



UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA



37TH ANNUAL OTTAWA
CARDIOVASCULAR
RESEARCH DAY

MAY 30, 2025

University of Ottawa Heart Institute

The Ottawa Cardiovascular Research Day
Planning Committee gratefully acknowledges the
support of our event partners:

PLATINUM LEVEL SPONSORS



FOUNDATION
FONDATION

GOLD LEVEL SPONSORS



CAPITAL  BIOVENTURES

SILVER LEVEL SPONSOR

ThermoFisher
SCIENTIFIC

CONTENTS

WELCOME.....3

PLANNING COMMITTEE.....4

PROGRAM OVERVIEW.....5

KEYNOTE LECTURSHIP.....8

OTTAWA REGION CARDIOVASCULAR TRAINEE OF THE YEAR AWARD.....9

EQUITY DIVERSITY AND INCLUSION (EDI) IN RESEARCH TRAINEE AWARD.....10

DR. FRANS LEENEN TRAINEE AWARD FOR PUBLICATION EXCELLENCE11

POSTER PRESENTATIONS: BASIC SCIENCE.....12

POSTER PRESENTATIONS: CLINICAL, POPULATION HEALTH, HEALTH SERVICES SCIENCE.....16

SPECIAL THANKS.....23

WELCOME

On behalf of the planning committee, it is with great pleasure that we welcome you to the 37th Ottawa Region Cardiovascular Research Day. This event is open to all cardiovascular research groups in the Ottawa region and is designed to give trainees an opportunity to showcase their outstanding projects and network with investigators and peers.

This year we have returned to a one-day, in-person program to facilitate participation from clinical and basic research teams.

This year, our keynote lecture will be led by Dr. Leo Anthony Celi, MD, MPH, MSc. Dr. Celi is a critical care physician and internationally renowned senior research scientist from the Massachusetts Institute of Technology. He has built impactful research platforms which improve patient outcomes through health informatics. Importantly, his innovations are accessible and widely shared among the global research community including low- and middle-income countries.

With 11 abstract talks and 81 posters, we are confident the Ottawa Region Cardiovascular Research Day is a great venue to network with colleagues and learn more about the work being done in the region. The event will conclude with an awards ceremony to recognize the best posters and oral presentations.

The Innovation Award Competition this year will feature 4 pitches. The award recognizes innovative ideas and trainees' ability to effectively communicate to a lay audience. Attend to hear your colleagues pitch their work to a panel of innovation champions!

Institutional award presentations include:

- Ottawa Region's Cardiovascular Trainee of The Year Award
- Equity, Diversity & Inclusion (EDI) in Research
- Dr. Frans Leenen Trainee Award for Publication Excellence

Be sure to join our Networking Social Event to connect and foster possible future collaborations.

Finally, we would like to thank our speakers, presenters, judges, session chairs, and organizers for making this event possible. We would also like to extend our gratitude to all sponsors for their generous support: **Silver Level Sponsor:** ThermoFisher Scientific; **Gold Level Sponsors:** Pfizer Inc, Capital Bioventures, **Platinum Level Sponsors:** Novo Nordisk and the UOHI Foundation.

Sincerely,

Ian Paterson, MD; Wenbin Liang, MD, PhD

Chair, Research Day Committee; Co-Chair, Research Day Committee



UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

PLANNING COMMITTEE

Ian Paterson, MD
Chair, Research Day
Clinician Investigator, UOHI
Professor, Department of Medicine
University of Ottawa

Rebecca Moreno, HBSc
Lead Organizer
Knowledge Translation Officer
Research Services

Alison Conley
Co-Lead Organizer
Manager, Research Services

Adim De, PhD
Innovation Competition Coordinator
Innovation Advisor, UOHI

Rimshah Abid
PhD Candidate, UOHI
Registration Coordinator

Marwan Bakr
BSc Candidate, UOHI
Registration Coordinator

Camille Rosseau, PhD
Postdoctoral Fellow, UOHI
Innovation Session Moderator

Victoria Lorant, PhD
Postdoctoral Fellow, UOHI
Innovation Session Moderator

Wenbin, Liang, MD, PhD
Co-Chair, Research Day
Scientist, UOHI
Associate Professor, Faculty of Medicine
University of Ottawa

Serena Pulente
PhD Candidate, UOHI
Poster Session Moderator

Lindsay Lew, PhD
Postdoctoral Fellow, UOHI
Poster Session Moderator

Nadya Morrow
PhD Candidate, UOHI
Oral Presentation Session Moderator

Chanele Polenz, PhD
Postdoctoral Fellow, UOHI
Oral Presentation Session Moderator

