

ISHR2010 <ISHR-sponsored Symposia>

A. Mitochondrial biology

A1. Mitochondria in cell life and death (*sponsored by: ISHR International*)

- 1 Mitochondria dynamics
Luca Scorrano (University of Geneva, Switzerland)
- 2 Mitochondria in cell death: from apoptosis to autophagy
Roberta A. Gottlieb (San Diego State University, USA)
- 3 Autophagy in cardiac proteotoxicity
Joseph A. Hill (University of Texas, USA)
- 4 Mitochondrial permeability transition and cardiac cell death
Fabio Di Lisa (University of Padova, Italy)

A2. Mitochondria in myocardial ischemia and reperfusion (*sponsored by: ISHR International*)

- 1 Mitochondria in myocardial ischemia: an overview
Brian O'Rourke (Johns Hopkins University, USA)
- 2 Mitochondrial permeability transition in ischemia/reperfusion
Christopher P. Baines (University of Missouri, USA)
- 3 Regulation of the mitochondrial permeability transition pore
Andrew Halestrap (University of Bristol, UK)
- 4 Connexins and mitochondria
Rainer Schulz (University of Essen, Germany)

B. Stem cells/regenerative medicine

B1. The race for the implantable cardiomyocyte - who is winning? (*sponsored by: ISHR International*)

- 1 The human embryonic stem cell?
Chris Denning (University of Nottingham, UK)
- 2 The adult cardiac progenitor cell?
Michael Schneider (Imperial College London, UK)
- 3 The induced pluripotent cell?
Jun K. Yamashita (Kyoto University, Japan)
- 4 The mesenchymal stem cell?
Muhammad Ashraf (University of Cincinnati, USA)

B2. Stem cell fate determination (Kaito Symposium in Memory of Yoshio Ito (ISHR President 1989-92))

- 1 A novel cardiomyocyte differentiation factor
Issei Komuro (Chiba University/Osaka University, Japan)
- 2 Manipulating stem cell homing and engraftment for cardiac repair
Jianyi (Jay) Zhang (University of Minnesota, USA)
- 3 Cardiac differentiation potential of iPS versus ES cells
Timothy J. Kamp (University of Wisconsin, USA)
- 4 Heart regeneration in zebra fish
Kenneth Poss (Duke University, USA)

B3. Use of stem cells to repair infarcted myocardium (*sponsored by: ISHR International*)

- 1 The microvasculature as a therapeutic target in ischemic disease
Douglas Losordo (Northwestern University, USA)
- 2 Cardiosphere-derived cells for therapeutic use
Eduardo Marbán (Cedars-Sinai Heart Institute, USA)
- 3 Use of stem cells to repair infarcted myocardium
Roberto Bolli (University of Louisville, USA)
- 4 Use of stem cells for congestive heart failure
Stefan P. Janssens (University of Leuven, Belgium)

B4. Tissue engineering for the heart (*sponsored by: ISHR International*)

- 1 Embryonic stem cell-derived cardiomyocytes for a cardiac patch
Sian Harding (Imperial College London, UK)
- 2 In vivo tissue-engineered heart valve
Keiichi Kanda (Kyoto Prefectural University of Medicine, Japan)
- 3 Cell sheet approach for cardiac repair
Tatsuya Shimizu (Tokyo Women's Medical University, Japan)
- 4 Hydrogel approach for cardiac repair
Thomas Eschenhagen (University Medical Center Hamburg-Eppendorf, Germany)

C. Cell stress/inflammation

- C1. Protein processing and quality control (*sponsored by: ISHR International*)
- 1 Protein quality control and cardiac dysfunction
Jeffrey Robbins (Cincinnati Children's Hospital, USA)
 - 2 Ubiquitin ligases and cardiac function
Cam Patterson (University of North Carolina at Chapel Hill, USA)
 - 3 ER stress and cardiovascular remodeling
Tetsuo Minamino (Osaka University, Japan)
 - 4 Intracellular aggregation in proteinopathies
David Rubinsztein (University of Cambridge, UK)
- C2. Toll-like receptors, heat shock, inflammation and the heart (*sponsored by: ISHR International*)
- 1 Toll-like receptors in cardiac injury
Wei Chao (Harvard Medical School, USA)
 - 2 Extracellular HSP60 and cardiac myocyte apoptosis
Anne A. Knowlton (University of California-Davis, USA)
 - 3 Alpha-B crystallopathy in the heart
Atsushi Sanbe (National Research Institute of Child Health and Development, Japan)
 - 4 Heat shock proteins and inflammation
R. William Currie (Dalhousie University, Canada)

