this Research Chair. It is thanks to your donations that we are so close to fulfilling our funding goal for this pioneering research program in Regenerative Orthopaedic Surgery.

Close enough, in fact, we successfully recruited from Switzerland Dr. Daniel Coutu, a renowned bone stem cell expert who assumed the position June 1. Dr. Coutu recently developed unique, multidimensional imaging methods that will allow the study of any tissue, including bone and marrow. Using these proprietary techniques Dr. Coutu says he expects his work will shed light on the physiology of stem cells in health and disease in the course of aging. This will allow new therapies to be designed to alleviate pain and suffering for patients with chronic diseases like osteoarthritis, rheumatoid arthritis and osteoporosis. He also expects his research to uncover more about the stem cell theory of aging with the ultimate goal of improving quality of life for our aging population.

So while our focus remains on closing the funding gap for this Research Chair, the Division of Orthopedic Surgery continues to charge forward on other fronts too, bringing new approaches and innovative treatments to our region, ensuring our patients receive world class care from world class physicians.

"It is a great pleasure for me to join The Ottawa Hospital, headquarters of the Canadian stem cell research community," says Coutu. "I strongly believe it's the best location in Canada to interact with stem cell biologists, regenerative medicine specialists and clinicians to help bring novel stem cell therapies to the clinic and address unmet medical needs."



Award-winning Research



In March of this year, Dr. Paul E. Beaulé, head of the Division of Orthopaedic Surgery at The Ottawa Hospital, received the 2018 Kappa Delta Elizabeth Winston Lanier Award for his research identifying the origins of the CAM morphology (pistol grip deformity) and how it can lead to hip joint degeneration. Cam morphology describes a condition where the ball of the hip joint is misshapen and, when seen on an X-ray, the joint is shaped like the grip of a pistol. This body of research required an extensive and coordinated multi-disciplinary team of researchers, several cohorts of patients and spanned more than a decade.

Often referred to as the Nobel Prize of orthopaedics research, the Kappa Delta awards are presented to researchers who make key discoveries pertaining to many leading orthopaedic advances. The award recognizes, in particular, the huge benefits and potential of collaboration with basic science researchers and other clinicians, spanning biomechanics, kinematics and medical imaging.

"This research is helping the development of a risk profile so that we can one day provide individuals with both surgical and physical therapy programs to avoid worsening of hip pain and loss of motion and keep their hip healthy," says Dr. Beaulé.



Eastern Ontario's First Meniscal Transplant

Dr. Michael Pickell, a member of our Division of Orthopaedic Surgery, and his team performed the first meniscal transplant in eastern Ontario in March. A meniscal transplant replaces the worn or damaged cartilage in the knee joint with a new meniscus from a donor cadaver in an effort to recreate the normal anatomy of the knee. An uncomplicated meniscus transplant involves a roughly two-hour surgery and is one of the most technically involved surgeries in sports medicine. A successful transplant sees a previously active patient painfree and back to their sports in about five to six months.

With only a handful of centres in Canada performing the innovative procedure, Dr. Pickell was pleased to bring his expertise with the technique to The Ottawa Hospital. A recent addition to the Orthopaedic Surgery team, Dr. Pickell joined TOH in the fall of 2017 after completing a sports medicine fellowship at New York University's Hospital for Joint Diseases. "The Ottawa Hospital is a teaching centre, an academic centre and a tertiary care centre and this is one of the newer, cutting-edge treatments that are available to people with symptoms in the hopes of preventing arthritis down the road. It's something that any big, academic centre should have as an option," says Dr. Pickell.



https://www.youtube.com/watch?v=O_j6HjL3Qa0

Canadian First in Hip Surgery

Consistent with the progressive stance of our Division of Orthopaedic Surgery, The Ottawa Hospital was the first centre in Canada to use specialized positioning tables to facilitate an anterior approach (from the front) for total hip replacement surgery. Since then recovery time for patients has improved dramatically with the post-operative length-of-stay reduced by half, down from 3.6 days in 2013-14 to 1.8 days today, as well as performing outpatient hip replacement as routine.

Available here for more than a decade we are one of only three centres in Canada with access to this equipment. We recently acquired a second table to help with hip fracture repairs. Since 2015 more than 300 procedures per year have been performed on the tables, including 60% of our hip replacements.

Months after devastating spinal infection, Al Strynadka walks away

In late 2012, Al Strynadka developed an abscess after routine dental surgery. He was given antibiotics but soon suffered intense back pain. Shortly before Christmas, Al became delirious and fell. He and his wife, Sherry, were in their community hospital when he slipped into a coma. Doctors broke the news that Al had spinal meningitis and wouldn't survive.

Sherry insisted AI be transferred to The Ottawa Hospital for a second opinion. Here, under the care of orthopaedic surgeon Dr. Stephen Kingwell, they discovered his post dental work infection had migrated to his spine and any progression could kill him. AI would undergo two complicated spinal surgeries to remove a mass of puss that was pressing on the nerves, causing his excruciating pain. Two steel rods were used to rebuild his neck.

Al walked out of The Ottawa Hospital's Rehabilitation Centre just a few months later. "My life was saved," he said. "And I am blessed that my wife insisted on transferring me to The Ottawa Hospital."





Your Impact

As you have read above, The Ottawa Hospital deals with the most challenging Orthopaedic Surgery cases in the region, approaching each case with medical excellence, practice, and compassion. The calibre of research and patient care at The Ottawa Hospital attracts some of the brightest and most capable health-care professionals in the world who are helping us deliver world-class care to patients in our community.

You continue to be a critical part of our success as we strive to redraw the boundaries of Regenerative Orthopaedic Surgery. On behalf of the thousands of patients and families who need The Ottawa Hospital, we thank you for your tremendous support and for your continued involvement.



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