Termeh Aslani
PhD Candidate, UOHI
Mentorship Coordinator

Abagael Hudak
MSc Candidate, UOHI
Mentorship Coordinator

OHEART COMMITTEE
OFFICE OF RESEARCH SERVICES



UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

OTTAWA CARDIOVASCULAR RESEARCH DAY 2025

Friday, May 30th, 8:00 -17:30

Opening Remarks

8:00-8:15

Ian Paterson, MD
Chair, Research Day Committee

Katey Rayner, PhD
Chief Scientific Officer /
VP Research, UOHI

8:15-9:15

Oral Presentation Session 1
Moderator: Nadya Morrow, PhD Candidate

Theme: Innovative Approaches to Managing and Reducing Cardiac Risk
Auditorium (H-2367)

O-1: Postoperative Inflammation Impairs Reverse Cholesterol Transport, Potentiates Foam Cell Formation, and Fuels Plaque Necrosis

Dominique Boucher, MD/PhD Candidate, UOHI
Supervisor: Mireille Ouimet, PhD

O-2: Improving ECG Arrhythmia Detection with Pretrained Deep Learning Models

Humza Iqbal, BSc Candidate, University of Ottawa
Supervisor: Christopher Sun, PhD

O-3: Decorin-Enriched Extracellular Vesicles Prevent Atrial Fibrrosis

Simran Rakhra, MSc Candidate, UOHI
Supervisor: Darryl Davis, MD

O-4: The Long-term Effects of High-intensity Interval Training and Moderate-to-vigorous Intensity Continuous Training on Functional Capacity and Quality of Life in Patients with Permanent or Persistent Atrial Fibrillation

Matheus Reis Hausen, PhD, Postdoctoral Fellow, UOHI
Supervisor: Jennifer Reed, PhD

9:15-9:45

Trainee of the Year Lecture & Award Presentation
(Auditorium H-2367)

9:45-10:00

Health Break / Poster Hall
Sponsored by Novo Nordisk

10:00-10:15

EDI In Research - Trainee Award Presentation
(Auditorium H-2367)

10:15-11:15

Keynote Lecture (Hybrid)
Leo Anthony Celi, MD, MPH, MSc
Clinical Research Director, Senior Research Scientist, MIT
Associate Professor, Harvard Medical School
Staff Physician, Beth Israel Deaconess Medical Center

Is AI Worth Its Cost?

11:15-12:45

Poster Session & Judging
Cardiac Rehabilitation Track (H-2330)

12:45-13:30

Lunch Sponsored by Novo Nordisk
Auditorium (H-2367)

OR



Mentorship Session with Leo Anthony Celi, MD, MPH, MSc
Registration required
Executive Boardroom (H-2403)

13:30-14:30

Oral Presentation Session 2
Moderator: Chanele Polenz, PhD, Postdoctoral Fellow

Theme: Improving Cardiac Care & Outcomes
Auditorium (H-2367)

O-5: Wnt5a Promotes Ventricular Tachyarrhythmias by Inducing Calcium Alternans

Jerry Wang, PhD Candidate, UOHI
Supervisor: Wenbin Liang, MD, PhD

O-6: Radiomics Provides Incremental Value in Distinguishing Between ATTR and AL on Cardiac Magnetic Resonance Imaging

Bethlehem Mengesha, MD, Clinical Fellow, UOHI
Supervisor: Rebecca Thornhill, PhD

O-7: Effect of IGFBP7 on Cardiac/Renal Microvasculature in Diabetes Mellitus

Yiqing Huang, MSc Candidate, UOHI
Supervisor: Peter Liu, MD

O-8: Association Between Cardiogenic Shock Phenotypes and Outcomes: A Subgroup Analysis of the DOREMI Trial

Joshua McShane, MD, Resident, UOHI
Supervisor: Pietro Di Santo, MD

14:30-14:45

Health Break / Poster Hall
Sponsored by Novo Nordisk

14:45-15:30

Oral Presentation Session 3
Moderator: Lindsay Lew, PhD, Postdoctoral Fellow

Theme: Whole Person Heart Health
Auditorium (H-2367)

O-9: Pre-existing Atherosclerosis Exacerbates Short- and Long-term Inflammatory Burden in Pneumonia

Cameron Stotts, PhD Candidate, UOHI
Supervisor: Katey Rayner, PhD

O-10: Menstrual, Reproductive and Menopausal Histories of Women with Cardiovascular Disease: A Cross-sectional Descriptive Study

Daria Goulets, BSc Candidate, UOHI
Supervisor: Kerri-Anne Mullen, PhD

O-11: Decisional Needs of Equity-Deserving Groups Diagnosed with Brain-Heart Conditions: A Mixed Methods Study

Semhal Gessese, MSc Candidate, University of Ottawa
Supervisor: Krystina B. Lewis, PhD

15:30-16:15

Innovation Award Finalists

Moderator: Adim De, PhD
Auditorium (H-2367)

I-1: CCS Atlas - Making the Invisible, Visible

Marwan Bakr, BSc Candidate, UOHI
Supervisor: Kyoung-Han Kim, PhD

I-2: A New Hope For PAI-1 Deficiency

Serena Pulente, PhD Candidate, UOHI
Supervisors: Erin Mulvihill, PhD, Kyoung-Han Kim, PhD

