



YOUNG  
DZHK  
RETREAT  
2023

13–15 Sept 23  
Seminaris Seehotel Potsdam



**DZHK**  
Deutsches Zentrum für  
Herz-Kreislauf-Forschung

# PROGRAM

## 13–15 SEPT 2023

Wednesday, 13 September 2023

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2:00 pm Young DZHK Postdoc Committee Meeting

3:00 pm *Registration & lite bites*

4:00 pm **Welcome**

Nadya Al-Wakeel-Marquard & Sonia Singh

4:10 pm **Rapid fire session – Excellence Programme**

Chairs: Leo Nicolai & Simone Franziska Glaser

1. Aldosterone inhibition alleviates Type 2 pulmonary hypertension by phenotypic shaping of monocyte subsets | Jana Grune (Berlin)
2. Associations of circulating chemerin and adiponectin concentrations with lipoprotein subclasses in a population-Based Study | Stephanie Zylla (Greifswald)
3. Glutamine rewiring to proline biosynthesis is indispensable for endothelial cell proliferation | Anastasia Kyselova (Rhine Main)
4. The dynamic RNA binding protein Cpeb4 regulates cardiomyocyte growth and function | Vivien Kmiotczyk (Heidelberg/Mannheim)
5. Long non-coding RNA LINC-PINT regulates abdominal aortic aneurysm disease development and progression | Francesca Fasolo (Munich)

10 min panel discussion

4:45 pm **1<sup>st</sup> oral session – Cellular Biology of the Heart**

Chairs: Sonia Singh & Laura Parma

1. Skeletal myocyte-specific knockout of Ptpn1 and Ptpn2 enhances inflammatory response in muscle and increases mortality in polymicrobial sepsis | Björn Brinshwitz (Greifswald)



2. Chronic heart failure as a sequel after severe burn injury - First insight into a novel pathological heart-skin axis | Tobias Niederegger (Heidelberg/Mannheim)
3. Establishment of a combined cell cycle sensor and CRISPR/dCas9-based transcriptional screening platform to study human cardiomyocyte cell cycle dynamics | Rosa Kim (Göttingen)
4. Muscle RING-finger proteins (MuRF) regulate PKA activity via retrograde vesicular transport of R1 $\alpha$  in skeletal muscle | Ning Li (Greifswald)
5. Mutant Phosphodiesterase 3A protects from hypertension-induced end-organ damage | Anastasiia Sholokh (Berlin)
6. Vascular senescence controls the neuro-cardiac interface in the aging heart | Julian U. G. Wagner (Rhine Main)

10 min panel discussion

5:45 pm Intensive networking event & coffee break

6:45 pm **1<sup>st</sup> poster session**

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7:45 pm Dinner

–8:30 pm

9:00 am **2<sup>nd</sup> oral session – Cardiac Diseases**

Chairs: Simone-Franziska Glaser & Laura Parma

1. Expression of human ACE2 in heart promotes COVID-19 in a mouse model | Javier Duran (Heidelberg/Mannheim)
2. Innate Immunity in lung vascular maladaptation in HFpEF | Lara Jäschke (Berlin)
3. Reducing microtubule deetyrosination improves heart function in HCM mice and human iPSC engineered heart tissues | Niels Pietsch (Hamburg/Kiel/Lübeck)
4. Inhibition of the epigenetically regulated transcription factor ZBTB16 impairs endothelial cell functions and induces a premature aging phenotype | Kathrin Anne Stolz (Rhine Main)
5. In-ovo echocardiography for application in cardiovascular research | Niklas Hegemann (Berlin)
6. LMNA is a novel CAMK2 phosphorylation target and potentially contributes to the development of RBM20 cardiomyopathy | Zakiya Ghouse (Heidelberg/Mannheim)

10 min panel discussion

10:15 am **Rapid fire session 1**

Chairs: Sonia Singh & Marcus Vollmer

1. Deep immune phenotyping of heart failure to identify molecular signatures of metabolically-Induced dysregulations in peripheral blood mononuclear cells | Maximilian Dominik Nuber (Rhine Main)
2. Lung capillary rarefaction in systemic hypoxemia in HFpEF | Ceren Koçana (Berlin)
3. DNA methylation in ABCG1 mediates an effect of lipoproteins on atherosclerotic markers | M. Kamal Nasr (Greifswald)
4. AAV-mediated all-in-one delivery of CRISPR/Cas9 endogenous gene activation tools in cardiomyocytes | Eric Schoger (Göttingen)

