

The 5th Annual Canadian Arthritis Research Conference

Research Presentation Days

Abstracts & Presenter Information

March 18, March 25 and April 2, 2024



Day 1
March 18, 2024
Research Presentations

Listed in alphabetical order by last name

Abdulrahman Almansouri

Abdulrahman Almansouri, MD is a Rheumatologist from Madinah, Saudi Arabia. He completed residency program in Internal Medicine in 2020 and Rheumatology fellowship in 2023 in Jeddah, Saudi Arabia. He is currently a Clinical Research Fellow in Psoriatic Arthritis and Musculoskeletal Ultrasound at the University of Toronto, Toronto, Canada.

Keywords

Axial spondylarthritis, Disease Activity Index, Remission Achievement, Saudi Arabia



Melissa Cavallo

Melissa Cavallo, MPH, is a research analyst with the Arthritis Community Research and Epidemiology Unit (ACREU) at Schroeder Arthritis Institute, University Health Network. Her research focuses on the epidemiology of arthritis, and she is currently investigating the impact and burden of osteoarthritis at both the individual and population level in Canada.

Keywords

Not available



Ermina Hadzic

I am in my third year of PhD studies in Dr. Frank Beier's lab at Western University, Ontario. My main research focus is investigating therapeutic targets for osteoarthritis, such as Mig6/EGFR and PPAR δ . My research involves cell work, genetically modified mouse models, and surgically-induced OA.

Keywords

Peroxisome Proliferator Activated Receptor delta, Hydrogel, Intra-Articular, Rat Model



Jingyi Huang

Jingyi is a second-year PhD student at Memorial University of Newfoundland, specializing in human genetics. As part of the Newfoundland Osteoarthritis Study, Jingyi's research focuses on improving our understanding of primary osteoarthritis endotypes of the knee or hip and investigating potential mechanisms of sustained pain after total joint replacement in primary osteoarthritis patients. These objectives are achieved by combining multiple omics, including metabolomics, genomics, and transcriptomics.



Keywords

Osteoarthritis, multi-omics, bioinformatics.

Sharon Iziduh

Sharon Iziduh is a researcher at Toronto General Hospital Research Institute, University Health Network. She has a Bachelor's degree in Medicine and Surgery and a Master's of Public Health with expertise in global health practice and epidemiology. She is currently working on different research studies, including a study funded by the Arthritis Society to co-generate strategies to support equitable person-centered early diagnosis and management of osteoarthritis. Her previous work includes planning and implementing health promotion research among vulnerable populations in Nigeria, United States and Canada.



Keywords

Osteoarthritis, Women's health, Person centered care, health care quality, qualitative interviews, barriers

Roselyn Jiang

My name is Roselyn Jiang. I am a PhD student at Dr. Ana Nijnik's lab at McGill University. I came from a neuroimmunology background and is now expanding my understandings in chronic inflammatory diseases. My project works with mouse model and focuses on characterizing trained immunity in Rheumatoid Arthritis *ex vivo* and *in vivo*, as well as identifying the immune environment that is distinct to mice that develops Rheumatoid Arthritis associated - Interstitial Lung Disease. We aim to further the understanding of the immunological mechanism underlying Arthritis and its associated inflammatory disease, which is critical for developing reliable disease prediction and therapeutic methods.



Keywords

Rheumatoid Arthritis, Trained Immunity, Interstitial Lung disease, Chronic Inflammation

Chantelle Lin

Chantelle received her Honours Bachelor of Science at the University of Toronto where she specialized in fundamental genetics and biotechnology. She then completed her Master of Science in Community Health Sciences with a specialization in epidemiology at the University of Calgary. Currently, she is a PhD student in epidemiology at the Dalla Lana School of Public Health, University of Toronto supervised by Dr. Andy Kin On Wong. Her PhD dissertation will use high-dimensional analysis to pinpoint the origin of pain among postmenopausal women with knee osteoarthritis using convolved features from knee MRI scans.



Keywords

FRAX, hip fractures, major osteoporotic fracture, bone attrition, bone marrow lesions

Laëtitia Michou

Dr Laëtitia Michou, MD, PhD is an associate professor, head of the Division of Rheumatology at CHU de Québec-Université Laval. Dr Michou is a clinical investigator at the Centre de Recherche du CHU de Québec and rheumatologist at the CHU de Québec. Research interests of Dr. Michou are human genetics of bone and joint diseases, particularly Paget's disease of bone, rare bone diseases, osteoporosis, atypical femur fractures and rheumatoid arthritis.



