

We're back!

DZHK Retreat 2022

Potsdam, Seminaris Seehotel



Young DZHK Retreat
14 – 15 Sept 22

DZHK Retreat
15 – 16 Sept 22



DZHK

DEUTSCHES ZENTRUM FÜR
HERZ-KREISLAUF-FORSCHUNG E.V.

The Board of Directors welcomes you
to the DZHK Retreat in Potsdam!

Dear colleagues and friends,

This is the first in-person DZHK Retreat for the new board of directors after a two-year break due to the pandemic. We are delighted to see you all face-to-face again.

The DZHK looks back on its ten-year anniversary. Some of you have been with us from the beginning, some we will meet for the first time. Together, we want to reflect on what has been achieved and plan for the next decade. We have scheduled extra time between sessions for exchange and brainstorming in an informal atmosphere. This is how the best ideas are born.

As always, top-notch research is at the heart of the Retreat. You will hear lectures from our partner sites and keynotes from highly valued experts. Another important thing to us is giving women an even stronger voice. We strive for gender balance at all DZHK events in the future and aspire to contribute to equal career and research advancements. We look forward to your thoughts and ideas in the session on the gender gap in cardiovascular research.

We wish everyone an inspiring and exciting event.

Stefanie Dimmeler, Steffen Massberg, Thomas Sommer

We're back!

8th Young DZHK Retreat



PROGRAM

14 – 15 SEPT 22

Wednesday, 14 September 2022

10:00 am Young DZHK PostDoc Committee Meeting

11:30 am Registration & lite bites

12:30 pm **Welcome**

Nadya Al-Wakeel-Marquard & Anne Dueck

12:40 pm **Clinician Scientist Programme – Fellow's short talks**

1. Advanced cancer as a heart failure syndrome, Markus Anker (Berlin)
2. Role of the coronary artery disease gene SVEP1 in myocardial infarction, Alexander Dutsch (Munich)
3. Adipocyte function controlled by platelets, Elias Rawish (Lübeck)
4. Invasion of CHIP-mutated hematopoietic cells into human atherosclerotic plaque, Moritz von Scheidt (Munich)

1:00 pm **1st oral session – Vascular biology**

Chairs: Simone-Franziska Glaser & Matthias Mietsch

1. Antibodies and complement are key drivers of thrombosis, Badr Kilani (Munich)
2. Tissue engineering of a three-layered artery, Constanze Lehertshuber (Munich)
3. Regnase-1 overexpression in lung endothelium decreases the severity of pulmonary hypertension in mice, Anca Remes (Hamburg/Kiel/Lübeck)
4. Aortic and carotid artery remodeling after transverse aortic constriction in mice, Sebastian Neuber (Berlin)

10 min panel discussion

1:50 pm Intensive networking event

3:00 pm **1st poster session & coffee**

Wednesday, 14 September 2022

4:30 pm **Rapid fire talks**

Chair: Maarten van den Hoogenhof

1. An endo-lysosomal Ca²⁺ store in cardiomyocytes controlled by OCaR proteins determines fatal tachyarrhythmias, Roger Ottenheim (Heidelberg/Mannheim)
2. Klotho-related dysregulated FGF23 signaling exacerbates pulmonary arterial hypertension, Paul-Lennard Perret (Berlin)
3. SARS-CoV-2 vaccination-induced immunogenicity in heart transplant recipients, Simon Thomas Küppers (Hamburg/Kiel/Lübeck)
4. Autoantibodies against the CXC-motif-hemokine receptor 3 (CXCR3) are relevant for cardiovascular morbidity and mortality in the general population, Felix Müller (Rhine-Main)

10 min panel discussion

5. Lower S1P levels are associated with higher left ventricular and atrial chamber size, wall thickness and cardiac mass in men. The Study of Health in Pomerania (SHIP), Jan Schielke (Greifswald)
6. Mendelian randomization indicates sex-specific causal effects of estradiol levels on kidney function, M. Kamal Nasr (Greifswald)
7. Impact of diet induced obesity on cardiac function and energy metabolism in aging, Patricia Owesny (Berlin)
8. Longitudinal analysis of heart failure development in a novel rat model – Additive value of a hypertensive stimulus, Arne Thiele (Berlin)

