

# ISHR CONGRESS BERLIN 2022 – SCIENTIFIC SESSIONS (Provisional) (V8 22-May LD)

New Mechanisms of Cardioprotection and Injury
New Insights into Cardiac Dysfunction
Ion Channel Mechanisms and Arrhythmias
Signalling in Cardiac Disease and Therapy
Emerging Concepts for Cardiac Regulation: Beyond the genome
Regenerative Medicine for Heart Disease
Cardiac Metabolism

**ISHR-INTERNATIONAL  
SPONSORED  
SYMPOSIA**

**OTHER SPONSORED  
SYMPOSIA**

<b>Room:</b>	<b>MOA6-9</b>	<b>MOA12</b>	<b>MOA5</b>	<b>MOA1-3</b>
--------------	---------------	--------------	-------------	---------------

<b>Sun 12 June</b>	13:30	Research Achievement Award   <b>Douglas Lewandowski</b>			
	14:45 TO 16:45	Targeting signalling pathways for cardiac rescue	New sarcomeric perspectives in cardiac remodeling	Injury and inflammation - understanding pathology pathways	
	18:30	Keith Reimer Distinguished Lecture   <b>Barbara Casadei</b>			

<b>Monday 13 June</b>	08:30	Peter Harris Distinguished Scientist Award   <b>Rodolphe Fischmeister</b>			
	09:45 TO 11:45	Novel mechanisms for cardioprotection	Epigenetics, transcription & translation in cardiac dysfunction	Arrhythmogenic cellular etiologies	Chair's Symposium: German Center for CV Research (DZHK) 2022 Update
	14:45 TO 16:45	JMCC Focus Topic Engineering the heart	Cardiac fuel and function	GPCR axes of cardiomyocyte signalling	
	17:15	RJ Bing Young Investigator Award			

<b>Tuesday 14 June</b>	08:15	Janice Pfeffer Distinguished Lecture   <b>Lea Delbridge</b>			
	09:30 TO 11:30	Forging therapeutic development using engineered tissue	Cardiopathologies of aging and inflammation	Compartments and crosstalk in hypertrophy & failure	Chair's Symposium: The new 2022 CRC1470 - HFpEF
	15:30 TO 17:30	JMCC CV implications of COVID19	Signalling regulation in cardiac metabolic stress	Atrial dysfunction and morphology - new insights into disease mechanisms	

<b>Wednesday 15 June</b>	08:30	Outstanding Investigator Award   <b>Benjamin Prosser</b>			
	09:45 TO 11:45	Multi-omics approaches to understand heart failure	Defining molecular defects in cardiac failure	New understanding of key myocardial signalling pathways	Chair's Symposium: Cardiac Splicing as a Therapeutic Target
	12:15 TO 14:15	Optimising cell therapies and using cell model systems	Mito- and Glyco-metabolic pathologies	Channels and transporters in cardiac pathology	
	16:00 TO 18:00	Mitochondrial ions, channels and transport in cardiac pathology	Sarcomeric disruption & dysfunction in the failing heart	Multifaceted RNA involvement in cardiopathology	
	18:15	President's Distinguished Lecture   <b>Manuel Mayr</b>			

## SUNDAY 12 JUNE 14:45 TO 16:45

**New Mechanisms of Cardioprotection and Injury****Symposium Title: Targeting signalling pathways for cardiac rescue**

<b>Chair 1:</b>	Richard Kitsis USA	
<b>Chair 2:</b>	Nina Kaludercic ITALY	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Mechanisms of heart failure</i>	Maria Kontaridis USA Masonic Medical Res Inst
	<i>mTORC and necroptosis of cardiomyocytes</i>	Tetsuji Miura JAPAN Sapporo Medical University
	<i>The NO sibling nitroxyl (HNO) for treatment of heart failure</i>	Rebecca Ritchie AUSTRALIA Monash University
	<i>LOXL2 signalling in cardiac disease – more than a biomarker?</i>	Sandrine LeCour SOUTH AFRICA University of Cape Town
	<i>Stimulating protein kinase G to treat cardiac proteotoxicity</i>	Mark Ranek USA Johns Hopkins University
	<b>Abstract ID #234</b> <i>The Selenoprotein, VIMP, Exacerbates Cardiac Pathology by Selectively Impeding a Newly Defined Non-Canonical ERAD in the Heart</i>	Erik Blackwood USA Univ of Arizona College of Medicine

