

ISHR 2004 Program

5.00-7.00pm **Friday 6th August**  
**Welcome Reception**

**Saturday 7th August Morning Session**  
**The Keith Reimer Distinguished Lecture - John Solaro**  
**8:15AM Sarcomeric proteins as a center of multiplex functions in signaling and mechano-transduction in the myocardium**

9:00AM **Coffee Break**

	Stem cell graduation: Commitment of stem cells	Integration of signalling at the Z-disk of heart muscle	Mitochondrial control of heart cell survival	Understanding the basic mechanisms for cardiac arrhythmias (Kaito symposium)	Mechanisms of ischaemic preconditioning	Cardiac hypertrophy: molecular mechanisms and in vivo analysis (Canon symposium)
	<b>Chairs</b> Anna Wobus-Germany Ken Boheler-USA	<b>Chairs</b> John Solaro-USA Mathias Gautel-UK	<b>Chairs</b> Fabio Di Lisa-Italy Brian O'Rourke-USA	<b>Chairs</b> Issei Imanaga-Japan Alejandro Aiello-Argentina	<b>Chairs</b> Jim Downey-USA Pei Pei Ping-USA	<b>Chairs</b> N.Takeda-Japan Pawan Singal-Canada
	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>
9:30AM	<b>Kenneth Boheler</b> (USA): The potential of embryonic stem cells	<b>Mathias Gautel</b> (UK): Signaling by dynamically relocating sarcomeric proteins	<b>Paolo Bernardi</b> (Italy): Cell death and cytosolic Ca2+ overload: cause or consequence of mitochondrial dysfunction?	<b>Alejandro Aiello</b> (Argentina): Sodium/bicarbonate cotransport current in the configuration of the cardiac action potential	<b>Jim Downey</b> (USA): Signalling mechanisms of preconditioning	<b>Hari Sharma</b> (The Netherlands): Myocardial gene profiling during human cardiac hypertrophy and failure
10:00AM	<b>Anna Wobus</b> (Germany): Stem Cell differentiation and the identification of multilineage progenitor cells	<b>Masahiko Hoshijima</b> (Japan): Cardiac Lim proteins and mechanical stress sensing	<b>Fabio di Lisa</b> (Italy): PTP and ischemia-reperfusion injury	<b>Haruki Nakaya</b> (Japan): Pathophysiological and protective roles of KATP channels in ischemia/reperfusion: reevaluation using KATP channel-knockout mice	<b>Jason Peart</b> (Australia): G-Protein coupled receptor cross-talk: implications for preconditioning	<b>Lorrie Kirshenbaum</b> (Canada): Molecular regulation of cardiac cell growth and cell death
10:30AM	<b>Malcom Alison</b> (UK): Controversies in adult stem cell plasticity	<b>Glen Pyle</b> (Canada): A molecular switchboard: communicating with myofilaments through the actin capping protein CapZ	<b>Jennifer Van Eyk</b> (USA): The inner mitochondrial membrane proteins altered with preconditioning: complexity and novel proteins revealed by proteomics	<b>Narcis Tribulova</b> (Slovak Republic): Factors involved in the proarrhythmic and antiarrhythmic effects of thyroid hormones	<b>Garvan Kane</b> (USA): KATP channel deficit and cardiac maladaptation	<b>Issei Komuro</b> (Japan): A novel mechanism of AT1 activation
11:00AM	<b>Miranda Grounds</b> (Australia): The reality of myogenic stem cells	<b>Norbert Frey</b> (Germany): The role of a novel z-disc protein family, calsarcins, in striated muscle function and disease	<b>Ed Lesnefsky</b> (USA): The inner mitochondrial membrane proteins altered with preconditioning: complexity and novel proteins revealed by proteomics	<b>Issei Imanaga</b> (Japan): Role of gap junctions in initiation and termination of cardiac arrhythmias	<b>Michael Shattock</b> (UK): KATP channels and preconditioning in the neonatal heart: are they up to the job?	<b>Nestor Gustavo Perez</b> (Argentina): Hormonal regulation of the Na+/H+-exchanger in the heart
11:30AM	<b>Louis Casteilla</b> (France): Plasticity of adipose tissue: cardiac and vascular potential		<b>Brian O'Rourke</b> (USA): Mitochondrial criticality: role of mitochondrial ion channels and ROS	<b>Sawa Kostin</b> (Germany): Gap junction remodeling and altered connexin expression in human cardiac diseases	<b>Frank Kolar</b> (Czech Rep.): KATP channels and long-lasting protection	<b>Seiryu Sugiura</b> (Japan): Computer simulation of the failing heart
12:00			<b>Steven Sollot</b> (USA): Convergence of cell protection mechanisms via GSK-3b: The permeability transition pore is the end-effector	<b>Itsuo Kodama</b> (Japan): Ionic and molecular mechanisms of acquired QT prolongation in association with complete atrioventricular block	<b>Derek Hausenloy</b> (UK): the importance of the reperfusion phase in ischaemic preconditioning	

**12:00 Lunch and Poster Session**

**2:30PM The Research Achievement Award - Roberto Bolli**  
**Roberto Bolli (USA): Use of gene therapy for cardioprotection**