Keywords

Rheumatoid arthritis, SUPT20H, monocytes, macrophages, osteoclasts

Farbod Moghaddam

My name is Farbod, and I am an undergraduate Bioinformatics student at the University of Calgary. I am currently in my 4th year, and I am working in the lab of Dr. May Choi. My interests include machine learning and its applications in health, computer science, and statistics. I was originally born in Iran, but I have immigrated to Canada at the age of 12. Some of my other works include identifying the risk of CVD events in SLE patients using machine learning, identifying patterns in ANA images using computer vision, and building a pipeline to classify nematode species from nanopore raw reads.



Keywords

Sporadic inclusion body myositis, Machine Learning, artificial intelligence, feature selection, biomarker discovery, genome ontology

Addison Pacheco

Addison Pacheco is a 4th year PhD student supervised by Dr. Robert Inman and funded through The Arthritis Society Graduate Salary Award. His work entails using cutting-edge technology to unmask the role regulatory immune cells (Tregs) play during inflammation in Ankylosing Spondylitis patients.

Keywords

Ankylosing Spondylitis, Regulatory T cells, FOXP3, Inflammation, IL-17A



Hayley Peters

Hayley Peters completed her undergraduate degree in Life Sciences at the University of Toronto. She is now undertaking a master's degree within the Laboratory Medicine and Pathobiology department at the University of Toronto. She is researching under Dr. Mohit Kapoor at the Schroeder Arthritis Institute within the University Health Network in Toronto. Hayley's research focusses on osteoarthritis within the knee and the effects of the infrapatellar fat pad, sex, and obesity on the pathology of this disease. In her free time, Hayley enjoys reading, vegetable gardening and going to the gym.

Keywords

Osteoarthritis, knee, knee osteoarthritis, obesity, sex, single nucleus RNA sequencing, spatial sequencing, fat pad, infrapatellar fat pad, cell types, cell populations, bioinformatics, multiomics



Fataneh Tavasolian

I, Dr. Fataneh Tavasolian, am a Ph.D. immunologist specializing in mesenchymal stem cells and Treg cells. Currently a Postdoc Fellow at the University of Toronto's Rheumatology Department, my research focuses on Treg cell immunity and exosomes. With extensive experience in immunology, I have a track record of publications and have contributed significantly to the field. I hold a Ph.D. in Immunology from Tarbiat Modares University and have received several awards for my research excellence. Additionally, I am a member of prestigious professional societies such as the Iranian Immunology and Allergy Society and the International Society for Extracellular Vesicles.

Keywords

Ankylosing Spondylitis, microRNA, Exosomes, Extracellular Vesicles, Biomarker



Kabriya Thavaratnam

Kabriya Thavaratnam is a PhD student from the University of Toronto working at the Krembil Research Institute in the pathology of Osteoarthritis. She focusses on discerning pathological cell types and subtypes in osteoarthritic synovial tissues utilizing single-nuclei RNA sequencing.

Keywords

Osteoarthritis, synovium, inflammation, fibroblasts, fibrosis, single-nuclei RNA sequencing



Teodora Tockovska

Teodora Tockovska acquired her Master in Bioinformatics at the University of Guelph. She currently works at the Bioinformatics and HPC Core, which is located at Princess Margaret Cancer Research Tower. She performs a variety of data analysis methods for customers including spatial transcriptomics, single cell multiomics, single cell transcriptomics, and more.

Keywords

Not available



A man with a beard and safety glasses, wearing a white lab coat, is looking at a computer screen in a laboratory. The background is a blurred laboratory setting with various pieces of equipment and a computer monitor. The text is overlaid on the left side of the image.

Day 2
March 25, 2024
Research Presentations

Listed in alphabetical order by last name

Heba Aref

Heba Aref is currently a PhD candidate who has two thesis-based master's degrees in Clinical Pharmacy and Health Outcomes Research and Policy. She first-authored numerous publications in reputable peer-reviewed journals, focusing on health communication and shared decision-making. Her passion for patient-oriented research is evident in her publications addressing health literacy through partnering with patients or health service users. Heba has also presented her research at various national and international conferences, demonstrating her commitment to advancing the field of decision-making through patient-oriented research. Currently, she is collaborating with older adult patients with arthritis pain to research decision-making relevant to cannabis use.



