**Saturday 7th August Morning Session**

**The Keith Reimer Distinguished Lecture - John Solaro**

**Sarcomeric proteins as a center of multiplex functions in signaling and mechano-transduction in the myocardium**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:00AM</td>
<td><strong>Coffee Break</strong></td>
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<tr>
<td>9:30AM</td>
<td>Stem cell graduation: Commitment of stem cells</td>
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<td></td>
<td>Chairs: Anna Wobus (Germany), John Solaro (USA), Fabio Di Lisa (Italy), Issei Imanaga (Japan)</td>
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<td></td>
<td>Speakers: Matthias Gautel (UK), Paolo Bernardi (Italy), Fabio di Lisa (Italy)</td>
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<tr>
<td>10:00AM</td>
<td>Integration of signaling at the Z-disk of heart muscle</td>
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<td>Chairs: John Solaro (USA), Fabio di Lisa (Italy), Brian O'Rourke (USA)</td>
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<td>Speakers: Matthias Gautel (UK), Paolo Bernardi (Italy), Fabio di Lisa (Italy)</td>
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<tr>
<td>10:30AM</td>
<td>Mitochondrial control of heart cell survival</td>
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<td></td>
<td>Chairs: Fabio di Lisa (Italy), John Solaro (USA), Brian O'Rourke (USA)</td>
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<td></td>
<td>Speakers: Paolo Bernardi (Italy), Fabio di Lisa (Italy), John Solaro (USA)</td>
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<tr>
<td>11:00AM</td>
<td>Understanding the basic mechanisms for cardiac arrhythmias (Kaito symposium)</td>
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<td>Chairs: Issei Imanaga (Japan), Alejandro Aaiello (Argentina), John Solaro (USA)</td>
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<td>Speakers: Alejandro Aaiello (Argentina), John Solaro (USA), Issei Imanaga (Japan)</td>
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<tr>
<td>11:30AM</td>
<td>Mechanisms of ischemic preconditioning</td>
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<td></td>
<td>Chairs: Jim Downey (USA), Phê Pei Ping (USA), Pawan Singal (Canada)</td>
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<tr>
<td></td>
<td>Speakers: John Solaro (USA), Phê Pei Ping (USA), Pawan Singal (Canada)</td>
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<tr>
<td>12:00PM</td>
<td>Cardiac hypertrophy: molecular mechanisms and in vivo analysis (Canon symposium)</td>
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<td>Chairs: N. Takeda (Japan), Pawan Singal (Canada), Alejandro Aaiello (Argentina)</td>
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<tr>
<td></td>
<td>Speakers: John Solaro (USA), Pawan Singal (Canada), Alejandro Aaiello (Argentina)</td>
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### Saturday 7th August Afternoon Session

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>12:00</td>
<td>Lunch and Poster Session</td>
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<tr>
<td>2:30PM</td>
<td>The Research Achievement Award - Roberto Bolli</td>
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<tr>
<td>3:15PM</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>3:45PM</td>
<td>Muhammad Ashraf (USA): Stemming myocardial damage with stem cells: an overview</td>
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<tr>
<td>4:15PM</td>
<td>Anthon Moorman (The Netherlands): Development of the cardiac conduction system</td>
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<tr>
<td>4:45PM</td>
<td>S8C Paul Holvoet (Belgium): Cholesterol lowering and coronary plaque stabilisation</td>
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<tr>
<td>5:15PM</td>
<td>Seigo Izumo (USA): Functional analysis of Ncx2.5 and GATA4 transcription factors in heart development</td>
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<tr>
<td>5:45PM</td>
<td>Roger Markwald (USA): Fasciclin I directs differentiation of cardiac cushion mesenchymal cells into valvarular fibrous tissues</td>
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<tr>
<td>6:15PM</td>
<td>Evening Symposium S13</td>
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<tr>
<td>7:00PM</td>
<td>Wine and the heart</td>
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#### Wine and the heart
- **Co-chairs**
  - Dipak Das (USA) and Michel de Lorgeril (France)
- **Speakers**
  - S13A Dipak Das (USA): Cardioprotective effects of light-to-moderate wine and alcohol consumption
  - S13B Cesar Fraga (Argentina): Red versus white wines: differential antioxidant effects and health benefits
  - S13C Ian Pudley (Australia): Red wine and cardiovascular disease prevention: an appealing but unproven hypothesis
### Sunday 8th August Morning

