

Tuesday, 11 June 2024

08:30 **Registration young investigators**

09:00 **Young Investigator Session 1**
Exclusively for Students, ECIs and MCIs

Auditorium
Marthe Condat

Supported by:  **JMCC**
Journal of Molecular Cardiology and Cellular Physiology

Direct interaction between fatty acids and the TREK-1 potassium channel
Abstract 1 - Emilie Béchard – France

Indoxyl-sulfate induction of the EZH2-NFKB-IL-6 pathway in macrophages
Abstract 2 - Issa Nervana – France

Presenilin-2 and cardiac integrity: Unveiling structural, functional, and molecular insights

Abstract 3 - Alejandro Cioccipardo – Italy

Metabolic reprogramming drives cardiac fibroblast activation in Fabry cardiomyopathy

Abstract 4 - David Weissman – Germany

Effects of chronic hypertension on cardiac remodelling during pregnancy

Abstract 5 - Elnaz Ghajar Rahimi – USA

Impaired diastolic function in absence of cardiac hypertrophy is not aggravated by Western diet in mice carrying the Dutch heterozygous Mybpc3 c.2373insG truncating mutation

Abstract 6 - Floor Van Den Dolder – The Netherlands

10:00 Break

10:15 **Young Investigator Session 2**
Exclusively for Students, ECIs and MCIs

Auditorium
Marthe Condat

Supported by:  **JMCC**
Journal of Molecular Cardiology and Cellular Physiology

Novel Dbh+ Catecholaminergic Cardiomyocytes Contributing to the Structure and Function of the Cardiac Conduction System in Murine Heart

Abstract 1 - Tianyi Sun – UK

AAV9-mediated delivery of TBX5 stimulates postnatal ventricular cardiomyocyte dedifferentiation and cell cycle re-entry

Abstract 2 - Alexandra Giovou – The Netherlands

Advances in nanoparticle therapies: Redefining doxorubicin cardiotoxicity through lysosomal pH insights

Abstract 3 - Yohan Santin – France

Intermittent fasting rescues heart failure caused by cardiomyocyte ablation of the master mitochondria-shaping protein OPA1

Abstract 4 - Martina Semenzato – Italy

11:00	Coffee break	Hall
11:30	Young Investigator Session 3 Exclusively for Students, ECIs and MCIs Career panel discussion: “Building Sustainable Research Careers” Guest List: Elise Belaidi (France), Christoph Maack (Germany), Monika Gladka, (The Netherlands), Davor Pavlovic (UK) Julie Pires Da Silva (France), Michiel Helmes (The Netherlands)	Auditorium Marthe Condat
12:30	Registration & Lunch & Poster display	Hall
13:40	Opening ceremony	Auditorium Marthe Condat
14:00	Plenary Session 1 Research Achievement Award Keeping mitochondria in shape: at the heart of cell life and death <u>Luca Scorrano- Italy</u>	Auditorium Marthe Condat
15:00	Session: 1 Translation of cardiac regenerative therapies Chairpersons: Serena Zacchigna, Italy & Jérôme Roncalli, France Regenerating the heart with stem cell therapy <u>Philippe Menashé – France</u>	Auditorium Marthe Condat

15:00 **Session: 3**

Auditorium
Grignard



Supported by: **Novo Nordisk**

Immune cells and heart disease

Chairpersons: Jean-Sébastien Hulot, France & Federica Marelli-Berg, UK

Investigation of antibody responses after acute myocardial infarction.
Johanna Siegel - Germany

Platelets at the heart of cardiac fibrosis
Sandrine Horman - Belgium

Neuro-inflammatory axis in heart failure
Daniela Carnevale - Italy

TREM-1 in cardiovascular disease
Hafid Ait-Oufella – France

Oral Communication

Role of macrophage efferocytosis receptors in myocardial post-ischemia remodelling
Abstract 1 - Alexandra Achab-Ali

16:30 Coffee Break & Poster Session I

Hall

18:00 **Session: 4**

Auditorium
Marthe Condat

Supported by: **Amylin**

Exploring noncoding RNA-mediated mechanisms

Chairpersons: Mauro Giacca, UK & Francesco Paneni, Switzerland

miRNAs control of revascularization and vascular diseases
Andrea Caporali – UK

CRISPR-powered discovery of non-coding RNA
therapeutic vulnerabilities
Zekiye Altan – Ireland

