

International Academy of Cardiovascular Sciences –North

American Section Scientific Programme

Conference Chairs: Grant N. Pierce, Delfin Rodriguez-Leyva and Eduardo Rivas-Estany

All talks and events identified below are in the Havana Convention Center (unless otherwise indicated).

Tuesday, June 5, 2017

- 5:00 pm-7:00pm** Registration and Opening Ceremonies, Convention Centre
- 7:00 pm-9:00 pm** Welcome Reception and Dinner, El Bucán Restaurant, Convention Centre

Wednesday June 6th

*1. Symposium Session Title: **The Metabolic Basis of Heart Disease***

Chairpersons: Carlos Fernandez-Paatron (Canada) and Naranjan Dhalla (Canada)

- 9:00-9:20 am** **Naranjan Dhalla** “Lysophosphatidic acid in the pathogenesis of hypertension”
- 9:20-9:40 am** **Srinivas Tipparaju** “Diabetes and redox regulation in heart”
- 9:40-10:00 am** **Harpal Bhuttar** “Healthy dietary habits, healthy weight, exercise and smoking cessation reduce the risk of cardiovascular diseases”
- 10:00-10:20 am** **Sukhinder Cheema** “Benefits of maternal omega-3 fatty acids intake on pregnancy outcome and cardiovascular health of the offspring in later life”

*2. Symposium Session Title: **The Molecular Basis of Cardiac Electrical Activity***

Chairpersons: Martin Morad (USA) and Andras Varro (Hungary)

- 9:00-9:20 am** **Martin Morad** “Creation of human cardiomyocytes expressing catecholaminergic polymorphic ventricular tachycardia (CPVT1) associated RyR2 mutations using CRISPR/Cas9 gene editing”
- 9:20-9:40 am** **Andrew Marks** “Ryanodine receptor: structure, function and therapeutic targeting for diseases of heart and muscle”
- 9:40-10:00 am** **James Weiss** “Stabilizer cells: A novel gene therapy approach to treat cardiac arrhythmias”
- 10:00-10:20 am** **Stephane Hatem** “TBD”

10:20-11:00 am Coffee break

3. Symposium Session Title: The James Willerson Presidential Symposium

Chairpersons: Suresh Tyagi (USA) and Zam Kassiri (Canada)

11:00-11:20 am Bram Ramjiawan “Development of a cardiac intraoperative medical imaging system”

11:20-11:40 am Delfin Rodriguez Leyva “Assessing NOAC use in atrial fibrillation”

11:40-12:00 noon Suresh Tyagi “1-Carbon metabolism and epigenetics in the microbiome”

12:00-12:20 pm Belma Turan “Zinc and cardiac function under physiological and hyperglycemic conditions”

4. Symposium Session Title: The Canadian Journal of Physiology and Pharmacology Symposium on Heart and Vascular Failure

Chairpersons: Ghassan Bkaily (Canada) and Pedro D’Orleans Juste (Canada)

11:00-11:20 am Ghassan Bkaily “Heart and vascular failures in Duchenne and Becker muscular dystrophies: Where we are and where we are going?”

11:20-11:40 am Morris Karmazyn “Treatment of heart failure with natural products”

11:40-12:00 noon Pram Tappia “Prenatal exposure to maternal under-nutrition programs for cardiac dysfunction in postnatal life”

12:00-12:20 pm Pedro D’Orleans-Juste “Chymase dependent cardiovascular response to central or systemic administered ET-1”

12:30-2:00 pm Lunch

12:30-2:00 pm Lunch for Executive Council Meeting of IACS (Room to be determined)

5. Symposium Session Title: Gary Lopaschuk Young Investigator Competition

Chairpersons: Peter Backx (Canada) and James Weiss (USA)

2:00-2:20 pm Anthony Canavicci “MicroRNA dysregulation in mononuclear cells and early endothelial progenitor cells from hereditary hemorrhagic telangiectasia patients”

2:20-2:40 pm Mihir Parikh “Flaxseed as a dietary intervention prior to and after a myocardial infarction”

2:40-3:00 pm **Pedro Rodriguez Collazo** “Predictors of recurrent atrial fibrillation”

3:00-3:20 pm **Glen Sequiera** “Establishment of induced pluripotent stem cells (iPSCs) based models for patients with multi-systemic mitochondrial disorders”

*6. Symposium Session Title: **Roberto Bolli Young Investigator Competition***

Chairpersons: Martin Morad (USA) and Judit Barta (Hungary)

3:40-4:00 pm **Ayelen Rodriguez-Portelles** “Endothelial dysfunction and diastolic dysfunction of the left ventricle in young smokers”

4:00-4:20 pm **Aleksandra Stamenkovic** “Oxidized phospholipids represent a critical mechanism for ischemic-reperfusion injury in the heart”

4:20-4:40 pm **Daniel Szulc** “Antibody coating on implantable intravascular devices to selectively capture genetically engineered cells for local drug delivery: an in vitro feasibility study”

4:40-5:00 pm **Raghu Nagalingam** “Genetic deletion of scleraxis attenuates cardiac fibrosis and restores function after pressure overload”