10 min panel discussion

5. Self-assessment of exercise capacity and objective measurements on echocardiography and cardiopulmonary exercise testing (CPET) in patients with 'asymptomatic' systolic heart failure | Hannah Bräunig (Göttingen)
6. Effects of cardiomyocyte LMCD1-down-regulation on hypertrophic stimulation by GPCR agonists | Lucia Kilian (Hamburg/Kiel/Lübeck)
7. Pathophysiological iPSC model of senile systemic amyloidosis | Phillipp Voeking (Heidelberg/Mannheim)
8. CRIP1 is associated with endothelial dysfunction and affects the formation of factors important for the nitric oxide synthesis pathway. - Olga Schweigert (Hamburg/Kiel/Lübeck)

10 min panel discussion

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11:15 am *Coffee break*

11:45 am **3<sup>rd</sup> oral session – Clinical and Epidemiological Cardiology**

Chairs: Marcus Vollmer & Nadya Al-Wakeel-Marquard

1. Automated measures of cardiac structure and function are comparable to human measures in outcome prediction of chronic heart failure | Aída Romano Martínez (Rhine Main)
2. Role of B-cell activating factor (BAFF) in dilated cardiomyopathy (DCM) – Method for sequential isolation and cultivation of blood cell subpopulations | Esther Klein (Greifswald)
3. Large-Scale Plasma Protein Profiling of Coronary, Carotid, and Peripheral Atherosclerosis | Celine Müller (Rhine Main)
4. Association of mental health with cardiovascular risk factors and vascular remodeling in the young – results from the KiGGS cohort | Julia Büschges (Berlin)
5. Joint model analysis of individual LDL-c trajectories over time and its association with all-cause mortality in the general population in Northeast Germany | Helena Heilke (Greifswald)

6. Proteomic profile of chronotropic incompetence reveals differences in the heart failure phenotypes | Noémie Bélanger (Rhine Main)

10 min panel discussion

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12:45 pm *Lunch*

1:45 pm **Rapid fire session 2**

Chairs: Djawid Hashemi & Michael Molitor

1. S100A1 protects cardiomyocytes from hypertrophic growth by controlling the de-novo synthesis of contractile and mitochondrial protein programs | Dorothea Noll (Heidelberg/Mannheim)
2. Body mass-related epigenetic and transcriptional reprogramming in heart failure phenotypes | Elif Yapici (Rhine Main)
3. Spatiotemporal Role of PKD1-NLRP3 Axis in Pathogenesis of Sepsis-induced Cardiomyopathy | Mohamed Ghait (Greifswald)
4. Transplantation of human engineered heart tissue in a chronic myocardial injury model | Constantin von Bibra (Göttingen)


10 min panel discussion

5. Effect of empagliflozin on the plasma lipidome in patients with type 2 diabetes mellitus – results from the EmDia trial | Katrin Bauer (Rhine Main)
6. Discovery and characterization of genetically determined lncRNA CH-AS1 and isoforms in coronary artery disease | Shuangyue Li (Munich)
7. An equivocal role of vitamin D3 and calcium supplementation on smooth muscle cell calcification | Wera Pustlauk (Berlin)
8. Pacemaking: Mechanisms of spontaneous beating in ventricular and atrial engineered heart tissue | Carl Schulz (Hamburg/Kiel/Lübeck)

10 min panel discussion

2:45 pm **2<sup>nd</sup> poster session & coffee**

–3:45 pm

4:00 pm Group photo  (~ 15 minutes)

4:30 pm Social event

–6:30 pm

7:00 pm Dinner

8:15 pm–9:15 pm **Keynote lecture**

Navigating your academic journey: insights and experiences on career perspectives | Monika Gladka (Amsterdam)

## Keynote Speaker



### Monika Gladka

Assistant Professor, University Medical Center Amsterdam, NL

In her current research, Monika Gladka maps the behaviour, properties and interactions

of the individual cells of the heart during cardiac injury or when repair processes are initiated.

