

PROGRAM



UNIVERSITY OF
CALGARY

March 11-13, 2026

Pomeroy
Kananaskis
Mountain Lodge



MCCAIG INTERNATIONAL RESEARCH CONFERENCE

Advancements in Osteoarthritis:
From Discovery to Treatment



ABOUT US

WHO WE ARE

Inspired, inspiring and committed, members of the McCaig Institute for Bone and Joint Health at the University of Calgary, Cumming School of Medicine, actively advance discovery and implement research that empowers mobility for life.

THE CONFERENCE

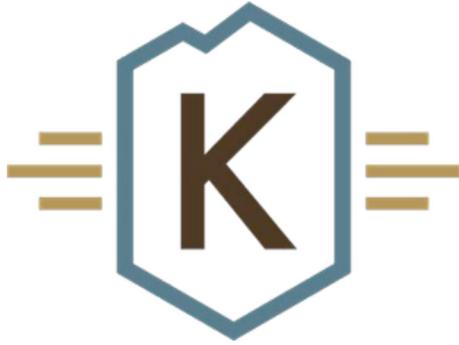
The McCaig International Research Conference, first held in 1999, served as a vital platform for collaboration and innovation. After a hiatus, there is growing enthusiasm to revive this conference in 2026, presenting an exciting opportunity for researchers to reconnect and share their work.