**08:15AM** Landmark Lectures - Masayasu Hiraoka and Piero Anversa  
Masayasu Hiraoka (Japan): Cardiac channelopathy: a bridge from gene to clinical practice  
Piero Anversa (USA): The damaged heart

**09:00AM** Coffee Break

#### 09:30AM
**Chairs**:  
**Speakers**:  
**Piero Anversa** (USA): Cardiac stem cells

- **Chairs**:  
- **Speakers**:  

- **Ian LeGrice** (New Zealand): Structure of ventricular myocardium
- **Peter Backx** (Canada): Action potential characteristics and synchrony of SR Ca^2+ release

#### 10:00AM
**Chairs**:  
**Speakers**:  
**Keiichi Fukuda** (Japan): Lesson from GFP+ bone marrow transplanted mice: What is the origin of regenerated cardiomyocytes?  
**Gavin Norton** (South Africa): Myocardial collagen remodelling: A role for qualitative changes  
**Sheldon Little** (USA): Dysordinated Ca^2+ release in post infarction myocardium

#### 10:30AM
**Chairs**:  
**Speakers**:  
**Roberto Bolli** (USA): Use of hematopoietic and cardiac stem cells for regeneration of infarcted myocardium

- **Chairs**:  
- **Speakers**:  

- **Joe Janssüki** (USA): Myocardial collagen matrix regulation during ventricular remodelling: the role of the cardiac mast cell  
- **Karin Sigilo** (Belgium): Heterogeneity at the T-tubule  
- **Rainer Schulz** (Germany): Importance of connexin 43 (cx43) in ischemic preconditioning

#### 11:00AM
**Chairs**:  
**Speakers**:  
**Gianluigi Cordorelli** (USA): Heart infarct in nod-scid mice: lessons from guinea pigs.  
**Ian Dixon** (Canada): Cardiogenesis-1 expression and myocardial dysfunction in post myocardial infarct healing  
**Nobuaki Sarai** (Japan): Microscopic sarcomeric motion senses diysynchronous Ca^2+ release  
**Stefan Frantz** (Germany): Inflammation and heart failure

#### 11:30AM
**Chairs**:  
**Speakers**:  
**Joshua Hare** (USA): Role of mesenchymal stem cells in cardiac repair and regeneration: mechanisms and therapeutic implications  
**S1SE Bodh Jugdutt** (Canada): Adverse remodelling post infarction: importance of collagen in prevention and reversal strategies  
**John Bridge** (USA): Variation in couplon size results in heterogeneous spark latencies  
**Guro Valen** (Norway): Inflammation in myocardial adaptation to ischemia  
**Ramesh Chandra** (India): Rate of metalloporphyrins in cardiovascular complications during hypoxic stress  
**Chantal Gauthier** (France): Role of b3-adrenoceptor subtypes in the regulation of the heart function

**12:00** David Eisner (UK): Unsynchronized calcium release and cardiac alternans  
**Stefan Engelhardt** (Germany): b-Adrenergic signaling in the heart - novel insights about mechanisms of cardiac hypertrophy and failure  
**Rui-Ping Xiao** (USA/China): b-Adrenoceptor subtype signaling

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1:30PM  Lunch and Poster Session

2:30PM  The Richard Bing Young Investigator Award. Robert Bell: Pivotal role of gp91 phox-containing NADPH oxidase in early ischemic preconditioning  
Fabien Brette: Differential modulation of L-type Ca current by SR Ca release between the t-tubules and surface membrane of rat ventricular myocytes  
Derek Hausenloy: Transient opening of the mitochondrial permeability transition pore mediates preconditioning-induced protection  
Cecilia Hurtado: Adenovirally delivered sh RNA strongly inhibits Na+-Ca2+ exchanger expression but does not prevent contraction of neonatal cardiomyocytes.

