

23-24 MAY

FRI-SAT

LUCERNE

SWITZERLAND



Spring Meeting 2025



FUNDAMENTAL

RESEARCH & PIONEERING

SCIENCE





# WORD OF WELCOME

## We would like to welcome you to Lucerne to the 2025 BVS Spring Meeting!

The now traditional international meeting took place last year in Berlin, where we met for two days of great presentations on cutting-edge research in vascular biology, genetics, state-of-the-art imaging technologies, advances in clinical research and much more.

Both established and emerging researchers shared their research findings and visions with us, we gained new insights during exciting discussions, and the best presentations were honoured with well-deserved awards.

This year, we will continue to focus on basic vascular research in all its aspects and its bench-to-bed translation. Furthermore, insights into the sciences of artificial intelligence, health data, health sciences and health care research and their potential gain in knowledge for basic research will bring us future research perspectives.

True to tradition, the conference remains dedicated to knowledge exchange, which will take place on Friday and Saturday with keynote lectures and talks, and the traditional Friday evening dinner will allow for networking in a relaxed atmosphere.

We hope you will enjoy the conference and your stay in Lucerne.

On behalf of the organising committee,



**Prof. Dr. med. Maani Hakimi**  
Head of Department  
Department of Vascular Surgery  
LUKS | Lucerne Cantonal Hospital



# BASIC VASCULAR SCIENCE

**Prof. Dr. med. Thomas Schmitz-Rixen**

German Society of Surgery

**Dr. Margreet R. de Vries**

Leiden University Medical Center

**Prof. Janice Tsui, FRCS**

Royal Free London

**Prof. Dr. med. Maani Hakimi**

LUKS | Lucerne Cantonal Hospital

**Prof. George Hamilton, FRCS**

Royal Free London

**Mr. Simon Parvin, FRCS**

Former Secretary General, ESVS

**Prof. Dr. Paul H.A. Quax**

Leiden University Medical Center

**Dr. med. Juan Antonio Celi de la Torre**

LUKS | Lucerne Cantonal Hospital

## EVENT ORGANISERS



**Prof. Dr. med. Maani Hakimi**

Head of Department

Department of Vascular Surgery

LUKS | Lucerne Cantonal Hospital



**Dr. med. Juan Antonio Celi de la Torre**

Research Intern

Department of Vascular Surgery

LUKS | Lucerne Cantonal Hospital



**Prof. Dr. med. Reto Babst**

Vice dean of Faculty of Health

Sciences and Medicine

Medical Director Joint Medical Master

University of Lucerne & University of  
Zürich



**Prof. Dr. Stefan Boes**

Dean

Faculty of Health Sciences  
and Medicine, University of Lucerne

# SPONSORS

Sponsorship is crucial for ensuring the success and sustainability of our BVS events! We are grateful to the following sponsors for their support, as it is essential for making the event possible. Sponsors provide the necessary funding, resources, and expertise that enable our high-quality sessions, secure renowned speakers, and reach a wider audience. Moreover, sponsors also help foster a partnership between academia and industry, creating valuable networking opportunities for attendees. Without their backing, the present academic event simply wouldn't be feasible.



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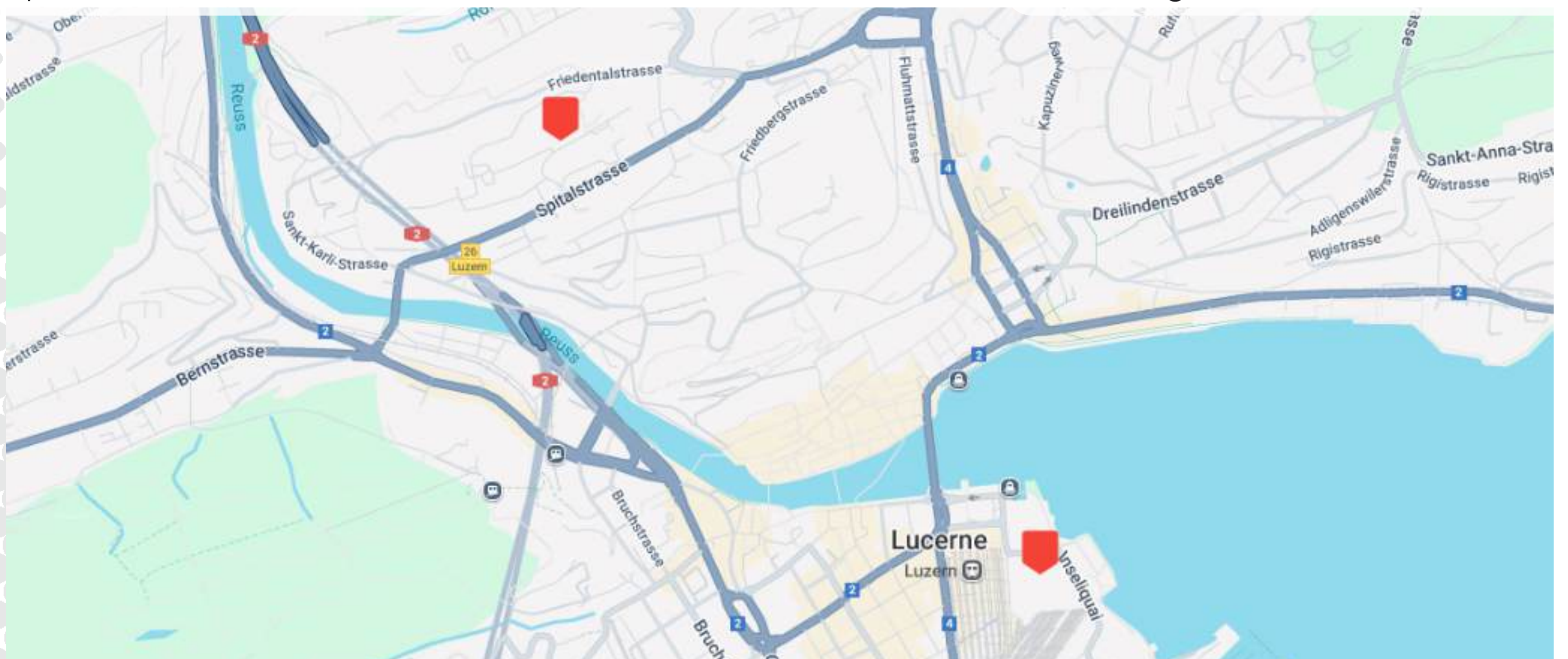
# HOSTS



