

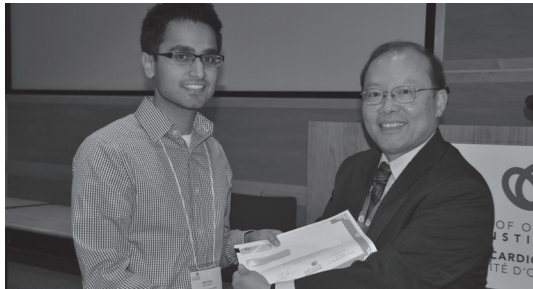


UNIVERSITY OF OTTAWA  
HEART INSTITUTE  
INSTITUT DE CARDIOLOGIE  
DE L'UNIVERSITÉ D'OTTAWA



# 30 YEAR CELEBRATION OF Research Day

MAY 15, 2017 | FOUSTANELLAS AUDITORIUM | UNIVERSITY OF OTTAWA HEART INSTITUTE





The Research Day Committee gratefully acknowledges the support of our event partners.

## SILVER LEVEL SPONSORS



## CONFERENCE SUPPORTERS

The Polk Family Foundation

Ms. Coralie Lalonde

UOHI Trainee Committee



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## Welcome to the 30<sup>th</sup> Annual Research Day

On behalf of the organizing committee, it is with great pleasure we welcome you to the University of Ottawa Heart Institute (UOHI)'s 30<sup>th</sup> Annual Research Day. This event is open to all cardiovascular research trainees in the Ottawa region, and is designed to give trainees an opportunity to showcase their outstanding projects and network with scientists and peers.

We are excited to share with you the following program highlights:

- Keynote lecture by Dr. Gordon Francis, a renowned clinician scientist with expertise in cholesterol metabolism
- Investigator of the Year Lecture by Dr. Katey Rayner, Scientist and Director, Cardiometabolic mRNA Laboratory, UOHI and Assistant Professor, uOttawa
- Trainee of the Year Lecture by Dr. F. Daniel Ramirez, Cardiology Resident and MSc Candidate working with Drs. David Birnie and George A. Wells, UOHI
- Presentation of the Dr. Robert Roberts Award for Research Excellence
- UOHI Trainee Committee Awards for Best Trainee and PI Participation at the Work in Progress Rounds
- Coralie Lalonde Innovation Award - this award recognizes the most innovative abstract which presents a new idea, process, technology, or product that could deliver on an unmet need or solve a critical problem in the cardiovascular field. The primary focus is to recognize innovative ideas and trainees' ability to effectively communicate to a lay audience.

With 16 abstract talks and over 50 posters, we are confident Research Day is a great venue to network with your colleagues and learn more about the research being done at the UOHI as well as in the Ottawa region. The day will conclude with a wine and cheese networking reception, and an awards ceremony to recognize the best oral presentations and posters.

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 the Polk Family Foundation, Ms. Coralie Lalonde, the UOHI Trainee Committee, and our Silver Level Sponsors: AstraZeneca Canada Inc. and Zimmer Biomet for their generous support.

Join us on May 15 to celebrate this special event!

Sincerely,



Thomas Lagace, PhD  
Chair, Research Day Committee



Pablo Nery, MD  
Co-Chair, Research Day Committee

# Day At A Glance

7:00 – 8:00	<b>Registration, Continental Breakfast, and Poster Setup</b>
8:00 – 8:15	<p><b>Welcoming Address</b> Dr. Peter Liu, VP Research and Chief Scientific Officer, UOHI</p> <p><b>Introduction to the 30<sup>th</sup> Annual Research Day</b> Dr. Thomas Lagace, Chair, Research Day Committee, UOHI</p>
8:15 – 9:15	<p><b>Oral Presentations – ORACLE Theme 4: Community Intervention &amp; Policy Innovations for CV Health</b> Chair: Mr. Robert Miner, PhD Candidate, UOHI</p>
8:15 – 8:30	<p><b>O-1 Peer Support for Women with Coronary Heart Disease: Preliminary Results from the Women@Heart Program</b> Dr. Lisa Cotie, Postdoctoral Fellow (Supervisor: Dr. Bob Reid), UOHI</p>
8:30 – 8:45	<p><b>O-2 Objectively Measured Sedentary Time &amp; Its Association with Markers of Health among a Sample of Canadian Female Nurses: An Analysis of the Champlain Nurses' Study</b> Dr. Stephanie Prince Ware, Postdoctoral Fellow (Supervisor: Dr. Bob Reid), UOHI</p>
8:45 – 9:00	<p><b>O-3 Establishing the Minimally Clinical Important Difference for the Hospital Anxiety &amp; Depression Scale in CV Patients</b> Mr. Kyle Lemay, BSc Candidate (Supervisor: Dr. Jennifer Reed), Carleton University/UOHI</p>
9:00 – 9:15	<p><b>O-4 Neurocognitive &amp; Quality of Life Outcomes after Out-of-Hospital Cardiac Arrest: Preliminary Data from the NeuroQOL Study</b> Ms. Aziza Byron-Alhassan, PhD Candidate (Supervisor: Dr. Heather Tulloch), uOttawa/UOHI</p>
9:15 – 10:00	<p><b>Oral Presentations – ORACLE Theme 1: Personal Tailored Health Solutions</b> Chair: Dr. Lisa Cotie, Postdoctoral Fellow, UOHI</p>
9:15 – 9:30	<p><b>O-5 Operator Specific Variation in Pulmonary Vein Reconnection Patterns After Pulmonary Vein Isolation for Subjects with Paroxysmal Atrial Fibrillation</b> Dr. Mark Ainslie, Electrophysiology Fellow (Supervisors: Drs. Girish Nair &amp; David Birnie), UOHI</p>
9:30 – 9:45	<p><b>O-6 Mid-diastolic Left Ventricular Volume and Mass: Normal Values for Coronary Computed Tomography Angiography</b> Dr. Daniel Juneau, Cardiac Imaging Fellow (Supervisor: Dr. Benjamin Chow), UOHI</p>
9:45 – 10:00	<p><b>O-7 The Balance of Short &amp; Long Term Outcomes of Bilateral Internal Thoracic Artery Skeletonization in CABG: A Propensity-Matched Cohort Study</b> Dr. Janet Ngu, Cardiac Surgery Resident (Supervisor: Dr. Fraser Rubens), UOHI</p>