D. Ion transport & signalling/E-C coupling

- D1. Calcium signalling in cardiac dysfunction, cell death and remodelling (*sponsored by: ISHR International*)
- 1 Cardiac calcium regulation in health and disease
David Eisner (University of Manchester, UK)
 - 2 CaMKII signaling in myocardial cell death
Alicia Mattiazzi (Universidad Nacional de La Plata, Argentina)
 - 3 Calcium sparks and superoxide flashes
Heping Cheng (Peking University, China)
 - 4 Calcium handling and novel pathways for cardioprotection
Evangelia Kranias (University of Cincinnati, USA)
- D2. Sodium homeostasis and cardiac function (*sponsored by: ISHR International*)
- 1 Intracellular sodium regulation in cardiac myocytes: an overview
Donald M. Bers (University of California-Davis, USA)
 - 2 Sodium overload-triggered apoptosis in the failing heart
Martin Vila Petroff (Universidad Nacional de La Plata, Argentina)
 - 3 Sodium dysregulation in failing human myocardium
Burkert Pieske (Medical University of Graz, Austria)
 - 4 Regulation and functions of the cardiac Na/H exchanger
Shigeo Wakabayashi (National Cardiovascular Center, Japan)

E. NO/oxidative stress/signalling

- E1. Nitric oxide signalling in the cardiovascular system (*sponsored by: ISHR International*)
- 1 Nitric oxide signaling: an overview
Jean-Luc Balligand (University of Leuven, Belgium)
 - 2 Mice lacking nitric oxide synthase: what have we learned?
Barbara Casadei (University of Oxford, UK)
 - 3 Nitric oxide signaling by S-nitrosylation
Elizabeth Murphy (NIH, USA)
 - 4 New insights into nitric oxide signaling in man
Ajay M. Shah (King's College London, UK)
- E2. Mechanisms of redox signalling (*sponsored by: ISHR International*)
- 1 Protein S-guanylation: a new post-translational regulatory modification
Takaaki Akaike (Kumamoto University, Japan)
 - 2 Redox regulation of soluble guanylyl cyclase by S-nitrosylation
Annie Beuve (University of Medicine and Dentistry of New Jersey, USA)
 - 3 Consequences of SERCA oxidation in the cardiovascular system
Richard A. Cohen (Boston University, USA)
 - 4 Redox regulation of protein kinases A and G
Philip Eaton (King's College London, UK)

F. MicroRNAs

F1. MicroRNAs in cardiovascular development and disease (*sponsored by: ISHR International*)

- 1 MicroRNA regulation of hypoxia adaptation
Maha Abdellatif (University of Medicine and Dentistry of New Jersey, USA)
- 2 MicroRNA control of cardiac development and pathophysiology
Gianlugi Condorelli (National Research Council, Italy)
- 3 Fibroblasts in cardiac pathogenesis: role of microRNAs
Stefan Engelhardt (Technische Universität München, Germany)
- 4 Control of cardiac excitability by microRNAs
Ahiguo Wang (Harbin Medical University, China)

G. Genetic basis of disease

G1. Genetic mechanisms of myocardial disease (*sponsored by: ISHR International*)

- 1 Genetic causes of human heart failure: an overview
Jonathan G. Seidman (Harvard Medical School, USA)
- 2 Arrhythmogenic cardiomyopathy
Xander H. T. Wehrens (Baylor College of Medicine, USA)
- 3 Hypertrophic and dilated cardiomyopathy
Chris Semsarina (Centenary Institute & University of Sydney, Australia)
- 4 Peripartum cardiomyopathy
Denise Hilfiker (Hannover Medical School, Germany)

H. Sarcomeric proteins

H1. Sarcomeric signals in health and cardiac disease (*sponsored by: ISHR International*)

- 1 Mechanisms of muscle degeneration, regeneration and repair
Marco Sandri (University of Padova, Italy)
- 2 Muscle Lim Protein in cardiac disease: the sarcomere and beyond
Christian Geier (Charité Universitätsmedizin Berlin, Germany)
- 3 Molecular etiology of idiopathic cardiomyopathy
Akinori Kimura (Tokyo Medical and Dental University, Japan)
- 4 The sarcomeric M-band in strain sensing and cardiac disease
Mathias Gautel (King's College London, UK)

H2. Post-translational modification of cardiac sarcomeric proteins (*sponsored by: ISHR International*)

- 1 Regulation of cardiac function by sarcomeric protein phosphorylation
R. John Solaro (University of Illinois at Chicago, USA)
- 2 Mechanisms and significance of cardiac MyBP-C phosphorylation
Sakthivel Sadayappan (Loyola University Chicago, USA)
- 3 Novel signaling pathways in sarcomeric protein phosphorylation
Friederike Cuello (King's College London, UK)
- 4 Sarcomeric protein degradation and cardiac dysfunction
Lucie Carrier (University Medical Center Hamburg-Eppendorf, Germany)