**New Insights into Cardiac Dysfunction****Symposium Title: New sarcomeric perspectives in cardiac remodeling**

<b>Chair 1:</b>	Livia Hool AUSTRALIA	
<b>Chair 2:</b>	Samantha Harris USA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Sarcomere mutation-specific effects in hypertrophic cardiomyopathy: basis for precision medicine?</i>	Jolanda van der Velden NETHERLANDS Amsterdam UMC
	<i>Targeting tubulin in hypertrophic cardiomyopathy</i>	Lucie Carrier GERMANY University Medical Centre Hamburg-Eppendorf
	<i>Mark4 regulation of microtubule detyrosination in ischemia</i>	Xuan Li USA University of Cambridge
	<i>Cardiac myosin binding protein-C interactions in hypertrophic cardiomyopathy</i>	Sakthival Sadayappan USA University of Cincinnati
	<b>Abstract 1D# 140</b> <i>Position-dependent effects of titin truncation on the heart</i>	Celine Santiago AUSTRALIA Victor Chang Cardiac Res Inst

**Signaling in Cardiac Disease & Therapy****Symposium Title: Injury and inflammation - understanding pathology pathways**

<b>Chair 1:</b>	Sean Davidson UK	
<b>Chair 2:</b>	Sarah Schumacher Bass USA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Conspiracy of Comorbidities: Meta-inflammation and HFpEF</i>	Joseph Hill USA UT Southwestern Medical Centre
	<i>Pathological role of NLRP3 inflammasome in the development of atrial fibrillation</i>	Dobromir Dobrev GERMANY University Duisburg-Essen
	<i>Targeting ERK-dimerization for cardioprotection in cancer treatment</i>	Kristina Lorenz GERMANY University of Würzburg
	<i>Fibroblast fate and collagen deposition in heart disease</i>	Jennifer Davis USA University of Washington
	<b>Abstract ID #25</b> <i>Phosphorylation of TSC2 Serine 1365 protects Mice against Heart Failure with Preserved Ejection Fraction</i>	Christian Oeing GERMANY Charite University Medicine

**New Mechanisms of Cardioprotection and Injury**

**Symposium Title:** Novel mechanisms for cardioprotection

<b>Chair 1:</b>	Philip Eaton UK	
<b>Chair 2:</b>	Kate Weeks AUSTRALIA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Nitric oxide in heart failure with preserved ejection fraction</i>	David Lefer USA LSUHSC
	<i>Circadian regulation of mitochondrial quality control mechanisms in the heart</i>	Lorrie Kirshenbaum CANADA University of Manitoba
	<i>Targeting mitochondrial ROS formation in cardiac disease</i>	Nina Kaludercic ITALY Neuroscience Institute (CNR)
	<i>RyR2 as a therapeutic target</i>	Martin Vila Petroff ARGENTINA National University of La Plata
	<i>Kinase signaling in cardiovascular health and disease</i>	Friederike Cuello GERMANY Medical Center Hamburg-Eppendorf (UKE)
	<b>Abstract #ID 123</b> <i>Investigating Sodium-Glucose Co-Transporters 1 (SGLT1) in Myocardium and its Role in Hyperglycaemia Ischaemia-Reperfusion Injury</i>	Alhanoof Almallki UK University College London