<p><b>10:00 – 11:15</b></p>	<p><b>Poster Session and Poster Judging (Track Area)</b> (see page 13 for the List of Posters)</p>
<p><b>11:15 – 11:35</b></p>	<p><b>Lunch</b></p>
<p><b>11:35 – 13:00</b></p> <p><b>11:35 – 11:45</b></p> <p><b>11:45 – 11:50</b></p> <p><b>11:50 – 12:20</b></p> <p><b>12:20 – 12:30</b></p> <p><b>12:30 – 13:00</b></p>	<p><b>Innovation Award / Dr. Roberts Award Presentation / Trainee Committee Awards / Investigator &amp; Trainee of the Year Lectures</b></p> <p><b>Innovation Award Winner’s Pitch &amp; Award Presentation</b> Presented by: Ms. Coralie Lalonde, Chair, Board of Directors, Ottawa Heart Institute Research Corporation</p> <p><b>Announcing the Recipient of the Dr. Robert Roberts Award of Research Excellence &amp; Award Presentation</b> Presented by: Dr. Peter Liu, VP Research &amp; Chief Scientific Officer, UOHI</p> <p><b>UOHI 2017 Investigator of the Year Lecture</b> Dr. Katey Rayner, Scientist &amp; Director, Cardiometabolic mRNA Laboratory, UOHI; Assistant Professor, uOttawa</p> <p><b>UOHI Trainee Committee Awards: Best Participation in the Work-in-Progress Trainee Rounds</b></p> <p><b>UOHI 2017 Trainee of the Year Lecture</b> Dr. F. Daniel Ramirez, Cardiology Resident &amp; MSc Candidate (Supervisors: Drs. David Birnie &amp; George A. Wells)</p>
<p><b>13:00 – 14:00</b></p>	<p><b>KEYNOTE LECTURE</b></p> <p><i><b>The Importance of Smooth Muscle Cells in Atherosclerotic Foam Cell Formation in Humans &amp; Mice</b></i></p> <p><b>Dr. Gordon A. Francis</b> Professor of Medicine Director, Healthy Heart Program Prevention Clinic Associate Director, Centre for Heart Lung Innovation University of British Columbia &amp; St. Paul’s Hospital</p>
<p><b>14:00 – 14:10</b></p>	<p><b>Refreshment Break</b></p>

14:10 – 14:55	<b>Oral Presentations – ORACLE Theme 3: Optimizing Technology &amp; Human Interface for Heart &amp; Vessels</b> Chair: Ms. Sandrine Parent, MSc Candidate, UOHI
14:10 – 14:25	<b>O-8 Assessment of Cardiac Allograft Vasculopathy using Rubidium-82 Cardiac Positron Emission Tomography (PETCAV Study)</b> Dr. Fernanda Erthal, Cardiac Imaging Fellow (Supervisors: Drs. Sharon Chih & Rob Beanlands), UOHI
14:25 – 14:40	<b>O-9 The Effect of Ventriculo-Aortic Junction Dilatation on Aortic Insufficiency</b> Dr. Hadi Toeg, Cardiac Surgery Resident (Supervisor: Munir Boodhwani), UOHI
14:40 – 14:55	<b>O-10 Comparing the Stem Cell Features of Cardiac-Derived Cell Products</b> Mr. Connor Michie, MSc Candidate (Supervisor: Dr. Darryl Davis), UOHI
14:55 – 15:05	<b>Refreshment Break</b>
15:05 – 16:35	<b>Oral Presentations – ORACLE Theme 2: Unlocking Novel Causes of CV Disease</b> Chair: Ms. Sandrine Parent, MSc Candidate, UOHI
15:05 – 15:20	<b>O-11 Methodological Rigor in Preclinical Cardiovascular Studies: Targets to Enhance Reproducibility &amp; Promote Research Translation</b> Dr. F. Daniel Ramirez, Cardiology Resident & MSc Candidate (Supervisor: Dr. Benjamin Hibbert), UOHI
15:20 – 15:35	<b>O-12 Minocycline Attenuates HF &amp; Depression-like Behaviour in Rats Post MI</b> Mr. Rami Jadayel, BSc Candidate (Supervisor: Dr. Frans H. H. Leenen), UOHI
15:35 – 15:50	<b>O-13 Transcriptional Activation of Tbx3 by Wnt/-Catenin Inhibits Cardiac Sodium Channel Scn5a Expression</b> Dr. Alice Lu, Postdoctoral Fellow (Supervisor: Dr. Wenbin Liang), UOHI
15:50 – 16:05	<b>O-14 cIAP2 is a Pro-Inflammatory Mediator Contributing to Cardiac Injury Post-Myocardial Infarction</b> Dr. David Smyth, Postdoctoral Fellow (Supervisor: Dr. Peter Liu), UOHI
16:05 – 16:20	<b>O-15 Extracellular Vesicles Secreted by Atherogenic Macrophages Transfer microRNA to Inhibit Cell Migration</b> Ms. My-Anh Nguyen, PhD Candidate (Supervisor: Dr. Katey Rayner), UOHI
16:20 – 16:35	<b>O-16 RIP Kinases in Cardiometabolic Diseases</b> Dr. Denuja Karunakaran, Postdoctoral Fellow (Supervisor: Dr. Katey Rayner), UOHI