I. Cancer versus heart disease

I1. Cancer versus heart disease: can we cure both? (*sponsored by: ISHR International*)

- 1 Therapeutic angiogenesis in cardiovascular disease
Paolo Madeddu (University of Bristol, UK)
- 2 Inhibition of angiogenesis in cancer therapy
Masahiro Inoue (Osaka Medical Center for Cancer and Cardiovascular Diseases, Japan)
- 3 Drug safety issues for tyrosine kinase inhibitors in oncology
Vito Sasseville (Bristol-Myers Squibb, USA)
- 4 Heart failure and tyrosine kinase inhibitors
Thomas Force (Thomas Jefferson University, USA)

J. Hypertrophic signalling

J1. Novel effectors and modulators in cardiac hypertrophy and failure

(Bayer Yakuhin Symposium in Memory of Howard E. Morgan (ISHR President 1983-86))

- 1 CaMKII in heart failure development: guilty as charged
Joan Heller Brown (University of California-San Diego, USA)
- 2 Pim-1 kinase in cardiac hypertrophy and failure
Mark Sussman (San Diego State University, USA)
- 3 Cell death pathways in the transition to heart failure
Rui-ping Xiao (NIH, USA)

- 4 Autophagy as an adaptive mechanism to cardiac stress
Kinya Otsu (Osaka University, Japan)

K. Kinases and phosphatases in the heart

- K1. p38 MAPK inhibition in myocardial infarction and remodelling: beside the bedside?
(sponsored by: ISHR International)
 - 1 p38 MAPK signalling in the heart
Yibin Wang (University of California-Los Angeles, USA)
 - 2 p38 MAPK inhibition and cardiac remodelling
Henry Krum (Monash University, Australia)
 - 3 A chemical genetic approach to determine p38 function in acute MI
Michael Marber (King's College London, UK)
 - 4 Design of clinical trials of p38 inhibition in acute coronary syndromes
Dennis L. Sprecher (Glaxo Smith Kline, USA)
- K2. Novel protein signalling mechanisms in the heart (sponsored by: ISHR International)
 - 1 Aldehyde dehydrogenase and ischemic stress
Daria Mochly-Rosen (Stanford University, USA)
 - 2 RhoA activation: mechanisms and significance
Thomas Wieland (University of Heidelberg, Germany)
 - 3 Protein kinase D regulation of cardiac function and remodeling
Metin Avkiran (King's College London, UK)
 - 4 Multifunctional roles of cardiac p90 RSKs
Jun-ichi Abe (University of Rochester, USA)

L. Ischemia/cardioprotection

- L1. Cardioprotective interventions in acute ischemia
(co-sponsored by: ISHR International/The 15th International Symposium on Adenosine, Cardioprotection and its Clinical Application)
 - 1 Remote ischemic preconditioning: from the laboratory to the clinic
Derek Hausenloy (University College London, UK)
 - 2 Postconditioning: mechanisms and clinical application
Michel Ovize (University of Lyon, France)
 - 3 Acidic reperfusion to preserve myocardial viability
David Garcia-Dorado (Hospital Universitari Vall d'Hebron, Spain)
 - 4 Harnessing the protective potential of the ER stress response
Christopher Glembotski (San Diego State University, USA)
- L2. Emerging therapeutic approaches in ischemic heart disease
(co-sponsored by: ISHR International/The 15th International Symposium on Adenosine, Cardioprotection and its Clinical Application)
 - 1 Targeting autophagy and apoptosis in ischaemic cardiomyopathy
Lorrie Kirshenbaum (University of Manitoba, Canada)
 - 2 Therapeutic manipulation of peptide hormones
Gary Baxter (Cardiff University, UK)
 - 3 Glycogen synthase kinase 3 inhibition as a cardioprotective approach
Charles Steenbergen (The Johns Hopkins University, USA)
 - 4 Redox signalling in cardioprotection
James Downey (University of South Alabama, USA)

M. Vascular biology

- M1. Vascular injury, repair and regeneration
(Canon Symposium in Memory of Normal R. Alpert (JMCC Editor 1993-98))
 - 1 Neurotrophins control on angiogenesis and vasculogenesis
Costanza Emanuelli (University of Bristol, UK)
 - 2 Vascular and stromal cell activation as a pathogenic pathway
Ryozo Nagai (University of Tokyo, Japan)
 - 3 Therapeutic potential of thymosin beta4 for angiogenesis
Nicola Smart (University College London, UK)
 - 4 Pluripotent actions of vascular endothelial growth factor
Kari Alitalo (University of Helsinki, Finland)