Monika Gladka obtained her PhD in molecular cardiology in the laboratory of Professor L. de Windt at Maastricht University (The Netherlands). She is actively involved in several cardiology organisations:

- Board member of Young@Heart of the Netherlands Heart Institute.
- Advisor to the “Scientists of Tomorrow” of the European Society of Cardiology (ESC)
- Nucleus member of the ESC Cardiovascular Regenerative and Reparative Medicine (CARE) Working Group
- Member of the Council of the International Society for Heart Research (ISHR)

X/Twitter: @MonikaGladka

9:00 am **Rapid fire session 3**

Chairs: Djawid Hashemi & Tobias Reinberger

1. SHISA3 regulates vascular cell fate from the human epicardium via the TGF-beta signaling axis | Laura Priesmeier (Göttingen)
2. Effects of diet-induced obesity on heart and cardiomyocyte function are age-dependent | Patricia Owsny (Berlin)
3. Mechanosensitive ion channels in integrin mediated platelets function | Shuxia Fan (Munich)
4. Phenotype-specific EWAS of heart failure | Mykhailo Krolevets (Rhine Main)

10 min panel discussion

5. Development of Spatial and Temporal Proteomics Workflows for Pig Hearts | Jumana Jaber (Göttingen)
6. Modelling of a RYR2-associated left ventricular non compaction and sudden cardiac death overlap syndrome in hiPSC-EHTs | Julian Schlobohm (Hamburg/Kiel/Lübeck)
7. Characterizing the role of the RNA-binding protein Mbnl2 during cardiac remodeling | Maja Bencun (Heidelberg/Mannheim)
8. More than just hypertrophy – Endothelin-1 treatment models HFpEF in hiPSC derived cardiomyocytes on functional, mechanical and molecular level | Caterina Redwanz (Greifswald)

10 min panel discussion

10:30 am **4<sup>th</sup> oral session – Atherosclerosis and Vascular Biology**

Chairs: Leo Nicolai & Michael Molitor

1. Single-cell and spatially resolved transcriptome analysis reveals the lncRNA DLX6-AS1 as a novel regulator of human atherosclerosis | Jessica Pauli (Munich)

2. Global cannabinoid receptor 1 deficiency promotes atherosclerosis by regulating bone marrow hematopoiesis | George Shakir (Munich)
3. Profiling resident and circulating immune cells in human infective endocarditis | Rainer Kaiser (Munich)
4. Vessels on-a-chip: A self-assembling vascular organoid model - Jennifer Paech (Berlin)
5. Development of novel atheroprotective CD40-TRAF6 inhibitors with high translational potential | Venetia Bazioti (Munich)
6. Platelets gain inflammatory and procoagulant capabilities as they age in circulation | Afra Anjum (Munich)

10 min panel discussion

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11:30 am *Coffee break*

12:00 pm **Keynote lecture**

Gender equity in the cardiology and cardiovascular research workforce | Carolin Lerchenmüller (Heidelberg)

1:00 pm Wrap-up and announcement of session winners

1:15 pm Evaluation

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1:30 pm *End & farewell coffee*

1:50 pm *Bus departure to Potsdam central station*

## Keynote Speaker

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### Carolin Lerchenmüller

Research Group Leader and Physician Scientist at University Hospital Heidelberg

Carolin Lerchenmüller is a physician-scientist heading the Laboratory for Cardiac Remodeling and Regeneration

and working as a clinician in the Department of Cardiology at University Hospital Heidelberg. She obtained her MD degree from University of Heidelberg and conducted the research for her doctoral thesis at Thomas Jefferson University in Philadelphia, PA, USA. She completed a post-doctoral fellowship at MGH/Harvard Medical School in Boston, MA, USA.

In another line of research, Carolin Lerchenmüller investigates gender equity and women in science/medicine, as well as Gendermedicine. She is currently heading the Group Women and Family in Cardiology of the German Cardiac Society (DGK) to build a foundation for evidence-based equity and diversity efforts within the DGK.

X/Twitter: @CLerchenmueller @PG13\_DGK

# 9<sup>th</sup> Young DZHK Retreat

**Date:** 13–15 September 2023

**Venue:** Seminaris SeeHotel Potsdam  
An der Pirschheide 40  
14471 Potsdam



**WiFi hotspot:** Seminaris SeeHotel

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