16:35 – 17:15	<b>Networking Reception and Poster Session</b>
17:15 – 17:30	<b>Awards Ceremony</b> Chair: Dr. Pablo Nery, Co-Chair, Research Day Committee, UOHI
	<b>Awards include:</b> <ul style="list-style-type: none"> <li>• Howard &amp; Doris Polk Award for the Best Clinical Science / Bio-behavioural &amp; Population Health Presentation</li> <li>• Best Basic Science Oral Presentation</li> <li>• AstraZeneca Award for Best Clinical Science / Bio-behavioural &amp; Population Health Poster</li> <li>• Best Basic Science Poster</li> <li>• Oral Presentation and Poster Honourable Mentions</li> </ul>
17:30 – 17:35	<b>Closing Remarks</b> Dr. Thomas Lagace, Chair, Research Day Committee, UOHI
17:35 – 18:00	<b>Poster Tear-Down</b>

# The Berkman Library can help with your research!



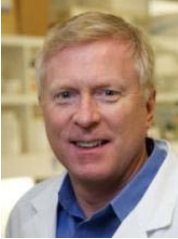
The Berkman Library will have an information booth at Research Day. Sarah Visintini, Librarian, will be at the booth. Pay Sarah a visit in the Poster Display (track area) to learn more!

There will be:

- Raffle for a variety of 3-D printed prizes
- An ORCID sign up station - get your own unique identification number for tracking publications
- Most importantly: chocolate!

Contact: [berkmanlibrary@ottawaheart.ca](mailto:berkmanlibrary@ottawaheart.ca)

# Keynote Speaker Profile



## **Gordon A. Francis, MD**

**Professor of Medicine**

**Director, Healthy Heart Program Prevention Clinic**

**Associate Director, Centre for Heart Lung Innovation**

**University of British Columbia & St. Paul's Hospital**

**Dr. Gordon A. Francis** is an endocrinologist and Professor of Medicine in the Centre for Heart Lung Innovation and the Department of Medicine at St. Paul's Hospital and University of British Columbia.

Dr. Francis completed his BSc (Hon.) in Biochemistry at Simon Fraser University, followed by medical training at McGill University, internship and internal medicine residency at UBC, and fellowship in endocrinology and metabolism at the University of Alberta. He was then a senior research fellow for four years studying basic and clinical lipid and lipoprotein metabolism at the University of Washington in Seattle.

Dr. Francis was a member of the CIHR Group in Molecular and Cell Biology of Lipids 1994 – 2007. From 2000 – 2007, Dr. Francis served as the Director of the Cardiovascular Risk Reduction Clinic at the University of Alberta. In 2007, he returned to his home city of Vancouver to join the Centre for Heart Lung Innovation (formerly UBC James Hogg Research Centre), and currently directs the Healthy Heart Program Prevention Clinic.

Establishment of his laboratory at the Centre for Heart Lung Innovation was funded by the Heart and Stroke Foundation of BC and Yukon. He holds research funding from CIHR and the Heart and Stroke Foundation of Canada, and is the principal investigator for a Canadian Foundation for Innovation Leading Edge Fund awarded in 2012, "*Molecules to Human: Enhanced phenotyping for the discovery, prevention, and treatment of heart, lung, and blood vessel disease*". Previous funding included an Alberta Heritage Foundation for Medical Research Senior Scholar Award, the University of Alberta's Department of Medicine Award for Excellence in Academic Mentoring, and the Royal College of Physicians and Surgeons of Canada Medal in Medicine.

