

**Annual meeting**  
of the  
**Working Group on Myocardial Function**  
and the  
**Working Group on Cell Biology**

**Villa Monastero, ITALY**  
**April 14 to 17, 2011**



**“Signal transduction and beyond:  
from targets to new treatments in cardiac disease”**

**Thursday 14<sup>th</sup> April**

11.00 – 16.00                      Nucleus Meetings: Part 1

16.25  
remarks                              Denise Hilfiker-Kleiner (Hannover, G): Welcome and opening

**Session I: News and views on microRNA**

**Chair: Johann Bauersachs (Hannover, G)/ Gianluigi Condorelli (Milan, I)**

16.30 – 17.00                      Thomas Thum (Hannover, G) mi-RNA-based therapeutics: where  
do we go?

17.00 – 17.30                      Kai C. Wollert (Hannover, G) GDF-15 - acting through a novel anti-  
inflammatory mechanism - promotes survival after myocardial  
infarction

17.30 – 18.10                      2 Oral Presentations:

Leonardo Elia (San Diego, USA): Role of microRNA-143 and -145 in  
cardiovascular diseases

Paula da Costa Martins (Maastricht, NL): Regulation of pathologic  
cardiac remodeling by miR-199 family members

19.30                                      Dinner



**Session IV: Moderated Poster session (I)**  
**guided by Charles Steenbergen (Baltimore, USA) and Ralph Knoell (London, GB)**

13.40 – 17.20                      Poster session (see page 6-7)

17.20 – 17.40                      Coffee break

**Session V: Mitochondria and cardioprotection**  
**Chair: Michel Ovize (Lyon, F)/ Gerd Heusch (Essen, G)**

17.40 – 18.10                      Derek Hausenloy (London, UK): Modulation of mitochondrial morphology and cardioprotection

18.10 – 18.40                      Sandrine Lecour (Cape Town, SA): The novel pro-survival SAFE pathway – importance of mitochondria?

18.40 – 19.20                      2 Oral Abstract Presentations  
Michael Kohlhaas (Homburg, D): STAT3 preserves dynamic control of mitochondrial NAD(P)H redox state to prevent ROS-production after chronic  $\beta$ -adrenergic stimulation in vivo  
Anna Fusco (Neapel, I): MITOCHONDRIAL LOCALIZATION A NOVEL ROLE FOR GRK2 IN THE REGULATION OF OXIDATIVE METABOLISM

19.30                                      Dinner

**Saturday 16<sup>th</sup> April**

**Session VI: “How to” sessions**

**Chair: Leon J. de Windt (Maastricht, NL)/ Guido Tarone (Turin, I)**

08:45 – 09.20 Thorben König (Hannover, G): ECG Telemetry

09.20 – 09.55 Oliver Müller (Heidelberg, G): AAV-vectors for cardiac gene transfer

09.55 – 10.10 Coffee break

**Session VII: Moderated Poster session (II)**

**guided by Barbara Casadei (Oxford, GB)/ Guido Iaccarino (Naples, I)**

10.10 – 12.10 Poster session (see page 8-9)

**Session VIII:**

**Chair: Peter Ferdinandy (Szeged, H) / Adelino Leite-Moreira (Porto, P)**

12.10 – 13.00 Special Lecture: Heiko von der Leyen (Hannover, G): Design and Realization of Clinical Trials - from bench to bedside

13.00 –14.00 Lunch

Free afternoon (hiking with Jean-Luc and Denise, boat trip with Michel)

**Sunday 17<sup>th</sup> April**

**Session IX: Novel aspects of basic and applied NO/cyclic GMP biology in cardiovascular disease**

**Chair: Denise Hilfiker-Kleiner (Hannover, G)/ Jean-Luc Balligand (Brussels, B)**

- 09.00 – 09.30                      Barbara Casadei (Oxford, GB): Altered EC coupling from uncoupled cardiomyocyte NOS
- 09.30 – 10.00                      Ulrich Martin (Hannover, G): iPS cells: just another stem cell or groundbreaking development for future cellular therapies?
- 10.00 – 10.30                      Elizabeth Murphy (Baltimore, USA): Identification of new nitrosylated proteins in the cardiac proteome: potential role in pathology
- 10.30 – 10.50                      Coffee Break

**Session X: Special Lecture**

**Chair: Adelino Leite-Moreira (Porto, P)/ Ralph Knoell (London, GB)**

- 10.50 – 11.40                      David Eisner (Manchester, GB): A fresh look at EC coupling mechanisms affecting inotropism and relaxation in HF
- 11.40                                      Michel Ovize (Lyon, F): Closing remarks and farewell
- 13.00 – 17.00                      Nucleus Meetings: Part 2
- (14.30 – 14.50                      Incl. Coffee break)