**Emerging Concepts for Cardiac Regulation: Beyond the Genome**

**Symposium Title:** Epigenetic, transcription & translation in cardiac dysfunction

<b>Chair 1:</b>	Maha Abdellatif USA	
<b>Chair 2:</b>	Mirko Volkers GERMANY	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Control of cardiac growth and fibrosis by chromatin structural proteins</i>	Thomas Vondriska USA University of California, Los Angeles
	<i>RNA methylation at the center of muscle growth</i>	Federica Accornero USA Ohio State University
	<i>Epitranscriptomic regulations of the heart from mechanisms to therapeutics</i>	Susmita Sahoo USA Icahn School of Medicine at Mt Sinai
	<i>Epigenetic regulation of cardiac function in HFpEF</i>	Markus Wallner AUSTRIA Medical University of Graz
	<i>Mechanistic dissection of proteomic changes driving heart failure with preserved ejection fraction</i>	Jennifer Van Eyk USA Cedars-Sinai
	<b>Abstract #ID 214</b> <i>Ythdf2-mediated post-transcriptional control of gene expression regulates cardiac remodeling</i>	Vivien Kmietczyk GERMANY University Hospital Heidelberg

**Ion Channel Mechanisms, Arrhythmias, Electrophysiology & Ca<sup>2+</sup> Signaling**

**Symposium Title:** Arrhythmogenic cellular etiologies

<b>Chair 1:</b>	Litsa Kranias USA	
<b>Chair 2:</b>	Andrew Trafford UK	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>The role of beta adrenergic stimulation in arrhythmia formation in hypertrophic cardiomyopathy</i>	Livia Hool AUSTRALIA The University of Western Australia
	<i>Origin of cellular arrhythmias</i>	Bjorn Knollmann USA Vanderbilt University Sch of Med
	<i>Nanostructural alteration in CPVT</i>	Ana-Maria Gomez FRANCE INSERM
	<i>CAMKII in cardiac arrhythmias: Hyperglycemia and O-GlcNAcylation</i>	Don Bers USA University of California at Davis
	<i>Biphasic regulation of RyR2 activity by calsequestrin-2: implications in Ca-mediated arrhythmias</i>	Michelle Munro NEW ZEALAND University of Otago, Dunedin, NZ
	<b>Abstract #ID 102</b> <i>Optogenetic manipulation of cardiac electrical dynamics using sub-threshold illumination: dissecting the role of cardiac alternans in terminating rapid rhythms</i>	Valentina Biasci ITALY University of Florence

**JMCC Focus Topic: Engineering the Heart**

**Michael Regnier Discussant Leader**

<i>Presentation Titles</i>	<b>Speakers</b>
<i>How to repair a broken heart with pluripotent stem cell-derived cardiomyocytes</i>	Thomas Eschenhagen GERMANY University Med Ctr Hamburg-Eppendorf
<i>Computational modelling approaches to cAMP/PKA signaling in cardiomyocytes</i>	Kimberly McCabe NORWAY Simula Research Laboratory
<i>Direct coculture of human pluripotent stem cell-derived cardiac progenitor cells with epicardial cells induces cardiomyocyte proliferation and reduces sarcomere organization</i>	Sean Palecek USA Univ of Wisconsin

**Cardiac Metabolism**

**Symposium Title: Cardiac fuel and function**

Chair 1:	Lea Delbridge AUSTRALIA	
Chair 2:	Erik Blackwood USA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Mitochondrial pyruvate uptake: a regulator of cardiac adaptation to stress</i>	Dale Abel USA University of Iowa
	<i>Lipid metabolites as dysregulated signalling molecules in the diabetic heart</i>	Lisa Heather UK University of Oxford
	<i>Increasing myocardial ketone oxidation as an approach to treat heart failure</i>	Gary Lopaschuk CANADA University of Alberta
	<i>Mitochondrial cAMP-CaMKII axis controls cardiac metabolic flexibility</i>	Frank Lezoualc'h FRANCE INSERM University of Toulouse
	<b>Abstract ID# 242</b> <i>Metabolic Perturbations in Hypertrophic Cardiomyopathy – Insights from Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes</i>	Chrishan Ramachandra SINGAPORE National Heart Res Inst Singapore