**Research Interests**—Dr. Francis studies mechanisms of intracellular trafficking of cholesterol as it relates to expression of the membrane lipid transporter ATP-binding cassette transporter A1 (ABCA1) and high density lipoprotein (HDL) formation. Key observations from his research include:

- Identification of the defect in apolipoprotein-mediated lipid efflux from Tangier disease cells (J Clin Invest 1995)
- Demonstration of impaired ABCA1 regulation and HDL formation in the lysosomal cholesterol storage diseases in Niemann-Pick disease type C and cholesteryl ester storage disease (J Biol Chem 2003, 2006, 2011)
- Ability of HDL oxidized by tyrosyl radical to enhance cholesterol removal from cells, reduce development of atherosclerosis, and stabilize ABCA1 against degradation (PNAS USA 1993, J Biol Chem 1998, ATVB 2003, BMC Biochemistry 2012)

His laboratory recently reported that smooth muscle cells represent at least 50% of all intimal foam cells, have a specific defect in ABCA1 expression, and comprise a large percentage of macrophage marker-expressing cells in human coronary atherosclerosis (Circulation 2014).

Dr. Francis is a member of the Canadian Cardiovascular Society Consensus Panel for the Diagnosis and Treatment of Dyslipidemia for the Prevention of Cardiovascular Disease.

# UOHI Investigator of the Year



## **Katey Rayner, PhD**

**Scientist and Director, Cardiometabolic microRNA Laboratory, UOHI**  
**Assistant Professor, Department of Biochemistry, Microbiology & Immunology, Faculty of Medicine, University of Ottawa**

**Dr. Katey Rayner** directs the Cardiometabolic microRNA Laboratory at the University of Ottawa Heart Institute (UOHI), and is appointed as an Assistant Professor in the Department of Biochemistry, Microbiology and Immunology, Faculty of Medicine at the University of Ottawa.

In a few short years since starting her independent research program, Dr. Rayner has quickly established herself as a young leader in the field of microRNA and cardiometabolic diseases. She was profiled as a “Promising Young Investigator” in the November 11, 2016 issue of *Circulation Research*.

Dr. Rayner and her team study how microRNAs control multiple aspects of the risk factors that drive both atherosclerosis and obesity, and how these microRNAs can be used as therapeutics to treat these diseases. Her research program receives continuous peer reviewed funding since its inception in 2012. Dr. Rayner is funded by CIHR, the Heart and Stroke Foundation (including a McDonald Scholarship for the highest rated proposal in the New Investigator stream), the Ontario Ministry of Research and Innovation (Early Researcher Award), the Canada Foundation for Innovation, as well as the US National Institutes of Health. Of particular note, Dr. Rayner last year was one of very few researchers across Canada receiving a CIHR Foundation Grant.

Amongst other successes in the last year, Dr. Rayner and her team uncovered a major role for inflammatory cell death in driving the potential for atherosclerotic plaques to rupture. When excessive cholesterol accumulates in macrophages in the vessel wall, a process called necroptosis is activated, which causes cells to explode and promote inflammation. In coronary arteries from humans with very large and advanced disease, necroptosis was activated, and in mice necroptosis inhibitors reduced progression of disease. This work was published in *Science Advances*, and has formed the basis of the commercial development of necroptosis tracers for non-invasive imaging.

Not only recognized as an outstanding researcher, Dr. Rayner is also a scientific ambassador for the UOHI. She has served on numerous peer review committees including CIHR and the Heart and Stroke Foundation. She is a regular reviewer for *Circulation*, *Circulation Research*, *Nature Communications*, and *Cell Reports*. She is an Editorial Board member of the American Heart Association's lead journals *Circulation Research* as well as *Arteriosclerosis, Thrombosis and Vascular Biology* (ATVB) where she also serves as the Social Media Editor. Dr. Rayner co-chaired the 2017 Ottawa Heart Conference: *Inflammation in Cardiometabolic Disease*. Dr. Rayner continues to mentor trainees, and is involved with many other initiatives to promote science as well as women in science, most recently in a STEM (Science, Technology, Engineering and Mathematics) panel discussion, *Ask Women Anything*.

# UOHI Trainee of the Year



## **F. Daniel Ramirez, MD**

**Cardiology Resident**

**MSc Candidate (Supervisors: Drs. David Birnie & George A. Wells)**

**Dr. F. Daniel Ramirez** is a Cardiology Resident and concurrently completing graduate work in the School of Epidemiology, Public Health and Preventive Medicine.

Dr. Ramirez is widely recognized as having excelled in both arenas of trainee productivity and trainee leadership. While balancing clinical and research training, Dr. Ramirez has been the trainee lead on several research projects, including a Master's thesis currently in progress, as well as numerous other studies from basic science inquiries through to pure epidemiology. Dr. Ramirez's MSc dissertation is focused on predicting atrial fibrillation onset and progression in patients with long-term continuous rhythm monitoring.

Dr. Ramirez's incredible productivity is evident in 26 peer reviewed publications. He has published as first-author in several high impact journals, including *Circulation*, *Circulation Research*, and the *Journal of the American Heart Association*. He has presented at 24 local, national, and international meetings including the most recent Annual Scientific Session of the American Heart Association. Dr. Ramirez has awarded peer reviewed funding in support of his research.

