



4th Young DZHK Retreat

13-14 September, 2017

Hotel Neptun, Seestraße 19, 18119 Rostock

Program

Wednesday, 13th September

10:00 am Young-DZHK PostDoc Committee Meeting

11:30 am Registration & lite bites

12:30 pm **Welcome**

Dorothee Atzler, Martin Bahls, Jan Haas

1:00 pm **1st oral session “Basis Science”**

Chair: Eva Wagner/Jan Haas (10 min presentation + 5 min discussion)

Alexandra Löser (Hamburg/Kiel/Lübeck)

A new in vitro model for atrial physiology and disease

Sebastian Nauck (Heidelberg/Mannheim)

HCN4 overexpression affects expression of calcium handling proteins and leads to structural and arrhythmogenic changes in a murine model

Philipp Jakob (Berlin)

Exosomes released by human iPSC-derived cardiomyocytes under ischemic conditions increase viability of endothelial cells via pro-survival factors

Sandra Hoffmann (Heidelberg/Mannheim)

Comparative expression analysis of Shox2-deficient embryonic stem cell-derived sinoatrial node-like cells

2:00 pm **1st and 2nd “Basic Science” poster sessions in parallel** (5 min presentation + 2 min discussion)

Chair Bernsteinsaal: Dorothee Atzler / J. Fielitz* (Greifswald)

Tanja Nielsen (Berlin)

Large scale in vivo functional analysis of the genetic network involved in Congenital Heart Diseases using Drosophila melanogaster as a heart model

Shakil Ahmad (Göttingen)

Neuronal sodium channel Nav1.8 inhibition modulates INaL and SR-calcium leak in failing human and mouse ventricular cardiomyocytes

Hendrik Sager (München)

Monocyte priming during acute myocardial infarction

Axel Kraft (Hamburg/Kiel/Lübeck)

Influence of Phosphodiesterases 4B and 4D on cAMP Signaling in Calcium Handling Microdomains of Adult Mouse Cardiomyocytes



Jana Grune (Berlin)

Selective receptor modulation by the novel non-steroidal MR-antagonist Finerenone leads to anti-fibrotic effects in a mouse model of isoprenaline-induced cardiomyopathy

Lukas Cyganek (Göttingen)

Custom-tailored cardiomyocytes: A directed differentiation of human pluripotent stem cells into defined atrial and ventricular cardiomyocyte subtypes

Carolin Schächterle (Berlin)

Cardiac protection through hyperactive PDE3A

Monique Wölfer (Göttingen)

The insulin-like growth factor binding protein 5 (IGFBP5) - a potential biomarker for heart failure transition

Mojdeh Talebi Darestani (Heidelberg/Mannheim)

Regulation of SR/ER protein homeostasis in cardiac myocytes by E3 ubiquitin ligase, Hrd1

Chair Foyer: Martin Bahls / Nicholas Leeper* (Stanford University)

Safak Chasan (Heidelberg/Mannheim)

Role of the Purkinje System on Focal Arrhythmias

Agneszka Gorska (Heidelberg/Mannheim)

Cand2 involvement in mTOR-dependent cardiac hypertrophy

Iris Betz (Berlin)

Transcriptional Effects of Palmitoleic Acid Stimulation in Primary Murine Cardiomyocytes

Constanze Schmidt (Heidelberg/Mannheim)

Characterization of a novel genetic variant associated with Brugada syndrome: beta-2-syntrophin mutation reduces Na⁺ current in human cardiomyocytes

Hendrik Bartolomaeus (Berlin)

The gut microbiota-derived metabolite propionate ameliorates Angiotensin II-induced cardiac damage

Kathleen Pappritz (Berlin)

Impact of CD36⁺-selected mesenchymal stromal cells on left ventricular function in type 2 diabetic db/db mice

Isabel Schellinger (Göttingen)

Non-coding RNAs Comprehensively Counteract Adverse Arterial Remodeling and Stiffening in Type 2 Diabetes

Nadja Bork (Hamburg/Kiel/Lübeck)

Visualization of Cardiomyocyte cGMP Dynamics in Hypoxia/Reoxygenation

4:00 pm – 4:15 pm *Coffee break*



4:15 pm 2nd oral session “Basic Science” (10 min presentation + 5 min discussion)

Chair: Dennis Gürgen/ Ashraf Rangrez

Lavanya M. Iyer (Göttingen)

The β -catenin/TCF7L2 complex activation contributes to the epigenetic switch controlling cardiac tissue remodelling

Christiane Ott (Berlin)

Long-term Rapamycin-treatment preserved left ventricular systolic function by enhancing autophagy-lysosomal activity in a mouse model of pressure overload

Sarah-Lena Puhl (München)

Structural and functional impact of cannabinoid receptor GPR55 deficiency on post myocardial infarction remodelling in mice

Albert Hinrich von der Lieth (Heidelberg/Mannheim)

Inhibition of the CaMKII-HDAC4-Interaction in Cardiomyocytes

5:15 pm 3rd oral session “Clinical/Epidemiological Research” (10 min presentation + 5 min discussion)

Chair: Sven-Oliver Tröbs/Kristin Lehnert

Farbod Sedaghat-Hamedani (Heidelberg/Mannheim)

Clinical Genetics and Outcome of Left Ventricular Non-compaction Cardiomyopathy

Julia Krause (Hamburg/Kiel/Lübeck)

Metabolomics in Translational Medicine – A Link between Acylcarnitines and Atrial Fibrillation

Bernhard Wolf (München)

Association of the coronary artery disease risk gene GUCY1A3 with on-aspirin platelet reactivity and ischemic events after coronary intervention

Anna Bobenko (Berlin)

Amount or intensity? Potential targets of exercise interventions in patients with heart failure with preserved ejection fraction