**Signalling in Cardiac Disease & Therapy**

**Symposium Title: GPCR axes of signalling**

Chair 1:	Friederike Cuello GERMANY	
Chair 2:	Elizabeth Murphy USA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>cAMP nanodomain signalling: linking signalosomes to function</i>	Manuela Zaccolo UK University of Oxford
	<i>Novel aspects of GRK domains in cardiomyocytes</i>	Sarah Schumacher Bass USA Cleveland Clinic
	<i>Myeloid cell-specific <math>\beta</math>2-adrenergic receptor effects in the heart</i>	Douglas Tilley USA Temple University
	<i>Beta-adrenergic receptor signaling: evolving concepts and therapeutics</i>	Howard Rockman USA Duke University Medical Center
	<b>Abstract ID# 310</b> <i>Effects of AAV9-mediated cardiac phosphodiesterase 4B and 2A overexpression in a mouse model of heart failure with preserved ejection fraction</i>	Bernadin Ndongson NORWAY Oslo University Hospital

**Regenerative and Re-Engineering Approaches for Heart Disease**

**Symposium Title:** Forging therapeutic development using engineered tissue

Chair 1:	Thomas Eschenhagen GERMANY	
Chair 2:	Jeff Molkentin USA	
<b>Time</b>	<b>Presentation Titles</b>	<b>Speakers</b>
	<i>RNA therapeutics for cardiac gene editing and regeneration</i>	Mauro Giacca UK King's College London
	<i>Modelling cardiac fibrosis in engineered systems</i>	Sara Nunes CANADA University of Toronto
	<i>Translation of tissue engineered heart repair from bench to bedside</i>	Wolfram Zimmermann GERMANY Göttingen University
	<i>Mapping the molecular basis of cell differentiation from pluripotency</i>	Nathan Palpant AUSTRALIA University of Queensland
	<b>Abstract ID# 248</b> <i>MBNL1 controls cardiomyocyte differentiated versus proliferative cell state.</i>	Logan Bailey USA University of Washington

**New Insights into Cardiac Dysfunction**

**Symposium Title:** Cardiopathologies of aging and inflammation

Chair 1:	Asa Gustaffson USA	
Chair 2:	Fadi Charchar AUSTRALIA	
<b>Time</b>	<b>Presentation Titles</b>	<b>Speakers</b>
	<i>Frailty sets the stage for ventricular dysfunction in naturally aging mice</i>	Susan Howlett CANADA Dalhousie University
	<i>The role of autophagy during cardiac aging</i>	Junichi Sadoshima USA Rutgers Medical School
	<i>Sterile inflammation in heart failure</i>	Kinya Otsu UK King's College London
	<i>Defining age and sex-specific differences in sarcomeric function</i>	Kathleen Woulfe USA University of Colorado Anschutz
	<b>Abstract ID# 224</b> <i>Chronic ischemic heart failure is defined by ongoing immune cell activation promoting inflammation and altered crosstalk with endothelial cells</i>	Maximillian Merten GERMANY Goethe University Frankfurt

**Signaling in Cardiac Disease & Therapy**

**Symposium Title:** Compartments and crosstalk in hypertrophy & failure

Chair 1:	Emma Robinson USA	
Chair 2:	Jim Bell AUSTRALIA	
<b>Time</b>	<b>Presentation Titles</b>	<b>Speakers</b>
	<i>Increasing cardiac PDE activity: a therapeutic strategy in heart failure?</i>	Grégoire Vandecasteele FRANCE INSERM
	<i>Role of phosphatase activity in heart failure</i>	Kate Weeks AUSTRALIA University of Melbourne
	<i>Compartmentalized cGMP signaling in cardiac hypertrophy</i>	Bischeslav O Nikolaev GERMANY Univ Med Ctr Hamburg-Eppendorf
	<i>Microprotein regulation of cardiac function</i>	Catherine Makarewich USA University of Cincinnati
	<i>A lysine demethylase controls pathological fat-to-heart crosstalk</i>	Timothy McKinsey USA University of Colorado
	<b>Abstract ID# 264</b> <i>Crosstalk between cell-matrix and cell-cell signaling in cardiomyocyte mechanosensing</i>	Emelie Marhuenda UK Queen Mary Univ of London