10 min panel discussion

5:30 pm *Coffee break*

Wednesday, 14 September 2022

5:45 pm **2nd oral session – Cellular biology of the heart**

Chairs: Anne Dueck & Sonia Singh

1. Leucine zipper EF-hand containing trans-membrane protein 1 deficiency alters SERCA2A levels thereby modulating mitochondrial function in neonatal rat cardiomyocytes, Anushka Deshpande (Hamburg/Kiel/Lübeck)
2. Activation of phosphodiesterase 3A for cardioprotection, Maria Ercu (Berlin)
3. Identification and functional epigenetic modulation of regulatory elements in cardiac myocytes, Patrick Laurette (Heidelberg/Mannheim)
4. PKD regulates myofibrillogenesis and intercalated disc composition, Janice Raabe (Hamburg/Kiel/Lübeck)
5. RGS5 controls pericyte homeostasis in the heart, Anita Tamiato (Rhine-Main)

10 min panel discussion

6:35 pm **Rapid fire session - Immune cells in the cardiovascular system**

Chair: Leo Nicolai

1. Neutrophils incite electrical storm after myocardial infarction, Jana Grune (Berlin)
2. JMJD3-deficiency in CD4+ T cells attenuates atherosclerosis by modulating T-cell polarization, Cecilia A. Bonfiglio (Munich)
3. Oral homoarginine supplementation ameliorates atherosclerosis by modulating T cell function, Katrin Nitz (Munich)
4. The long non-coding RNA Schlafen1nc as a regulator of cardiac resident macrophage function, Lara Althaus (Munich)

10 min panel discussion

7:30 pm *Dinner*

8:30 pm **Keynote lecture**

Molecular and machine learning-assisted steps to heal a broken heart, Leon de Windt (University of Maastricht)

Thursday, 15 September 2022

6:30 am *Young DZHK running session – bring your running gear*

8:30 am **Rapid fire talks**

Chair: Sonia Singh

1. Metformin treatment decreases blood pressure but does not ameliorate hypertensive cardiorenal damage in a double transgenic rat model, Moritz Wimmer (Berlin)
2. Glutaminase inhibitors CB-839 and CB-968 decrease cardiomyocyte hypertrophy, Andrea Matzen (Hamburg/Kiel/Lübeck)
3. Sacubitrilat prevents endothelin 1-induced cellular hypertrophy and increased microtubule detyrosination in human induced pluripotent stem cell-derived cardiomyocytes, Moritz Meyer-Jens (Hamburg/Kiel/Lübeck)
4. CRISPR/dCas9VPR-based gene reactivation rescues the loss of Krüppel-like factor 15 expression and its gene regulatory network blunting cardiomyocyte remodeling, Eric Schoger (Göttingen)

10 min panel discussion

5. Wnt signaling inhibitor SHISA3 is expressed in a common cardiac vascular progenitor pool, Laura Priesmeier (Göttingen)
6. Male sex hormone and reduced plakoglobin jointly impair atrial conduction and cardiac sodium currents, Laura Sommerfeld (Hamburg/Kiel/Lübeck)
7. Single-cell and spatially resolved transcriptome analysis reveals cellular heterogeneities and novel regulators of atherosclerotic plaque destabilization, Jessica Pauli (Munich)

10 min panel discussion

9:30 am *Coffee break*

8th Young DZHK Retreat | PROGRAM

Thursday, 15 September 2022

9:45 am **3rd oral session – E-cardiology**

Chairs: Michael Molitor & Marcus Vollmer

1. The Digital HeART (DHART) Research portal, Etienne Boileau (Heidelberg/Mannheim)
2. A hitchhiker's guide to gut microbiome analyses, Ulrike Löber (Berlin)
3. Opening the black box: Investigating deep learning models for 12-lead ECG classification, Nicolai Spicher (Göttingen)
4. Efficiency of different heartbeat detection methods by using alternative noise reduction algorithms, Jader A. Giraldo-Guzmán (Greifswald)

10 min panel discussion

10:30 am **Keynote lecture**

Image-based cardiac valve modeling – a multi-disciplinary approach for diagnosis and therapy planning, Anja Hennemuth, Berlin

11:15 pm **2nd poster session & lite bites**

12:45 pm *Wrap-up and announcement of highlight talks*

12:55 pm *Evaluation*

2:00 pm *Start 9th DZHK Retreat*

We're back!

9th DZHK Retreat



PROGRAM

15 – 16 SEPT 22

Thursday, 15 September 2022

*11:00–1:00 DZHK strategy retreat (closed session)***Opening***1:30–2:00 Welcome coffee**2:00–2:30 10 years DZHK – Looking back, looking ahead, Stefanie Dimmeler, Frankfurt***2:30–3:15 Keynote**