3:15PM  Coffee Break

3:45PM  fleece constructing approaches as novel molecular therapy of vascular disease  
(Bayer Symposium)  
Chairs  
Ryuichi Morishita-Japan  
Nararanj Dhalla-Canada  
Speakers  
Francisco Villarreal-USA  
Richard Schulz-Canada  
Michal Ondruska-Czech Republic  
Cecilia Hurtado-Mexico  
Seth Cohen USA: Design of novel MMP inhibitors  
Richard Schulz (Canada): Intercellular actions of MMP-2 and TIMP-4 in the heart in myocardial oxidative stress injury  
Ricardo Garcia (USA): In vivo activation and broad-spectrum inhibition of matrix metalloproteinases

4:15PM  Matrix gene-modifying approaches as novel molecular therapy of vascular disease  
Speakers  
Francisco Villarreal (USA): MMPs in the heart  
Angel Zaram-Herzberg (Mexico): SERCA2 and CSG1 2 transcriptional regulation in cardiomyocytes  
Cecilia Mundina-Weizenmann (Argentina): CaMKII-dependent phosphorylation as a mechanism to limit Ca2+ overload  
Jon Lederer (USA): Molecular control of SR Ca2+ release  
Mark Cannell (New Zealand): Control of the Ca spark during E-C coupling  
Suresh Tyagi (USA): Cardiac remodeling in hypercholesterolemia and diabetes: A NO and ECM connection  
Hector Valdivia (USA): Beta-adrenergic regulation of cardiac ryanodine receptors  
Larry Hryshko (Canada): Therapeutic potential of sodium-calcium exchange inhibitors

4:45PM  Synchronized cardiac excitation-calcium release coupling  
Chairs  
Lihua Kranias-USA  
Richard Walsh-USA  
Speakers  
Martin Vila-Petroff-Argentina  
Richard Walsh-USA  
Takehiro Matsumoto-Japan: Chronic chymase inhibition prevents cardiac fibrosis and improves diastolic dysfunction in the progression of heart failure  
S239 Martin Vila Petroff (Argentina): Angiotensin II-induced oxidative stress as a possible mediator of contractile dysfunction in the failing heart  
Pal Pacher (USA): Pharmacological inhibition of poly(adenosine diphosphate-ribose) polymerase is a promising new approach for the therapy of various forms of heart failure  
Peter Whittaker (USA): Cardiac transplantation for the treatment of heart failure: active contributor or passive bystander

5:15PM  Defining the targets for treatment of heart failure  
Chairs  
Dipak Das-USA  
Tanya Ravinderova-Slovakia  
Speakers  
Lihua Kranias-USA  
Richard Walsh-USA  
Tanya Ravinderova (Slovak Republic): Oxidant signals and cardioprotection: dual role in susceptibility to ischemia/reperfusion injury  
Shane Thomas (Australia): Redox regulation of vascular cell function  
Sian Harding (UK): Does b-blocker-mediated stimulation of Gi contribute to recovery of heart failure?  
Richard Bond (USA): Pharmacological differences and their impact on the clinical use in patients with chronic heart failure  
Ricardo Garcia (Canada): Therapeutic potential of sodium-calcium exchange inhibitors

5:45PM  Redox signaling in the heart  
Chairs  
Finn Waagstein-Sweden  
Dipak Das-USA  
Speakers  
Lihua Kranias-USA  
Richard Walsh-USA  
Tanya Ravinderova (Slovak Republic): Oxidant signals and cardioprotection: dual role in susceptibility to ischemia/reperfusion injury  
Shane Thomas (Australia): Redox regulation of vascular cell function  
Sian Harding (UK): Does b-blocker-mediated stimulation of Gi contribute to recovery of heart failure?  
Richard Bond (USA): Pharmacological differences and their impact on the clinical use in patients with chronic heart failure

6:15PM  Beta-Adrenergic blockers in heart failure, the secret of their success?

Chairs  
Andrew Galbraith-Australia  
Finn Waagstein-Sweden  
Speakers  
Lihua Kranias-USA  
Richard Walsh-USA  
Tanya Ravinderova (Slovak Republic): Oxidant signals and cardioprotection: dual role in susceptibility to ischemia/reperfusion injury  
Shane Thomas (Australia): Redox regulation of vascular cell function  
Sian Harding (UK): Does b-blocker-mediated stimulation of Gi contribute to recovery of heart failure?  
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Sunday 8th August Afternoon
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<tbody>
<tr>
<td>8:15AM</td>
<td>Monday 9th August Morning</td>
<td>The Janice Pfeffer Distinguished Lecture</td>
<td>David Kass (USA): Cardiac dyssynchrony and resynchronization</td>
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<td>9:00AM</td>
<td>Coffee Break</td>
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<tr>
<td>9:30AM</td>
<td>Vascular tissue engineering: challenges and opportunities</td>
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<td>10:00AM</td>
<td>Myocardial vascular regeneration using human progenitor cells of endothelial and mesenchymal lineage</td>
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<td>10:30AM</td>
<td>Differentiation of macrophages into myofibroblasts</td>
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<tr>
<td>11:00AM</td>
<td>Tissue engineering heart valves: from concepts to constructs</td>
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<td>11:30AM</td>
<td>Grafting of engineered heart tissue to repair infarcted myocardium</td>
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<tr>
<td>12:00PM</td>
<td>Myocardial tissue reconstruction by cell sheet technology</td>
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</table>
### 12:30PM Lunch