**3:15PM Coffee Break**

**Saturday 7th August Afternoon Session**

	<p><b>The stem cell battalion develops into a heart: nature's way</b></p> <p><b>Chairs</b> David Bader-USA Antoon Moorman-Netherlands</p> <p><b>Speakers</b></p>	<p><b>The unstable plaque: characteristics, models and ways to stabilise.</b></p> <p><b>Chairs</b> Cherry Wainwright -UK Simon Kennedy-UK</p> <p><b>Speakers</b></p>	<p><b>Stress, strain and stores: mechanoelectric feedback in the heart</b></p> <p><b>Chairs</b> Max Lab-UK John Solaro-USA</p> <p><b>Speakers</b></p>	<p><b>Heart Failure: Ca2+Regulation</b></p> <p><b>Chairs</b> Steven Houser-USA Masafumi Yano-Japan</p> <p><b>Speakers</b></p>	<p><b>Functional and dysfunctional signalling in ischemic preconditioning</b></p> <p><b>Chairs</b> Karin Przyklenk-USA Rakesh Kukreja-USA</p> <p><b>Speakers</b></p>	<p><b>Neurocardiology: neural control of the heart</b></p> <p><b>Chairs</b> David Adams-Australia Jeffrey Ardell-USA</p> <p><b>Speakers</b></p>
<b>3:45PM</b>	<p><b>Muhammad Ashraf (USA):</b> Stemming myocardial damage with stem cells: an overview</p>		<p><b>John Solaro (USA):</b> A personal view of mechanoelectric feedback</p>	<p><b>S10A Masafumi Yano (Japan):</b> Molecular basis of abnormal ryanodine receptor function in heart failure</p>	<p><b>Elizabeth Murphy (USA):</b> Novel mechanisms in cardioprotection</p>	<p><b>David Adams (Australia):</b> The role of intrinsic cardiac neurons in heart function</p>
<b>4:15PM</b>	<p><b>Antoon Moorman (The Netherlands):</b> Development of the cardiac conduction system</p>	<p><b>S8B Sarah George (UK):</b> Matrix metalloproteinase inhibitors for unstable plaque</p>	<p><b>Peter Taggart (UK):</b> Abnormal ventricular wall motion and sudden death: a linking mechanism?</p>	<p><b>Litsa Kranias (USA):</b> Phospholamban is an essential cause of dysregulated Ca2+ in heart failure</p>	<p><b>Tak Ming Wong (Hong Kong):</b> Cardioprotection of kappa opioid receptor stimulation in normal and diabetic rats – roles of heat shock protein 70 and intracellular Ca2+</p>	<p><b>Jeffrey Ardell (USA):</b> Intrathoracic neuronal regulation of cardiac function</p>
<b>4:45PM</b>		<p><b>S8C Paul Holvoet (Belgium):</b> Cholesterol lowering and coronary plaque stabilisation</p>	<p><b>Max Lab (UK):</b> Alternate mechanisms in mechanoelectric feedback</p>	<p><b>Burkert Pieske (Germany):</b> Na+ regulation influences the force-frequency relationship in the failing heart</p>	<p><b>Peipei Ping (USA):</b> Role of scaffold protein cypher in cardioprotection</p>	<p><b>Michael Andresen (USA):</b> Brain stem mechanisms of cardiac control</p>
<b>5:15PM</b>	<p><b>Seigo Izumo (USA):</b> Functional analysis of Nkx2.5 and GATA4 transcription factors in heart development</p>	<p><b>S8D Cherry Wainwright (UK):</b> Inflammation, thrombosis and atherosclerotic plaques</p>	<p><b>David Saint (Australia):</b> Mechano-electric feedback in the heart: the ghost in the machine</p>	<p><b>Steven Houser (USA):</b> Contribution of Na+/Ca2+ exchanger activity to contractile abnormalities in the failing heart</p>	<p><b>Karin Przyklenk (USA):</b> Altered mechanisms of preconditioning in aged vs. adult heart</p>	<p><b>Rene Cardinal (Canada):</b> Remodeled neurohumoral control of the failing heart</p>
<b>5:45PM</b>	<p><b>Roger Markwald (USA):</b> Fasciclins induce differentiation of cardiac cushion mesenchymal cells into valvular fibrous tissues</p>	<p><b>S8E Simon Kennedy (UK):</b> The pro's and con's of endothelial regrowth</p>	<p><b>Peter Hunter (New Zealand):</b> Cardiac modelling: cells to organ</p>	<p><b>Albertas Undrovinas (USA):</b> Mechanism for AP prolongation in heart failure</p>	<p><b>Rakesh Kukreja (USA):</b> Sildenafil preconditions adult cardiac myocytes against necrosis and apoptosis: essential role of NO signaling</p>	<p><b>David Kaye (Australia):</b> Sympathetic neurobiology of the failing heart</p>
<b>6:15PM</b>			<p><b>David Kass (USA):</b> Mechanisms of arrhythmia from cardiac dyssynchrony: Can resynchronization help?</p>			
<b>7:00PM</b>	<p><b>Evening Symposium S13</b>  <b>Wine and the heart</b>  <b>Co-chairs</b>  Dipak Das-USA and Michel de Lorgeril-France  <b>Speakers</b>  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 Puddey (Australia): Red wine and cardiovascular disease prevention: an appealing but unproven hypothesis</p>					