I-3: Brain-Heart Matrix - Revolutionizing Drug Testing and Healthcare

Priyadharshni Muniyandi, PhD, Postdoctoral Fellow, UOHI
Supervisor: Peter Liu, MD

I-4: Repurposing a Game-changing Cancer Immunotherapy to Treat a Cancer-like Lung Vascular Disease

Elmira Safaie Qamsari, PhD Candidate, OHRI
Supervisor: Duncan Stewart, MD

16:15-17:00

Networking Reception

Cardiac Rehabilitation Track (H-2330)

Awards Ceremony

17:00-17:30

Moderators: **Wenbin Liang, MD, PhD**

Co-Chair, Research Day Committee
Auditorium (H2367)

17:30

Closing Remarks

Ian Paterson, MD

Chair, Research Day Committee

KEYNOTE SPEAKER



Leo Anthony Celi, MD, MPH, MSc
Clinical Research Director, Senior Research Scientist
Massachusetts Institute of Technology

Associate Professor
Harvard Medical School

Staff Physician
Beth Israel Deaconess Medical Center

“IS AI WORTH ITS COST”

Dr. Celi is an Associate Professor of Medicine at Harvard Medical School and a Senior Research Scientist at the Massachusetts Institute of Technology. His journey spans continents and disciplines, beginning with a medical degree from the University of the Philippines, followed by advanced training in internal medicine, infectious disease, critical care, and medical informatics at world-renowned institutions including the Cleveland Clinic, Stanford, and Massachusetts General Hospital. He also holds a Master’s in Biomedical Informatics from MIT and a Master of Public Health from the Harvard T.H. Chan School of Public Health.

But Dr. Celi is not just a physician—he is a pioneer in clinical innovation. As the principal investigator of the Medical Information Mart for Intensive Care, or MIMIC, he has democratized access to critical care data, empowering over 53,000 researchers worldwide and catalyzing nearly 8,000 publications. His work has transformed how we ask and answer clinical questions, making MIMIC one of the most impactful datasets in the machine learning for healthcare domain.

He also leads the eICU Collaborative Research Database, extending this vision across the United States, and serves as Director of MIT Critical Data—a global consortium committed to making data and learning central to healthcare. Through more than 50 health datathons in 25 countries, Dr. Celi has brought together clinicians, data scientists, and patients to co-create solutions that are inclusive, equitable, and globally relevant.

His scholarship is prolific, with over 32,000 citations and a body of work that spans machine learning, global health, and digital medicine. He is the Editor-in-Chief of PLOS Digital Health, a recipient of the NIH/HHS DataWorks! Prize, and a passionate educator, leading courses at MIT and Harvard, and authoring widely accessed textbooks translated into multiple languages.

OTTAWA REGION CARDIOVASCULAR TRAINEE OF THE YEAR AWARD

The Cardiovascular Research Trainee of the Year Award celebrates outstanding research excellence by a trainee in the Ottawa region who is actively contributing to the field of cardiovascular science. Recognizing achievements from April to March each year, this award highlights a trainee who has demonstrated exceptional productivity, innovation, and impact in their research.



Congratulations to **Javad Heshmati a postdoctoral fellow at UOHI**. He is being recognized for his exceptional contributions to cardiovascular research, particularly in the area of smoking and vaping cessation. Since joining Dr. Hassan Mir's lab in January 2024 as a postdoctoral fellow, Dr. Heshmati has demonstrated extraordinary productivity, leadership, and impact.

In just one year, he has published over 10 peer-reviewed articles—with many more in progress—and led the first systematic review and meta-analysis on vaping cessation interventions, published in *BMJ Tobacco Control*. His work has directly influenced national clinical guidelines, including his role as a co-author on the Canadian Cardiovascular Society's upcoming Clinical Practice Update on Smoking Cessation.

Dr. Heshmati's research has been widely disseminated through high-profile presentations at national and international conferences, and his findings are already shaping clinical tools and protocols. He is also the recipient of the prestigious CIHR Health System Impact Fellowship, supporting his development of a comprehensive vaping cessation strategy.

Beyond his research, Dr. Heshmati has mentored multiple graduate and medical students, helping them publish and present their work, and has played a key role in expanding his lab's research capacity and collaborations. His dedication, mentorship, and scholarly excellence make him a standout leader in the cardiovascular research community.

UOHI EDI IN RESEARCH AWARD

The UOHI Equity, Diversity, and Inclusion (EDI) in Research Award honors students or fellows who challenge systemic barriers, promote inclusive research practices, and create opportunities for under-represented groups – whether through innovative study design, mentorship, outreach, or workplace improvements. Awardees are distinguished by their commitment to making research more generalizable, accessible, fair, and impactful for all.



Congratulations to **Sumali Mehta, PhD Candidate**, recipient of the 2025 UOHI EDI in Research Trainee Award! Ms. Mehta is recognized for her exceptional commitment to advancing equity in her community and globally through participatory research.