### 2:30PM Monday 9th August Afternoon

**Landmark Lectures - Andrew Coats and Eric Olson**

**Eric Olson (USA):** The cellular circuitry of cardiac hypertrophy  
**Andrew Coats (Australia):** A whole-body approach to chronic heart failure

### 3:15PM Coffee Break

**Speakers**  
John Headrick (Australia)

**Themes**

<table>
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<tr>
<td>3:30PM</td>
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<td>3:45PM</td>
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<td>5:15PM</td>
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<td>5:45PM</td>
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### 3:45AM

- **John Headrick** (Australia): Development and characterisation of the perfused mouse heart: myosin and vascular effects of ischaemia-reperfusion

### 4:15AM

- **David Kass** (USA): Comprehensive in vivo assessment of cardiac function in mice by pressure-volume analysis

### 4:45AM

- **Ellen Aasum** (Norway): Cardiac metabolism, function and efficiency recordings in ex vivo mouse hearts

### 5:15AM

- **Brigitte Escoubet** (France): Echo-Doppler for the evaluation of heart function in small animals

### 5:45AM

- **ISHR CONGRESS DINNER** (Aussie-Style Barbecue, ISHR Award Announcements, Speeches, Singing)
**Tuesday 10th August Morning**

**8:15AM**

*The Peter Harris Distinguished Scientist Award* - Arnold Katz

**9:00AM**

**Coffee Break**

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<td>9:00AM</td>
<td><strong>Cardiac myofibrillogenesis and heart development</strong></td>
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<td></td>
<td>Larry Lemanski-USA</td>
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<td>Elisabeth Ehler - UK</td>
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<td><strong>Speakers</strong></td>
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<td></td>
<td>Bruce McManus-Canada</td>
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<td>Jeffrey Bergelson-USA</td>
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<td>9:30AM</td>
<td>Elisabeth Ehler (UK): How to assemble myofibrils in the developing vertebrate heart and how to deal with them during cell differentiation</td>
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<tr>
<td>10:00AM</td>
<td>Torben Clausen (Denmark): Plasma-potassium regulation by skeletal muscles</td>
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<td>10:30AM</td>
<td>Jeffrey Bergelson (USA): Receptors for enteroviruses: update and implications for intervention</td>
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<tr>
<td>11:00AM</td>
<td>Dipak Dube (USA): Role of a novel tropomyosin in vertebrate heart development</td>
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<td>11:30AM</td>
<td>Xupei Huang (USA): Troponin I gene regulation in the developing heart</td>
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<td>12:00PM</td>
<td>Takashi Obinata (Japan): C-protein and cofilin in myofibril formation and maintenance</td>
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**9:30AM**

**Enteroviral heart disease-from mechanism to therapeutics**

**Chairs**
- Bruce McManus-Canada
- Jeffrey Bergelson-USA

**Speakers**
- Kyung-Soo Kim (USA): Group B coxsackievirus persistence in cardiac cells and heart via a novel deleterional mechanism
- Michael McKenna (Australia): Potassium handling during exercise
- Hemming Bundgaard (Denmark): In vivo assessment of the potassium homeostasis in humans and the heart in animal models
- Michael Christiansen (Denmark): Potassium, ion channelopathies and genes in heart diseases

**10:00AM**

**Potassium dysregulation as a dangerous factor in heart disease**

**Chairs**
- Keld Kjeldsen-Denmark
- Torben Clausen-Denmark

**Speakers**
- Jan-Aka Gustafson (Sweden): New paradigms in estrogen signaling with particular reference to cardiovascular function
- Katja Preile (Germany): Novel approaches to the development of female hormone derivatives
- Pieter Doevendans (The Netherlands): Estrogens block cardiac hypertrophy by selective estrogen receptor agonists and SERMs