**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**

	The stem cell reserve corps: Ready to repair heart	Collagen and the heart	Unsynchronized Ca2+ release in the heart	Innate immunity in cardiovascular health and disease	Signalling in the hypertrophied and failing heart	Emerging concepts in beta-adrenergic signalling in the mvocardium
	<p><b>Chairs</b> Piero Anversa-USA Roberto Bolli-USA</p> <p><b>Speakers</b></p>	<p><b>Chairs</b> Ian Dixon-Canada Lindsay Brown-Australia</p> <p><b>Speakers</b></p>	<p><b>Chairs</b> Peter Backx-Canada Karin Sipido-Belgium</p> <p><b>Speakers</b></p>	<p><b>Chairs</b> Guro Valen-Sweden Michael Karin-USA</p> <p><b>Speakers</b></p>	<p><b>Chairs</b> Teruhiko Toyo-Oka-Japan Joan Heller Brown-USA</p> <p><b>Speakers</b></p>	<p><b>Chairs</b> Sian Harding-UK Peter Molenaar-AUS</p> <p><b>Speakers</b></p>
9:30AM	<p><b>Piero Anversa (USA):</b> Cardiac stem cells</p>	<p><b>Ian LeGrice (New Zealand):</b> Structure of ventricular myocardium</p>	<p><b>Peter Backx (Canada):</b> Action potential characteristics and synchrony of SR Ca2+ release</p>	<p><b>Speakers</b></p>	<p><b>Balwant Tuana (Canada):</b> The sarcolemmal membrane associated protein slmap organizes with the e-c coupling apparatus and is deregulated in the myocardium post-MI.</p>	<p><b>Roger Summers (Australia):</b> The molecular basis for the atypical b-adrenoceptor pharmacology of CGP12177A</p>
10:00AM	<p><b>Keiichi Fukuda (Japan):</b> Lesson from GFP+ bone marrow transplanted mice: What is the origin of regenerated cardiomyocytes?</p>	<p><b>Gavin Norton (South Africa):</b> Myocardial collagen remodelling: A role for qualitative changes</p>	<p><b>Sheldon Litwin (USA):</b> Dyscoordinated Ca2+ release in post infarction myocardium</p>	<p><b>Speakers</b></p>	<p><b>Irene Ennis (Argentina):</b> Cardiac hypertrophy: role played by the NHE</p>	<p><b>Alberto Kaumann (UK):</b> Human heart b1- and b2-adrenoceptors: high and low affinity states</p>
10:30AM	<p><b>Roberto Bolli (USA):</b> Use of hematopoietic and cardiac stem cells for regeneration of infarcted myocardium</p>	<p><b>Joe Janicki (USA):</b> Myocardial collagen matrix regulation during ventricular remodelling: the role of the cardiac mast cell</p>	<p><b>Karin Sipido (Belgium):</b> Heterogeneity at the T-tubule</p>	<p><b>Rainer Schulz (Germany):</b> Importance of connexin 43 (cx43) in ischemic preconditioning</p>	<p><b>Joan Heller Brown (USA):</b> Lysophospholipid receptor and Akt signaling pathways in cardiac hypertrophy and protection</p>	<p><b>Rui-Ping Xiao (USA/China):</b> b-Adrenoceptor subtype signalling</p>
11:00AM	<p><b>Gianluigi Condorelli (USA):</b> Heart infarct in nod-scid mice: therapeutic vasculogenesis by transplantation of human cd34+ cells.</p>	<p><b>Ian Dixon (Canada):</b> Cardiotrophin-1 expression and myofibroblast involvement in post-myocardial infarct wound healing</p>	<p><b>Nobuaki Sarai (Japan):</b> Microscopic sarcomeric motion senses dyssynchronous Ca2+ release</p>	<p><b>Stefan Frantz (Germany):</b> Innate immunity and heart failure</p>	<p><b>MAQ Siddiqui (USA):</b> Distinct components of the Jak/STAT signaling pathway are involved in the onset of myocardial hypertrophy and ischemia and in cardioprotection</p>	<p><b>Stefan Engelhardt (Germany):</b> b-Adrenergic signaling in the heart - novel insights about mechanisms of cardiac hypertrophy and failure</p>
11:30AM	<p><b>Joshua Hare (USA):</b> Role of mesenchymal stem cells in cardiac repair and regeneration: mechanisms and therapeutic implications</p>	<p><b>S15E Bodh Jugdutt (Canada):</b> Adverse remodelling post infarction: importance of collagen in prevention and reversal strategies</p>	<p><b>John Bridge (USA):</b> Variation in couplon size results in heterogeneous spark latencies</p>	<p><b>Guro Valen (Norway):</b> Innate immunity in myocardial adaptation to ischemia</p>	<p><b>Ramesh Chandra (India):</b> Role of metalloporphyrins in therapeutics of cardiovascular complications during hypoxic stress</p>	<p><b>Chantal Gauthier (France):</b> Place of b3-adrenoceptors among other b-adrenoceptor subtypes in the regulation of the heart function</p>
12:00			<p><b>David Eisner (UK):</b> Unsynchronized calcium release and cardiac alternans</p>		<p><b>Teruhiko Toyo-Oka (Japan):</b> Shift and cleavage of myocardial dystrophin is a common pathway to advanced heart failure, irrespective of the cause</p>	