Dr. Ramirez is also involved in mentoring junior trainees. He directly supervises two medical students and two junior Cardiology residents. He is on the Cardiology Residency Program Committee, a trainee reviewer for the *Canadian Journal of Cardiology*, and a member of the Canadian Arrhythmia Network (CANet)'s Highly Qualified Personnel Association.

Highlights of Dr. Ramirez's achievements in 2016-17:

- CIHR Frederick Banting and Charles Best Canada Graduate Scholarship (Master's Award)
- Ontario Graduate Scholarship
- University of Ottawa Excellence Scholarship
- First author on several high impact publications including:
  - ❖ "Methodological rigor in preclinical cardiovascular studies: Targets to enhance reproducibility and promote research translation" published in *Circulation Research*
  - ❖ "Sex bias in increasingly prevalent in preclinical cardiovascular research: Implications for translational medicine and health equity for women. A systematic assessment of leading cardiovascular journals over a 10-year period" published in *Circulation*
  - ❖ "Association between self-reported potentially modifiable cardiac risk factors and perceived need to improve physical health: a population-based study" published in the *Journal of the American Heart Association*

## Looking for expert help in publication services?

Dr. Kelly Cobey, Publications Officer based at the Ottawa Hospital Research Institute's Centre for Journalology, is available to provide one-on-one consultations to researchers to help enhance the overall quality of our scientific papers!

When might you wish to consult Dr. Cobey? Examples include:

*You have a manuscript ready for submission and would like to know how the work can be represented better to be accepted by the journal.*

*You would like help deciding where to submit.*

*You have a question about open access requirements.*

*You would like assistance with authorship.*

*You want more information about publication ethics, including plagiarism and self-plagiarism.*

**Write to Dr. Kelly Cobey [kcobey@toh.on.ca](mailto:kcobey@toh.on.ca),  
or call her at 613-737-8899 ext. 73601.**

The services are available to all research staff who have authored original research publications, with highest priority given to Scientists/Investigators and senior trainees.

The costs of your consultation in this pilot initiative will be covered by ORACLE funding.





# Coralie Lalonde Innovation Award Finals

## Multimedia Room (H-2373)

### *Open to Innovation Award presenters only*

Chair: Ms. Coralie Lalonde, Chair of the Ottawa Heart Institute Research Corporation (OHIRC) Board of Directors

The Coralie Lalonde Innovation Award recognizes the most innovative abstract which presents a new idea, process, technology, or product that could deliver on an unmet need or solve a critical problem in the cardiovascular field. The primary focus is to recognize innovative ideas and trainees' ability to effectively communicate to a lay audience.

This year, five lay abstracts have been invited to compete in the finals. The winner will present his/her lay pitch to all Research Day attendees at 11:35 a.m. in the Foustanelas Auditorium. The prize presentation will follow immediately.

- 9:45 – 10:00    **I-5    Animal Experiments Are Used to Justify Testing Cardiovascular Therapies in Humans: Are They Performed Rigorously Enough?**  
Dr. F. Daniel Ramirez, Cardiology Resident & MSc Candidate  
(Supervisor: Dr. Benjamin Hibbert), UOHI
- 10:00 – 10:15    **I-4    Minocycline Attenuates HF & Depression-like Behaviour in Rats Post MI**  
Mr. Rami Jadayel, BSc Candidate (Supervisor: Dr. Frans H. H. Leenen), UOHI
- 10:15 – 10:30    **I-3    Genetically Engineered Exosomes: A Novel Therapeutic Approach in Pulmonary Arterial Hypertension**  
Mr. Dhiya Hassan, MSc Candidate (Supervisor: Dr. Duncan Stewart), Ottawa Hospital Research Institute
- 10:30 – 10:45    **I-2    Is it noise or defect? Estimating Noise in SPECT Images**  
Ms. Sarah Cuddy-Walsh, PhD Candidate (Supervisor: Dr. R. Glenn Wells), Carleton University/UOHI
- 10:45 – 11:00    **I-1    Right Ventricular Sympathetic Dysfunction & Increased Oxygen Consumption in Patients with Heart Failure**  
Dr. Ali Ahmadi, Postdoctoral Fellow (Supervisor: Dr. Lisa Mielniczuk), UOHI