18:00

Session: 6

Auditorium
Grignard

Novel insights in cardio-oncology

Chairpersons: Eric Morel, France & Martin Sterba Czech Republic

Transcriptional and Metabolic Adaptation to Cardiotoxic Doxorubicin

Alessandra Ghigo- Italy

Modeling cardiotoxicity with engineered heart tissues

Peter Van der Meer – The Netherlands

New therapeutic target against anthracyclines-induced cardiotoxicity: A potential role of Epac

Eric Morel – France

Oral Communications

Unveiling doxorubicin-induced cardiotoxicity: into the heart at single cell resolution

Abstract 1 - Marco Mergio

Reversing Cardiotoxicity and Cancer Cell Chemoresistance through Electron Transport Chain Complex II Inhibition

Abstract 2- Thomas Farge

From 19:30

Get-Together

Hall

07:45 ISHR-ES council meeting- Members of the ISHR-ES council only

09:00 Plenary session 2

Auditorium
Marthe Condat

Supported by:



SGLT family in heart failure

Chairpersons : Christoph Maack, Germany & Inês Falcão Pires, Portugal

Cardioprotective effects of SGLT2 inhibitors

Ionna Andreadou – Greece

Off target effects of SGLT2-inhibitors

Coert Zuurbier – The Netherlands

SMIT1, the most important SGLT family member in heart failure?

Christophe Beauloye – Belgium

10:00 Coffee break

Hall

10:30 **Session: 7**
**Iron metabolism and ferroptosis
in cardiac disease**

Auditorium
Marthe Condat

Chairpersons : Gabriele Schiattarella, Germany & Frank Lezoualc'h, France

Hepcidin at the interface of systemic and cardiac iron
homeostasis-Implications for heart failure

Samira Lakhali-Littleton – UK

Iron deficiency in heart failure

Ewa A. Jankowska – Poland

The pathophysiological role of heme in angiogenesis

Sara Petrillo - Italy

Auditorium
Grignard

10:30 **Session: 9**
Cardiac pacemaking in health and disease
Chairpersons : Monika Stoll, The Netherlands & Rodolphe Fischmeister, France

Sick sinus syndrome: a complex electrophysiological disorder
Pietro Mesirca – France

Cardiac assembloids modeling the atrium-ventricle interface
unravel basis of conduction dysfunction
Harsha Devalla– The Netherlands

Cardiac pacemaking and conduction disorders
Steven Niederer – UK

Oral Communications

Generation and phenotyping of a novel knock-in mouse model of Desmoplakin-dependent
Arrhythmogenic Cardiomyopathy
Abstract 1 - Tania Zaglia

Role of inflammation in ageing-associated sinus node dysfunction
Abstract 2 - Megan Mckie

12:00 Lunch & Poster Session II

Hall

13:30 **Session: 10**

Auditorium
Marthe Condat

Mitochondrial homeostasis in health and disease
Chairpersons : Luca Scorrano, Italy & Elise Belaïdi, France

Mitochondrial energetics and redox homeostasis in heart failure
Christoph Maack– Germany

Mitochondrial fission process 1 and heart failure
Timothy Wai – France

Understanding mitochondrial dynamics using mitoXplorer
Bianca Habermann – France

Oral Communications

Mitochondrial metabolism is dynamically and reversibly modulated by cytosolic Na elevation in the heart

[Abstract 1 - Chung yu Jin](#)

Cardiomyocyte-specific PCSK9 deficiency compromises mitochondrial bioenergetics and heart function

[Abstract 2 - Marion Laudette](#)

13:30

Session: 11

Auditorium
Le Chatelier

Epigenetic regulation in cardiac diseases

Chairpersons: Mathias Mericskay France & Alessandra Ghigo, Italy

Gene regulatory networks in heart diseases

[Vincent Christoffels – The Netherlands](#)

Chromatin remodelers in cardiac hypertrophy

[Caroline Conte – France](#)

Epi-Drugs in heart diseases

[Francesco Paneni – Switzerland](#)