**Organization:**

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**Session IV: Moderated Poster session (I)**  
**guided by Charles Steenbergen (Baltimore, USA) and Ralph Knoell (London, GB)**

Friday 15<sup>th</sup> April - 13.40 – 17.20

1. Anna Pia Plazzo: *Functional role of the specific neuro-cardiac interaction on cardiomyocyte  $\beta$ -AR activation*
2. Tania Zaglia: *Resting cardiac sympathetic activity regulates cardiomyocyte size by suppressing MuRF-1 expression*
3. Tamas Csont: *Biglycan: a potential cardioprotective therapy?*
4. Nerea Hermida-Blanco: *Statins prevent LV remodeling through anti-fibrotic effects rather than direct effects on cardiomyocytes in a mouse model of metabolic syndrome*
5. Jan Reil: *Ivabradine improves aortic distensibility as well as left ventricular systolic and diastolic function in diabetes type 2 (db-) mice*
6. Oktay Tutarel: *ADMA IS A MORE SENSITIVE BIOMARKER FOR HEART FAILURE IN ADULTS WITH CONGENITAL HEART DISEASE THAN NT-proBNP*
7. Péter Bencsik: *The role of nitrosative stress and matrix metalloproteinases in ischemic heart disease patients*
8. Michela Nosedà: *Clonal analysis of adult mouse cardiac progenitor cells*
9. Martinus Oerlemans: *Inhibition of RIP1-mediated necrosis ameliorates myocardial ischemia-reperfusion injury and attenuates adverse remodeling*
10. Jean-Luc Balligand: *Inhibition of the endogenous Wnt/beta-catenin signalling pathway mediates differentiation of cardiac resident progenitor cells into cardiomyocytes*
11. Alexander Nickel: *Mitochondrial transhydrogenase is a key regulator of antioxidative capacity in cardiac myocytes*
12. Roberto Gaetani: *Cardiac tissue engineering by using tissue printing technology and human Cardiac progenitor Cells*
13. Gauthier-Thibaut Noppe: *A-662769 DEMONSTRATES ANTI-FIBROTIC PROPERTIES : A NEW POTENTIAL ROLE FOR AMP-ACTIVATED PROTEIN KINASE*
14. Ann Friart: *Paracrine NO potentiates the differentiation of adult cardiac resident stem cells in co-culture with cardiac myocytes*

15. Julien Auquier: *The AMP-activated protein kinase improves insulin-sensitivity in the heart by multiple molecular mechanisms*
16. Mechthild Westhoff-Bleck: *Gender related differences of the systemic right ventricle after atrial switch operation*
17. Henning Kempf: *Analysis and control of MAPK pathway activity to improve cardiomyogenic differentiation of pluripotent human stem cells with small molecules*
18. Aurélie Timmermans: *The new AMPK activator A-769662 does not stimulate glucose uptake alone but potentiates effects of others AMPK activators in adult cardiomyocytes*
19. Anna Chernova: *The polymorphism of connexin 40 gene is associated with hereditary sick sinus syndrome*
20. Krijn Vrijzen: *Cardiomyocyte Progenitor Cell Derived Exosomes Stimulate Migration Of Endothelial Cells*
21. Elisabetta Borchi: *Monoamine oxidase activity and oxidative stress markers in left and right ventricles from non failing and failing human hearts*
22. Mathias Hohl: *Nuclear export of HDAC4 mediates histone demethylation at H3K9 in the promoter region of ANF in response to elevated cardiac preload*
23. Laura Zelarayan: *The cardiac specific beta-catenin interaction partner, four-and-a-half LIM-protein 2 (FHL2) promotes cardiac differentiation in vitro*
24. Magali Balteau: *Caveolar compartmentalisation of signaling elements required for hyperglycemia-induced ROS production through NADPH oxidase in cardiomyocytes*
25. Magali Balteau: *NADPH oxidase activation by hyperglycemia in cardiomyocytes is independent of glucose metabolism but requires the sodium/glucose cotransporter, SGLT-1*
26. Chris McDermott-Roe: *Endonuclease G regulates mitochondrial biogenesis, tissue steatosis and cardiac hypertrophy*
27. Mauro Sbroglio: *Melusin triggers cardiomyocyte hypertrophy and survival activating MEK-ERK1/2 pathway through Focal Adhesion Kinase and the MAPK scaffold protein IQGAP1*
28. Ines Falcão-Pires: *Diabetes mellitus exacerbates diastolic dysfunction in aortic stenosis patients: importance of myocardial fibrosis, advanced glycation endproducts and resting tension*
29. Byambajav Buyandelger Buyandelger: *MLP, MLP-interacting proteins and heart failure*