Co-supervised by Jodi Edwards, PhD and David Birnie, MD. Ms. Mehta is currently addressing the critical paucity of data on the epidemiology of cardiac arrhythmias and outcomes in Nunavut's Inuit communities. She developed a comprehensive and culturally-informed community engagement plan, established a partnership with a local Inuit community health team, and built collaborations with Indigenous clinicians and researchers. Together they developed materials to conduct interviews with Inuk individuals during their UOHI inpatient admission.

Ms. Mehta developed a comprehensive conceptual model of the intersectionality between clinical, health access, lifestyle/behavioural and Indigenous cultural factors. She is leading in-community talking circles on-site in Nunavut and applying co-developed research questions to assess arrhythmia prevalence, risk and outcomes in Indigenous data sources.

Ms. Mehta has honed her policy expertise through internships with WHO, PHAC and the International Development Research Centre. She is a Member of the Gender Rights Specialized Team for Amnesty International Canada, and a Junior Editor for PHAC's Communicable Disease Report. She has been recognized with the 2024 Department of Family Medicine Global Health Travel Bursary, and a Global Affairs International Youth fellowship which includes co-developing Ugandan community-based gender equity projects.

DR. FRANS LEENEN TRAINEE AWARD FOR PUBLICATION EXCELLENCE

The Dr. Frans Leenen Trainee Award for Publication Excellence is a prestigious recognition presented by the University of Ottawa Heart Institute (UOHI) to honor outstanding research by a trainee. Named after Dr. Frans Leenen—a respected clinician scientist and dedicated mentor—the award celebrates a trainee-led publication from the previous year that demonstrates innovation, impact, and scientific excellence.



Congratulations to **Yena Oh, PhD** at the University of Ottawa Heart Institute. Dr. Oh is being recognized with the Dr. Frans Leenen Trainee Award for Publication Excellence for her groundbreaking first-authored publication in *Nature Communications* (2024), titled "*Transcriptional Regulation of the Postnatal Cardiac Conduction System Heterogeneity.*" This work, completed entirely during her PhD training, represents a major advance in our understanding of the heart's electrical conduction system.

The cardiac conduction system (CCS) is essential for maintaining a regular heartbeat, yet its molecular complexity has remained largely unexplored due to the rarity and inaccessibility of CCS cells. Yena's study overcomes these challenges by generating the first high-resolution, spatially informed single-cell transcriptomic atlas of the postnatal mouse CCS. Through the integration of cutting-edge multi-omics techniques—including scRNA-seq, ChIP-seq, and ATAC-seq—she identified key transcription factors, such as *Irx3* and *Tbx3*, that drive cellular diversity within the CCS.

Her work not only deepens our molecular understanding of cardiac rhythm regulation but also introduces an *in vitro* model that mimics CCS heterogeneity, offering a powerful platform for disease modeling and therapeutic discovery. The study has already garnered significant attention, with multiple oral presentations at prestigious conferences and postdoctoral offers from leading cardiovascular research labs.

Yena's leadership, technical skill, and scientific insight have produced a foundational dataset that is poised to shape future research and precision therapies for conduction disorders. Her work exemplifies the spirit of innovation and excellence that the Dr. Frans Leenen Award seeks to honor.

POSTER PRESENTATIONS: BASIC SCIENCE

P-01 Cleaved Communications: Exploring the Immune-Adipose Crosstalk in Obesity-Driven Atherosclerosis

Ali Abdalbari, MSc Candidate, UOHI

Supervisor: Erin Mulvihill, PhD

P-02 Antagonistic Cooperation of Irx3 and Irx4 Maintains Trabecular Integrity During Ventricular Compaction

Rimshah Abid, PhD Candidate, UOHI

Supervisor: Kyoung-Han Kim, PhD

P-03 Methylglyoxal-Derived Advanced Glycation End-Products Accumulate in Skeletal Muscles after Myocardial Infarction

Ines Amara, PhD, Postdoctoral Fellow, UOHI

Supervisor: Erik Suuronen, PhD

P-04 Irx1 and Irx2 Regulate Extra-Embryonic Vascular Development Through a Common Cardiogenic Progenitor

Termeh Aslani, PhD Candidate, UOHI

Supervisor: Kyoung-Han Kim, PhD

P-05 Flow-mediated Intimal Injury Drives the Emergence of Growth-dysregulated Arterial Endothelial Cells Responsible for Occlusive Arterial Remodeling in Pulmonary Arterial Hypertension

Jalil Azami, Postdoctoral Fellow, OHRI

Supervisor: Duncan J Stewart, MD

P-06 Comparative Single-cell Atlas of the Vertebrate Cardiac Conduction System

Marwan Bakr, BSc Candidate, UOHI

Supervisor: Kyoung-Han Kim, PhD

P-07 Release of Cardiac Troponin T within Small Extracellular Vesicles in Type 1 vs. Type 2 Myocardial Infarction