Keywords

Shared-decision making, Arthritis, Decision tools

Lauren Banh

Lauren Banh is a PhD student in the Institute of Biomedical Engineering at the University of Toronto (UofT). She is supervised by Dr. Sowmya Viswanathan (University Health Network) and co-supervised by Dr. Edmond Young (UofT). Lauren is developing a "joint-on-a-chip" for osteoarthritis studies.



Keywords

Organ-on-a-chip, joint-on-a-chip, cartilage mechanobiology, osteoarthritis

Vanessa Cook

Vanessa, a Naturopathic Medical student based in Toronto, completed her Psychology degree at Western University. Her personal journey as a scleroderma patient is the driving force behind her passion for holistic healthcare. Alongside her role as the Chair of Patient Support for Scleroderma Canada, Vanessa also works in research with the Scleroderma Patient-centred Intervention Network (SPIN). She is dedicated to continuing patient-centered work, in autoimmunity and women's health. Vanessa's holistic approach to healthcare, reflects her commitment to making a lasting impact on individuals dealing with scleroderma by integrating personal experience, academic knowledge, and research experience.



Keywords

Co-presentation, scleroderma, patient-centered care, research dissemination

Eileen Davidson

Eileen Davidson is a rheumatoid arthritis patient advocate, writer and speaker from Vancouver BC. She is a regular writer for Creaky Joints, an ambassador with The Arthritis Society and patient advisory board member (APAB) with Arthritis Research Canada among many more. Healthline, Everyday Health and Health Central have called her blog and social media channels one of the best in the arthritis community to follow.



Keywords

Arthritis, Mental Health, Support, Patient Programs

Evelyne Gendron

Dr. Evelyne Gendron, MD, MSc, FRCPC, is undertaking a two-year fellowship program on axial spondyloarthritis (axSpA) at Toronto Western Hospital-University Health Network. Concurrently, she is pursuing a master's degree at the Institute of Medical Science, University of Toronto. Her master's thesis delves into the impact of lifestyle factors, with a specific focus on alcohol consumption, on the natural course of axSpA. Upon completion of her fellowship and academic pursuits, Dr. Gendron is set to commence her practice in Québec City at the Centre Hospitalier de l'Université Laval-CHU de Québec, specializing as a rheumatologist with expertise in axSpA.



Keywords

Axial spondyloarthritis, ankylosing spondylitis, alcohol consumption, lifestyle habits

Kristine Godziuk, PhD

Dr. Godziuk is a postdoctoral research fellow at the University of Alberta, supported by fellowship awards from Obesity Canada and Alberta Innovates. She has a PhD in rehabilitation science and an extensive background as a clinical exercise physiologist. Her research takes a critical approach with the use of body mass index (BMI) for treatment decisions in arthritis management, and examines body composition assessment and targeted behavioural strategies to improve patient health outcomes and health service delivery relative to obesity, sarcopenia, and aging.



Keywords

Not available

Emily Ha

Emily is a PhD Candidate in Epidemiology from the Dalla Lana School of Public Health at the University of Toronto. Emily's research interests are in chronic disease epidemiology, aging, and biomarkers. With the support of The Arthritis Society, and under the supervision of Dr. Andy Kin On Wong and Dr. Jennifer Brooks, Emily's Doctoral research focuses on identifying pathways that lead to musculoskeletal health outcomes, including knee pain, in older adults.



Keywords

Sex hormones, knee pain, population-based study, epidemiology

Carson Halliwell

Carson Halliwell is a 4th year PhD in Health candidate at Dalhousie University. Carson's research is dedicated to understanding the impact of current physical activity guidelines on the non-arthritic knee in unilateral knee osteoarthritis. With a focus on mitigating the risk of osteoarthritis development in the unaffected knee, Carson's research aims to inform tailored rehabilitation strategies. By understanding the interplay between physical activity and joint health, Carson aims to inform personalized interventions that safeguard joints and slow further degeneration.