# List of Posters: Basic Science

- P-1 **Fatty Acid Oxidation Inhibition as an Experimental Treatment Strategy for Pulmonary Artery Hypertension and Right Heart Failure**  
Dr. Ali Ahmadi, Postdoctoral Fellow, UOHI  
(Supervisor: Dr. Lisa Mielniczuk)
- P-2 **Nanosilver Containing Collagen Fibers as Biofunctional Templates for Cardiac Tissue Engineering**  
Dr. Manuel Ahumada, Postdoctoral Fellow, UOHI  
(Supervisors: Drs. Emilio Alarcon & Erik Suuronen)
- P-3 **Preparation of Meta-[18F]fluorobenzylguanidine from an Iodonium(III) ylide precursor for Positron Emission Tomography Imaging of Cardiac Innervation**  
Mr. Ariel Buchler, Undergraduate Student, UOHI  
(Supervisor: Dr. Benjamin Rotstein)
- P-4 **Effects of culture media conditions on mitochondrial bioenergetics in human mesenchymal stromal cells**  
Dr. Virgilio Cadete, Postdoctoral Fellow, Ottawa Hospital Research Institute  
(Supervisor: Dr. Duncan Stewart)
- P-5 **Is it noise or defect? A method for estimating local noise in CZT SPECT images**  
Ms. Sarah Cuddy-Walsh, PhD Candidate, Carleton University / UOHI  
(Supervisor: Dr. R. Glenn Wells)
- P-6 **Weight-based dosing for consistent image noise in dedicated cardiac SPECT**  
Ms. Sarah Cuddy-Walsh, PhD Candidate, Carleton University / UOHI  
(Supervisor: Dr. R. Glenn Wells)
- P-7 **Functional relationship of the CARS2 locus to CAD**  
Ms. Anh Thu Dang, MSc Candidate, UOHI  
(Supervisor: Dr. Ruth McPherson)
- P-8 **GATA6 regulates structure and function of the cardiac Sinoatrial Node**  
Ms. Lara Gharibeh, PhD Candidate, uOttawa  
(Supervisor: Dr. Mona Nemer)
- P-9 **Does expression of miR-126 in CD-146+ peripheral blood mononuclear cells identify a circulating population “true” endothelial progenitors cells with high proliferation potential?**  
Dr. Rafael Godoy, Postdoctoral Fellow, Ottawa Hospital Research Institute  
(Supervisor: Dr. Duncan Stewart)
- P-10 **Forced Overexpression of TCTP Induces a Growth-Dysregulated Phenotype in ECs and SMCs in vitro**  
Mr. Dhiya Hassan, MSc Candidate, Ottawa Hospital Research Institute  
(Supervisor: Dr. Duncan Stewart)

- P-11 **Metal nanoparticle containing collagen fibers as cardiac patches for myocardial infarction**  
Dr. Katsuhiko Hosoyama, Postdoctoral Fellow, UOHI  
(Supervisor: Dr. Erik Suuronen)
- P-12 **The Role of Insulin Growth Factor Binding Protein - 7 in Cardiorenal Syndrome**  
Ms. Supriya Hota, Undergraduate Student, UOHI  
(Supervisor: Dr. Peter Liu)
- P-13 **Delivering oxygen to explant-derived cardiac stem cells to enhance cell-mediated repair of ischemic cardiomyopathy**  
Mr. Pushpinder Kanda, MD-PhD Candidate, UOHI  
(Supervisor: Dr. Darryl Davis)
- P-14 **Macrophage AMPK Links Cholesterol and Lysosomal Homeostasis**  
Mr. Nicholas Leblond, PhD Candidate, uOttawa  
(Supervisor: Dr. Morgan Fullerton)
- P-15 **E2F6 Regulates Stress Induced Apoptosis in Cardiomyocytes**  
Ms. Jennifer Major, PhD Candidate, uOttawa  
(Supervisor: Dr. Balwant Tuana)
- P-16 **Development of a Sprayable Antibacterial Film Composed of LL37 Capped Silver Nanoparticles with Collagen**  
Ms. Sarah McLaughlin, MSc Candidate, UOHI  
(Supervisors: Drs. Emilio Alarcon & Erik Suuronen)
- P-17 **Collagen Biomaterial Enhances CD34+ Cell Function Through MIR-21B**  
Dr. Brian McNeill, Postdoctoral Fellow, UOHI  
(Supervisor: Dr. Erik Suuronen)
- P-18 **A Comparison of Tracer Kinetic Models for 11C-hydroxyephedrine (HED) in Positron Emission Tomography Imaging of the Canine Heart**  
Mr. Robert Miner, PhD Candidate, UOHI  
(Supervisor: Dr. Rob deKemp)
- P-19 **Optimizing & Comparing Graphical Methods of Obtaining Partial Volume Corrected Distribution Volume in Dynamic Myocardial Perfusion PET-CT Using 11C-HED and 82Rb**  
Mr. Robert Miner, PhD Candidate, UOHI  
(Supervisor: Dr. Rob deKemp)
- P-20 **Heart Failure Induced Depression-Like Behavior in Rat Affected by Gender**  
Ms. Fatimah Najjar, MSc Candidate, UOHI  
(Supervisor: Dr. Frans Leenen)
- P-21 **Heat Shock Pre-Treatment of Explant-Derived Cardiac Stem Cells Boosts Survival & Engraftment in Advanced Ischemic Cardiomyopathy**  
Ms. Sandrine Parent, MSc Candidate, UOHI  
(Supervisor: Dr. Darryl Davis)