Leyton Basiren, MSc Candidate, UOHI

Supervisor: Peter Liu, MD

P-08 Discreetly Discretized: How Discretization Errors Affect Cardiac SPECT Data Consistency

Taylor Clark, PhD Candidate, CarletonU

Supervisor: Glenn Wells, PhD

P-09 The Impact of Lysine Lactylation as a Post-Translational Regulator of Inflammatory Resolution in Macrophages

Anastasia Fahlman, MSc Candidate, UOHI

Supervisor: Katey Rayner, PhD

P-10 Collagen-inspired Peptides as Methylglyoxal Trapping Agents

Sergio David Garcia Schejtman, PhD, Postdoctoral Fellow, UOHI

Supervisor: Erik Suuronen, PhD

P-11 Bioconjugation Techniques for PET Imaging of Cardiovascular Disease

Ezana Ghedam, BSc Candidate, uOttawa

Supervisor: Benjamin Rotstein, PhD

P-12 Investigating Increased Insulin Secretion upon Casp-1/Ripk3 Inhibition/Deletion

Madison Girouard, MSc Candidate, uOttawa

Supervisor: Morgan Fullerton, PhD

P-13 Circulating Extracellular Vesicles Improve Prediction of Stroke and Myocardial Infarction in Hemodialysis Patients: A Pilot Study

Issac Glassman, MD Candidate, uOttawa

Supervisor: Dylan Burger, PhD

P-14 Generation of Cardiac Atrial Cells from Human iPSC to Investigate Mechanisms of Atrial Fibrillation

Adjia Seynabou Sy Gueye, BSc Candidate, UOHI

Supervisor: Wenbin Liang, MD, PhD

P-15 Being a Target for Glycation by Methylglyoxal Contributes to Therapeutic Efficacy of Injectable Collagen Hydrogels Post-Myocardial Infarction

Xixi Guo, PhD Candidate, UOHI

Supervisor: Erik Suuronen, PhD

P-16 A Novel Murine Model of Heart Failure with Preserved Ejection Fraction Induced by Inhibition of Tetrahydrobiopterin Synthesis and Uncoupling of NO-synthase

Savi Gupta, MSc Candidate, OHRI

Supervisor: Duncan J Stewart, MD

P-17 On-the-Spot Generation of Small-diameter Vascular Grafts

Deyanira Hernandez, PhD Candidate, UOHI

Supervisor: Emilio Alarcon, PhD; Erik Suuronen, PhD

P-18 Nanoparticles Loaded with Collagen-like Peptide for Methylglyoxal Trapping as a Post-myocardial Infarction Treatment

Jéssica Hernández Juárez, MSc Candidate, UOHI

Supervisor: Erik Suuronen, PhD

P-19 Pneumonia Drives Persistent Cerebrovascular Inflammation in Mice

Abagael Hudak, MSc Candidate, UOHI

Supervisor: Katey Rayner, PhD

P-20 Assessing Methylglyoxal-induced Neuroinflammation in the Brain Post-Myocardial Infarction

Ramis Ileri, PhD Candidate, UOHI

Supervisor: Erik Suuronen, PhD

P-21 Exploring the Therapeutic Impact of Empagliflozin on Fatty Liver Disease through Hepatic Ketogenesis

Sora Kwon, PhD, Postdoctoral Fellow, UOHI

Supervisor: Kyoung-Han Kim, PhD

P-22 Multimodal Validation of Electrophysiological and Functional Remodelling in Mouse Models of Heart Failure

Michelle Levesque, MSc Candidate, uOttawa

Supervisor: Mary-Ellen Harper, PhD

P-23 Ketogenic Diet and Cardiometabolic Disease: Mouse model matters

Cassandra Locatelli, MSc Candidate, UOHI

Supervisor: Erin Mulvihill, PhD

P-24 Aged Macrophages Induce Vascular Smooth Muscle Cell Dysfunction, Impairing Atherosclerosis Regression

Victoria Lorant, PhD, Postdoctoral Fellow, UOHI

Supervisor: Katey Rayner, PhD; Mireille Ouimet, PhD

P-25 GPR Signalling Modulates Monocyte Movement in the Fasting-refeeding Response and is Associated with Protection from Experimental Colitis

Nadya Morrow, PhD Candidate, UOHI

Supervisor: Erin Mulvihill, PhD

P-26 Bioengineering High-throughput Human Stem Cell-Derived Organoid Platform for Heart and Brain to Screen and Evaluate Potential Therapeutic Target for Heart Failure Induced Cognitive Impairment

Priyadharshni Muniyandi, PhD, Postdoctoral Fellow, UOHI

Supervisor: Peter Liu, MD

P-27 Generation of Cardiac Pacemaker Cells as a Model to Study the Effects of Wnt Signaling on Human Sinoatrial Node Function

Ernest Ngou, BSc Candidate, UOHI

Supervisor: Wenbin Liang, MD, PhD

P-28 Investigating the Effects of Disrupted AMPK-mTORC1 Signaling on Insulin-Regulated Liver Metabolism in Mice