Oral Communications

Uncovering the role of the epigenome in atrial remodeling by Single-Cell Omics

[Abstract 1 - Fu Yile](#)

Homozygous p.L13R mutation in nuclear envelope protein Lem2 causes cardiomyopathy in mice

[Abstract 2 - Matt Stroud](#)

13:30

Session: 12

Auditorium
Grignard

Understanding right heart failure

Chairpersons: Lucie Carrier, Germany & Luc Bertrand, Belgium

Heart and lung disease: Mechanisms and therapeutic options

Timothy Lahm – USA

Animal models of right heart failure

Fabrice Antigny – France

Mitochondrial dysregulation in right heart failure Development

Anna Klinke – Italy

Oral Communications

Does oxidation of Protein Kinase A Regulatory Subunit PKAR1 α play a role in pulmonary hypertension?

Abstract 1 - Hannah Green

Comparison of knock-in mouse and hiPSC-based models of arrhythmogenic cardiomyopathy carrying the DSG2 p.Q558* mutation

Abstract 2 - Martina Calore

15:00

Coffee Break & Poster Session III

Hall

From 17:30

Social Event- Aeroscopia

Salle Emma
Chenu

07:45 ISHR-ES council meeting- Members of the ISHR-ES council only

09:00 Plenary session 3

Auditorium
Marthe Condat

ECI Award Competition

Chairpersons: Nina Kaludercic, Italy & Schiattarella Gabriele, Germany

Cardioactive molecules identified by functional in vivo screening prevent anthracycline cardiotoxicity

Abstract 1- Francesca Bortolotti- Italy

Increased Atrial Fibrillation burden in Heart Failure is associated with increased vulnerability to atrial alternans

Abstract 2- George Madders – France

Diet reversal improves hyperglycaemia-related coronary dysfunction and attenuates subsequent myocardial ischemia/reperfusion injury

Abstract 3- Juma El-Awaisi, UK

Exploring the Metabolic Adaptations in Doxorubicin-Induced Cardiotoxicity

Abstract 4- Giulia Guerra, Italy

Sodium myo-inositol cotransporter 1, SMIT1: a new target to prevent left ventricular remodeling

Abstract 5- Alice Marino, Belgium

One type does not fit all: early metabolic alterations vary significantly in cardiomyocytes carrying different hypertrophic cardiomyopathy mutations

Abstract 6- Ruiz-Velasco Andrea, France

10:30 ISHR General Assembly

Auditorium
Marthe Condat

11:00 Coffee break

Hall

11:30 **Session: 13**

Hypoxia sensing: from basic science to emerging therapy

Chairpersons: Sandrine Lecour, South Africa & Luc Bertrand, Belgium

Dual effect of Hypoxia Inducible Factor-1, intermittent hypoxia and myocardial infarction

Elise Belaïdi – France

Hypoxia, metabolism and immunity

Cormac Taylor – Ireland

Redox-metabolism interface in cardiac remodeling

Ajay M. Shah – UK

Oral Communications

Protein misfolding: an additional player in the stroke-heart syndrome

Abstract 1 - Thamonwan Diteepeng

Malonate at reperfusion increases RISK pathway in hearts with high glucose metabolism and associates with loss of cardioprotection against ischemia-reperfusion injury

Abstract 2 - Qian Wang

11:30 **Session: 14**

Immunity alterations in heart failure

Chairpersons: Sandrine Horman, Belgium & Christoph Maack, Germany

T cell function in myocarditis

Federica Marelli-Berg- UK

Immunophenotyping heart failure

Florian Leuschner- Germany

Inflammatory profile of patients with myocardial infarction

Thomas Bochaton – France

Oral Communications

Platelet GARP-dependent TGF β 1 activation regulates heart inflammation and extracellular matrix following myocardial infarction.

