The heart and beyond: intercellular and interorgan communication

Annual Meeting 2013

of the Working Group on Myocardial Function and the Working Group on Cellular Biology of the Heart

Villa Monastero, ITALY
Thursday to Sunday - May 2-5th 2013
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Scientific Program

Villa Monastero, ITALY
May 2-5th 2013

'The heart and beyond:
intercellular and interorgan communication'

Thursday, May 2nd

11.00 – 16.00 ESC WG Nucleus Meetings

16.25 – 16.30 Welcome and opening remarks
Denise Hilfiker-Kleiner (Germany)

Session I: Message in a bottle – Microvesicles and intercellular communication
Chairs: Peter Ferdinandy (Hungary) and Gianluigi Condorelli (Italy)

16.30 – 17.00 Microvesicles and exosomes in cardiovascular health and disease
Joost Sluijter (Netherlands)

17.00 – 17.30 MicroRNA and communication beyond the heart
Thomas Thum (Germany)

17.30 – 18.00 Exosomes: More than just biomarkers of cardiovascular disease
Sean Davidson (UK)

18.00 – 18.30 2 Oral abstract presentations
MicroRNA-212 is an anti-angiogenic miRNA
Kumarswamy Regalla (Germany)

16K prolactin-induced expression of miR-146a is a therapeutic
target and a specific biomarker for peripartum cardiomyopathy
Melanie Ricke-Hoch (Germany)

19.30 Dinner (Villa Cipressi)
Friday, May 3rd

Session II: Regenerative therapy for the heart
Chairs: Felix Engel (Germany) and Stephane Heymans (Belgium)

09.00 – 09.30  Cardiomyocyte communication with its neighbours
Thomas Braun (Germany)

09.30 – 10.00  In vivo selection of siRNAs to keep cardiomyocyte regenerative
potential in adulthood
Mauro Giacca (Italy)

10.00 – 10.30  Circadian rhythms in cardiac regeneration
Linda W. van Laake (Netherlands)

10.30 – 11.00  2 Oral abstract presentations
Impact of the transcription factor GATA2 in endothelial cells on
pathological cardiac hypertrophy
Jörg Heinecke (Germany)

Direct interaction between sympathetic neurons and
cardiomyocytes forms a high-agonist concentration and diffusion-
estricted signaling domain at ‘cardiac synapses’
Marco Mongillo (Italy)

11.00 – 11.30  Coffee break (Villa Monastero)

Session III: Interorgan communication via the metabolic highway
Chairs: Rosalinda Madonna (Italy) and Jean-Luc Balligand (Belgium)

11.30 – 12.00  PGC1-α and the angiogenic balance as a switch in physiological
vs pathophysiological adaptation of the heart
Zoltan Arany (USA)

12.00 – 12.30  Systemic effects of cancer on regulation and function of the
cardiac sarcomere
Denise Hilfiker-Kleiner (Germany)
12.30 – 13.00  2 Oral abstract presentations
Nitric Oxide Synthase & AMP-Activated Protein Kinase Dependent Signaling Pathways are Involved in the Anti-Hypertrophic Effect of The Human Beta 3 Adrenoreceptor
Emilie Dubois-Deruy (Belgium)

The hypoxia-inducible microRNA cluster miR-199a-214 cluster targets myocardial PPARβ/δ and impairs mitochondrial fatty acid oxidation
Hamid Azzouzi (Netherlands)

13:00 – 14:00  Lunch (Villa Cipressi)

Session IV: Moderated Poster session (I)
guided by Leon De Windt (Netherlands) and Manuel Mayr (GB)

14.00 – 16.00  Poster session

16.00 – 16.30  Coffee break (Villa Monastero)

Session V: New insights into myocardial fibrosis
Chairs: Johann Bauersachs (Germany), Carlo Gabriele Tocchetti (Italy)

16.30 – 17.00  Endothelial cells undergo EMT to generate myofibroblasts upon stress
Elizabeth Zeisberg (Germany)

17.00 – 17.30  Lineage tracing reveals ADAM12+ pericytes as precursors of myofibroblasts
Lucie Peduto (France)

17.30 – 17.45  Oral abstract presentation
Deletion of Fn14 receptor protects from right heart fibrosis and dysfunction
Tatyana Novoyatleva (Germany)

17.45 – 18.00  Presentation by VisualSonics B.V.

19.30  Dinner (Villa Cipressi)
Saturday 4th May

Session VI: Mitochondria transfer in and out of the heart
Chairs: Sean Davidson (UK) and Angela Clerk (UK)

08.30 – 09.00 How to measure mitochondrial function
Marisol Ruiz-Meana (Spain)

09.00 – 09.30 Stem cell reprogramming of adult cardiomyocytes: cell fusion and
mitochondria transfer
Anne-Marie Rodriguez (France)

09.30 – 10.00 Mitochondrial DNA that escapes from autophagy causes
inflammation and heart failure
Kinya Otsu (London)

10.00 – 10.30 2 Oral abstract presentations
Oxidative/nitrosative stress in hypercholesterolemic hearts: the role of microRNA-25 regulated NADPH oxidase 4
Zolta Varga (Hungary)

Immune modulation by regulatory T cells preserves cardiac function and promotes cardiomyocyte proliferation after myocardial infarction
Serena Zacchigna (Italy)

10.30 – 11.00 Coffee break (Villa Monastero)

Session VII: Moderated Poster session (II)
guided by Sean Davidson (UK) and Felix Engel (Germany)

11.00 – 13.00 Poster session

13.00 – 14.00 Lunch (Villa Cipressi)

Free afternoon
Sunday 5th May

Session VIII: Protecting the heart at a distance
Chairs: Rainer Schulz (Germany) and Derek Hausenloy (UK)

09.00 – 09.30 Mechanisms underlying remote ischemic conditioning
Andrew Redington (Canada)

09.30 – 10.00 Optogenetic control of heart muscle in vitro and in vivo
Philipp Sasse (Germany)

10.00 – 10.30 Extracellular RNA and myocardial protection
Klaus Preissner (Germany)

10.30 – 10.45 Oral abstract presentation
Paracrine factors from cardiac fibroblasts protect cardiomyocytes against ischemia-reperfusion injury
Maryline Abrial (France)

10.45 – 11.00 Coffee break (Villa Monastero)

Session IX: Signaling cross-talk in myocardial remodeling
Chairs: Guido Tarone (Italy) and Ralph Knoell (London)

11.00 – 11.30 Multiple roles of AKAP-Lbc in cardiac remodeling
Dario Diviani (Switzerland)

11.30 – 12.00 PI3K/PKA signaling
Emilio Hirsch (Italy)

12.00 – 12.15 Oral abstract presentation
Molecular Modulation of Post-Ischemic Cardiac Remodeling by Hindlimb Ischemia
Gabriele Giacomo Schiattarella (Italy)

Session X: Translational session
Chair: Denise Hilfiker-Kleiner (Germany)

12.15 – 13.00 Allosteric Effectors of Cardiac Myosin Function: Activators, Inhibitors, and Pharmacoperones
Dietmar Manstein (Germany)

13.00 Closing remarks and farewell
Derek Hausenloy (UK)
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The organisation of this meeting is supported by unrestricted grants offered by

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Professor Johann Bauersachs
Professor Denise Hilfiker-Kleiner

and the
Working Group on Cellular Biology of the Heart
Dr. Derek Housenloy

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