- P-22     **Caspase-Dependent Pathways Governing Cardiac Hypertrophy**  
Ms. Charis Putinski, PhD Candidate, Ottawa Hospital Research Institute  
(Supervisor: Dr. Lynn Megeney)
- P-23     **PCSK9 May Associate with Lipoproteins through Lipid Interactions**  
Ms. Samantha Sarkar, MSc Candidate, UOHI  
(Supervisor: Dr. Thomas Lagace)
- P-24     **Regulation of Tbx5 Activity During Heart and Limb Development**  
Massomeh Sheikh-Hassani, PhD Candidate, uOttawa  
(Supervisor: Dr. Mona Nemer)
- P-25     **Pre-clinical Comparison of Saline and Contrast for Intravascular Imaging Using Optical Coherence Tomography**  
Dr. Trevor Simard, Resident & PhD Candidate, UOHI  
(Supervisor: Dr. Benjamin Hibbert)
- P-26     **Diabetic Induced Hyperglycemia is a Trigger for Inflammation & Cell Death in Atherosclerotic Macrophages**  
Ms. Leah Susser, Undergraduate Student, UOHI  
(Supervisor: Dr. Katey Rayner)
- P-27     **Epigenetic Regulation of the Hypoxic Response: Role of Sirtuin 1 in Chronic Hypoxia Induced Pulmonary Hypertension**  
Mr. Mohamad Taha, PhD Candidate, Ottawa Hospital Research Institute  
(Supervisor: Dr. Duncan Stewart)
- P-28     **Alternative Polyadenylation of IRF2BP2 is Modified by a 3'UTR IRF2BP2 Variant Linked to Coronary Artery Disease Risk**  
Mr. Ragnar Vilmundarson, PhD Candidate, UOHI  
(Supervisor: Dr. Alexandre Stewart)
- P-29     **MicroRNA-205 Is a Novel Epicardial Regulator of Cell Cycle Arrest & Cardiac Growth**  
Mr. Jonathan Weldrick, PhD Candidate, UOHI  
(Supervisor: Dr. Patrick Burgon)

# List of Posters: Clinical Science

- P-30      **Improved Ventricular Remodeling in Chronic Thromboembolic Pulmonary Hypertension after Riociguat Treatment: A Prospective Clinical Study**  
Dr. Ali Ahmadi, Postdoctoral Fellow, UOHI  
(Supervisor: Dr. Lisa Mielniczuk)
- P-31      **Right Ventricular Sympathetic Dysfunction and Increased Oxygen Consumption in Patients with Heart Failure**  
Dr. Ali Ahmadi, Postdoctoral Fellow, UOHI  
(Supervisor: Dr. Lisa Mielniczuk)
- P-32      **Intracardiac Voltage Mapping to Evaluate the Atrial Substrate in Patients with Atrial Fibrillation**  
Dr. Wafa Al-Dawood, Clinical Fellow, UOHI  
(Supervisor: Dr. Pablo Nery)
- P-33      **Trastuzumab-related Subclinical Cardiotoxicity in Patients with Early Stage HER2-Positive Breast Cancer: A Retrospective Single-center Cohort Study**  
Dr. Olexiy Aseyev, Clinical Fellow, The Ottawa Hospital  
(Supervisor: Dr. Susan Dent)
- P-34      **Needs and Concerns of Cardiac Patients and their Partners: A Qualitative Assessment**  
Mr. Matthew Clyde, PhD Candidate, uOttawa / UOHI  
(Supervisor: Dr. Heather Tulloch)
- P-35      **Relationship Between Outcomes of Catheter Ablation for Premature Ventricular Contractions and Cardiac Magnetic Resonance Scar**  
Ms. Victoria Gerber, MD Candidate, UOHI  
(Supervisor: Dr. Girish Nair)
- P-36      **Quantified Intraoperative Bleeding as a Potential Tool to Predict Post-operative Bleeding**  
Mr. Daniel Goubran, MD Candidate, UOHI  
(Supervisor: Dr. Derek So)
- P-37      **Valve Sparing Root Replacement to Facilitate Aortic Valve Repair in Non-Aneurysmal Aortic Roots**  
Mr. Fadi Hage, MD Candidate, UOHI  
(Supervisor: Dr. Munir Boodhwani)
- P-38      **Estimation of Myocardial Flow Reserve using Nitrogen-13-Ammonia PET Activity Ratios**  
Dr. Daniel Juneau, Clinical Fellow, UOHI  
(Supervisor: Dr. Terrence Ruddy)