Chair: Gabriele Schiattarella

Clonal hematopoiesis and atherosclerosis,
Alan R. Tall, Columbia University**Highlights from the Young DZHK Retreat***3:15 PM–4:00 PM*Chairs: Nadya Al-Wakeel-Marquard &
Anne Dueck*3:15–4:00 Speakers and talks will be determined in
Potsdam**4:00 Group photo* *4:15 Coffee break***1st Session: DZHK Heart Bank***5:00 PM–6:00 PM**5:00–5:10 DZHK Heart Bank – a unique resource for
cardiovascular research, Steffen Massberg,
Munich**5:15–5:45 Panel discussion
Stefan Kääh, Benjamin Meder, Matthias
Nauck, Philipp Wild**5:45–6:00 DZHK Feasibility Explorer: Search and find
clinical data, Dagmar Krefting,
Sabine Hanss, Göttingen**6:00 End of sessions day 1**6:30 Dinner**8:30 Get together*

Friday, 16 September 2022

2nd session: Organ cross talk*8:45 AM–10:00 AM*

Chairs: Alexander Bartelt & Tanja Zeller

*8:45–8:55 Neuroimmune cardiovascular interfaces
control atherosclerosis, Sarajo Mohanta,
Munich**9:00–9:10 Understanding disease mechanisms: From
Genome to the Phenome via the
Proteome, Maik Pietzner, Berlin**9:15–9:25 Causal connections from chronic kidney
disease to cardiac fibrosis,
Elisabeth Zeisberg, Göttingen**9:30–9:40 Skeletal muscle derived Musclin protects
the heart during pathological overload,
Jörg Heineke, Mannheim**9:45–9:55 Subclinical systemic and cardiovascular
complication of SARS-CoV-2,
Raphael Twerenbold, Hamburg**10:00–11:00 Coffee break & checking out of rooms***3rd Session: The gender gap in cardiovascular research***11:00 AM–noon*

Chair: Stefanie Dimmeler

*11:00–11:10 Gender demographics in the cardiology
and cardiovascular research workforce in
Germany, Carolin Lerchenmüller,
Heidelberg**11:10–11:20 Gender aspects in the DZHK – a first
approach, Katharina Eulenburg, DZHK
head office Berlin**11:20–noon Panel discussion
(moderator: Stefanie Dimmeler)
What can we do to make it better?
Nadya Al-Wakeel-Marquard,
Carolin Lerchenmüller, Burkert Pieske,
Elisabeth Zeisberg & the audience**noon–1:30 Lunch break**1:00–1:30 Hands on: Feasibility Explorer (follow-up
Heart Bank session)*

Friday, 16 September 2022

4th session: Cardiovascular biology and atherosclerosis – Hot Topics from the partner sites

1:30 PM – 2:30 PM

Chairs: Ralf Gilsbach & Sabine Steffens

- 1:30 – 1:40 Vessels in human heart failure lessons learned from single cells analysis, Simone-Franziska Glaser, Frankfurt
- 1:45 – 1:55 Epigenetic remodeling drives activation and persistence of aortic valve fibroblasts, Claudia Crocini, Berlin
- 2:00 – 2:10 Therapeutic gene transfer into the vascular system, Oliver Müller, Kiel
- 2:15 – 2:25 Integration of molecular and clinical data into AI models, Benjamin Meder, Heidelberg

2:30 *Coffee break*

5th session: Heart failure - Hot Topics from the partner sites

2:45 PM – 4:15 PM

Chairs: Jens Fielitz & Renate Schnabel

- 2:45 – 2:55 From deciphering the critical targets of RBM20 towards tailored therapies, Maarten van den Hoogenhof, Heidelberg
- 3:00 – 3:10 Heart failure and atrial fibrillation - Chicken or egg? Samuel Sossalla, Göttingen
- 3:15 – 3:25 Migratory and anti-fibrotic programmes define the regenerative potential of human cardiac progenitors, Alessandra Moretti, Munich
- 3:30 – 3:40 The myovascular interface: What did we learn from Myovasc? Phillip Wild, Mainz

3:45 – 4:10 **Keynote**

Epigenetic mechanisms of heart failure pathogenesis, Saptarsi Haldar, University of California, San Francisco

4:20 Closing remarks

4:30 *Farewell coffee*

4:45 *Bus departures*



Leon de Windt

Professor for Molecular Cardiovascular Biology, Maastricht University



Anja Hennemuth

Professor for Digital Image Analysis and Modeling, Charité - University Medicine Berlin



Alan R. Tall, M.D.