Ivy Nie, MSc Candidate, uOttawa

Supervisor: Morgan Fullerton, PhD

P-29 Irx5 is a Key Regulator of Ventricular Transmural Gradients in the Healthy and Diseased Heart

Julie Pan, MSc Candidate, UOHI

Supervisor: Kyoung-Han Kim, PhD

P-30 Light-Mediated Carbon-11 Radiolabelling of α -Hydroxy Carboxylic Acids

Abhishek Patel, MSc Candidate, UOHI

Supervisor: Benjamin Rotstein, PhD

P-31 Investigating the Roles of BMP9 and BMP10 in Atrial Fibrillation

Alex Pham, MSc Candidate, UOHI

Supervisor: Peter Liu, MD

P-32 Investigating the Relationship Between Atherosclerotic Cardiovascular Disease and Depression/Anxiety

Chanele Polenz, PhD, Postdoctoral Fellow, UOHI

Supervisor: Katey Rayner, PhD

P-33 Utilizing Metformin in the Treatment of PAI-1-deficient Associated Cardiac Fibrosis

Serena Pulente, PhD Candidate, UOHI

Supervisors: Erin Mulvihill, PhD, Kyoung-Han Kim, PhD

P-34 Divergent Roles of Senescent Endothelial Cells in the Development of Pulmonary Arterial Hypertension

Elmira Safaie Qamsari, PhD Candidate, uOttawa

Supervisor: Duncan J Stewart, MD

P-35 Ripk1 Silencing Rescues Blood-brain Barrier Loss and Hippocampal Inflammation in a Hyperlipidemic Model

Jonathan Salazar, PhD, Postdoctoral Fellow, UOHI

Supervisor: Katey Rayner, PhD

P-36 Defining Endothelial Cell Heterogeneity in a Model of Pulmonary Veno-occlusive Disease using Single-cell Transcriptomics

Elham Salehisiavashani, PhD Candidate, OHRI

Supervisor: Duncan J Stewart, MD

P-37 Pro-Atherogenic Macrophages Induce Upregulation of MLKL and Cell Death in Vascular Smooth Muscle Cells during Atherogenic Stimulation

Rama Sarakbi, Technician, UOHI

Supervisor: Katey Rayner, PhD

POSTER PRESENTATIONS: CLINICAL, POPULATION HEALTH, HEALTH SERVICES SCIENCE

P-38 Florbetaben for Imaging of Vascular Amyloid: Evaluation of amyloid inflammasome imaging in carotid and coronary arteries in patients with unstable atherosclerosis (FERMATA)- A pilot study

Faisal Ahmed, MD Candidate, UOHI

Supervisor: Kevin Boczar, MD

P-39 The Advanced Research Collaboration for Health Integration, Medical Exploration, and Data Synthesis (ARCHIMEDES)

Marc Albert, MSc, Research Coordinator, UOHI

Supervisor: Kelly Cobey, PhD

P-40 Teaching Safe Femoral Arterial Access in the Cardiac Catheterization Lab using a Novel High Fidelity Simulation Model.

Quinton Barry, MD, Resident, UOHI

Supervisor: Derek So, MD; Zeeshan Ahmed, MD

P-41 Nicotine Pouch Pharmacokinetics Compared to Conventional Tobacco: A Systematic Review and Meta-Analysis

Emma Bates, Clinical Research Assistant, UOHI

Supervisor: Hassan Mir, MD

P-42 Comparing Outcomes of Ticagrelor and Clopidogrel in ST-Elevation Myocardial Infarction Patients Requiring Coronary Artery Bypass Grafting during Index Hospitalization

Rene Boudreau, Clinical Fellow, UOHI

Supervisor: Michel Le May, MD

P-43 Intra-Aortic Balloon Pump Versus Standard Care in “DanGer-Like” STEMI-Related Cardiogenic Shock: A Propensity-Matched Analysis

Rene Boudreau, Clinical Fellow, UOHI

Supervisor: Derek So, MD

P-44 Developing Harmonized Data Sharing Language for Consent Templates to Foster Open Science

Jessica Edmonds, Research Associate, UOHI

Supervisor: Kelly Cobey, PhD

P-45 Unintended Impact of Left-Shifting Aortic Guidelines on Aortic Valve Interventions

Ayse Hafsa Es, Clinical Research Assistant, UOHI

Supervisor: Munir Boodhwani, MD

P-46 Stereotactic Radioablation or Escalated Drug Therapy for Recurrent VT: Mid Term Outcomes

Connor Haberl, MSc Candidate, UOHI

Supervisor: Robert deKemp, PhD

P-47 Vaping is Associated with Increased Length of Stay Among Cardiac Inpatients

Javad Heshmati, PhD, Postdoctoral Fellow, UOHI

Supervisor: Hassan Mir, MD

P-48 Evaluating Interventions Aimed at Increasing Intention to Quit Vaping Among Adult E-cigarette Users - A Systematic Review