[Abstract 1 - Cecile Dufey](#)

Interaction of CRIP1 with sorting nexin 1 (SNX1) influences inflammatory pathways associated with high blood pressure

[Abstract 2 - Jorge Duque Escobar](#)

11:30

Session: 15

Auditorium
Grignard

Localised cyclic nucleotide signalling in heart failure

Chairpersons: Grégoire Vandecasteele, France &
Bernadin Ndongson-Dongmo, Norway

Natriuretic peptide signaling

[Michaela Kuhn - Germany](#)

Local cAMP signalling in HFpEF

[Viacheslav Nikolaev - Germany](#)

Functional regulation of Cx43 by PKA anchoring: role during myocardial infarction

[Guillaume Pidoux – France](#)

Oral Communications

Phosphoinositide 3-Kinase C2 α controls cardiac contractility through regulation of β 2-adrenergic receptor recycling

[Abstract 1 - Sophie Cnudde](#)

Targeting the cGMP pathway as an antiarrhythmic strategy in an ovine heart failure model

[Abstract 2 - Olivia Johnstone](#)

14:30

Session: 16**Auditorium
Marthe Condat****Mechanisms for cardiac repair****Chairpersons:** Paula da Costa Martins, The Netherlands & Monika Gladka, The Netherlands**Metabolic regulation of cardiac regeneration**Francesca Rochais – France**Role of the epicardium in cardiac repair**Sanjay Sinha – UK**Molecular regulation of cardiomyocyte proliferation**James Martin – USA**Oral Communications****Myc and Cyclin T1 transient co-expression induces cardiomyocyte cell cycle re-entry and improves rodent cardiac function after ischaemic injury**Abstract 1 - Aleksandra Boikova**Zeb2os Hinders Cardiac Healing by Suppressing ZEB2 Reactivation and Cardiomyocyte Dedifferentiation**Abstract 2 - Rocco Caliandro

14:30

Session: 17**Auditorium
Le Chatelier****Myocardial infarction and cardioprotection****Chairpersons:** Nina Kaludercic, Italy & Mélanie Paillard, France**Targeting PI3-Kinase in ischemia-reperfusion injury**Sean Davidson – UK**High density lipoprotein particles and cardioprotection:
is it about size, composition or function?**Sandrine Lecour – South Africa**Targeting mitochondrial reverse electron transport as
a strategy for cardioprotection**Mike Murphy – UK

Oral Communications

Chronic stress, depressive-like pathology and cognitive impairments exacerbate myocardial damage during acute myocardial infarction: insights to sex-specific proteomic alterations

[Abstract 1 - Christina Chania](#)

Comparison of the cardiac mitochondrial proteome of Gottingen minipigs to that of lean Ossabaw minipigs

[Abstract 2 - Chanta Eickelmann](#)

14:30

Session: 18

Auditorium
Grignard

Sarcomere in cardiac disease

Chairpersons: Wolfgang Linke, Germany & Jolanda Vandervelden, The Netherlands

Myosin filament-based regulation of the dynamics of contraction in heart muscle [Malcolm Irving – UK](#)

Role of genetic variants of Z-disk proteins in cardiomyopathies [Katja Gehmlich- UK](#)

Cardiac troponin T N-domain variant destabilizes the actin interface resulting in disturbed myofilament function [Jose R Pinto – USA](#)

Oral Communications

Graded in vivo titin cleavage reveals its importance in maintaining cardiac contractility and sarcomere structure

[Abstract 1 - Christine M Loescher](#)

Broad therapeutic benefit of myosin inhibition in hypertrophic cardiomyopathy

[Abstract 2 - Laura Sen-Martin](#)

Hall

16:30

Session: 19

Auditorium
Marthe Condat

Intercellular communication for the heart

Chairpersons: Sean Davidson, UK & Petra Kleinbongard, Germany

Do EVs contribute to inflammation in cardiometabolic diseases?

Csenger Kovácsházi – Hungary

Role of cardiac stromal cells in cardiac fibrosis development

Joost Sluijter – The Netherlands

How the adipose tissue talks to the heart?

Genevieve Derumeaux – France

Oral Communications

Bone marrow cells as a source of cDPP3, a newly emerged biomarker and therapeutic target in cardio circulatory failure

Abstract 1 - Noma Assad

The spleen is mandatory for the release of circulating cardioprotective factors induced by remote ischemic conditioning in humans

Abstract 2 - Helmut Raphael Lieder

16:30

Session: 20

Auditorium
Le Chatelier

Atrial fibrillation and heart failure; When two disorders collide

Chairpersons: Ange Maguy, Switzerland & Delphine Mika, France

AF and HF- A journey through gene expression

Monika Stoll – Germany

Structural and electrical remodelling in AF – Could this contribute to HF?

