

MOLECULAR FUNCTION & IMAGING SYMPOSIUM: HEART FAILURE

June 18–19th 2010
Westin Hotel, Ottawa

Friday, June 18th 2010

7:30-8:00 **REGISTRATION & BREAKFAST**
Foyer to Governor General III

8:15-8:30 **Welcoming Remarks**
Governor General III

Dr Rob Beanlands
Program Director, MFI Program
University of Ottawa Heart Institute

IMAGE-HF / MFI JOINT WORKSHOP I

8:30-9:45 **Beyond Pretty Pictures: Multimodality Imaging in Heart Failure**
Cardiac MR: Emerging Giant
PET/CT: Anatomy with Function
Echocardiography: The Workhorse
Beyond Pretty Pictures: Multimodality Imaging
Governor General III

Dr Ian Paterson
University of Alberta
Dr Eric Larose
Université Laval
Dr Kwan Chan
University of Ottawa Heart Institute
Dr Matthias Friedrich*
Stephenson CMR Centre

9:45-10:00 **COFFEE BREAK**
Foyer

SESSION I – BASIC SCIENCE OF HEART FAILURE

KEYNOTE LECTURE I

10:00-10:45 Understanding Molecular Mechanisms of Heart Failure
Governor General III

Dr Jason Dyck
Director, Cardiovascular Research
Centre, University of Alberta

ORAL ABSTRACT SESSION I (10:45-11:45)

Moderator: Dr Jason Dyck
Co-Moderator: Dr Matthias Friedrich (Stephenson CMR Centre)
Lyne Sleiman (MSc Candidate, PET BioTesting)

10:45-11:00 Functionalization of polyamidoamine dendrimers for multi-modality molecular imaging and cell tracking

Adam Smith
Canadian Molecular Imaging Centre of
Excellence
MDS Nordion
University of Ottawa Heart Institute

11:00-11:15 Collagen matrices for endothelial progenitor cell enrichment and functional enhancement

Branka Vulsevic
Division of Cardiac Surgery
University of Ottawa Heart Institute

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- 11:15-11:30** The nutritional regulation of enzymatic sources of NADPH in skeletal muscle mitochondria: novel roles for glucose and glucose-6-phosphate dehydrogenase
Ryan Mailloux
Postdoctoral Fellow
Mitochondrial Bioenergetics Lab
University of Ottawa
- 11:30-11:45** A ligand-enhanced collagen matrix for neovascularization and myogenesis of ischemic tissue
Tanja Sofrenovic
MSc Student
Division of Cardiac Surgery
University of Ottawa Heart Institute
- 11:45-12:30** **LUNCH & POSTER BROWSING**
Foyer & Governor General III

SESSION II – CLINICAL IMAGING OF HEART FAILURE

KEYNOTE LECTURE II

- 12:30-1:15** Clinical Imaging in Heart Failure
Governor General III
Dr Marcelo Di Carli
Chief of Nuclear Medicine
Brigham & Women's Hospital
Harvard Medical School

ORAL ABSTRACT SESSION II (1:30-2:45)

Moderator: Dr Marcelo Di Carli
Co-Moderator: Dr Eric Larose (Lawson Health Research Institute)
Ms Jennifer Renaud (Imaging Physics, UOHI)

- 1:15-1:30** Title TBD
Myra Cocker
Graduate Student
Stephenson CMR Centre
University of Calgary
- 1:30-1:45** Impaired myocardial flow reserve using rubidium-82 PET predicts outcomes in patients with suspected myocardial ischemia
Maria Cecilia Ziadi
Clinical Fellow
Cardiac Imaging
University of Ottawa Heart Institute
- 1:45-2:00** Magnetic resonance characterization of trabeculated vs. non-trabeculated myocardium in healthy adults: a first step to defining non-compacted cardiomyopathy
Helena Tizon-Marcos
MRI Fellow
Centre de recherche de l'Institut universitaire de cardiologie et de pneumologie de Quebec
Université Laval

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| 2:00-2:15 | Inverse relationship between cardiac oxidative metabolism and vagal modulation of heart rate variability in heart failure patients with and without obstructive sleep apnea | Petsy Pui-Sze So
Medical Student
Cardiac Imaging
University of Ottawa Heart Institute |
| 2:15-2:30 | The use of FDG PET imaging in the diagnosis of cardiac sarcoid: a systemic review including the UOHI experience | George Youssef
Clinical Fellow
Cardiac Imaging
University of Ottawa Heart Institute |
| 2:30-2:45 | Rest and stress dosimetry for rubidium-82 using new effective dose estimates based on dynamic PET/CT imaging in humans | Chad Hunter
MSc Student
Imaging Physics
University of Ottawa Heart Institute |
| 2:45-3:00 | COFFEE BREAK
<i>Foyer</i> | |