**JMCC Highlights: Cardiovascular Implications of COVID19**

	Yibin Wang (Duke-NUS/Duke) – Discussant Lead SINGAPORE	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
15:30	<i>Endothelial contribution to COVID-19: an update on mechanisms and therapeutic implications</i>	Kathy O Liu HONG KONG Chinese Univ of Hong Kong
15:50	<i>MicroRNAs targeting the SARS-CoV-2 entry receptor ACE2 in cardiomyocytes</i>	Thomas Thum GERMANY Hannover Medical Center
16:10	<i>Sex differences underlying pre-existing cardiovascular disease and cardiovascular injury in COVID-19</i>	Mansoureh Eghbali USA UCLA
16.30	<i>SARS-CoV2 effects on cardiovascular cells</i>	Stefanie Dimmeler GERMANY Univ of Frankfurt
<i>Short Talks:</i>		
16:50	<i>Genes encoding ACE2, TMPRSS2 and related proteins mediating SARS-CoV-2 viral entry are upregulated with age in human cardiomyocytes</i>	Emma L Robinson USA Univ of Colorado
17:05	<i>Metabolic syndrome and hypertension impact on SARS-CoV-2 related genes in cardiac tissue – single cell dissection</i>	Chen Gao USA Univ of Cincinnati
17.15	<i>Therapeutic targets for LMNA dilated cardiomyopathy</i>	Jianming Jiang SINGAPORE National University of Singapore

**Cardiac Metabolism**

**Symposium Title: Signalling regulation in cardiac metabolic stress**

<b>Chair 1:</b>	Dale Abel USA	
<b>Chair 2:</b>	Lisa Heather UK	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>Cellular signaling of high glucose induced-cardiac arrhythmias</i>	Julieta Palomeque ARGENTINA National University of La Plata
	<i>Role of iron in cardiovascular disease</i>	Hossein Ardehali USA Northwestern University
	<i>The translational landscape of the human heart</i>	Dr. Jorge Ruiz Orera GERMANY MDC
	<i>Kruppel-like factor 5: Causing cardiomyopathy by impairing metabolic pathways</i>	Konstantinos Drosatos USA Temple University
	<b>Abstract ID# 250</b> <i>CaMKII regulates cardiac metabolic substrate switching during heart failure</i>	Alireza Saadatmand GERMANY University Hospital Heidelberg

**Ion Channel Mechanisms, Arrhythmias, Electrophysiology & Ca<sup>2+</sup> Signaling**

**Symposium Title: Atrial dysfunction and morphology - new insights into disease mechanisms**

<b>Chair 1:</b>	Martin Vila Petroff ARGENTINA	
<b>Chair 2:</b>	Yow Keat Tham AUSTRALIA	
<b>Time</b>	<i>Presentation Titles</i>	<b>Speakers</b>
	<i>The SR Ca-transport interactome in arrhythmogenic cardiomyopathy</i>	Litsa Kranias USA Univ of Cincinnati
	<i>Epicardial adipose tissue and atrial conduction abnormalities</i>	James Bell AUSTRALIA Univ of Melbourne/La Trobe Univ
	<i>Alternans and atrial fibrillation</i>	Katharine Dibb UK University of Manchester
	<i>Cyclic nucleotide turnover in sinoatrial node: role of phosphodiesterases</i>	Delphine Mika FRANCE INSERM University Paris-Saclay
	<i>Sodium channel biophysical properties and sodium channel blocker effectiveness in atria and ventricles</i>	Davor Pavlovic UK University of Birmingham
	<b>Abstract ID# 274</b> <i>IL-1β sensitizes mice to atrial fibrillation</i>	Oscar Moreno Loaiza BRAZIL Federal University

