



SWISS

CARDIOVASCULAR
STUDENT RETREAT



Ignite Your Passion at the Cardiovascular Student Retreat!

Date: 29. - 30.11.2024

Location: Monte Verità Conference Center, Ascona, CH

Program:



Keynote Lecture
by Prof. Manuel Mayr



Student
Presentations



Poster
Sessions

A common initiative of several Swiss universities and doctoral programs that brings together PhD/MD-PhD students in the field of cardiovascular research to foster exchange, networking and collaboration

Foreword

Dear Retreat Participants,

It is our great pleasure to welcome you to the first Swiss Cardiovascular PhD Student Retreat in Ascona 2024!

The Swiss Cardiovascular PhD Student Retreat is a common initiative of several Swiss universities and doctoral programs aiming at bringing together junior researchers working on multiple projects in the field of cardiovascular research to foster exchanges and symbioses.

We are looking forward to a stimulating and motivating meeting.

Sincerely,

Organization Committee of the Swiss Cardiovascular PhD Student Retreat 2024

- Dr. Maria Arnold, PhD Specialization Program in Cardiovascular Research, University of Bern
- Prof. Lucio Barile, Cardiovascular / Human Cardiovascular Sciences PhD Program, Università della Svizzera italiana
- Ms. Daniela Castillo, PhD Specialization Program in Cardiovascular Research, University of Bern
- Dr. Sarah Constantino, Center for Translational and Experimental Cardiology (CTEC), Department of Cardiology, University of Zurich
- Mr. Boris Krznar, Center for Translational and Experimental Cardiology (CTEC), Department of Cardiology, University of Zurich
- Prof. Sarah Longnus, PhD Specialization Program in Cardiovascular Research, University of Bern
- Prof. Dr. med. Katja Odening, PhD Specialization Program in Cardiovascular Research, University of Bern
- Prof. Dr. med. Francesco Paneni, Center for Translational and Experimental Cardiology (CTEC), Department of Cardiology, University of Zurich
- Dr. Ulrike Toepel, Cardiovascular and metabolism PhD program of the Faculty of Biology and Medicine (FBM) and the University Hospital (CHUV), University of Lausanne



Acknowledgments

Our appreciation for the Organizing universities / doctoral programs:

- University of Bern: PhD Specialization Program in Cardiovascular Research
- University of Lausanne: Cardiovascular and metabolism PhD program of the Faculty of Biology and Medicine (FBM) and the University Hospital (CHUV)
- Università della Svizzera italiana: Cardiovascular / Human Cardiovascular Sciences PhD Program
- University of Zurich: Center for Translational and Experimental Cardiology (CTEC)

We would like to express our gratitude to our sponsors for their generous support:

- FUJIFILM VisualSonics B.V.
- Novogene
- Olink, Part of Thermo Fischer Scientific
- University of Bern, for their financial support of the Cardiovascular Research PhD Program in Bern (Förderprogramm “Doktoratsprogramme/Graduate Schools Universität Bern 2021-2024”)

Program Overview

Day 1 (29.11.2024)

13:00	Welcome address
13:05-14:35	Session 1: Student Flash Presentations Chairs: Azucena Rendon-Angel (Università della Svizzera Italiana), Anaïs Yerly (University of Bern)
14:35-15:00	Coffee Break
15:00-16:00	Keynote Lecture: “Opportunities and Challenges in Clinical Proteomics: From Tissue Discovery to Plasma Validation” Prof. Manuel Mayr, Imperial College, London, UK Chair: Prof. Francesco Paneni (University of Zurich)
16:00-16:30	Coffee Break
16:30-18:00	Session 2: Student Flash Presentations Chairs: Yiqi Gong (University of Zurich), Greta Scherler (University of Lausanne)
18:00-18:15	Sponsor presentations: <ul style="list-style-type: none">• Magdalena Steiner (FUJIFILM VisualSonics)• Lutz Priebe (Olink)
19:00	Dinner followed by Pub Quiz and Live Music

Day 2 (30.11.2024)

08:00-09:30	Session 3: Student Flash Presentations Chairs: Nicolò Alerni (University of Bern), Thamonwan Diteepeng (University of Zurich)
09:30-13:30	Coffee break Poster Session <ul style="list-style-type: none">• 10:00-11:00: Poster Session 1 (odd numbers)• 11:00-12:00: Poster Session 2 (even numbers) followed by Lunch Remarks, Awards and Closing

Detailed Order of Student Flash Presentations

5 min of oral presentation + 2 min of discussion

Session 1

Addoriso Andrea, University of Lausanne

- 1 Defining the role of the A-kinase anchoring protein 2 as a regulator of TGF- β secretion-induced cardiac fibrosis

Alerni Nicolò, University of Bern

- 2 Electro-mechanical and mechano-electrical interactions in LQT2, WT and SQT1 rabbits