IMAGE-HF / MFI JOINT WORKSHOP II

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| 3:00-4:00 | From the Crossroads: Starting a Scientific Career

Progression of a Basic Research Career
Progression of a Clinical Research Career | Dr Jason Dyck
University of Alberta
Dr Darryl Davis
University of Ottawa Heart Institute
Dr Mary-Ellen Harper [*]
University of Ottawa |
| 4:00 | END OF DAY 1 | |

IMAGE-HF STEERING COMMITTEE MEETING

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| 4:00-5:00 | IMAGE-HF STEERING COMMITTEE MEETING
<i>Newfoundland Room</i> | (By invitation) |
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Saturday, June 19th 2010

7:30-8:30 **REGISTRATION & BREAKFAST**
Foyer to Confederation II

IMAGE-HF / MFI JOINT WORKSHOP III

8:30-9:45 **Novel Heart Failure Therapy: Expanding the Borders** **Dr Alexandre Stewart**
University of Ottawa Heart Institute
Dr David Birnie
University of Ottawa Heart Institute
Dr Duncan Stewart*
Ottawa Hospital Research Institute

Gene Therapy in Heart Failure
Cardiac Resynchronization & Device Therapy
Cell-Based Therapeutic Approaches

Confederation II

9:45-10:00 **COFFEE BREAK**
Foyer

SESSION III – PRECLINICAL IMAGING IN HEART FAILURE A

KEYNOTE LECTURE III

10:00-10:45 Preclinical Imaging in Heart Failure **Dr Juhani Knuuti**
Director, Turku PET Centre
University of Turku

Confederation II

ORAL ABSTRACT SESSION III (10:45-11:00)

Moderator: Dr Juhani Knuuti
Co-Moderator: Dr Duncan Stewart (Ottawa Hospital Research Institute)
Mr Tyler Dumouchel (PhD Candidate, Imaging Physics)

10:45-11:00 Accuracy of CMR methods in assessment of left
ventricular and atrial volumes and myocardial mass:
comparison of SA and long axis techniques with ex-vivo
model **Helene Childs**
Graduate Student
Stephenson CMR Centre
University of Calgary

11:00-11:15 *In vitro* cytotoxicity evaluation of 111-indium on canine
endothelial progenitor cells for in vivo transplanted cell
viability imaging **Kimberley Blackwood**
Graduate Student
Medical Biophysics & Medical
Imaging
University of Western Ontario

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- 11:15-11:30** Animal model of coronary artery ligation and reperfusion for cardiac PET imaging **Kumiko Mackasey**
MSc Student
PET BioTesting Laboratory
University of Ottawa Heart Institute
- 11:30-11:45** Increased cardiac phosphodiesterase-4 levels are observed at 8-10 weeks post-myocardial infarction with (R)-[¹¹C]rolipram PET **Miran Kenk**
PhD Candidate
PET BioTesting Laboratory
University of Ottawa Heart Institute
- 11:45-12:00** A collagen matrix for endothelial progenitor cell therapy improves cardiac function in a mouse myocardial infarction model **Ali Ahmadi**
PhD Candidate
Division of Cardiac Surgery
University of Ottawa Heart Institute
- 12:00-12:30** **LUNCH & POSTER BROWSING**
Foyer & Confederation II

FORMAL POSTER SESSION

- 12:30-2:00** **POSTER PRESENTATIONS** Presenters at posters
Foyer & Confederation II

IMAGE-HF / MFI JOINT WORKSHOP IV

- 2:00-3:15** **Hitting the Bullseye: Targets for Tracer-Based Molecular Imaging**
SPECT Targets for Heart Failure
PET Targets for Heart Failure
MRI Targets for Heart Failure
Confederation II **Dr Glenn Wells**
University of Ottawa Heart Institute
Dr Juhani Knuuti
Turku PET Centre
Dr Alexander Dick
Sunnybrook Hospital, U Toronto
Dr Terry Ruddy*
University of Ottawa Heart Institute
- 3:15-3:30** **COFFEE BREAK**
Foyer

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SESSION IV – CLINICAL AND PRECLINICAL IMAGING IN HEART FAILURE B

ORAL ABSTRACT SESSION I (3:30-4:30)

Moderator: Dr Juhani Knuuti
Co-Moderator: Dr Terry Ruddy (UOHI)
Dr Vikas Tandon (Clinical Fellow, UOHI)

