



CVRC

CardioVascular Research Cluster

BERN

Annual Meeting 2025

Tuesday, 21 January 2025

Online presentations + On-site posters & Apéro,
Conference Rooms U1_006–007 and Foyer, Anna-
Seiler-Haus (ASH)

- Acquired Cardiac and Vascular Diseases
- Genetic Cardiovascular Diseases, Development & Regeneration
- Cardiovascular Technologies & Imaging
- Roundtable: Sex- and Gender-specific Cardiovascular Medicine

Meeting Programme

Organization Committee

Dr. Maria Arnold, Scientific and Administrative Manager of the Cardiovascular Research Cluster Bern, Inselspital, Bern University Hospital and University of Bern

Dr. med. Sarah Bernhard, Division of Angiology, Swiss Cardiovascular Centre, Inselspital, Bern University Hospital

Daniela Castillo Robles, Administrative Assistant Cardiovascular Research Cluster Bern, Inselspital, Bern University Hospital and University of Bern

Prof. Dr. Yvonne Döring, Division of Angiology, Swiss Cardiovascular Centre, Inselspital, Bern University Hospital and Department for BioMedical Research, University of Bern

Prof. Dr. Sarah Longnus, Department of Cardiac Surgery, Inselspital, Bern University Hospital and Department for BioMedical Research, University of Bern

Prof. Dr. med. Katja Odening, Translational Cardiology, Department of Cardiology, Inselspital, Bern University Hospital and Department of Physiology, University of Bern

Ass. Prof. Dr. Marco Osterwalder, Department for BioMedical Research, University of Bern and Department of Cardiology, Inselspital, Bern University Hospital

PD Dr. med. Emrush Rexhaj, Department of Cardiology, Inselspital, Bern University Hospital

Meeting Programme Overview

10:00-10:10	Opening / Welcome (online, Zoom)
10:10-11:40	Session 1: Acquired Cardiac and Vascular Diseases
11:40-12:25	Lunch break
12:25-13:45	Session 2: Genetic Cardiovascular Diseases, Development & Regeneration
13:45-13:50	Break
13:50-15:10	Session 3: Cardiovascular Technologies & Imaging
15:10-15:40	Break + Poster hanging (end online part, relocate to Anna-Seiler-Haus, Conference Rooms U1_006-007 and Foyer)
15:40-16:20	Session 4: Roundtable “Sex- and Gender-specific Cardiovascular Medicine”
16:20-16:30	Break
16:30-18:45	Poster presentations and get-together Apéro
18:45-19:00	Prize announcements and Closing

Detailed Scientific Programme

10:00-10:10 Opening / Welcome (online, Zoom)

Session 1: Acquired Cardiac and Vascular Diseases

Chairs:

Sarah Longnus, Department of Cardiac Surgery and Department for BioMedical Research

Stephan Windecker, Department of Cardiology

10:10

Title tba

Yvonne Döring, Department of Angiology and Department for BioMedical Research

10:30

Title tba

Laurent Roten, Department of Cardiology

10:50-11:40

Flash presentations from abstracts

- Hyperoxia and myocardial ischaemia during non-cardiac surgery: A combined analysis of biomarkers and echocardiography in high-risk patients
Manuel Carlomagno, Department of Anaesthesiology and Pain Medicine
- Transapical transcatheter mitral valve implantation after failed transcatheter edge-to-edge repair: A multicenter experience
Daryoush Samim, Department of Cardiology
- Sex-specific alterations in cardiac metabolic gene expression as a result of ischemia-induced cardiac injury in a rat model of donation after circulatory death (DCD)
Anja Helmer, Department of Cardiac Surgery and Department for BioMedical Research

- Impact of early recurrences on long term outcomes in patients after cryoballoon ablation - insights from the COMPARE-CRYO study using continuous rhythm monitoring
Salik ur Rehman Iqbal, Department of Cardiology
- The role of endothelial cell-expressed IL-1Ra in fungal infection
Celtia Sánchez Fernández, Institute of Tissue Medicine and Pathology
- Oxygen transport during microstrokes - A mixed dimensional modeling approach for realistic microvascular networks
Gaia Stievano, ARTORG Center for Biomedical Engineering Research
- DDR1 regulates femoral arterial calcification in lower extremity artery disease through NF-kappa B induced BMP2 upregulation
Manovriti Thakur, Division of Angiology, Swiss Cardiovascular Center, and Department for BioMedical Research
- The immunological effect of multigene modifications in transgenic porcine endothelial cells under inflammatory xenotransplantation conditions
Cedric Zimmermann, Department for BioMedical Research