- P-39      **Isolated Cardiac Sarcoidosis: How Common Is It?**  
 Dr. Daniel Juneau, Clinical Fellow, UOHI  
 (Supervisor: Dr. David Birnie)
- P-40      **Comparison of Carotid Artery Volume and Atherosclerotic Plaque Characteristics using Computed Tomography Angiography and 3D Ultrasound versus Plaque Histopathology**  
 Ms. Mariya Kuk, MD Candidate, UOHI  
 (Supervisor: Dr. Rob Beanlands)
- P-41      **Development of a User Centered Designed Patient Decision Aid for Implantable Cardioverter-defibrillator Replacement: Acceptability Usability and Planning for Implementation**  
 Ms. Krystina Lewis, PhD Candidate, uOttawa/UOHI  
 (Supervisors: Drs. David Birnie & Dawn Stacey)
- P-42      **Nutritional Adequacy and Outcomes in Critically Ill Cardiac Surgical Patients**  
 Ms. Joanne MacNeill, UOHI  
 (Supervisor: Dr. Bernard McDonald)
- P-43      **The Effectiveness of Interventions to Maintain Physical Activity in Post-cardiac Rehabilitation Populations: A Systematic Review and Meta-analysis**  
 Ms. Novella Martinello, PhD Candidate, UOHI  
 (Supervisor: Dr. Robert Reid)
- P-44      **Couple Relationships and Cardiovascular Health**  
 Katya McKee, UOHI  
 (Supervisor: Dr. Heather Tulloch)
- P-45      **Recurrent Renal Dysfunction Following Cardiac Surgery Associated Acute Kidney Injury**  
 Dr. Janet Ngu, Resident, UOHI  
 (Supervisor: Dr. Munir Boodhwani)
- P-46      **Correlates of Sedentary Behaviour in Adults: A Systematic Review**  
 Dr. Stephanie Prince Ware, Postdoctoral Fellow, UOHI  
 (Supervisor: Dr. Robert Reid)
- P-47      **Efficacy and Safety of Localized Driver-guided Catheter Ablation for Atrial Fibrillation: A Systematic Review and Meta-Analysis**  
 Dr. Daniel Ramirez, Resident, UOHI  
 (Supervisor: Dr. Pablo Nery)
- P-48      **Quantification of Myocardial Blood flow with C-11-Hydroxyephedrine Positron Emission Tomography Imaging**  
 Ms. Jennifer Renaud, UOHI  
 (Supervisor: Dr. Rob deKemp)
- P-49      **Heart Failure Etiology Influences Outcomes after LVAD Implantation**  
 Dr. Hadi Toeg, Resident, UOHI  
 (Supervisor: Dr. Simon Maltais, Mayo Clinic)

- P-50      **Validation of a Modified SOFA Score as a Mortality Risk Prediction Model in Cardiac Surgical ICU**  
Dr. Brock Wilson, Critical Care Resident & Cardiac Anesthesiology Fellow,  
UOHI  
(Supervisor: Dr. Bernard McDonald)
- P-51      **The Effect of Diabetes Mellitus on Global and Regional Myocardial Flow Reserve in the Presence of Epicardial Coronary Disease**  
Kai Yi Wu, MD Candidate, UOHI  
(Supervisor: Drs. Rob Beanlands, Aun-Yeong Chong, & Rob deKemp)

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## ALL PRESENTERS AND ATTENDEES

### RESEARCH DAY SPEAKERS

Dr. Gordon A. Francis,  
Centre for Heart Lung Innovation at St. Paul's Hospital & UBC.  
Drs. Peter Liu, VP Research & Chief Scientific Officer; Thomas Lagace; Pablo Nery; Katey Rayner; & F. Daniel Ramirez (UOHI).

### INNOVATION AWARD REVIEWERS AND JUDGES & ON-SITE COORDINATOR

Judges: Ms. Coralie Lalonde, Chair, Ottawa Heart Institute Research Board; Ms. Catherine Geci, uOttawa Innovation Support Services; Mr. Simon Kennedy, Deputy Minister, Health Canada; Ms. Keira Torkko, Chief Operating Officer, Coaching Association of Canada; Mr. Hugh Winsor, OHIRC Board; Drs. Katey Rayner & Derek So, UOHI. Innovation Award Abstract Reviewers: Ms. Aisha Weaver, Director, Legal Affairs & Dr. Darryl Davis (UOHI). On-site Panel Coordinator: Ms. Aisha Weaver (UOHI).



## **ORAL PRESENTATION SESSION CHAIRS**

Dr. Lisa Cotie, Mr. Rami Jadayel, Mr. Robert Miner, & Ms. Sandrine Parent (UOHI).

## **ORAL PRESENTATION JUDGES**

Dr. Gordon A. Francis (Centre for Heart Lung Innovation).

Drs. Thais Coutinho, David Glineur, Thomas Lagace, Pablo Nery, Mireille Ouimet,  
Alexandre Stewart (UOHI).

## **POSTER JUDGES**

Basic Science: Dr. Greg Cron (The Ottawa Hospital); Drs. Benjamin Hibbert, Denuja Karunakaran, Thomas Lagace, Wenbin Liang, Han-Bin Lin, Mireille Ouimet, Benjamin Rotstein, Adam Shuhendler, Erik Suuronen (UOHI). Clinical Science and Bio-behavioural & Population Health: Drs. Mark Ainslie, David Birnie, Bernard McDonald, Pablo Nery, Louise Sun, Heather Tulloch (UOHI).

## **ABSTRACT REVIEWERS**

Basic Science: Drs. Emilio Alarcon, Patrick Burgon, Rob deKemp, Ruth McPherson (UOHI). Clinical Science and Bio-behavioural & Population Health: Drs. Aun-Yeong Chong, Lisa Mielniczuk, Bob Reid, Diem Tran (UOHI).

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## **PROGRAM LAYOUT**

Ms. Angela Poitras, Communications  
& Ms. Ann Nguyen, Office of Research Services (UOHI)

## **PHOTOGRAPHY**

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