**12:30PM 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<sup>+</sup>-Ca<sup>2+</sup> exchanger expression but does not prevent contraction of neonatal cardiomyocytes.**

**3:15PM Coffee Break**  
**Sunday 8th August Afternoon**

	Gene-modifying approaches as novel molecular therapy of vascular disease (Bayer Symposium)	Matrix metalloproteinases	Synchronized cardiac excitation-calcium release coupling	Defining the targets for treatment of heart failure	Redox signalling in the heart	Beta-Adrenergic blockers in heart failure, the secret of their success?
	Chairs	Chairs	Chairs	Chairs	Chairs	Chairs
	Ryuichi Morishita-Japan Naranjan Dhalla-Canada	Francisco Villarreal-USA Richard Schulz-Canada	Litsa Kranias-USA Mark Cannell-New Zealand	Martin Vila-Petroff-Argentina Richard Walsh-USA	Dipak Das-USA Tanya Ravingerova-Slovakia	Andrew Galbraith-Australia Finn Waagstein-Sweden
	Speakers	Speakers	Speakers	Speakers	Speakers	Speakers
<b>3:45PM</b>	<b>Ryuichi Morishita</b> (Japan): Angiogenic growth factor gene as a novel potential molecular drug to treat peripheral arterial disease	<b>Francisco Villarreal</b> (USA): MMPs in the heart	<b>Angel Zarain-Herzberg</b> (Mexico): SERCA2 and CSQ 2 transcriptional regulation in cardiomyocytes	<b>Takehiro Matsumoto</b> (Japan): Chronic chymase inhibition prevents cardiac fibrosis and improves diastolic dysfunction in the progression of heart failure <b>S23B Martin Vila Petroff</b> (Argentina): Angiotensin II-induced oxidative stress as a possible mediator of contractile dysfunction in the failing heart	<b>Tanya Ravingerova</b> (Slovak Republic): Oxidant signals and cardioprotection: dual role in susceptibility to ischemia/reperfusion injury <b>Shane Thomas</b> (Australia): Redox regulation of vascular cell function	<b>Finn Waagstein</b> (Sweden): From contraindication to general acceptance: the mechanisms of the clinical responses to b-blockers in heart failure <b>Ken Margulies</b> (USA): Restoration of calcium-handling proteins after b-blocker treatment in heart failure patients
<b>4:15PM</b>	<b>Nasrin Mesaeli</b> (Canada): Calreticulin regulates angiogenesis	<b>Seth Cohen</b> (USA): Design of novel MMP inhibitors	<b>Cecilia Mundina-Weilenmann</b> (Argentina): CaMKII-dependent phospholamban phosphorylation as a mechanism to limit Ca <sup>2+</sup> overload	<b>Richard Walsh</b> (USA): Abnormal signal transduction in heart failure - new therapeutic targets	<b>Naoki Makino</b> (Japan): Role of cytokines in redox regulation in the ischaemic heart	<b>Sian Harding</b> (UK): Does b-blocker-mediated stimulation of Gi contribute to recovery mechanisms?
<b>4:45PM</b>	<b>Mitsuaki Iso</b> (Japan): New approaches to treat cardiovascular diseases targeting NFKB	<b>Richard Schulz</b> (Canada): Intercellular actions of MMP-2 and TIMP-4 in the heart in myocardial oxidative stress injury	<b>Jon Lederer</b> (USA): Molecular control of SR Ca <sup>2+</sup> release	<b>Vincent Chan</b> (Australia): Chronic b-adrenoceptor blockade prevents progression of heart failure in ageing SHR	<b>Junichi Sadoshima</b> (USA): Thioredoxin is a negative regulator of cardiac hypertrophy	<b>Christoph Maack</b> (Germany): Metoprolol and carvedilol: Pharmacological differences and their impact on the clinical use in patients with chronic heart failure <b>Richard Bond</b> (USA): Paradoxical pharmacology - the way forward?
<b>5:15PM</b>	<b>James Dobson</b> (USA): cardiac adenosine receptors & protein kinase C	<b>Ricardo Garcia</b> (USA): In vivo activation and broad-spectrum inhibition of matrix metalloproteinases	<b>Mark Cannell</b> (New Zealand): Control of the Ca spark during E-C coupling			
<b>5:45PM</b>	<b>Grant Pierce</b> (Canada): Modulation of nuclear protein import in vascular smooth muscle cells by lipids.	<b>Suresh Tyagi</b> (USA): Cardiac remodeling in hyperhomocysteinemia and diabetes: a NO and ECM connection.	<b>Hector Valdivia</b> (USA): Beta-adrenergic regulation of cardiac ryanodine receptors	<b>Pal Pacher</b> (USA): Pharmacologic inhibition of poly(adenosine diphosphate-ribose) polymerase is a promising new approach for the therapy of various forms <b>Peter Whittaker</b> (USA): Cell transplantation for the treatment of heart failure: active contributor or passive bystander?	<b>Dipak Das</b> (USA): Redox signaling in mending the broken hearts	
<b>6:15PM</b>			<b>Larry Hryshko</b> (Canada): Therapeutic potential of sodium-calcium exchange inhibitors			