Free evening to explore the cuisine and nightlife of Havana on your own

Thursday June 7th

*7. Symposium Session Title: **Electrical Activity in the Heart***

Chairpersons: Andrew Marks (USA) and Belma Turan (Turkey)

9:00-9:20 am **Antoinette Blackman** “Assessment and clinical relevance of dynamic parameters of ventricular repolarization in patients with grade I left ventricular diastolic dysfunction”

9:20-9:40 am **Robert Tsushima** “Cell signaling pathways implicated in myocardial ischemic preconditioning”

9:40-10:00 am **Peter Nanasi** “Ca²⁺-activated Cl⁻ current in canine and human heart”

10:00-10:20 am **Andras Varro** “Action potential restitution – An old topic revisited”

10:20-11:00 am **Coffee break**

*8. Symposium Session Title: **The Critical Balance Between Wound Healing and Fibrosis***

Chairpersons: Michael Czubryt (Canada) and Merry Lindsey (USA)

- 11:00-11:20 am** **Michael Czubryt** “The role of scleraxis in balancing fibrosis and wound repair”
- 11:20-11:40 am** **Zam Kassiri** “Novel and MMP-independent function of Tissue Inhibitor of Metalloproteinases (TIMPs) in fibrosis and cardiac remodeling”
- 11:40-12:00 noon** **Merry Lindsey** “Cardiac fibroblast polarization”
- 12:00-12:20 pm** **Carlos Fernandez-Patron** “Emerging roles of matrix metalloproteinases in the modulation of cardio-hepatic lipid metabolism”
- 12:30-2:00 pm** **Lunch**

9. Symposium Session Title: Newer Understandings in the Pathogenesis and Management of Heart Failure

Chairpersons: Dinender Singla (USA) and Pawan Singal (Canada)

- 2:00-2:20 pm** **Pawan Singal** “Oxidative stress and antioxidants in heart failure”
- 2:20-2:40 pm** **Dinender Singla** “Inflammation-induced pyroptosis in doxorubicin-induced heart failure”
- 2:40-3:00 pm** **Marek Michalak** “Endoplasmic reticulum stress in heart failure”
- 3:00-3:20 pm** **Ren-ke Li** “Rejuvenation of aged myocardium for preventing progressive heart failure”
- 3:20-3:40 pm** **Coffee Break**

10. Symposium Session Title: Circulating Angiogenic Cells: Basic Biology and Clinical Applications

Chairpersons: Michael JB Kutryk (Canada) and Marek Michalak (Canada)

- 3:40-4:00 pm** **Michael Kutryk** “Regenerative cell therapy following acute myocardial infarction”
- 4:00-4:20 pm** **Sanjiv Dhingra** “Allogeneic stem cell therapy for cardiac regeneration: Hits and misses”
- 4:20-4:40 pm** **Qiuwang Zhang** “Endoglin-deficient endothelial cells have reduced miR-126 expression and impaired Erk signaling”
- 8:00 pm** **Cuban show. Location to be determined**

Friday June 8th

11. Symposium Session Title: Life and Death in the Heart

Chairpersons: Lorrie Kirshenbaum (Canada) and Maha Abdellatif (USA)

- 9:00-9:20 pm** **John McDermott** “Heart failure associated transcriptome dynamics in response to β -blockers”
- 9:20-9:40 pm** **Maha Abdellatif** “Mitochondrial enzymes go nuclear during cardiac hypertrophy”
- 9:40-10:00 pm** **Lorrie Kirshenbaum** “regulation of anthracycline mediated cell death in cardiac myocytes”
- 10:00-10:20 pm** **Lynne Megeney** “Variable caspase signaling determines the cardiac hypertrophy phenotype”
- 10:20-11:00 am** **Coffee break**

12. Symposium Session Title: Metabolism in cardiovascular disease

Chairpersons: Gary Lopaschuk (Canada) and John McNeill (Canada)

- 11:00-11:20 am** **Gary Lopaschuk** “Ketones and fatty acids as a source of energy for the failing heart”
- 11:20-11:40 am** **Peter Backx** “Are type 3 phosphodiesterase inhibitors useful in non-ischemic heart disease?” “”
- 11:40-12:00 noon** **John Seubert** “Novel epoxy lipids can limit ischemic mitochondrial injury”
- 12:00-12:20 pm** **Grant Pierce** “Dietary modulation of plasma oxylipins in conditions of cardiovascular disease”
- 1:00 - 2:00 pm** **Closing Ceremony** (Presentation by IACS Leadership of the Norman Alpert Award and the Naranjan S. Dhalla Award for Excellence in Cardiovascular Research; the IACS Heart Leadership Award; the IACS Distinguished Service Award; the Gary Lopaschuk and Roberto Bolli Young Investigator Awards; the Margaret P Moffat and Morris Karmazyn Poster Awards)
- 2:00 - 4:00 pm** **Farewell lunch; Dancing and music show, El Bucán Restaurant, Convention Centre**

List of Abstracts