Keywords

Gait; Symmetry; Knee osteoarthritis; Clinical outcomes

Franka Hicksch

Franka Hicksch completed her third year of Medical School at the Martin-Luther-University Halle-Wittenberg in Germany. She is now researching under Dr. Mohit Kapoor at the Schroeder Arthritis Institute in Toronto and Dr. Matthias Aurich at the University Hospital Halle (Saale), Germany. Franka's research focuses on the molecular mechanisms associated with secondary arthrofibrosis of the shoulder after a trauma or surgery. In her spare time Franka enjoys playing volleyball, meeting friends, playing the piano and going out for Ramen.



Keywords

Secondary arthrofibrosis, adhesive capsulitis, postoperative stiff shoulder, frozen shoulder, bulk RNA sequencing, synovium, bioinformatics, transcriptomics

Dennis Lam

Dr. Dennis Lam is an Internal Medicine resident at the University of Toronto. He completed his undergraduate medical education at University College Cork in Ireland. He holds a Master of Biotechnology from the University of Toronto an undergraduate degree from the University of Guelph. He has an interest in inflammatory arthritis and hopes to continue his postgraduate medical training in the field of rheumatology.

Keywords

Axial spondyloarthritis, ankylosing spondylitis, diagnostic delay, diagnosis, onset, demographics, baseline



Seng Manivong

As a pharmacist, I have always been interested in the research of innovative treatments. In parallel of my Pharm.D, I completed a MSc. in Nanotechnologies and Medical Devices. Indeed, nanomedicine, introduced with the “magic bullet” concept, receives increasing interest since the past two-decades. On the other hand, osteoarthritis (OA) is a degenerative disease affecting over 300 million people worldwide and with no pharmacological cure to date. Hence, my PhD project aims to help people suffering from OA by developing a peptide-loaded nanoplatform to simultaneously decrease pain and inflammation and restore cartilage integrity.

Keywords

Drug delivery system, biomaterials, nanogels, endothelin, bradykinin



Wils Nielson

Wils Nielsen is a PhD Candidate with the Institute of Medical Science at the University of Toronto and Research Trainee at the University of Toronto Lupus Clinic. Wils Nielsen is also fellow for the Outcome Measures in Rheumatology (OMERACT) Systemic Lupus Erythematosus Working Group.

Keywords

Systemic Lupus Erythematosus, Core Outcome Set, Domains, Outcome Measures



Melissa O'Brien

Dr. O'Brien is a Research Associate at Dalhousie University where she researches pain in Osteoarthritis. Today Dr. O'Brien is presenting work today that started during her post-doctoral training and has been supported by an Ignite Grant from Arthritis Society Canada. This translational research project is ongoing at Dalhousie and is carried out by a multi-disciplinary team of clinicians, PhD researchers, and patient partners.

Keywords

Osteoarthritis, Pain, Green Light, Animal Models



Laurie Proulx

Laurie Proulx works for the Canadian Early Arthritis Cohort as a patient engagement and knowledge translation consultant. She has lived with Juvenile Rheumatoid Arthritis since she was 14 years old, and her experiences led to her involvement in research as a patient partner, knowledge broker, and patient engagement consultant. She works part-time as Managing Director for the Canadian Arthritis Patient Alliance (CAPA), a grass-roots patient driven and managed organization, where she advocates for patient-centred care and access to treatments.

Keywords

Knowledge translation, patient-and-family-centred care, return of results, transparency in research



Y. Raja Rampersaud

Dr. Rampersaud is a leader in surgical outcomes, safety and health services research in Orthopaedic surgery. His research is particularly aimed at improvements in the delivery and outcomes of patient centered spine and musculoskeletal care. He is an advocate for interprofessional models of care and has developed an Inter-professional Spine Assessment and Education Clinic (ISAEC) program which has been provincially implemented as the Rapid Access Clinics – Low Back Pain Pathway. He is a past president of the Canadian Spine Society. He is also a founding member and current Chair for the Canadian Spine Outcomes and Research Network (CSORN).

Keywords

Cost-Efficacy; Surgery; Patient Reported Outcomes; Responder



Amit Sandhu

Amit Sandhu is a postdoctoral fellow in the lab of Dr. Mohit Kapoor at Schroeder Arthritis Institute, University Health Network, Toronto. He is interested in the miRNA signature biomarkers in the biofluids of posttraumatic osteoarthritis patients undergoing ACL reconstruction surgery and in knee OA patients undergoing total knee arthroplasty. Additionally, he is interested in examining the levels of cartilage degradation fragments in the urine and synovial fluid of these patients.