**Monday 9th August Morning**

**8:15AM The Janice Pfeffer Distinguished Lecture - David Kass (USA): Cardiac dyssynchrony and resynchronization**

**9:00AM Coffee Break**

	<p><b>Cardiovascular tissue engineering: nature gets a nudge</b></p> <p><b>Chairs</b> Gordon Campbell-Australia Robert Nerem-USA</p> <p><b>Speakers</b></p>	<p><b>Metabolic dysfunction in the diabetic heart</b></p> <p><b>Chairs</b> Gary Lopaschuk-Canada Ger van der Vusse-ine Netherlands</p> <p><b>Speakers</b></p>	<p><b>Excitation contraction coupling remodelling in cardiac hypertrophy</b></p> <p><b>Chairs</b> Don Bers-USA Lea Delbridge-Australia</p> <p><b>Speakers</b></p>	<p><b>Obesity as a cardiovascular disease</b></p> <p><b>Chairs</b> Daniel Villarreal-USA Martin Alpert-USA</p> <p><b>Speakers</b></p>	<p><b>NAD(P)H oxidase-derived reactive oxygen species signalling or stress?</b></p> <p><b>Chairs</b> Patrick Pagano-USA Sachin Gupte-USA</p> <p><b>Speakers</b></p>	<p><b>Aldosterone: New ideas on role in cardiovascular disease</b></p> <p><b>Chairs</b> Claude Delcayre-France M.Stowasser-Australia</p> <p><b>Speakers</b></p>
<b>9:30AM</b>	<p><b>Robert Nerem (USA):</b> Vascular tissue engineering: challenges and opportunities</p>	<p><b>David Severson (Canada):</b> Regulation of fatty acid oxidation in perfused hearts from diabetic mice</p>	<p><b>Thierry Pedrazzini (Switzerland):</b> Pathways regulating cellular mobilization in cardiac hypertrophy</p>	<p><b>John Prins (Australia):</b> Fat as an endocrine organ</p>	<p><b>Patrick Pagano (USA):</b> Role of NAD(P)H oxidase in hypertension: Adenoviral targeting of vascular nox isoforms as therapies to attenuate hypertrophy and</p> <p><b>Sachin Gupte (USA):</b> NAD(P)H oxidase-derived superoxide – a source of oxidative stress or signalling in coronary artery?</p>	<p><b>Claude Delcayre (France):</b> Aldosterone and remodelling in cardiovascular system</p>
<b>10:00AM</b>	<p><b>Silviu Itescu (USA/Australia):</b> Myocardial vascular regeneration using human progenitor cells of endothelial and mesenchymal lineage</p>	<p><b>John Chatham (USA):</b> Diabetes and cardiac carbohydrate metabolism</p>	<p><b>Lea Delbridge (Australia):</b> Growth induction and contractile dysfunction in the heart - a variable phenotype</p>	<p><b>Trisha O'Moore-Sullivan (Australia):</b> Obesity and coronary artery disease</p>	<p><b>S29D Daniel Villarreal (USA):</b> Fat, salt and hypertension: the leptin-cardiorenal axis</p>	<p><b>Yannis Sainte-Marie (France):</b> Physiopathological role of mineralocorticoid receptor in heart: use of conditional transgenic models</p>
<b>10:30AM</b>	<p><b>Julie Campbell (Australia):</b> Differentiation of macrophages into myofibroblasts</p>	<p><b>Gary Lopaschuk (Canada):</b> Alterations in malonyl CoA control of myocardial fatty acid oxidation in the diabetic heart</p>	<p><b>Meredith Bond (USA):</b> Regulation of PKA targeting by AKAPS in failing hearts</p>	<p><b>Martin Alpert (USA):</b> Obesity cardiomyopathy: pathogenesis, clinical recognition and management</p>	<p><b>Ajay Shah (UK):</b> Role of NADPH oxidase-derived O2.- in cardiac hypertrophy and failure</p>	<p><b>Morag Young (Australia):</b> Eplerenone, but not steroid withdrawal, reverses cardiac fibrosis in DOC/salt rats</p>
<b>11:00AM</b>	<p><b>Patricia Taylor (UK):</b> Tissue engineering heart valves: from concepts to constructs</p>	<p><b>Ger van der Vusse (The Netherlands):</b> Ketone bodies affect fatty acid utilization and gene expression in cardiomyocytes from diabetic rats</p>	<p><b>Don Bers (USA):</b> Ca homeostasis in the hypertrophied and failing heart</p>	<p><b>S29D Daniel Villarreal (USA):</b> Fat, salt and hypertension: the leptin-cardiorenal axis</p>	<p><b>Botond Banfi (Switzerland):</b> Regulation of non-phagocytic NADPH oxidases</p>	<p><b>Anastasia Mihailidou (Australia):</b> Nongenomic cardiovascular effects of aldosterone</p>
<b>11:30AM</b>	<p><b>S26E Wolfram Zimmermann (Germany):</b> Grafting of engineered heart tissue to repair infarcted myocardium</p>	<p><b>S27E Kieran Clarke (UK):</b> Cardiac energetic abnormalities in the human diabetic heart: effects of PPARg activation</p>	<p><b>S28E Mark Anderson (USA):</b> Anti-arrhythmic actions of calmodulin kinase inhibition</p>	<p><b>S29E Efrain Reisin (USA):</b> Obesity, hypertension and the heart</p>	<p><b>S30E Rhian Touyz (Canada):</b> NAD(P)H oxidase-derived superoxide signalling – from mice to man</p>	<p><b>S31E Michael Stowasser (Australia):</b> Primary aldosteronism – a common cause of hypertension with a genetic basis</p>
<b>1200PM</b>	<p><b>S26F Tatsuya Shimizu (Japan):</b> Myocardial tissue reconstruction by cell sheet technology</p>				<p><b>S30F Takao Okada (Japan):</b> Role of oxygen free radicals in myocardial ischaemia-reperfusion</p>	<p><b>S31F Gail Adler (USA):</b> Impact of aldosterone on cardiovascular disease</p>