CONFERENCE CHAIR

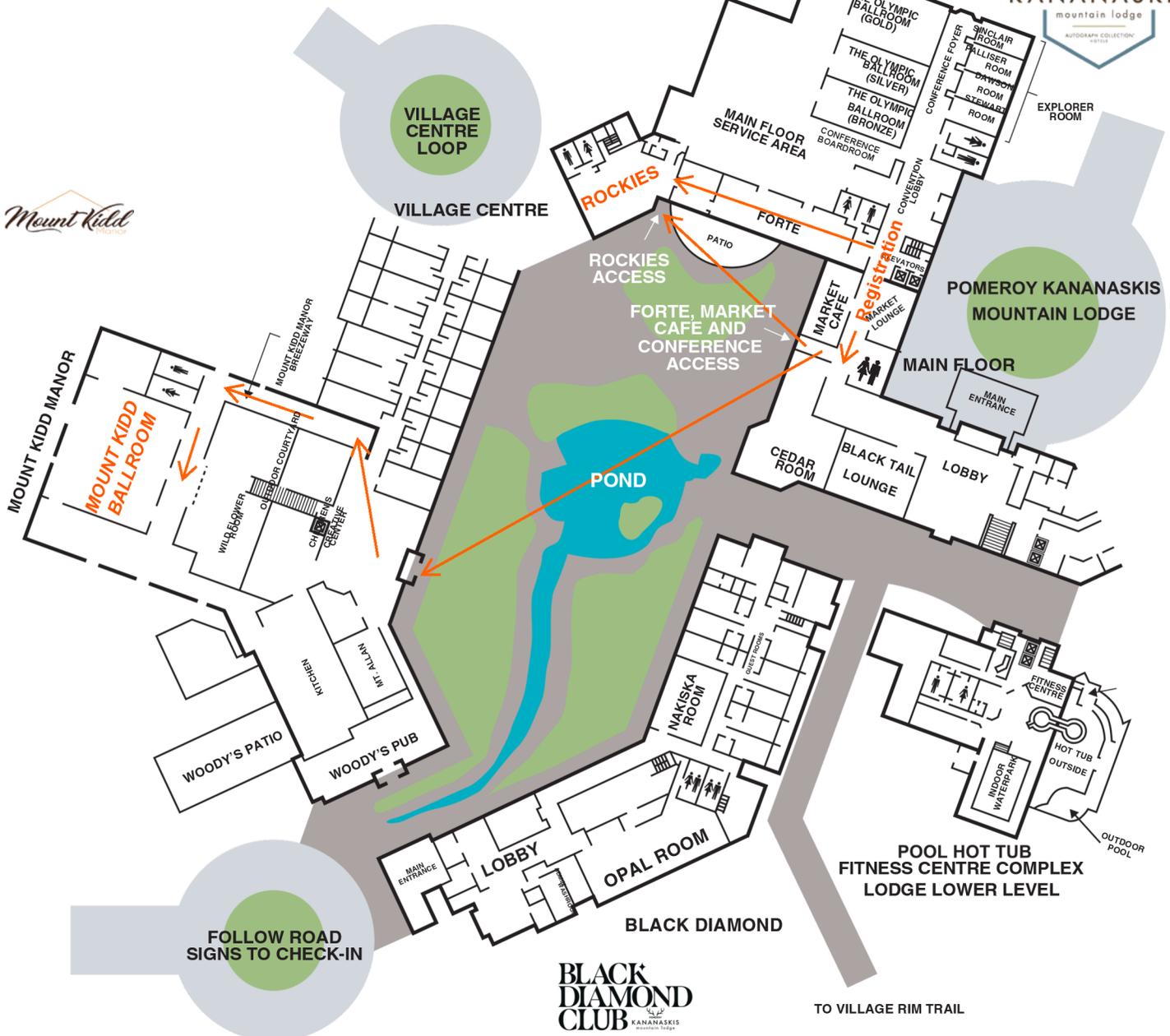


Dr. Antoine Dufour is an Associate Professor in the Department of Physiology and Pharmacology at the University of Calgary. Dr. Dufour's research is focused on the role of proteases in immunity and novel drug target identification in inflammatory musculoskeletal diseases.

WAYFINDING



POMEROY KANANASKIS MOUNTAIN LODGE SECOND FLOOR MEETING ROOMS ACCESS VIA FORTE ELEVATORS NEAR ROOM 2088



* For Reference Only. Map & Floor Plans Not to Scale.

VISITING KEYNOTES



DR. TOM APPLETON

MD, PhD

- Associate Professor in the Division of Rheumatology, University of Western Ontario.
- Specializes in osteoarthritis, focusing on pathophysiological mechanisms, cell-mediated tissue damage, and inflammatory features.



DR. NIDHI BHUTANI

PhD

- Associate Professor, Department of Orthopaedic Surgery, Stanford University; Member of Stanford Bio-X, Wu Tsai Human Performance Alliance, and MCHRI.
- Studies stem cell reprogramming, epigenetic regulation, and regenerative strategies to understand and treat musculoskeletal disease and osteoarthritis.

VISITING KEYNOTES



DR. MATTHEW BOGYO

PhD

- Professor of Pathology and Microbiology & Immunology, Stanford University; Member of the Comprehensive Cancer Center and Molecular Imaging Program.
- Leads research using chemical biology and proteomics to study protease function in disease and drug discovery.



DR. GILLIAN HAWKER

MD

- Senior Scientist, Women's College Hospital Research and Innovation Institute; Professor, Institute of Health Policy, Management and Evaluation, University of Toronto.
- Focuses on addressing gaps and disparities in access to and outcomes of care for people living with osteoarthritis.

INVITED TALKS



DR. KELSEY COLLINS

PhD

- Associate Professor in the Division of Rheumatology, University of Western Ontario.
- Specializes in osteoarthritis, focusing on pathophysiological mechanisms, cell-mediated tissue damage, and inflammatory features.



DR. OLIVIER JULIEN

PhD

- Associate Professor of Biochemistry at the University of Alberta; Associate Director of the Alberta Proteomics and Mass Spectrometry Facility.
- Explores the roles of proteases in apoptosis, cell differentiation, inflammation, and viral infections, using proteomics, mass spectrometry, and cell biology to reveal the molecular mechanisms behind these processes.



DR. MOHIT KAPOOR

PhD

- Professor in the Departments of Surgery and Laboratory Medicine and Pathobiology at the University of Toronto; Co-Director of the Schroeder Arthritis Institute at University Health Network.
- Studies the pathophysiology of osteoarthritis and new therapeutic strategies to prevent cartilage degeneration.

INVITED TALKS



DR. ROMAN KRAWETZ

PhD

- Professor, Cumming School of Medicine, Department of Cell Biology and Anatomy, University of Calgary; Deputy Director of the McCaig Institute for Bone and Joint Health.
- Focuses on stem cell biology and regenerative medicine in joint injury and disease.



DR. SARAH MANSKE

PhD

- Associate Professor, Department of Radiology, Cumming School of Medicine, University of Calgary.
- Leads a research program which uses 3D quantitative imaging, including HR-pQCT, micro-CT, and MRI, to investigate the role of bone in musculoskeletal disease.



DR. HOLLY SPARKS

DVM, PhD

- Assistant Professor, Department of Veterinary Clinical & Diagnostic Sciences, University of Calgary; Canada Research Chair in Equine Regenerative Medicine.
- Studies the cellular and molecular mechanisms of tendon development, maintenance, and repair - translating these insights into regenerative medicine approaches in both human and veterinary medicine.