Katherine Dibb – UK

PITX2 involvement in AF and HF: from molecule to patient

Larissa Fabritz – Germany

Oral Communications

The role of mitochondrial nicotinamide nucleotide transhydrogenase in ageing-related atrial fibrillation

[Abstract 1 - Hu Liangyu](#)

Phosphodiesterase 2A overexpression prevents atrial fibrillation and conduction dysfunction independently of diastolic dysfunction in a mouse HFpEF model

[Abstract 2 - Bernadin Dongmo](#)

16:30

Session: 21

Auditorium
Grignard

COST Action EU-METAHEART: European network to tackle METabolic alterations in HEART failure

Chairpersons: Lisa Heather, UK & Ioanna Andreadou, Greece

Overview on COST Action EU-METAHEART

[Christoph Maack – Germany](#)

Mitochondrial ion handling in heart failure

[Melanie Paillard – France](#)

Mechano-energetic (un-)coupling in heart failure

[Jolanda van der Velden – The Netherlands](#)

The gut microbiome in heart failure

[Ines Falcao Pires – Portugal](#)

Metabolic maturation in iPSC-derived cardiac myocytes

[Katrin Streckfuss-Bömeke- Germany](#)

From 19:30

Gala Dinner – Hotel Dieu

07:45 ISHR-ES council meeting - Members of the ISHR-ES council only

09:00 Plenary session 4

Auditorium
Marthe Condat

Outstanding Investigator Award lecture The Many Faces of Metabolism: to ATP and Beyond

Lisa Heather – UK

10:00 Coffee break

Hall

10:30

Session: 22

Cardiac health: Why sex matters?

Chairpersons : Renée Ventura-Clapier, France & Jean-François Arnal, France

Molecular basis of sex difference

Georgios Kararigas – Iceland

The importance of considering sex in studies of myocardial infarction and cardioprotection

Petra Kleinbongard – Germany

Sex difference in mitochondria

Jérôme Piquereau – France

Oral Communications

In female weight-cycling mice, administration of the mineralocorticoid receptor antagonist finerenone during a phase of calorie restriction prevents the development of HFpEF

Abstract 1 - Coralie Frimat

Cardiac metabolic remodelling in a new model of pre-clinical diabetic cardiomyopathy: sex matters

Abstract 2 - Loucia Karatzia

Auditorium
Le Chatelier

10:30

Session: 23

New insights into imaging in cardiology

Chairpersons : Olivier Lairez, France & Christophe Beauloye, Belgium

Magnetic resonance and novel imaging technics in
cardiovascular research

Bernhard Gerber – Belgium

Unveiling the Hidden Diversity of Cardiac Mitochondria within
Cardiomyocytes using Atomic force and electron Microscopy

Céline Galés – France

Synchrotron imaging in vivo: applications in cardiac research

James T. Pearson – Japan

Oral Communications

Probing the super-relaxed myosin state in cardiac myofilaments by second harmonic-generation
microscopy

Abstract 1 - Giulia Arecchi

Morpho-functional correlation reveals frequency dependency of trans-sar action potential
propagation in arrhythmogenic mouse heart

Abstract 2 - Gerard Marchal

Auditorium
Grignard

10:30

Session: 24

Supported by:  **JMCC**
JOURNAL OF MOLECULAR CELLULAR CARDIOLOGY

**Use and abuse of AI and language models in
cardiovascular research**

Chairpersons : Davor Pavlovic, UK

AI and ECG – breathing new life into an old technique

Ng Fiu Song – UK

Oral Communications

Physiologically relevant 3D in vitro models of the heart and a machine learning approach to identify genes involved in the cardiac maturation

[Abstract 1 - Camilla Soragni](#)

Studying the Effects of Optical Mapping on Action Potential Measurements in Intact Tissue: Computational Modelling with a New Open-Source Software ElectroModel

[Abstract 2 - Olivia Baines](#)

12:00

Plenary session 5

Auditorium
Marthe Condat

ISHR-ES Awards, Poster & ECI Awards

12:45

Lunch

Hall

From 14:30

Departure