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**

	<p><b>Mouse physiology &amp; imaging (Griffith University symposium)</b></p> <p><b>Chairs</b></p> <p>Terje Larsen-Norway John Headrick-Australia</p> <p><b>Speakers</b></p> <p><b>John Headrick</b> (Australia): Development and characterisation of the perfused mouse heart: myocardial and vascular effects of ischaemia-reperfusion</p>	<p><b>Coronary microembolization</b></p> <p><b>Chairs</b></p> <p>Hani Sabbah-USA Masatsugu Hori-Japan</p> <p><b>Speakers</b></p> <p><b>Gerd Heusch</b> (Germany): Coronary microembolization – signal transduction of contractile dysfunction</p>	<p><b>Pacemaker debate: The beat goes on</b></p> <p><b>Chairs</b></p> <p>Richard Robinson-USA David Allen-Australia</p> <p><b>Speakers</b></p> <p><b>David Allen</b> (Australia): Lessons from the toad pacemaker cells; role of intracellular calcium</p>	<p><b>Omega-3 fatty acids: Optimising cardiac function in health disease</b></p> <p><b>Chairs</b></p> <p>Peter McLennan-Australia Salvatore Pepe-Australia</p> <p><b>Speakers</b></p> <p><b>Erik Berg-Schmidt</b> (Denmark): Clinical / epidemiology overview</p>	<p><b>Understanding blood vessels</b></p> <p><b>Chairs</b></p> <p>David Gutterman-USA Kensuke Egashira-Japan</p> <p><b>Speakers</b></p> <p><b>David Gutterman</b> (USA): Oxidant stress and vascular function: insights from the human heart</p>	<p><b>Expanding roles for <math>\alpha</math>1-adrenergic receptors in the cardiovascular system</b></p> <p><b>Chairs</b></p> <p>Paul Simpson-USA Robert Graham-Australia</p> <p><b>Speakers</b></p> <p><b>Paul Simpson</b> (USA): Dilated cardiomyopathy in <math>\alpha</math>1-adrenergic receptor knockout mice</p>
3:45AM	<p><b>David Kass</b> (USA): Comprehensive in vivo assessment of cardiac function in mice by pressure-volume analysis</p>	<p><b>Hani Sabbah</b> (USA): Heart failure by coronary microembolization</p>	<p><b>Ed Lakatta</b> (USA): Calcium cycling in the heart is a general mechanism of chronotropy and inotropy</p>	<p><b>Salvatore Pepe</b> (Australia): Targetting Mitochondrial Function and Cardiac Metabolism</p>	<p><b>S36B Chris Triggie</b> (Canada/Australia): Endothelial dysfunction and vascular disease</p>	<p><b>Susanna Cotecchia</b> (Switzerland): Cardiovascular and metabolic changes in mice lacking the <math>\alpha</math>1b-adrenergic receptor subtype</p>
4:15PM	<p><b>Ellen Aasum</b> (Norway): Cardiac metabolism, function and efficiency recordings in ex vivo mouse hearts</p>	<p><b>Masatsugu Hori</b> (Japan): No-reflow and microvascular dysfunction in acute coronary syndrome</p>	<p><b>Dario di Francesco</b> (Italy): I(f) and sino-atrial node pacemaking</p>	<p><b>Anton Lucas</b> (Canada): Electrophysiological and antiarrhythmic effects of alpha-linolenic acid in normal and hyper-cholesterolemic rabbits</p>	<p><b>Sandeep Gupta</b> (UK): Infection and atherosclerosis: what role for antibiotics?</p>	<p><b>Gozoh Tsujimoto</b> (Japan): Hypertension and <math>\alpha</math>1-adrenergic receptor subtype</p>
4:45PM	<p><b>Brigitte Escoubet</b> (France): Echo-Doppler for the evaluation of heart function in small animals</p>	<p><b>Toyotaka Yada</b> (Japan): Role of NO and EDHF during ischemia reperfusion injury in coronary microcirculation</p>	<p><b>Mark Boyett</b> (UK): Sino-atrial node heterogeneity and pacemaking</p>	<p><b>Peter McLennan</b> (Australia): Cellular mechanisms of antiarrhythmic actions</p>	<p><b>Steffen-Sebastian Bolz</b> (Germany): The sphingosine kinase / sphingosine-1-phosphate phosphohydrolase system as an endogenous regulator of microvascular</p>	<p><b>Diane Perez</b> (USA): The role of <math>\alpha</math>1-adrenergic receptor subtypes in hypertrophy, inotropy and ischemic preconditioning</p>
5:15PM		<p><b>Aaron Kugelmass</b> (USA): Clinical consideration of coronary microembolizations</p>	<p><b>Richard Robinson</b> (USA): Future directions: gene therapy to enhance pacemaking</p>	<p><b>Kensuke Egashira</b> (Japan): Anti-inflammation (monocyte chemoattractant protein-1) therapy as novel strategy to treat vascular disease</p>	<p><b>Robert Graham</b> (Australia): Genetic enhancement of ventricular contractility protects against pressure-overload-induced cardiac dysfunction</p>	
5:45PM						