SCHEDULE



WEDNESDAY, MARCH 11, 2026

LOCATION: ROCKIES ROOM

AFTERNOON

3:00	Registration opens
4:00	Room check-In
5:00	Reception & Opening Remarks Dr. Antoine Dufour - Chair Dr. Cheryl Barnabe - Institute Director Calli Naish - Gairdner Board Director
5:20	Sponsor Highlights Arthritis Society Canada - Dr. Sian Bevan Western Bone and Joint Institute - Dr. Matthew Teeter Schroeder Arthritis Institute - Dr. Mohit Kapoor Institute for Improved Health Outcomes (IIHO) - Liz Rowan
6:00	<i>Dinner</i>
7:00	Keynote Lecture: Dr. Matthew Bogyo Chemical probes to target proteases involved in inflammation
8:00	Trainee Poster Session

SCHEDULE



THURSDAY, MARCH 12, 2026

LOCATION: MOUNT KIDD BALLROOM

MORNING

8:00	<i>Breakfast</i>
8:30	Invited Talk: Dr. Olivier Julien Defining the role of proteolysis in living & dying cells
9:00	Keynote Lecture: Dr. Gillian Hawker The osteoarthritis pain experience
10:00	<i>Break</i>
10:30	Trainee Talks Mataea Armstrong Jessica Corpuz Wesley Tran Tyce Marquez Nina Pavlovic
11:30	Invited Talk: Dr. Kelsey Collins Osteoarthritis as a systemic disease of interorgan crosstalk

SCHEDULE



THURSDAY, MARCH 12, 2026

LOCATION: MOUNT KIDD BALLROOM

AFTERNOON

12:00	<i>Lunch</i>
1:00	Free/ Activity Time
3:30- 4:30	Social Hour Fireside hot chocolate and mulled wine, Mount Kidd Patio
5:00	Invited Talk: Dr. Roman Krawetz The role of proteoglycan 4 in maintaining joint homeostasis
5:30	Invited Talk: Dr. Mohit Kapoor Endo-phenotyping osteoarthritis using multi-omic approach
6:00	<i>Dinner</i>
7:00	Keynote Lecture: Dr. Tom Appleton The evolution of osteoarthritis: from cartilage wear to synovial joint organ failure

SCHEDULE



FRIDAY, MARCH 13, 2026

LOCATION: MOUNT KIDD BALLROOM

MORNING

8:00	<i>Breakfast</i>
8:30	Invited Talk: Dr. Holly Sparks Healing Across Species: Comparative Biology Approaches to Musculoskeletal Injury
9:00	Keynote Lecture: Dr. Nidhi Bhutani An anti-aging strategy for cartilage regeneration and osteoarthritis
10:00	<i>Break</i>
10:30	Trainee Talks Justen Saini Tatjana Pejic Songlin Zhu Dr. Weilan Wang Tadiwa Waungana
11:30	Invited Talk: Dr. Sarah Manske Multi-modal imaging to impact osteoarthritis
12:00	Closing Remarks & Trainee Awards

PODIUM PRESENTATIONS

Author	Affiliation	Abstract Title
Armstrong, Mataea	University of Calgary	Understanding pain in knee osteoarthritis before and after knee replacement: an arterial spin labeling analysis
Corpuz, Jessica	University of Calgary	Beyond the knee: proteoglycan 4 is essential for homeostasis and preventing intervertebral disc degeneration
Marquez, Tyce	University of Iowa	Weight bearing CT shows a shift in tibiofemoral loading following ACL reconstruction and meniscus treatment
Pavlovic, Nina	University of Calgary	Spatial and temporal patterns of peri-articular bone changes in the three years following ACL injuries to the human knees
Pejic, Tatjana	University of Calgary	Beyond lubrication: PRG4 restores and reinforces joint health under corticosteroid treatment
Saini, Justen	University of Calgary	RASL reconstruction leads to healthy wrist kinematics: implications for prevention of SLAC wrist osteoarthritis
Tran, Wesley	Western University	Peroxisome proliferator-activated receptor delta modulates and alters extracellular matrix and inflammatory processes in the osteoarthritic synovium
Wang, Weilan	University of Calgary	Prebiotic fibre improves physical function and metabolism in adults with knee osteoarthritis and obesity: mechanistic role of the gut microbiome
Waungana, Tadiwa	University of Calgary	"Bone Matters": mapping bone differences across age, sex and knee OA status
Zhu, Songlin	Western University	Diffusion tensor imaging of synovial microvascular dysfunction in knee osteoarthritis