He earned his doctorate from the Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India. During his PhD, he focused on determining the efficacy and adverse events of methotrexate glutamation in patients with rheumatoid arthritis.

Beyond his research endeavors, he enjoys capturing nature through his lenses and spending time with family and close friends.

Keywords

Anterior cruciate ligament reconstruction, miRNA, metabolites, post-traumatic osteoarthritis



Jessica Wilfong

Jessica Wilfong, MPH, is a research associate with the Arthritis Community Research and Epidemiology Unit (ACREU) at Schroeder Arthritis Institute, University Health Network. Through ACREU's collaboration with Arthritis Society Canada, her research focuses on investigating the epidemiology of arthritis, primarily osteoarthritis, and the impact and burden in the Canadian population.

Keywords

Osteoarthritis; epidemiology; aging; population studies; young adults



A blue-tinted photograph of scientists in a lab coat and safety goggles looking at a clipboard. The image is used as a background for the text.

Day 3
April 2, 2024
Research Presentations

Listed in alphabetical order by last name

Reshani Abayasekara

I completed my MSc in Biostatistics at the University of Toronto and my BSc in Life Sciences with a minor in Mathematics at the University of Waterloo. Under the supervision of Dr. O Espin-Garcia, Dr. S.A Ali, and Dr. J Whittaker, my research focuses on applying curve registration methods to accelerometer data. Our work aims to improve our understanding of physical activity levels among those with osteoarthritis, with the potential to inform personalized interventions for individuals with osteoarthritis.

Keywords

Data-driven, Knee osteoarthritis, Curve registration, Physical activity



Emily Collett

Emily Collett completed a Masters of Public Health degree with a specialization in epidemiology at the University of Toronto's Dalla Lana School of Public Health. She currently works as a research analyst at University Health Network's Schroeder Arthritis Institute where her work focuses on osteoarthritis patient outcomes following surgery.

Keywords

Cost-Efficacy, Surgery, Patient Reported Outcomes, Responder



Sarah Costa

My name is Sarah and I am a medical physics masters graduate. In my current role my research focuses on patients with osteoarthritis and osteoporosis. As a Research Analyst at Toronto General Hospital, I specialize in leveraging computer programming to analyze medical images, providing invaluable insights into musculoskeletal health. My professional journey has seen me contribute to esteemed institutions such as Humber River Hospital, Westpark Healthcare Centre, the University of Toronto, and McMaster University, where I immersed myself in various departments, gaining hands-on experience that bolsters my current research endeavors. I am eager to connect with fellow professionals to explore potential collaborations or opportunities in this dynamic and vital field.

Keywords

Knee osteoarthritis, sports and recreation, muscle adiposity, fat, thigh, MRI



Maria Fernandes

I am an associate professor at the Faculty of Medicine of Université Laval in Québec City. I completed my PhD at McGill University in molecular genetics and my post-doctorates at Thomas Jefferson University (Philadelphia) and Université Laval during which I developed expertise in inhibitory receptors and neutrophil biology. Inhibitory receptors play a pivotal role in controlling inflammation, in part, by switching off activation pathways in neutrophils rendering them attractive therapeutic targets. The theme of my research program is to decipher the function of inhibitory receptors in neutrophils and find ways to target these receptors to treat rheumatoid arthritis, gout and other neutrophil-driven diseases.



Keywords

Not available

Shaghayegh Foroozan

Shaghayegh Foroozan is a Ph.D. Candidate at the Schroeder arthritis institute in Dr. Nigil Haroon's lab. Her work is on gut inflammation in Spondyloarthritis using the SKG mouse model of SpA. She hopes that her work can elucidate the potential link between gut inflammation and SpA pathogenesis.



Keywords

Spondylarthritis, Gut Inflammation, Macrophage Migration Inhibitory Factor, Tight Junctions

Brad Gardea

Brad Gardea is a 2nd year student at the University of Toronto, studying Computer Science and Statistics. He specializes in applications of artificial intelligence in software and medical research with the goal of improving efficiency and accessibility of existing tools and technologies. Brad is a research assistant at the University Health Network, Joint Department of Medical Imaging where he has been developing workflows to improve the accuracy and training times for neural networks meant for thigh muscle segmentation. He aims to create tools that can be applied in a variety of contexts to improve accessibility and the quality of diagnoses.