6:30PM **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**

**Arnold Katz (USA): Basic science and the cardiac patient: lessons from the past, promise for the future**

**9:00AM Coffee Break**

	Cardiac myofibrillogenesis and heart development	Enteroviral heart disease-from mechanism to therapies	Potassium dysregulation as a dangerous factor in heart disease	Estrogen derivatives in cardiovascular disease-old questions, new answers	Metabolism in hypertrophic remodelling of the stressed myocardium	Adrenomedullin: protective role in cardiac disease
	<b>Chairs</b> Larry Lemanski-USA Elisabeth Ehler - UK	<b>Chairs</b> Bruce McManus-Canada Jeffrey Bergelson-USA	<b>Chairs</b> Keld Kjeldsen-Denmark Torben Clausen-Denmark	<b>Chairs</b> Theo Pelzer- Germany Pieter Doevandans_The Netherlands	<b>Chairs</b> Bill Stanley-USA Anne-Marie Seymour-UK	<b>Chairs</b> Barbara McDermott-UK Dominic Autelitano-Austral.
	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>
<b>9:30AM</b>	<b>Elisabeth Ehler (UK):</b> How to assemble myofibrils in the developing vertebrate heart and how to deal with them during cell	<b>Kyung-Soo Kim (USA):</b> Group B coxsackievirus persistence in cardiac cells and heart via a novel deletional mechanism	<b>Torben Clausen (Denmark):</b> Plasma-potassium regulation by skeletal muscles	<b>Jan-Ake Gustafsson (Sweden):</b> New paradigms in estrogen signaling with particular reference to <i>cardiovascular function</i>	<b>Ann-Marie Seymour (UK):</b> Metabolic remodelling in cardiac hypertrophy - a factor in heart failure?	<b>Taneno Eto (Japan):</b> Pathophysiological significance of adrenomedullin in the cardiovascular system
<b>10:00AM</b>	<b>Larry Lemanski (USA):</b> Myofibril inducing RNA (MIR) rescues mutant salamander heart by promoting <i>myofibrillogenesis</i>	<b>Jeffrey Bergelson (USA):</b> Receptors for enteroviruses: update and implications for intervention	<b>Michael McKenna (Australia):</b> Potassium handling during exercise	<b>Katja Prolle (Germany):</b> Novel approaches to the development of female hormone derivatives	<b>Mike Allard (Canada):</b> Metabolic phenotype of the hypertrophied heart	<b>Dominic Autelitano (Australia):</b> Adrenomedullin receptor-RAMP interactions modulate cardiac function
<b>10:30AM</b>	<b>Dipak Dube (USA):</b> Role of a novel tropomyosin in vertebrate heart development	<b>Bruce McManus (Canada):</b> From expression profiling to biological validation in coxsackievirus infections: how far to leap, when, and where?	<b>Helge Rasmussen (Australia):</b> Potassium handling during treatment of heart disease	<b>Theo Pelzer (Germany):</b> Modulation of cardiac hypertrophy by selective estrogen receptor agonists and SERMs	<b>Dale Abel (USA):</b> Myocardial insulin resistance impairs mitochondrial function and the metabolic adaptation of the heart to pressure overload hypertrophy	<b>Barbara McDermott (UK):</b> Autocrine/paracrine functions of adrenomedullin in the myocardium
<b>11:00AM</b>	<b>Xupeí Huang (USA):</b> Troponin I gene regulation in the developing heart	<b>Akira Matsumori (Japan):</b> Inflammation and therapeutic strategies for viral heart diseases	<b>Henning Bundgaard (Denmark):</b> In vivo assessment of the potassium homeostasis in hypo- and hyperkalemia in animals	<b>Pieter Doevandans (The Netherlands):</b> Estrogens block cardiac hypertrophy	<b>Martin Young (USA):</b> Potential role of the circadian clock in metabolic adaptation of the heart	<b>Lee Chao (USA):</b> Adrenomedullin gene delivery protects against cardiovascular remodelling and apoptosis
<b>11:30AM</b>	<b>Takashi Obinata (Japan):</b> C-protein and cofilin in myofibril formation and maintenance	<b>Honglin Luo (Canada):</b> The role of ubiquitination in viral pathogenesis: a therapeutic opportunity?	<b>Keld Kjeldsen (Denmark):</b> Potassium and sudden death	<b>Bill Stanley (USA):</b> Inhibition of myocardial fatty acid oxidation for the treatment of heart failure	<b>Chris Charles (New Zealand):</b> Potential for targeting adrenomedullin mechanisms in heart failure	
<b>12:00PM</b>			<b>Michael Christiansen (Denmark):</b> Potassium, ion channelopathies and genes in heart diseases			