6:30 pm Dinner

7:30 pm Keynote lecture: Nicholas J. Leeper (Stanford University, USA)

The role of efferocytosis in cardiovascular disease



Thursday, 14th September

6:30 am Y-DZHK running session – bring your running gear

8:30 am 4th oral session “Basic Science” (10 min + 5 min discussion)

Chair: Katharina Scherschel/Tina Lucas

Maks Prondzynski (Hamburg/Kiel/Lübeck)

Functional impact of a novel ACTN2 mutation associated with hypertrophic cardiomyopathy in human iPSC-derived cardiomyocytes and engineered heart tissues

Eva Riechert (Heidelberg/Mannheim)

The mTOR-dependent translome adapts early changes in gene expression during cardiac growth

Dorotée Julia Trembinski (RheinMain)

Sarrah is an aging-regulated anti-apoptotic long non-coding RNA in cardiomyocytes that augments recovery from acute myocardial infarction

Daniela Hübscher (Göttingen)

A patient-specific induced pluripotent stem cell model for studying catecholamine-dependent altered β -adrenergic signaling in Takotsubo syndrome

9:30 am 5th oral session “Basic Science” (10 min presentation + 5 min discussion)

Chair: Dorothee Atzler/Thorsten Kessler

Daniel Hering (München)

GPR55 deficiency promotes atherosclerosis development in mice

Carmen Hannemann (Berlin)

The role of iRhom2 in atherosclerosis

Patrick Hofmann (RheinMain)

The long noncoding RNA H19 controls endothelial cell aging

Wolf-Stephan Rudi (RheinMain)

Depletion of LysM+ inflammatory cells and inhibition of their activation signaling by Angiotensin-II improves vascular endothelial dysfunction in heart failure mice

10:30 pm Coffee break



10:45 am “NextPharma-Poster Session” in parallel

“Clinical/Epidemiological Research” poster session (5 min presentation + 2 min discussion)

Chair Bernsteinsaal: Elham Kayvanpour / Bjorn C. Knollmann* (Vanderbilt University)

Alexander Teumer (Greifswald)

European Meta-Analysis of Genome-Wide Association Studies of the Early Repolarization Pattern

Christian Müller (Hamburg/Kiel/Lübeck)

A Longitudinal Transcriptome Analysis Identifies Novel Gene Expression Signatures for Body Mass Index in Monocytes

Elvis Tahirovic (Berlin)

A Phase 2 Randomized, Double-Blinded, Placebo-Controlled Study to Evaluate the Effects of 4 Weeks Treatment with Subcutaneous Elamipretide on Left Ventricular Function in Subjects with Stable Heart Failure with Preserved Ejection Fraction: Rationale and design of the RESTORE-HF trial

Matthias Munz (Hamburg/Kiel/Lübeck)

Genome-wide association meta-analysis of coronary artery disease and periodontitis reveals a novel shared risk locus

Felix Fritze (Greifswald)

Carotid lumen diameter improves mortality risk prediction compared to intima media thickness in the population-based Study of Health in Pomerania

Christopher Herbst (Berlin)

Systematic Analysis of Cardiac Disease Genes in Pediatric Cardiomyopathy Patients Identifies Novel Genetic Variants

Nadya Al-Wakeel (Berlin)

T1 mapping for evaluation of diffuse myocardial fibrosis in pediatric primary inherited cardiomyopathies – results from the RIKADA study

Lisa Steinbeck (Berlin)

Real-time optical coherence tomography co-registration with angiography in percutaneous coronary intervention – impact on physician decision-making: The OPTICO-Integration study

Giselle Sarganas (Berlin)

Tracking of blood pressure in children and adolescents in Germany in the context of risk factors for hypertension

Olga Schweigert (Hamburg/Kiel/Lübeck)

Smoking-related hypomethylation of new identified methylation sites within the GPR15 gene correlate with myocardial infarction in young adults

Maik Pietzner (Greifswald)

Metabolic fingerprinting of circulating Nt-proBNP among a population-based sample

3rd “Basic Science” poster session (5 min presentation + 2 min discussion)

Chair Foyer: Michael Stauske / Jan Weijers* (NHI)

Franziska Rathjens (Göttingen)

Novel cardioprotective role of TBX5 in the diseased adult mouse heart

Deepak Ramanujam (München)

Inhibition of microRNA-21 prevents myocardial remodelling and dysfunction in a pig model of ischemia/reperfusion injury

Andrea Bähr (München)

Regional LNA-132 application inhibits miR-132 expression and prevents hypertrophy induced cardiomyopathy in pigs



Katharina Klett (München)

LNA- mediated miR-92a inhibition induces therapeutic neovascularization in a pig model of chronic myocardial ischemia

Valentina Paloschi (München)

Aorta-on-a-chip: a tool to gain molecular and translational insight into vascular diseases

Zohreh Varasteh (München)

Targeting mannose receptor (CD206) expression on macrophages in atherosclerotic plaques of apolipoprotein E-knockout mice using 68Ga-NOTA-anti-CD206-

Kerstin Wöltje (Berlin)

Metabolic Plasticity of Vascular Smooth Muscle Cells in Vascular Disease

Florian Lorenz (Greifswald)

Pravastatin but not atorvastatin influences endothelial cell mechanotaxis via APJ signaling

Uwe Raaz (Göttingen)

“AAA Shield”: A translational approach towards small abdominal aortic aneurysm (AAA) therapy

12:15 pm Invited lecture: Jan Weijers (Netherlands Heart Institute)

tba

1:15 pm Introduction to Scientists of Tomorrow (ESC-SoT): Niels Voigt (Göttingen)

1:30 pm Wrap-up, announcement of speakers for DZHK retreat

Lunch

4:00 pm Start DZHK Retreat

*external (non-DZHK) reviewer