



## CPI Retreat June 1-2 2023 - Max-Planck-Institute for Heart and Lung Research, Parkstr. 1, Bad Nauheim

### June 2, 2023

**9:30 - 10:00** Keynote lecture - **Anna Hemnes (Member CPI Scientific Advisory Board); Chair: Werner Seeger**  
Precision Medicine in Pulmonary Vascular Disease

**10:00 - 11:30** **Microenvironmental Cues, Chair: Amparo Acker-Palmer & Simone Glaser** each talk 22 min incl. disc  
**Jasmin Hefendehl:** Microglia drive accelerated amyloid plaque accumulation in peri-infarct tissue after stroke  
**Haaglim Cho:** The role of endothelial adrenomedullin signaling in insulin resistance in type-2 diabetes  
**Marta Parrilla:** Vascular Wnt5A orchestrates cerebellar neuronal architecture and circuitry  
**Flavia Rezende:** The  $\omega$ -Amidase/NIT2 is a novel redox-sensitive key regulator of glutamine metabolism in endothelial cells

### 11:30 - 11:45 Coffee break

**11:45 - 12:15** Keynote Lecture - **Sylvia Knapp (Member CPI Scientific Advisory Board); Chair: Susanne Herold**  
Determinants of pulmonary immune homeostasis

**12:15 - 12:30** **Poster Teaser Session 2** (1 min. each)

**Adnot Group:** Chronic intermittent hypoxia leads to disrupted clock gene expression in mouse lung tissues: potential implications for lung cell senescence

**Paolo Panza:** The lung microvasculature promotes Alveolar Type 2 cell differentiation via secreted SPARCL1

**Julian Wagner:** Vascular senescence controls the neuro-cardiac interface in the aging heart

**Wesley Abplanalp:** Hematopoietic mosaic loss of Y chromosome in circulating cells of patients with heart failure associates with profibrotic signaling signatures from single cell RNA-sequencing

**Spyridoula Barboutsis:** 'Do not eat me' LILRB4 signaling as a novel macrophage immunotherapy in lung cancer

**Christina Malainou:** Tumor necrosis factor superfamily member 14 (Tnfsf14) drives apoptosis of alveolar macrophages upon influenza A virus infection enabling the establishment of secondary pneumococcal pneumonia.

**Jing Jin:** Endothelial FLRT2 regulates cerebellar neurogenesis

**Vidya Lakshmi:** Mitochondrial T cell reprogramming in virus-induced COPD exacerbation and emphysema progression

**Jaco Selle:** Perinatal obesity induces premature alveolar aging by ATII cell depletion via IL-6-driven transcriptional and genome instability

**Aysegül Demiral:** Impairment of mucociliary clearance after experimental stroke

**Duc Minh Pham:** Generation of engineered cardiac ventricular tissue enhances capability of resolving cardiovascular diseases

### 12:30 - 14:00 Postersession & Lunch

**14:00 - 15:30** **Macroenvironmental Cues & Interorgan Communication, Chair: Natascha Sommer & Sebastian Cremer**

14:00-14:25 **Timotheus Speer:** Crosstalk between heart and kidney

14:25-14:50 **Alexander Westermann:** An RNA-centric view on host-pathogen-microbiota interactins in gut and lung

14:50-15:15 **Khodr Tello:** Right heart, left heart and the brain

15:15-15:30 **Julia Schäffer:** Pulmonary inflammation and the brain

### 15:30 - 15:45 Coffee break

**15:45-16:45** **New topics, Chair: Stefanie Dimmeler**

each talk 15 min incl. Disc

**Michael Kracht:** Microproteins and translational heterogeneity in cardiovascular disease

**Sven Reischauer+Andreas Weigert:** Molecular programs of resolution and regeneration in the cardiopulmonary system

**Iris Bibli+Miguel Alcazar:** Metabolic control of cardiopulmonary resilience and premature aging

**Siavash Mansouri+Lukas Tombor:** Trained immunity, Epigenetics and Cardiopulmonary diseases

**16:45 - 17:15** Keynote lecture - **Scott Budinger (Member CPI Scientific Advisory Board); Chair: Susanne Herold**  
Lessons from the pandemic: Distinctive features of SARS-CoV-2 pneumonia

**17:15** **Wrap-up & Poster Awards**

**17:30** **End of retreat**