

5th LS² Cardiovascular Biology Meeting Program

Tuesday 4th July 2023

- 09:00-10:00** **Registration and Welcome Coffee**
- 10:00-10:05** **Welcome note from the President of the LS² Intersection Cardiovascular Biology:**
Elena Osto (University of Zurich)
- Cardiac physiology**
- Session 1:** Chairs: Sarah Longnus (Uni Bern) and Giovanni G. Camici (University of Zurich)
- 10:05-10:50** Keynote 1: **Rosalinda Madonna (University of Pisa).**
Heart failure and pulmonary hypertension: from molecular mechanisms to therapeutics
- 10:50-11:05** **Small break**
- Session 2:** Chairs: Jan Kucera (University of Bern) and Christoph Montessuit (University of Geneva)
- 11:05-12:20** **Talks selected from abstracts (6min +2min Q&A) = 9 talks**
- Shaista Ahmed** (University of Fribourg)
The Synergistic Effect of Bone Marrow MSCs and Macrophages with Fibrin on Cardiac Cell Proliferation
- Alexia Clavier** (University of Bern)
Proteins released during ex-vivo heart perfusion are promising biomarkers for cardiac graft quality: Studies in an isolated rat heart model of DCD
- Lucilla Giammarino** (University of Bern)
Do sex and sex hormones impact on atrial electrical features?
- Ievgeniia Kocherova** (University of Zurich)
Dysferlin as a potential anti-fibrotic protein involved in TGF- β /FOSL-2/autophagy crosstalking in cardiac fibroblasts under immunofibrotic conditions
- Saranda Nimani** (University of Bern)
In vivo KCNH2-suppression-replacement gene therapy in short QT syndrome type 1 rabbit models
- Myriem Otmani Idrissi** (University of Fribourg)
Distinct Cardiac Remodeling and Renin-Angiotensin System in Female Rats Following Swimming Training
- Azucena Rendon-Angel** (Università della Svizzera italiana)
Transcriptomic signature of stress-induced premature senescence (SIPS) in cardiomyocytes

Virginia Roland (Department for Biomedical Research, Bern)
Functional architecture of cardiac transcription factor regulatory landscapes in control of mammalian heart development.

Ettore Vanni (University of Geneva) – *presented by Christophe Montessuit (University of Geneva)*
Free fatty acid-derived lysine acetylation impairs metabolic stress-stimulated glucose uptake in cardiomyocytes

12:20-13:45

Lunch break, networking

13:25-13.45

Cardiovascular working group: General Assembly

Session 3:

Chairs: Giovanni G. Camici and Marie-Noelle Giraud (University of Fribourg)

13:45–14:45

Talks selected from abstracts: (6min +2min Q&A) = 7 talks

Nicolò Alerni (University of Bern)
Electrical and mechanical properties and their interactions in transgenic long-QT and short-QT rabbits

Miriam Barbieri (University of Bern)
SGK1 inhibition normalizes action potential duration in transgenic LQT2 rabbits but has no effect on APD in LQT1, indicating a novel gene-specific therapeutic approach in LQTS

Melanie Generali (University of Zurich)
Next-generation cell-based therapy for myocardial infarction

Selianne Graf (University of Bern)
Circulating Factors, Measured Both in the Donor and During Ex-Vivo Heart Perfusion, Correlate with Subsequent Heart Recovery in a Pig Model of DCD

Sofia Kakava (University of Zurich)
Apolipoprotein E defines high-density lipoprotein trafficking in brain endothelial cells

Stefano Ministrini (University of Zurich)
Endothelial junctional protein associated with coronary artery disease (JCAD) as a potential therapeutic target for acute ischemic stroke

Valery Visser (University of Zurich)
An in-silico study on the effect of leaflet design on mechano-mediated remodeling in tissue engineered semilunar heart valves

Vascular physiology

Session 4:

Chair: Elena Osto (University of Zurich) and Marie-Luce Pierrat (University of Geneva)

14:45–15:30

Keynote 2: **Sabine Steffens (LMU- Munchen, Germany).**
Role of neuroimmune axis in perivascular inflammation

15.30-16:00

Small break

Session 5:

Chairs: **Nathalie Rosenblatt and Andrea Banfi** (University of Lausanne and University of Basel)

16:00-17:15

Talks selected from abstracts (6min +2min Q&A) = 9 talks

Meret Allemann (University of Zurich)

The Gut-Microbiota-Derived Phenylacetylglutamine (PAG) Increases Reactive Oxygen Species Formation and Apoptosis in Endothelial Cells

Pascal Azar (University of Geneva)

Smooth muscle cell-specific deletion of S100A4 reduces necrotic core size and inflammation in murine atherosclerotic lesions

Michael Bachmann (University of Geneva)

Deciphering a new TGF β variant in connective tissue disorders to treat aneurysm

Mary Gonzalez (University of Zurich)

Non-conventional parameters underlying the beneficial cardio metabolic effects after bariatric surgery

Pratintip Lee (University of Zurich)

The n3 Alpha-Linolenic Acid: A Novel Senolytic Agent in Endothelial Cells

Alessandro Mengozzi (University of Zurich)

Therapeutic modulation of epigenetic readers rescues obesity-induced vascular dysfunction: role of endothelium and perivascular adipose tissue

Kapka Miteva (University of Geneva)

Ischemic Stroke is Associated with Reduced Sclerostin Expression in Human Atherosclerotic Plaques

Yustina Maria Puspitasari (University of Zurich)

Arterial thrombosis in Hutchinson Gilford Progeria Syndrome

Valentina Zollet (University of Bern)

Elevated citrullinated fibrinogen delays fibrinolysis in a porcine model of limb ischemia reperfusion injury, contributing to the development of thrombo-inflammatory events

17:15-17:30

Small break for jury evaluation

17:30 – 17:40

Closing works & Award Ceremony

Elena Osto & Marie Luce Bochaton-Piallat

17:40 – 19:00

Apero