Keywords

Artificial Intelligence, Machine Learning, Deep learning, Thigh muscle segmentation, 2D CNN, 3D CNN, Convolutional neural networks, T1-weighted MRI, Thigh Muscles, Image enhancement pipeline, Ground truth annotation, Hyperparameter optimization, Performance evaluation, K-Fold validation

Sam Gross

Sam Gross is a second-year Master of Physical Therapy student at the University of Saskatchewan. Sam has developed a passion for learning about advancing health equity, fostering inclusive access, and promoting culturally safe practices. Alongside her studies, she is pursuing a certificate in Global Health, which lends a comprehensive and holistic perspective to healthcare. Sam's academic endeavors focus on anti-racism, anti-oppression, intersectionality, and interprofessional and interdisciplinary collaboration. Sam aspires to build a career that prioritizes equitable access to care, culturally sensitive and safe practices, and advocates for meaningful policy change.



Keywords

Not available

Nejat Hassen

Nejat Hassen is a research assistant at Arthritis Research Canada. She earned her MSc degree in Population and Public Health from the University of British Columbia, where she focused on identifying disease-related and non disease-related factors that influence the health-related quality of life in individuals living with rheumatoid arthritis, as well as identifying trends of disease burden of rheumatoid arthritis in Canada over the last 30 years. Nejat currently manages a national project aimed at developing a flexible care delivery model for inflammatory arthritis.



Keywords

Health-related quality of life, rheumatoid arthritis, determinants, systematic review

Jeffrey Hutchinson

I am a 5th year PhD candidate at Western University, Department of Physiology & Pharmacology. I am also a member of the Collaborative Specialization in Musculoskeletal Health Research (CMHR) program at the Bone and Joint Institute (Western University). As a member of Dr. Cheryle Seguin's laboratory, my focus is on spine biology. Specifically, I study the intervertebral disc which is one of the leading contributors to low back pain. I am interested in the role sex hormones play in disc health, aging, and injury based on anecdotal evidence of their therapeutic potential. My research focuses on the use of cell culture and mouse models to determine how sex hormones may be modulating intervertebral disc biology.



Keywords

Intervertebral disc, sex hormones, intervertebral disc degeneration, testosterone, estrogen, dihydrotestosterone, low back pain

Motahareh Karimijashni

Motahareh Karimijashni received her BSc in Physiotherapy from Shiraz University of Medical Sciences, Iran, in 2012, followed by an MSc in Sport Physiotherapy from the same university in 2015. With five years of experience as a physiotherapist specializing in orthopedics, she began her PhD journey in 2020. Currently, she is a fourth-year PhD candidate in Rehabilitation Sciences at the University of Ottawa, Canada. Her research interests revolve around rehabilitation after orthopedic surgeries, specifically focusing on lower extremities and outcome measurement tools.



Keywords

Knee and hip arthroplasty, osteoarthritis, functional priorities

Lamia Khan

I'm Lamia Khan, pursuing a PhD under Dr. Mohammed Osman's guidance at the University of Alberta. Motivated by personal experiences, I am deeply passionate about exploring the complexities of chronic diseases like systemic sclerosis (SSc) that lead to inflammatory arthritis. By deepening our understanding of this complex pathogenesis, my research may lead to the development of innovative therapeutic approaches. Ultimately, my research objective is to improve outcomes and enhance the quality of life for individuals affected not only by SSc but also by other forms of inflammatory arthritis.



Keywords

Systemic sclerosis, double stranded DNA breaks, FOXO1, resistance to apoptosis

Elsa-Lynn Nassar

Elsa-Lynn Nassar is a PhD student in Clinical Psychology at McGill University. She received a BA (Hons) in Psychology from Concordia University in 2021 and an MSc in Psychiatry from McGill in 2023. She is a trainee member of the Scleroderma Patient-centered Intervention Network (SPIN; <https://www.spinsclero.com/>), led by her supervisor, Dr. Brett Thombs. Her research broadly focuses on improving patient engagement and knowledge translation in SPIN and applied health research more generally.