**Session Title: Promoting reproducibility in heart research  
(an interactive audience participation event)**

**Chair 1:** Jolanda van der Velden (NETHERLANDS)  
Amsterdam University Medical Center

**Chair 2:** Kate Weeks (AUSTRALIA)  
University of Melbourne, School Biomedical Sciences

<b>Panelist</b>	<i>Mini Presentation Titles</i>	<b>Panel member</b>	<b>Time allocated</b>	<b>Time start</b>
<b>1</b>	<i>Irreproducibility consequences &amp; reproducibility incentives</i>	David Eisner (UK) University of Manchester	6 min	17.00
<b>2</b>	<i>Expectations and roles of funders and publishers driving change</i>	Karin Sipido (BELGIUM) KU Leuven	6 min	17.36
<b>3</b>	<i>Implementing reproducibility practices in institutions</i>	Julie McMullen (AUSTRALIA) Baker Heart & Diabetes Inst, Melbourne	6 min	17.42
<b>4</b>	<i>Reproducible data – the importance of presentation!</i>	Merry Lindsey (USA) Univ of Nebraska Med Ctr, Omaha	6 min	17.48
<b>5</b>	<i>Initiatives to promote reproducibility by the ISHR journals</i>	Rong Tian (USA) Washington U Seattle & Davor Pavlovic (UK) University of Birmingham, UK	6 min	17.54
	<b>ALL SPEAKERS PANEL DISCUSSION</b>	Audience participation & interaction	30min	18.00-18.30



Emerging Concepts for Cardiac Regulation: Beyond the Genome		
Symposium Title: Multi-omics approaches to understand heart failure		
Chair 1:	Federica Accornero USA	
Chair 2:	Justus Stenzig GERMANY	
Time	Presentation Titles	Speakers
	<i>Modulating epigenetics and gene expression in the heart by dietary fat and branched-chain amino acids</i>	Maha Abdellatif USA Rutgers New Jersey Medical Ctr
	<i>Regulation of translation for heart stress responses</i>	Mirko Volkers GERMANY Heidelberg University
	<i>Cardiac fibrosis – proteomics of the extracellular matrix in heart failure</i>	Javier Barallobre-Barreiro UK King's College London
	<i>Lipidomics insights into mitochondrial disorders &amp; heart failure</i>	Christine Des Rosiers CANADA Montreal Heart Institute
	<b>Abstract ID# 61</b> <i>Machine learning-assisted integration of single cell transcriptomic data identifies potential cardiomyocyte maturation genes</i>	Jana-Charlotte Hegenbarth NETHERLANDS Maastricht University

New Insights into Cardiac Dysfunction		
Symposium Title: Defining molecular defects in cardiac failure		
Chair 1:	Jolanda van der Velden NETHERLANDS	
Chair 2:	Sakthival Sadayappan USA	
Time	Presentation Titles	Speakers
	<i>Current state of HFpEF therapeutics</i>	Burkert Pieske GERMANY Charite Universtiy Medicine Berlin
	<i>Mechanisms of cardiac lipotoxicity and metabolic alterations in HFpEF</i>	Gabriele Schiatarella GERMANY Charite University/MDC
	<i>DNA damage causes heart failure</i>	Issei Komuro JAPAN University of Tokyo
	<i>Cardiac variants of uncertain significance and "missing pathogenicity"</i>	Diane Fatkin AUSTRALIA Victor Chang Cardiac Res. Ins.
	<b>Abstract ID# 124</b> <i>The RBM20 splicing target CAMK2D causes cardiac dysfunction in RBM20 cardiomyopathy</i>	Maarten van den Hoogenhof GERMANY DZHK Heidelberg/Mannheim