11:40-12:25 Lunch Break

Session 2: Genetic Cardiovascular Diseases, Development & Regeneration

Chairs:

Sarah Bernhard, Department of Angiology

Nina Ullrich, Department of Physiology

12:25 Title tba
Camilla Schinner, Department of Cardiology

12:45 Title tba
Florian Schönhoff, Department of Cardiac Surgery

13:05-13:45 Flash presentations from abstracts

- Stiffness-driven electrical remodeling: Exploring mechanosensitive dynamics in hiPSC-CM
Masaba Sayor Baroi, Department of Physiology
- Leveraging spatiotemporal transcriptomics to identify early drivers of Arrhythmogenic Cardiomyopathy
Robin Colpaert, Institute of Anatomy and Experimental Morphology, Institute of Functional and Applied Anatomy, Hamburg
- Deciphering role of Ehd2b in heart development, function and regeneration
Ayisha Marwa Mangattu Parambil, Institute of Anatomy
- Pulmonary artery pressure in subjects having suffered from high altitude pulmonary edema and their offspring
Nina Perren, Departments of Cardiology and BioMedical Research
- Evaluating the antiarrhythmic potential of Bekm-1, a peptide blocker of hERG in the context of short QT syndrome type 1
Muhammad Naveed, Department of Physiology
- Functional architecture of cardiac TF regulatory landscapes in control of mammalian heart development
Virginia Roland, Department for BioMedical Research

13:45-13:50 Break

Session 3: Cardiovascular Technologies & Imaging

Chair:

Jessica Bastiaansen, Department of Diagnostic, Interventional and Pediatric Radiology & Translational Imaging Center, sitem-insel

Christoph Gräni, Department of Cardiology

- 13:50 **Title tba**
Jan Friess, Department of Anaesthesiology and Pain Medicine
- 14:10 **Title tba**
Marco Osterwalder, Department for BioMedical Research and
Department of Cardiology
- 14:30-15:10 **Flash presentations from abstracts**
- Artificial intelligence-based fully automated cardiac magnetic resonance image quantification
Pooya Mohammadi Kazaj, Department of Cardiology
 - Flow culture: An in vitro model to investigate the role of endothelial cells under in vivo-like flow conditions
Neda Salimi, Department for BioMedical Research
 - Quantifying the effects of general anaesthesia on intracardiac haemodynamics using 4D flow cardiovascular magnetic resonance
Jacopo Soldini, Department of Anaesthesiology and Pain Medicine
 - Deep learning Automated IntraVascular UltraSound image processing and quantification in Coronary Artery Anomalies: The AIVUS-CAA software
Anselm Stark, Department of Cardiology
 - FDA-approved AI-enabled medical devices for clinical use in cardiology and neurology
Daniel Windecker, Department of Diagnostic and Interventional Neuroradiology
 - In-vitro renal artery stenting using a steerable guide wire navigated by a mobile electromagnetic field
Christian Zielasek, Department of Vascular Surgery

15:10-15:40

+ Poster hanging (end online part, go to ASH)

Session 4: Roundtable “Sex- and Gender-specific Cardiovascular Medicine”

Anna-Seiler-Haus, Conference Rooms U1_006-007

Chairs:

Emrush Rexhaj, Department of Cardiology

Katja Odening, Department of Physiology and Department of Cardiology

15:40-16:20 **Sex- and Gender-specific Cardiovascular Medicine**

Panelists:

- Catherine Gebhard, Department of Cardiology
- Marija Glisic, Institute of Social and Preventive Medicine
- Ivana Jaric, Institute of Laboratory Animal Science, University of Zurich
- Luigi Raio, Department of Obstetrics and Gynecology

16:20-16:30 Break

16:30-18:45 Poster presentations (Anna-Seiler-Haus, Conference Rooms U1_006-007 and Foyer) and get-together Apéro

18:45-19:00 Prize announcements
Closing