Keywords

Telehealth, Telemedicine, Systemic Sclerosis, Scleroderma

Y V Raghava Neelapala

Y V Raghava Neelapala, is a physical therapist by training and currently a full-time PhD Candidate under the supervision of Dr. Lisa Carlesso at the School of Rehabilitation Science, McMaster University, Canada. His thesis is focused on exploring pain phenotypes in people with early-stage knee osteoarthritis.

Keywords

Early-stage osteoarthritis, pain profiles, pain transitions.



Nathan Neeteson

I have a BSc in Engineering Physics and an MSc in Mechanical Engineering and previously worked as a research engineer developing computational tools to model and optimize thermofluid systems. I am currently a PhD candidate in Biomedical Engineering at the University of Calgary. I develop automated image processing methods for high-resolution CT and use them to study how bone in the knee changes after an ACL injury to investigate the mechanism linking ACL injury and post-traumatic osteoarthritis.

Keywords

CT, HR-pQCT, Deep learning, Atlas-based segmentation, Knee OA



Antonella Scali

Antonella Scali is the Executive Director of the Canadian Psoriasis Network (CPN), a not-for-profit organization dedicated to improving the lives of people with psoriasis and psoriatic arthritis (psoriatic disease) in Canada and led by a Board of Directors who are affected by these conditions. Antonella is a registered social worker with a background in direct clinical services and in policy analysis in community mental health in Ontario.

Keywords

Not available



Darshana Seeburruth

Darshana Seeburruth is a second-year medical student at the Temerty Faculty of Medicine at the University of Toronto. She is naturally curious and enjoys conducting research. Her research interests include improving patient-centered care, equity, diversity and inclusion (EDI), and medical education. She is grateful to have had the opportunity to conduct research with Dr. Dafna Gladman investigating 'Work Productivity and Its Relationship to Clinical Features of Psoriatic Arthritis'. Darshana was supported by the Canadian Institutes of Health Research Institute for Musculoskeletal Health and Arthritis and the Canadian Association of Psoriasis Patients Research Award for this project.



Keywords

Work Productivity, Biologics/JAKs, Psoriatic Arthritis

Archita Srinath

Archita is a 4th year PhD student at the University of Toronto's Faculty of Medicine. She is supervised by Dr. Nigil Haroon and is currently studying the deubiquitinase molecule TRABID in the context of Spondyloarthritis pathogenesis. Her work is currently supported by the Arthritis Society's PhD Salary Award. She earned her BSc. From McMaster University and her MSc. from the University of Toronto under the supervision of Dr. Haroon. Outside the lab, Archita is passionate about mentorship and science communication.



Keywords

Spondyloarthritis, inflammation, ubiquitin, proteasome, deubiquitinase, TRABID

Catherine Stratton

Catherine Stratton is an Epidemiology PhD student at the University of Toronto. She is a recipient of the Canadian Institutes of Health Research's Canada Graduate Scholarship Doctoral Award and the Pierre Elliott Trudeau Foundation Doctoral Scholarship. Catherine's doctoral research focuses on improving the methods for designing, maintaining, and utilizing rare disease patient registries. She will use novel methods to engage patient partners, clinicians, and other knowledge users throughout the research process to gather richer evidence about rare disease registries. Catherine previously completed a Master of Public Health in Chronic Disease Epidemiology at Yale University and her undergraduate degree at Victoria College, University of Toronto. Catherine Vice President and Research Chair for the MoyaMoya Foundation Co. In this position, she has created the Global Moyamoya Patient Registry to optimize the available data about this rare disease. Catherine serves on the International Society for Physical and Rehabilitation Medicine's Task Force on Physical Activity for Persons with Disabilities where she has done research regarding disability and accessibility with a multinational and interdisciplinary team.



Keywords

Not available

Zackary Willson

Zackary Willson is a 3rd year student at the University of Toronto in the Engineering Science program majoring in Mathematics, Statistics, and Finance Engineering and also pursuing a minor in Artificial Intelligence Engineering. He is a student in Dr. Andy Kin On Wong's lab working on analyzing osteoarthritis and osteoporosis in postmenopausal women using quantitative methods. Throughout this research, Zack has gained experience in data analysis using Python. In the future, Zack wants to apply mathematics, statistics, and machine learning to advanced problems in STEM.



Keywords

Osteoporosis, postmenopausal, female, SUV, hip, PET-CT, Python, Graph Cut, bone metabolism, retrospective