Signaling in Cardiac Disease & Therapy		
Symposium Title: New understanding of key myocardial signalling pathways		
Chair 1:	Manuela Zaccolo UK	
Chair 2:	Charles Steenbergen USA	
Time	Presentation Titles	Speakers
22	<i>Multiple facets of PI3Kinase signalling</i>	Emilio Hirsch ITALY University of Torino
22	<i>PI3K regulates atrial size, fibrosis and function</i>	Julie McMullen AUSTRALIA Baker Heart and Diabetes Institute
22	<i>Mitochondrial metabolites and cardiac ischemia-reperfusion injury</i>	Michael Murphy UK Medical Research Council
22	<i>Proton signalling and the monocarboxylate transporter interactions</i>	Stephan Lehnart GERMANY University of Goettingen
10	<b>Abstract ID# 118</b> <i>Characterization of early age-associated remodelling of cAMP-phosphodiesterases and <math>\beta</math>-adrenergic regulation of excitation-contraction coupling</i>	Maya Dia FRANCE INSERM
10	<b>Abstract ID# 103</b> <i>Rubicon-regulated <math>\beta</math>1 adrenergic receptor recycling protects the heart from pressure overload</i>	Tomakazu Murakawa JAPAN Osaka University



Regenerative and Re-Engineering Approaches for Heart Disease		
Symposium Title: Optimising cell therapies and using cell model systems		
Chair 1:	Sara Nunes CANADA	
Chair 2:	Michael Gotthardt GERMANY	
Time	Presentation Titles	Speakers
	<i>iPS-cultures to study genetic cardiomyopathy</i>	Eva van Rooij NETHERLANDS Hubrecht Institute
	<i>Mechanisms of therapeutic inflammation revealed from cardiac cell therapy</i>	Ronald Vagnozzi USA University of Colorado Anschutz Medical Campus
	<i>Stem-cell based heart repair – pharmacological perspective</i>	Florian Weinberger GERMANY Univ Med Ctr Hamburg Eppendorf
	<i>Where do we stand on cardiac stem cells and regeneration: Has all the dust settled?</i>	Jeff Molkentin USA Cincinnati Children’s Hospital
	<b>Abstract ID# 40</b> <i>Protein prenylation regulates centrosomes &amp; cardiomyocyte proliferation</i>	Christopher Batho AUSTRALIA QIMR Berghofer Medical Res Inst

Cardiac Metabolism		
Symposium Title: Mito- and Glyco- metabolic pathologies		
Chair 1:	Julieta Palomeque ARGENTINA	
Chair 2:	Lorrie Kirshenbaum CANADA	
Time	Presentation Titles	Speakers
	<i>Connecting mitochondria with inflammation in cardiac injury</i>	Rong Tian USA University of Washington
	<i>Ageing stress &amp; mitophagy protection</i>	Asa Gustafsson USA UCSD
	<i>O-GlcNAcylation and heart failure</i>	Priya Umapathi USA Johns Hopkins University
	<i>Metabo-epigenetic regulation of heart failure by HDAC4</i>	Johannes Backs GERMANY University of Heidelberg
	<b>Abstract ID# 28</b> <i>Disruption of sarcoplasmic reticulum-mitochondrial contacts underlies contractile dysfunction in experimental and human atrial fibrillation: a key role of mitofusin2</i>	Deli Zhang NETHERLANDS Amsterdam UMC