POSTER PRESENTATIONS

Author	Affiliation	Abstract Title
Amini, Arian	Western University	Effects of visceral adiposity on infrapatellar fat pad size and texture in knee osteoarthritis
Bader, Taylor	University of Calgary	HTRA1-mediated proteolysis as a shared mechanism of extracellular matrix degeneration in the intervertebral disc and osteoarthritis
Blackler, Garth	Western University	Exploring the effects of semaglutide on synovial macrophages, fibroblasts, and their communication in osteoarthritis
Gillespie, Daniel	University of Calgary	Development and evaluation of a video-based patient educational resource for rotator cuff and shoulder osteoarthritis: a mixed methods study
Hassan, Ahmed	University of Calgary	Annual procedural volume projections of hip and knee arthroplasty in Canada to 2040
Henley, Dawn	Mount Royal University	Negative outcomes when navigating the healthcare system for musculoskeletal system with a focus on osteoarthritis: a scoping review
Martin, Maitland	University of Calgary	Early detection and prevention of hip and groin-related injuries in female youth athletes: a potential step toward osteoarthritis prevention

POSTER PRESENTATIONS

Author	Affiliation	Abstract Title
Parkin, Jordan	University of Calgary	Diagnostic accuracy of history questions in acute soft tissue knee injury diagnosis in adolescents and adults: a machine learning approach
Stirling, Callie	University of Calgary	Intervention by off-label pharmaceutical treatment to alter bone microarchitecture and mechanics following an acute knee injury
Tompkins, Tamara	Western University	Test-retest reliability and minimal detectable change of a three-minute step test for assessing movement-evoked pain in knee osteoarthritis.
Toth, Kasara	University of Calgary	Complex joint injury in equines: investigation of a cell-based therapeutic and validation of a novel translational model
Tripathi, Darsh	University of Calgary	Does a high inherent aerobic capacity protect the cartilage and subchondral bone in the knee joint from metabolically induced degeneration?
Tripathi, Darsh	University of Calgary	Does an acquired aerobic capacity protect the cartilage and subchondral bone in the knee joint from metabolically induced degeneration?
Yamaura, Lisa	University of Calgary	There are no sex differences in synovial fluid lubricating capacity in healthy joints

THANK YOU SPONSORS

GOLD



SILVER



BRONZE



SUPPORTING SPONSORS



TRAINEE SPONSORS



Department of Surgery



Department of Community Health Sciences



—ALBERTA— HIP & KNEE CLINIC

••• The Alberta Hip and Knee Clinic is one of Canada's leading high-volume orthopedic specialty clinics, dedicated to improving mobility and quality of life for patients living with hip and knee conditions. Each year, our multidisciplinary team supports thousands of patients through assessment, surgical preparation, and post-operative recovery within Alberta's public health system.

Our clinic works at the intersection of clinical care, research, and system improvement, applying evidence-informed practices to deliver high-quality orthopedic care. By translating advances in osteoarthritis research into real-world clinical pathways, we contribute to more effective, equitable care for patients and more sustainable health system performance.

As a proud sponsor of the McCaig International Research Conference, we share a commitment to advancing knowledge, fostering collaboration, and improving outcomes for people living with osteoarthritis.

- Dr. Abelseth
- Dr. Ardell
- Dr. Benavides
- Dr. Cundal
- Dr. de Souza
- Dr. Desy
- Dr. Donaghy
- Dr. Duffy
- Dr. Fruson
- Dr. Johnston
- Dr. Joly
- Dr. Kendal
- Dr. Korley
- Dr. Kubik
- Dr. Kuchinad
- Dr. Meldrum
- Dr. Ng
- Dr. Powell
- Dr. Puloski
- Dr. Rendall
- Dr. Sharma
- Dr. Stewart
- Dr. Timmermann
- Dr. Vadiie
- Dr. Van Zuiden
- Dr. Werle
- Dr. Wowk



www.albertahipandknee.ca



403-221-4369



gairdner

LES PRIX CANADA GAIRDNER AWARDS

**Celebrating, informing
and inspiring scientific
excellence around the
globe since 1957.**

Spotlight tomorrow's scientific trailblazers today.
Nominate now for the Peter Gilgan Canada Gairdner
Momentum Award.