**10:30AM**

**Estrogen derivatives in cardiovascular disease- old questions, new answers**

**Chairs**
- Theo Pelzer-Germany
- Peter Onowordzie...The Netherlands

**Speakers**
- Theo Pelzer (Germany): Modulation of cardiac hypertrophy by selective estrogen receptor agonists and SERMs
- Ann-Marie Seymour (UK): Metabolic remodeling in cardiac hypertrophy – a factor in heart failure?
- Mike Allard (Canada): Metabolic phenotype of the hypertrophied heart
- Dominik Autelitano (Australia): Adrenomedullin receptor-RAMP interactions modulate cardiac function

**11:00AM**

**Metabolism in hypertrophic remodelling of the stressed myocardium**

**Chairs**
- Bill Stanley-USA
- Anne-Marie Seymour-UK

**Speakers**
- Dale Abel (USA): Myocardial insulin resistance impairs mitochondrial function and the metabolic adaptation of the heart to pressure overload hypertrophy
- Lee Chao (USA): Adrenomedullin gene delivery protects against myocardial remodelling and apoptosis
- Martin Young (USA): Potential role of the circadian clock in metabolic adaptation of the heart
- Chris Charles (New Zealand): Potential for targeting adrenomedullin mechanisms in heart failure

**11:30AM**

**Adrenomedullin: protective role in cardiovascular disease**

**Chairs**
- Barbara McDermott-UK
- Dominik Autelitano-Austral.

**Speakers**
- Tanenau Eto (Japan): Pathophysiological significance of adrenomedullin in the cardiovascular system
- William Stanley (USA): Inhibition of myocardial fatty acid oxidation for the treatment of heart failure
- Barbara McDermott (UK): Adrenomedullin receptors in cardiovascular diseases
- Chris Charles (New Zealand): Potential for targeting adrenomedullin mechanisms in heart failure

**12:00PM**

**Lunch and Poster Session**

**2:00PM**

**Landmark Lectures** - Roberto Ferrari and Sir Magdi Yacoub

**Roberto Ferrari (Italy): From Bedside to Bench: How the unexpected results of clinical trials have influenced basic science**

**3:15PM**

**Coffee Break**
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<td>3:45PM</td>
<td>Nilanjana Maulik (USA): Molecular mechanisms of myocardial angiogenesis</td>
<td>David Chambers (UK): Challenging the dominance of potassium arrest in surgical chemical cardioplegia</td>
<td>Motin Arkiran (UK): New insights into NHE regulation and function</td>
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<td></td>
<td>3:45PM Takayuki Asahara (Japan): Endothelial progenitor cells for vascular regeneration</td>
<td>Burkert Plecke (Giessen, Germany): Role of NHE during mechanical load (15min)</td>
<td>Alex Brown (Australia): The context of CVD among indigenous Australians</td>
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<td>4:15PM</td>
<td>4:15PM Run-Ke Li (Canada): Cell transplantation to improve heart function: cells or matrix?</td>
<td>(i) A.Williams (Australia): Role of intracellular Na+ during cardiac ischemia: the underlying mechanisms (ii) B.V. Alvarez (Canada): Inhibition of cardiac hypertrophy by a carbonic anhydrase inhibitor: Linking CAII, NHE1 and AE3</td>
<td>CC Kartha (India): Cardiomyopathies in the tropics</td>
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<td>4:45PM Matthias Heil (Germany): Arteriogenesis - hemodynamic and cellular factors</td>
<td>Andrew Halestrap (UK): The mitochondrial permeability transition pore as a target for myocardial protection</td>
<td>S47D KK Talwar (India): Alternative treatments for tachyarrhythmia in developing countries</td>
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<tr>
<td>5:15PM</td>
<td>5:15PM Michael Simons (USA): Regulation of coronary vascular branching</td>
<td>Morris Karmazyn (Canada): Role of NHE in myocardial remodeling and heart failure</td>
<td>David Brown (USA): Exercise-induced cardioprotection: Evidence from both acute and chronic training in rat heart</td>
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<td>6:15PM Jarle Vaage (Norway): The indigenous cell defense: its possible role in myocardial protection during cardiac surgery</td>
<td>Robert Muntaz (USA): Clinical trials with NHE inhibitors: where are we now and where are we going?</td>
<td>Ganta Keseler-Izcan (Brazil): Functional genomics and proteomics: profiling the cardioprotective effect of prior exercise training</td>
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<td>Paul Ganguly (Bahrain): Cardiovascular system in a problem-based curriculum at The Arabian Gulf University</td>
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<td>7:00PM Joint CSANZ-ISHR Meeting Dinner</td>
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**Wednesday 11th August**

**10:00AM** Tour to Australia Zoo