Javad Heshmati, PhD, Postdoctoral Fellow, UOHI

Supervisor: Hassan Mir, MD

P-49 GLP-1 Agonists and Smoking Cessation: A Systematic Review and Meta-Analysis of Randomized Clinical Trials

Javad Heshmati, PhD, Postdoctoral Fellow, UOHI

Supervisor: Hassan Mir, MD

P-50 Designing and Evaluating Interactive Health Data Visualizations to Enhance Patient Motivation in Cardiovascular Rehabilitation Programs

Darwin Jull, MSc Candidate, CarletonU

Supervisor: Fateme Rajabiyazdi, PhD

P-51 Co-Designing Interventions to Improve Mental Health Awareness and Recognition for Individuals with Heart Failure and Their Caregivers: A Participatory Action Research Approach in the Brain-Heart Dyad

Krystal Kehoe MacLeod, PhD, Postdoctoral Fellow, Bruyère Research Institute

Supervisor: Vivian Welch, PhD

P-52 Trends in Cardiology In-patient Numbers at the University of Ottawa Heart Institute from 2020-2024; Influence of day, month, year and doctor seniority

Daniel Knight, PhD Candidate, CarletonU

Supervisor: David Birnie, MD

P-53 Use of the Dual-Antiplatelet Therapy Score to Guide Dual Antiplatelet Therapy Duration after Percutaneous Coronary Intervention (PCI) in a Routine All-comer Post PCI Clinic

William Knoll, MD, Resident, TOH

Supervisor: Derek So, MD

P-54 Can the Present Canadian Healthcare System Provide Evidence-Based Pharmacare: Consideration of Two Important Cardiovascular Clinical Contexts

Morgane Laverdure, MD, Resident, UOHI

Supervisor: Derek So, MD

P-55 Characterizing Arterial Stiffness and Reproductive Status in Hospital-based Nurses: Results from the Champlain Nurses' Study

Lindsay Lew, PhD, Postdoctoral Fellow, UOHI

Supervisor: Jennifer Reed, PhD

P-56 Win Ratio in Biomedical Science: A bibliometric analysis (2012 - 2024)

Zhenyu Li, MD Candidate, uOttawa

Supervisor: Stephen Frenes, MD

P-57 Are Standard Smoking Cessation Strategies Effective for Sexual and Gender Minorities? A Systematic Review of Pharmacotherapy and ENDS Interventions

Emily Liang, MD Candidate, UOHI

Supervisor: Hassan Mir, MD

P-58 Preventive Effect of Preoperative Vitamin D Supplementation on Postoperative Atrial Fibrillation Following Cardiac Surgery: A Systematic Review and Dose-Response Meta-Analysis

Salma Mahmoodianfard, PhD, Postdoctoral Fellow, UOHI

Supervisor: Hassan Mir, MD

P-59 Nuclear Image Denoising for AI-based Respiratory Motion Estimation in Cardiac SPECT Myocardial Perfusion Imaging

Dylan Malenfant, PhD Candidate, CarletonU

Supervisor: Glenn Wells, PhD

P-60 Challenges in Virtual Recruitment for Smoking Cessation Studies in Emergency Departments

Chantelle Masterson, Clinical Research Coordinator, UOHI

Supervisor: Kerri-Anne Mullen, PhD

P-61 The Role of Epicardial Adipose Tissue Volume and Density in Microvascular Function and Outcome of Patients with Suspected Angina and Non-obstructive Coronary Artery Disease

Bethlehem Mengesha, Clinical Fellow, UOHI

Supervisor: Benjamin Chow, MD

P-62 Phenotyping Disease Burden in Cardiac Amyloidosis using Cardiac Magnetic Resonance

Bethlehem Mengesha, Clinical Fellow, UOHI

Supervisor: David Ian Paterson, MD

P-63 Transient Ischemic Dilatation on Dobutamine Stress Rubidium-82 PET Myocardial Perfusion Imaging

Bethlehem Mengesha, Clinical Fellow, UOHI

Supervisor: Benjamin Chow, MD

P-64 Analysis of Tobacco Cessation Strategies in Military Personnel: A Systematic Review and Meta-Analysis

Jake Miles, MD Candidate, UOHI

Supervisor: Hassan Mir, MD

P-65 Relationship of Myocardial Tissue Characterization and Intraventricular Conduction Disease in Patients with Cardiomyopathy and Left Ventricular Dysfunction

Mehmet Onur Omaygenc, Clinical Fellow, UOHI

Supervisor: David Ian Paterson, MD

P-66 The Correlation of Extracellular Volume and Left Ventricular Mass with Quantitative Measurement of Tc-99m Pyrophosphate in Cardiac Transthyretin Amyloidosis

Mehmet Onur Omaygenc, Clinical Fellow, UOHI

Supervisor: Terrence Ruddy, MD

P-67 Validation of a Quantitative Ratio-Based Method for Myocardial PYP Uptake in Cardiac Amyloidosis