Learn more at gairdner.org



Dr. Jennifer Stinson

2025 Peter Gilgan Canada Gairdner
Momentum Award Laureate



gairdner

LES PRIX CANADA GAIRDNER AWARDS

Célébrer, informer et inspirer l'excellence scientifique autour du monde depuis 1957.

Mettez en lumière dès maintenant les pionniers scientifiques de demain. Soumettez une candidature pour le Prix Canada Gairdner Momentum Peter Gilgan.



Pour en savoir plus, consultez gairdner.org



@GairdnerAwards

Dre Jennifer Stinson

Lauréate du Prix Canada Gairdner
Momentum Peter Gilgan 2025





UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE



@UCalgaryMed

Follow the Cumming School of Medicine on our journey of reimagining health for all.



Start something.

AWARE

At Western University's Bone and Joint Institute (BJI), we invite researchers from across disciplines to join a collaborative community dedicated to transforming musculoskeletal (MSK) health for the more than 1.7 billion people affected worldwide. The Institute brings together leading scientists, clinicians, engineers, industry partners, and patient collaborators to accelerate discoveries that predict disease, repair and regenerate tissue, and restore movement. With access to an expansive network, cutting-edge facilities, and an environment designed to spark innovation, the BJI provides a unique platform for advancing high-impact MSK research.

The urgency to address MSK conditions—responsible for more disability than cancer or heart disease—demands collective action and interdisciplinary expertise. By collaborating with the BJI, your work becomes part of a larger mission to translate scientific insights into real-world prevention, treatment, and recovery strategies that improve mobility, independence, and quality of life. Whether you are looking to expand your research capabilities, form new partnerships, or drive solutions with meaningful global impact, the BJI welcomes you to join us in shaping the future of MSK health.

RESEARCH | INNOVATION | TRAINING

To learn more, visit our website:



Research empowering mobility for life.

OVER 30 YEARS STRONG



Arthritis stole my teen years.
Arthritis steals.



Arthritis Society Canada provides trusted resources to help manage your arthritis. Discover free online support and tools for living well at arthritis.ca.

Inflammatory Arthritis Self-Management

Visit Arthritis Society Canada's extensive digital library for resources about self-management of inflammatory arthritis, including joint protection, exercises, relaxation techniques and nutrition.



Arthritis Connections

Arthritis Connections is an online community of people living with arthritis, providing an opportunity to engage with others going through similar experiences.



Arthritis Talks

Join Arthritis Society Canada's signature webinar series, Arthritis Talks. It brings current, evidence-based information straight from the experts directly to you.

Register today or view past webinars online:





**Performance and
Outcomes Monitoring**



**Continuous Quality
Improvement**



**Implementing
System Change**



**Need and
Demand Modeling**

iiho.ca



Founded and led by
Dr. Marvin J. Fritzler,
a global expert in rheumatology
and autoimmunity



Continuous test menu
updates to reflect the
latest clinical needs



>500 diagnostic targets
including early arthritis



Supporting clinical diagnostics
and autoimmune research through
immune biomarker testing



SCAN TO
LEARN MORE

www.mitogendx.com
admin@mitogendx.com

The Schroeder Arthritis Institute (University Health Network), is the largest multidisciplinary arthritis hub in Canada, integrating medical, surgical and basic science aspects of Hand, Orthopedics, Osteoporosis and Rheumatology with a goal of making a global impact in discovery, learning and patient care. The Institute comprises of 51 scientists and clinician-scientists, 113 trainees and 200 staff.

**Pioneering, proven pain
treatment for knee OA¹**

Arthrosamid® – The first and only synovial
implant² administered via a single injectable
for long-lasting pain relief.^{3,4}



Scan here to
learn more



ARTHROSAMID®
by
contura
ORTHOPEDICS

hcp.arthrosamid.com/en-CA
info@arthrosamid.com

Contura Orthopedics for Canada –
Redefining joint care with unparalleled innovation



CONTACT THE MCCAIG INSTITUTE FOR BONE AND JOINT HEALTH



PHONE
403-210-6774



EMAIL
mccaig@ucalgary.ca



WEBSITE
mccaig.ucalgary.ca/MIRC



ADDRESS
HRIC 3A08, 3280 Hospital Drive NW,
Calgary, AB