**Session VII: Moderated Poster session (II)**  
**guided by Barbara Casadei / Guido Iaccarino**

Saturday 16th April - 10.10 – 12.10

30. Faye Drawnel: *Interaction between the transcription factors NFAT and AP1 allows integration of cellular signalling pathways during cardiac hypertrophy*
31. Carolina Nunes França: *Effect of rosuvastatin and clopidogrel alone and combined in endothelial progenitor cells and endothelial microparticles*
32. Carolina Nunes França: *Influence of different hypolipemiant therapies in endothelial progenitor cells and microparticles levels in patients with subclinical carotid disease*
33. Fatih Arslan: *Exosomes target multiple mediators to reduce cardiac injury*
34. Fatih Arslan: *Haptoglobin deficiency reduces PAI-1 activity, microvascular integrity and enhances adverse remodeling after myocardial infarction*
35. Rosalinda Madonna: *Telomerase and Myocardin-A synergistically regulates survival and expression of promyogenic transcription factors in mesenchymal stem cells of bone marrow and adipose tissue*
36. Rosalinda Madonna: *Vascularization in human induced pluripotent stem cells under hyperosmolarity induced by high glucose*
37. Rosalinda Madonna: *Co-Activation of NF- $\kappa$ B and Myocardin/Serum Response Factor in Canine Cardiac Myoblasts Exposed to High Levels of Insulin*
38. Tomasz Bonda: *Expression and activity of Src is upregulated in atrial tissue of patients with postoperative atrial fibrillation*
39. Karol Kaminski: *Transcriptional and posttranscriptional regulation of CCN genes in experimental model of heart failure*
40. Angela Serena Maione: *THE ROLE OF CaMKII IN THE REGULATION OF CARDIAC HYPERTROPHY PROVIDES A NOVEL THERAPEUTIC TARGET*
41. Ludovic Gomez: *Failure to precondition Sphingosine Kinase 2-KO mice: Mitochondria Not without RISK*
42. Luis Bras Rosario: *Comparative profiling of microRNA expression in embryos and adult bone marrow and cardiac progenitor cells identifies distinctive markers*
43. Roberta De Rosa: *FOXO3a-Atrogin-1 pathway in human heart failure*
44. Roberta De Rosa: *Myocardial expression of FOXO3a-Atrogin-1 pathway in human heart failure*



45. Michele Ciccarelli: *G-protein-coupled receptor kinase-2 (GRK2) induces insulin resistance in cardiac myocytes*
46. Britta Stapel: *Low cardiac STAT3 expression is a pre-disposition for heart failure in response to  $\beta$ - but not  $\alpha$ -adrenergic stimulation*
47. Marie Fertin: *New biomarkers of cardiac remodeling after myocardial infarction by proteomic analysis in comparison with B-type natriuretic peptide*
48. Angela Lombardi: *GLUCOSAMINE-INDUCED ENDOPLASMIC RETICULUM STRESS: NOVEL MOLECULAR APPROACHES*
49. Gaetano Santulli: *A BETA 2 ADRENERGIC RECEPTOR MECHANISM IN AGE-RELATED IMPAIRED INSULIN SECRETION*
50. Arash Haghikia: *The Ubiquitin-conjugating enzyme Ube2o protects against enhanced fibrosis and dilated cardiomyopathy after myocardial infarction: Regulation by gp130-JAK/STAT signaling*
51. Uma Mukherjee: *The Novel Role of DJ-1 in Cardioprotection*
52. Emilie Dubois: *Role of PKC epsilon-dependent phosphorylation of troponin T in cardiac contractility during heart failure*
53. Vikram Sharma: *BNIP3 - A potential target of ischaemic preconditioning*
54. Carlo Tocchetti: *Subtle reductions of left ventricular function are detected by speckle tracking echocardiography in antineoplastic therapy-induced cardiotoxicity*
55. Hannah Whittington: *Susceptibility to infarction in an aging, diabetic rat model*
56. Vivek Krishna (Giuseppe D Norata): *MicroRNA 143-145 deficiency is associated with impaired vascular function*
57. Evasio Pasini: *mTOR EVALUATION AS MARKER OF IMPAIRED INTRACELLULAR SIGNALING TO QUANTIFY CARDIOVASCULAR RISK FACTORS IN THE METABOLIC SYNDROME*
58. Adelino Leite-Moreira: *Diastolic tolerance to afterload is decreased in coronary patients with systolic dysfunction*