**12:30PM Lunch and Poster Session**

**2:30PM 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**

**Tuesday 10th August Afternoon**

	<b>Therapeutic myocardial angiogenesis</b>	<b>Novel therapeutic options for improved myocardial protection during cardiac surgery</b>	<b>Na+H+exchange in cardiovascular pathophysiology and therapeutics</b>	<b>Cardiovascular health in the tropics</b>	<b>Cardioprotective effects of exercise training</b>	<b>P38-MAPK a kind of Kallous Kinase</b>
	<b>Chairs</b> Nilanjana Maulik-USA Michael Simons-USA	<b>Chairs</b> David Chambers-UK Frank Rosenfeldt-Australia J. Vinten-Johansen-USA	<b>Chairs</b> Morris Karmazyn-Canada Metin Avkiran-UK	<b>Chairs</b> CC Kartha-India Traven Lea-Australia	<b>Chairs</b> Gania Kessler-Iceksion-Israe Jeff Coombes-Australia	<b>Chairs</b> Yibin Wang-USA Michael Marber-UK
	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>	<b>Speakers</b>
<b>3:45PM</b>	<b>Nilanjana Maulik (USA):</b> Molecular mechanisms of myocardial angiogenesis	<b>David Chambers (UK):</b> Challenging the dominance of potassium arrest in surgical chemical cardioplegia	<b>Metin Avkiran (UK):</b> New insights into NHE regulation and function	<b>Basil Okeahialam (Nigeria):</b> The African heart: a heart in transition	<b>Neil Smart (Australia):</b> Exercise training for heart failure patients: factors affecting mortality and morbidity and predicted response to exercise training	<b>Yibin Wang (USA):</b> Effects of contractility: upper or downer?
<b>4:15PM</b>	<b>Takayuki Asahara (Japan):</b> Endothelial progenitor cells for vascular regeneration	<b>Frank Rosenfeldt (Australia):</b> The importance of metabolic substrates in myocardial protection strategies in cardiac surgery	<b>Burkert Pieske (Göttingen, Germany)</b> Role of NHE during mechanical load	<b>Alex Brown (Australia):</b> The context of CVD among indigenous Australians	<b>Jeff Coombes (Australia):</b> Exercise, antioxidant supplementation and cardioprotection	<b>Robert Willette(USA):</b> Role in malignant hypertension: appeaser, pleaser or bystander?
<b>4:45PM</b>	<b>Ren-Ke Li (Canada):</b> Cell transplantation to improve heart function: cells or matrix?	<b>Jakob Vinten-Johansen (USA):</b> The vascular endothelium as a therapeutic target for surgical myocardial protection	<b>(i) (15min)</b> <b>I.A.Williams (Australia).</b> Rise of intracellular Na+ during cardiac ischaemia: the underlying mechanisms <b>(ii) (15min)</b> <b>B.V. Alvarez(Canada)</b> Inhibition of cardiac hypertrophy by a carbonic anhydrase inhibitor: linking CAII, NHE1 and AE3f	<b>CC Kartha (India):</b> Cardiomyopathies in the tropics	<b>Seiji Maeda (Japan):</b> Exercise training and endothelium-derived vasoactive factors, endothelin and NO	<b>Michael Marber (UK):</b> P38-MAPK activation during myocardial ischaemia: slayer or redeemer?
<b>5:15PM</b>	<b>Matthias Heil (Germany):</b> Arteriogenesis - hemodynamic and cellular factors	<b>Andrew Halestrap (UK):</b> The mitochondrial permeability transition pore as a target for myocardial protection	<b>Morris Karmazyn (Canada):</b> Role of NHE in myocardial remodelling and heart failure	<b>S47D KK Talwar (India):</b> Alternative treatments for tachyarrhythmia in developing countries	<b>David Brown (USA):</b> Exercise-induced cardioprotection: Evidence from both acute and chronic training in rat heart	<b>Alexander Clanachan (Canada):</b> P38-MAPK - role in myocardial mechanical and metabolic function: modulation or mirage?
<b>5:45PM</b>	<b>Michael Simons (USA):</b> Regulation of coronary vascular branching	<b>Jarle Vaage (Norway):</b> The endogenous cell defense: its possible role in myocardial protection during cardiac surgery	<b>Robert Mentzer (USA):</b> Clinical trials with NHE inhibitors: where are we now and where are we going?	<b>Bhuvanewar (India):</b> TTK-Chitra prosthetic heart valve for mitral replacement	<b>Gania Kessler-Iceksion (Israel):</b> Functional genomics and proteomics: profiling the cardioprotective effect of prior exercise training	<b>Henry Krum (Australia):</b> Therapeutic potential of P38-MAPK in inhibition in cardiovascular disease
<b>6:15PM</b>				<b>Paul Ganguly (Bahrain):</b> Cardiovascular system in a problem-based curriculum at The Arabian Gulf University		

**7:00PM Joint CSANZ-ISHR Meeting Dinner**

**ISHR CONGRESS CONCLUDES**

**Wednesday 11th August**

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