Ion Channel Mechanisms, Arrhythmias, Electrophysiology & Ca <sup>2+</sup> Signaling		
Symposium Title: Channels and transporters in cardiac pathology		
Chair 1:	Bjorn Knollmann USA	
Chair 2:	Katherine Dibb UK	
Time	Presentation Titles	Speakers
	<i>How does Ca<sup>2+</sup> leak into myocytes?</i>	David Eisner UK University of Manchester
	<i>Polycystins and ion channels in heart dysfunction</i>	Sergio Lavandero CHILE University of Chile
	<i>Mitochondrial calcium regulation in cardiac function</i>	Julia Liu USA University of Minnesota
	<i>Functional recruitment of L-type calcium channels to T-tubules by Junctophilin-2.</i>	Julia Gorelik UK Imperial College London
	<b>Abstract ID# 199</b> <i>Unexpected Remodeling of Cardiac Nanostructure Exacerbates Proarrhythmic Late I-Na<sup>+</sup> and Na<sup>+</sup>/Ca<sup>2+</sup> Mishandling in Mice Expressing the Arrhythmogenic Calmodulin Mutant D96V</i>	Heather Struckman USA The Ohio State University

**New Mechanisms of Cardioprotection and Injury**

**Symposium Title:** Mitochondrial ions, channels and transport in cardiac pathology

Chair 1:	Alicia Mattiazzi ARGENTINA	
Chair 2:	Rebecca Ritchie AUSTRALIA	
Time	Presentation Titles	Speakers
	<i>Novel regulatory mechanisms of mitochondrial calcium uptake</i>	John Elrod USA Temple University
	<i>Mitochondrial calcium and cell death pathways</i>	Elizabeth Murphy USA NHLBI - NIH
	<i>Mitochondrial ATP synthase in cardiac biology</i>	Richard Kitsis USA Albert Einstein College of Medicine
	<i>Mitochondrial Na and Ca handling</i>	Christoph Maack GERMANY University Clinic Würzburg
	<i>Heart failure – emerging roles for the mitochondrial pyruvate carrier</i>	Philip Eaton UK Queen Mary University of London
	<b>Abstract ID#256</b> <i>The role of cyclophilin D isomerase activity in regulating the mitochondrial permeability transition pore</i>	Georgios Amakakis USA NHLBI - NIH

**New Insights into Cardiac Dysfunction**

**Symposium Title:** Sarcomeric disruption & dysfunction in the failing heart

Chair 1:	Yoshihiko Saito JAPAN	
Chair 2:	Ben Prosser USA	
Time	Presentation Titles	Speakers
	<i>Key pathomechanisms of truncating titin variants</i>	Wolfgang A Linke GERMANY University of Muenster
	<i>Sarcomere dysfunction in heart failure - A pathway to treatment</i>	Samantha Harris USA University of Arizona
	<i>Myosins, super relaxation and hypertrophic cardiomyopathy</i>	Christopher Toepfer UK University of Oxford
	<i>Titin post-translational modification regulates cardiomyocyte stiffness in heart failure</i>	Michael Gotthardt GERMANY MDC
	<b>Abstract ID# 192</b> <i>Investigating a novel role for nesprin-1 and the LINC complex in cardiomyocyte mechanotransduction</i>	Qiuping Zhang UK King's College London

**Emerging Concepts for Cardiac Regulation: Beyond the Genome**

**Symposium Title:** Multifaceted RNA involvement in cardiopathology

Chair 1:	Thomas Vondriska USA	
Chair 2:	Ronald Vagnozzi USA	
Time	Presentation Titles	Speakers
	<i>ncRNAs-based therapeutic approaches in HF</i>	Thomas Thum GERMANY Univ of Hannover
	<i>Novel gene regulatory mechanisms in obesity-driven heart failure with preserved ejection fraction</i>	Emma Robinson USA University of Colorado
	<i>Myosin 7b is a regulatory long non-coding RNA</i>	Leslie Leinwand USA University of Colorado at Boulder
	<i>Circular RNA in the development of cardiac hypertrophy</i>	Fadi Charchar AUSTRALIA Federation University
	<b>Abstract ID# 183</b> <i>Aberrant intragenic transcription in heart failure pathogenesis</i>	Jiang Chang USA Texas A&M University