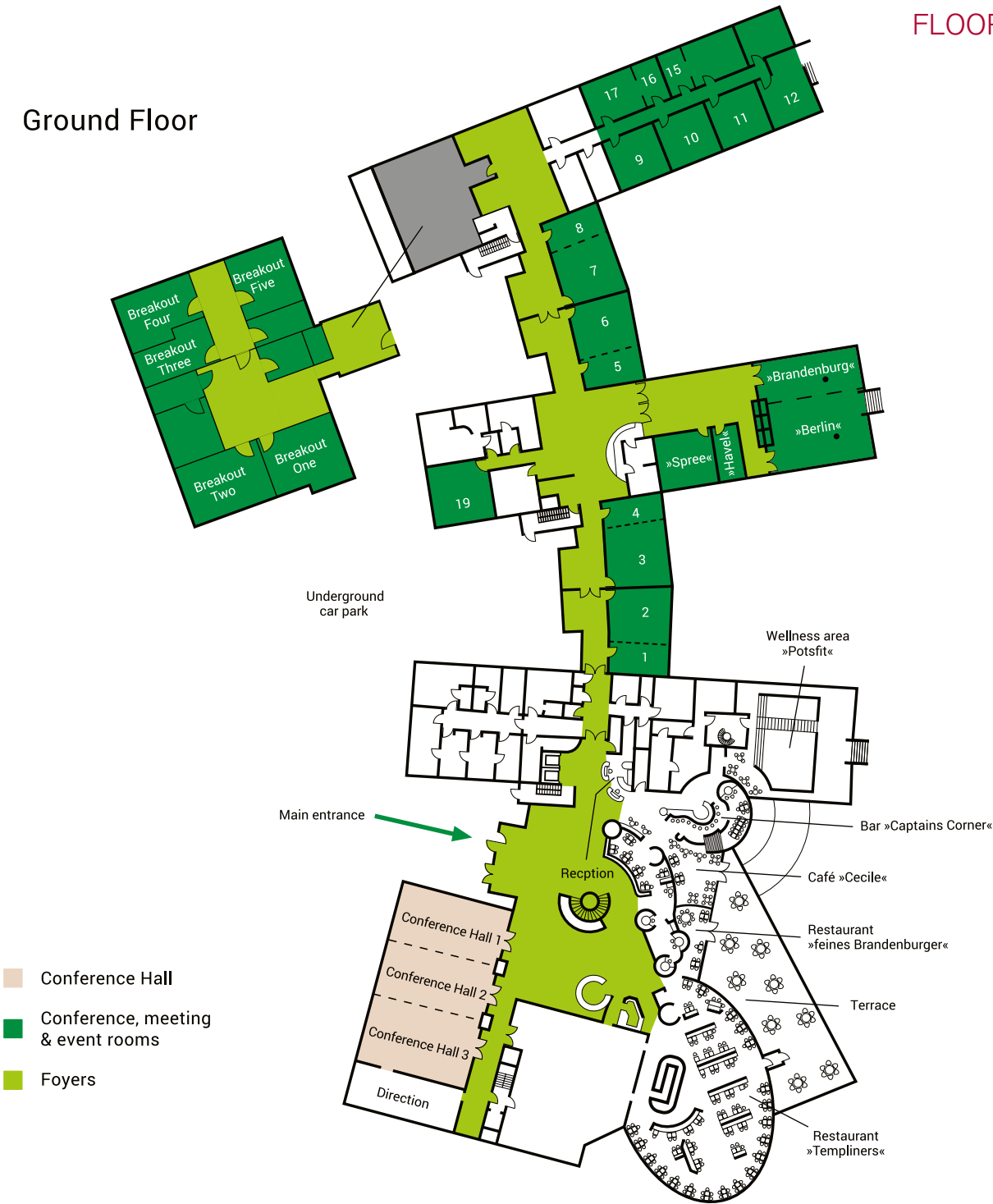
Tilden Weger Bieler Professor of Medicine, Department of Physiology and Cellular Biophysics, Columbia University Medical Center



Saptarsi Haldar, M.D.

Vice President of Research & Head of Cardiovascular & Metabolism Discovery, Amgen Inc. Visiting Professor, Gladstone Institute & UCSF

Ground Floor



8th Young DZHK Retreat & 9th DZHK Retreat

Date: 14–16 September 2022

Venue: Seminaris SeeHotel Potsdam
An der Pirschheide 40
14471 Potsdam



We are streaming this year's retreat.
Access the livestream here:

<https://retreat2022.dzhk.de/livestream/>

COVID-19: Although no restrictive measures are currently in place for events, your health and safety is our top priority. Therefore, please consider the following:

Feel free to wear a mask whenever you feel it is necessary. In addition, we encourage everyone to test themselves before traveling to Potsdam. Please act responsibly: If you feel ill or have symptoms suggestive of COVID-19, please stay home!

WiFi hotspot: ZyXEL

Contact: Annett Grützmacher

Phone +49 (0) 30 3465 529-06
email: retreat@dzhk.de
<https://retreat2022.dzhk.de/>

Don't forget to tag us:

 @Young DZHK
@dzhk_germany