Atzemian Natalia, University of Zurich

- 3 Apabetalone protects against heart failure with preserved ejection fraction by suppressing myocardial inflammation

Barbieri Miriam, University of Bern

- 4 SGK1-inhibition as a novel therapeutic approach in Long QT syndromes

Beer Georgia, University of Bern

- 5 Ex-vivo heart perfusion: A new approach to therapies and biomarkers in cardiac transplantation

Clavier Alexia, University of Bern

- 6 Cardiac graft quality with donation after circulatory death: Proteomics and sex difference investigations

Di Venanzio Ludovica, University of Zurich

- 7 Therapeutic modulation of autophagy in heart failure with preserved ejection fraction: Role of BET protein inhibitors

Diteepeng Thamonwan, University of Zurich

- 8 Protein misfolding: an additional player in the stroke-heart syndrome

Gadiri Mehdi Ali, École Polytechnique Fédérale de Lausanne

- 9 Microengineered devices with multiple sensors for cardiovascular interventions

Gong Yiqi, University of Zurich

- 10 A microRNA-based therapy to stimulate cardiomyocyte proliferation and cardiac repair processes

Guerricchio Laura, Università della Svizzera Italiana

- 11 Extracellular vesicles from II trimester human amniotic fluid as paracrine conveyors counteracting doxorubicin-induced cardiotoxicity

Session 2

Helmer Anja, University of Bern

- 12 Sex-specific alterations in cardiac metabolic gene expression, as a result of ischemia-induced cardiac injury, represent sex-specific targets for reperfusion therapy in heart transplantation after circulatory death

Landi Antonio, Università della Svizzera Italiana

- 13 Abbreviated or standard antiplatelet therapy after PCI in HBR patients with chronic kidney disease: a pre-specified analysis from the MASTER DAPT trial

Lembke Carla, University of Bern

- 14 Metabolic and epigenetic basis of heart regeneration in zebrafish

Masciovecchio Valeria, University of Zurich

- 15 Epigenetic regulation of endothelial autophagy in obesity-induced pulmonary hypertension

Maung Ko Ko, University of Lausanne

- 16 Predictive capacity of circulatory lipidome for (improved) cardiometabolic risk

Mongelli Alessia, University of Zurich

- 17 lncRNA PANDA in diabetic vascular disease

Ottersberg Rahel, University of Bern

- 18 Ex-vivo heart perfusion enables innovations in cardiac transplantation and precision therapies

Panda Lipsa Rani, University of Bern

- 19 Electrophysiological characterization of voltage gated sodium ion channels

Parodi Chiara, University of Bern

- 20 Deciphering atrial fibrillation substrate using a Göttingen minipig model of heart failure with preserved ejection fraction

Reiser Aurelia, University of Zurich

- 21 Iron homeostasis under normoxia and hypoxia in the context of pulmonary hypertension

Rendon-Angel Azucena, Università della Svizzera Italiana

- 22 Transcriptomic signature of stress induced premature senescence in cardiomyocytes
-

Session 3

-
- 23 Sanches Edaes Felipe, University of Bern
Targeting cardiac myofibroblasts using CAR T to treat atrial fibrillation
-
- 24 **Scherler Greta, University of Lausanne**
AKAP2 is a novel regulator of collagen secretion in cardiac myofibroblasts
-
- 25 Schulz Julia, University of Bern
Examining ChemR23 orchestrated cross talk of peri-vascular adipose tissue and arterial vasculature in atherosclerosis
-
- 26 **Senesi Giorgia, Università della Svizzera Italiana**
Harnessing artificial circular RNA sponges to restore functionality in senescent cardiomyocytes
-
- 27 Simons Clarisse, University of Lausanne
Sex and gender influence on the development of thoracic aortic aneurysm in Marfan syndrome
-
- 28 **Teoldi Lisa, University of Lausanne**
Investigation of the role of AKAP2 protein in heart failure
-
- 29 Treviño Montemayor Mariana, University of Lausanne
Mental health, lifestyle, and metabolic health in the perinatal period
-
- 30 **Vashanthakumar Varjany, University of Bern**
Biophysical characterization of novel LQTS causing variants in KCNQ1 and KCNH2 (and mechanism-based therapies) in cardioid models
-
- 31 Wang Yu-Jen, University of Zurich
Interleukin-8 levels in patients with acute myocardial infarction are related to impaired renal function and predict 1-year reinfarction and mortality - A case-control study from the SPUM-ACS consortium
-
- 32 **Xia Junyan, University of Zurich**
Metabolic flexibility in heart failure with preserved ejection fraction
-
- 33 Yerly Anaïs, University of Bern
Unravelling the role of B cell-ACKR3 in atherosclerosis
-
- 34 **Zhang Zihao, University of Zurich**
Proteomic signatures for early diagnosis and risk predication in arrhythmogenic cardiomyopathy
-