3:30-3:45	Title TBD	Trainee TBD Stephenson CMR Centre University of Calgary
3:45-4:00	Right ventricle glucose metabolism reflects the severity of pressure overload in patients with pulmonary arterial hypertension	Peter Mitoff Resident Division of Cardiology University of Ottawa Heart Institute
4:00-4:15	Test-retest reproducibility and reliability of FDG PET imaging in mice and rats using different kinetic modeling approaches	Stephanie Thorn PhD Candidate PET BioTesting Laboratory University of Ottawa Heart Institute
4:15-4:30	Iodine-123/125 labeled annexin V as a potential SPECT tracer for cardiac apoptosis	Daniel Duan Canadian Molecular Imaging Centre of Excellence MDS Nordion University of Ottawa Heart Institute
4:30-4:45	Inverse correlation of [¹¹ C] <i>meta</i> -hydroxyephedrine cardiac retention measures to norepinephrine concentration in rats	James Thackeray PhD Candidate PET BioTesting Laboratory University of Ottawa Heart Institute

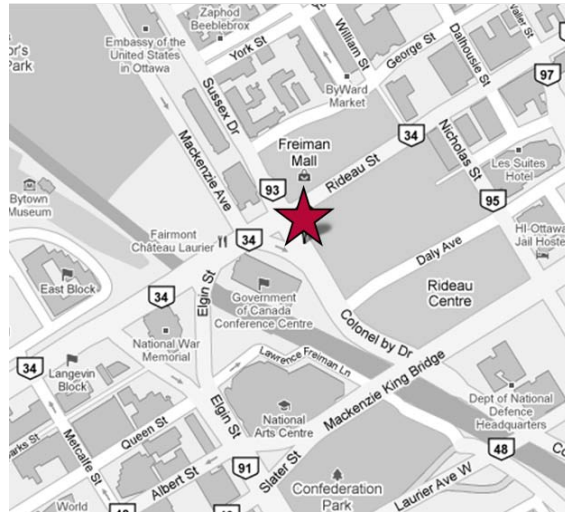
CLOSE OF SESSIONS

4:45-5:00	Closing Remarks <i>Confederation II</i>	Dr Terry Ruddy Chief of Cardiology University of Ottawa Heart Institute
5:00	END OF DAY 2	

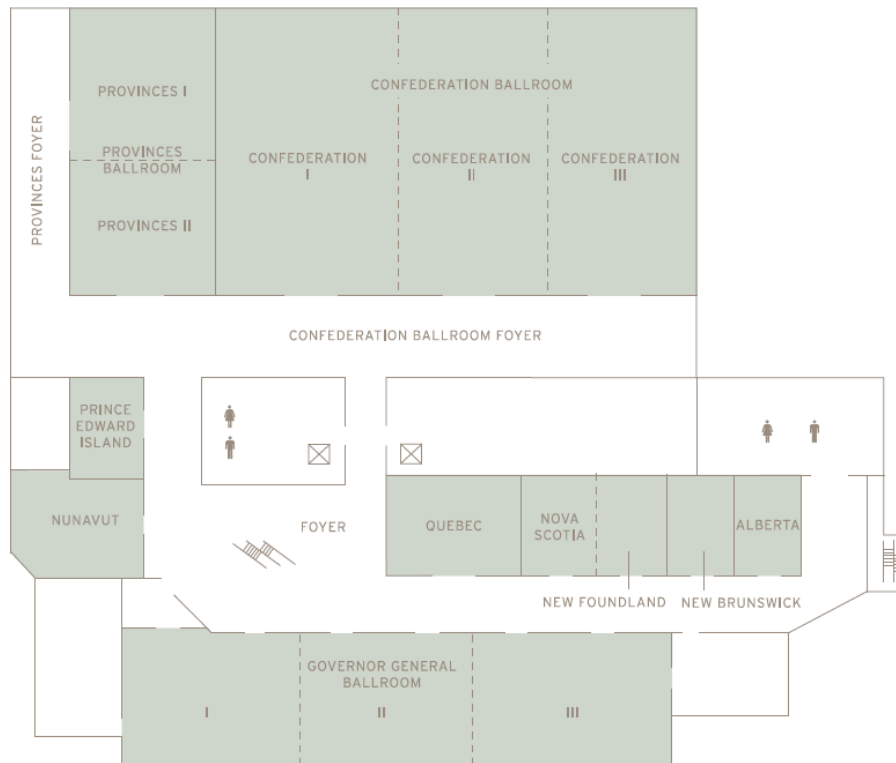
SYMPOSIUM LOCATION

WESTIN HOTEL
Floor and Room Locations

11 Colonel By Drive
Ottawa, ON K1N 9H4
613-560-7000



LEVEL FOUR



EVENING EVENT

WESTIN HOTEL
Floor and Room Locations

6:00 to 1:00 am
11 Colonel By Drive
Ottawa, ON

Event Details:

6:00-7:30	Cocktail and Canapé Reception
7:30	Banquet Dinner
8:30	MFI Award Presentations
9:00	Music and Dancing
1:00	Close