Derya Ozden Omaygenc, Clinical Research Coordinator, OHRI

Supervisor: Terrence Ruddy, MD

P-68 Barriers and Facilitators of Cardiovascular Disease Prevention Services for Women with Prior Gestational Diabetes or Hypertensive Disorders of Pregnancy in Low-, Middle - and High-income Settings; A scoping review

Dan Quansah, PhD, Postdoctoral Fellow, UOHI

Supervisor: Kerri-Anne Mullen, PhD

P-69 Efficacy of Anti-inflammatory Therapies for Pericarditis: A Systematic Review and Network Meta-analysis

Mirna Ragheb, MD, Resident, UOHI

Supervisor: Kevin Boczar, MD

P-70 Sex-Based Outcomes of Mitral Surgery for Ischemic Mitral Regurgitation: A Multi-Center Retrospective Cohort Study

Kenza Rahmouni, MD, Resident, UOHI

Supervisor: Vincent Chan, MD; Tim Ramsay, PhD

P-71 An Artificial Intelligence-Enabled Data Visualization System to Identify Participation Barriers and Disparities in Cardiac Rehabilitation Programs

Shri Harini Ramesh, PhD Candidate, CarletonU

Supervisor: Fateme Rajabiyazdi, PhD

P-72 Evaluation of the Prince Edward Island Smoking Cessation Program based on the Ottawa Model for Smoking Cessation

Ayah Rashwan, Clinical Research Coordinator, UOHI

Supervisor: Hassan Mir, MD

P-73 Modelling COVID-19 Outcomes of Heart and Lung Disease Patients using Stratified Compartmental Models and Mechanistic Machine Learning

Brandon Robinson, PhD, Postdoctoral Fellow, CarletonU

Supervisor: Jodi Edwards, PhD

P-74 The Effects of Parental Cardiovascular Disease on Children's Behavioural, Emotional, and Social Outcomes: A scoping review

Camille Rousseau, PhD, Postdoctoral Fellow, UOHI

Supervisor: Karen Bouchard, PhD

P-75 Nicotine Pouches and Clinical Outcomes: A comprehensive systematic review

Spencer Shahan, Clinical Research Coordinator, UOHI

Supervisor: Hassan Mir, MD

P-76 A Descriptive Analysis of Smokers Presenting to Emergency Departments

Sophie Taljit, Clinical Research Coordinator, UOHI

Supervisor: Kerri-Anne Mullen, PhD

P-77 The Association Between Vaping, Physical Activity, and Cardiorespiratory Fitness: A Systematic Review

Hayley Thode, MD Candidate, UOHI

Supervisor: Hassan Mir, MD

P-78 Agentic Multimodal Large-Language Models for Interactive Radiation Therapy Planning

Maryam Vahabi, PhD Candidate, uOttawa

Supervisor: Christopher Sun, PhD

P-79 Interventions to Enhance Recognition of Mental Health Disorders in Patients with Cardiovascular Disease: A rapid scoping review

Rebecca Valade, Clinical Research Coordinator, Bruyère Research Institute

Supervisor: Krystal Kehoe MacLeod, PhD

P-80 HER-CROWN - Re-examining HER Cardiovascular Risks - Ottawa Women's Longitudinal Cohort Pilot Study - Protocol and Preliminary Analysis

Carolyn Van Dam, Clinical Research Coordinator, UOHI

Supervisor: Kerri-Anne Mullen, PhD

P-81 Developing a Standardized Data Management Plan Template for Randomized Controlled Trials

Anna Catharina Vieira Armond, PhD, Postdoctoral Fellow, UOHI

Supervisor: Kelly Cobey, PhD

NOTES

SPECIAL THANKS



FOUNDATION
FONDATION



CAPITAL  BIOVENTURES

ThermoFisher
SCIENTIFIC

ALL PRESENTERS & ATTENDEES

RESEARCH DAY SPEAKERS

Leo Anthony Celi, MD, MPH, MSc, Keynote

Katey Rayner, PhD, CSO & VP Research, UOHI

Ian Paterson, MD, Chair, Research Day Committee

Wenbin Liang, MD, PhD, Co-chair, Research Day Committee

INNOVATION AWARD JUDGES

Leo Anthony Celi, MD, MPH, MSc, Clinical Research Director, MIT

Michael Yeates, Patient Partner

Larissa Pikor, PhD, Expert-In-Residence, Capital BioVentures

Blake Farquharson, AVP, Early Stage Banking, RBCx

ORAL PRESENTATION MODERATORS

POSTER & ORAL JUDGES

ABSTRACT REVIEWERS

AWARD ADJUDICATION COMMITTEES

ORGANIZING STAFF

SUPPORTING DEPARTMENTS

COMMUNICATIONS; INFORMATION TECHNOLOGY, FRENCH LANGUAGE SERVICES; TICKETS CATERING