The **Lucerne Cantonal Hospital**, commonly referred to by its acronym LUKS, is situated in the geographically central region of Switzerland and offers an extensive array of diagnostic and therapeutic services that cater to a diverse patient population. As the most expansive medical facility in Central Switzerland, it encompasses a comprehensive network of more than one hundred specialised clinics, departments, and centers, each dedicated to providing high-quality healthcare and advancing medical knowledge through innovative practices and research initiatives.

Through its function as a **University Teaching and Research Hospital**, it also serves as a distinguished institution of higher learning that focuses on both teaching and research within the medical field.

Spitalstrasse, 6004 Luzern



## UNIVERSITÄT LUZERN

Established in February 2023, the **Faculty of Health Sciences and Medicine** at the University of Lucerne quickly presented itself as a key player in tackling modern health challenges. The faculty evolved from the Department of Health Sciences and Medicine, created in 2019, drawing on the foundational principles of the earlier Department of Health Sciences and Health Policy.

Partnering for the BVS25' is the **Center for Clinical Research**, an Associated Institute of the University of Lucerne, based at the Cantonal Hospital of Lucerne. The mission of the CCR is to support and develop high-quality clinical research for the LUKS and for the Faculty of Health Sciences and Medicine.

Frohburgstrasse 3, 6002 Luzern





# WORKSHOPS

FRI **23 MAY**

**1A**

IN PARTNERSHIP  
W/  
FUJIFILM  
VISUALSONICS

**PRECLINICAL ULTRASOUND FOR  
VASCULAR BIOLOGY RESEARCH - ULTRA-  
HIGH FREQUENCY (UHF) | 4.OG, RIGI 4.04**  
**Workshop Leader: Dr. Margreet R. de Vries (LUMC)**

**1B**

IN PARTNERSHIP W/  
MEDTRONIC

**ENDOVASCULAR SURGERY: PROSTHESIS  
SIZING AND SIMULATION OF PROCEDURE |  
1.OG, SKILLS LAB**

**Workshop Leader: Dr. med. Robert Seelos (LUKS)**

Simulators of endovascular procedures offer a safe and controlled environment for learners to practice and hone their skills. Participants can gain hands-on experience in performing interventions, such as catheter placements and stentgraft deployments, all while receiving immediate feedback on their techniques, fostering collaboration among peers. This learning environment enhances communication skills and teamwork, which are essential in the multidisciplinary field of vascular medicine.

**2**

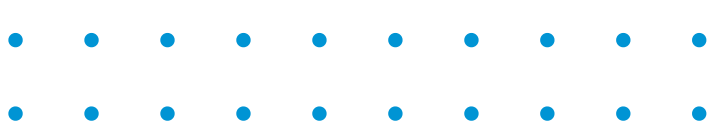
IN PARTNERSHIP W/  
UNIVERSITY OF LUCERNE

**TIPS, TRICKS AND CAVEATS: OBTAINING A  
GRANT VIA A COMPETITIVE PROCESS |  
4.OG, RIGI 4.04**

**Workshop Leader: Prof. Dr. med. François Curtin (Center for Clinical Research, LUKS) & Anita Soltermann (Grants Office University of Lucerne)**

Fundraising is essential to support research by funding new concepts, experiments, and academic advancements. Connecting with donors, applying for grants, organizing events, and engaging with the community are all part of the fundraising process. Researchers depend on financial aid to sustain their work and contribute to knowledge growth in various fields.





WORKSHOPS

09:30	Registration   4.OG
10:00	1a: Preclinical Ultrasound for Vascular Biology Research - Ultra-High Frequency (UHF)   4.OG, Rigi 4.04 1b: Endovascular Surgery: Prosthesis sizing and simulation of procedure   1.OG, Skills Lab
11:30	Break   4.OG, Aufenthaltsraum
12:00	2: Tips, Tricks and Caveats: obtaining a grant via a competitive process   4.OG, Rigi 4.04
12:45	Lunch   4.OG, Aufenthaltsraum

TRANSLATIONAL VASCULAR RESEARCH & BIOLOGY

Chair:

Prof. Dr. Margreet de Vries & Prof. Dr. Thomas Schmitz-Rixen

13:30	<b>Welcome Speech   Thomas Schmitz-Rixen &amp; Maani Hakimi</b>
13:40	<b>From Lab to Life: Advancing Tissue-Engineered Vascular Grafts into the Clinic   Melanie Generali</b>
14:00	Manuka Honey and its Phenolic Component, Methyl Syringate, Mediate Neutrophil Inflammatory Behaviors for Potential Use as a Vascular Prosthetic Bioactive   Evan Main
14:10	Static Human Vein Culture: A Model of Graft Intimal Hyperplasia   Shuang Zhao
14:20	β3-Adrenergic Receptor-Induced Perivascular Adipose Tissue Browning Does Not Impact Vein Graft Remodeling on a High-Fat, High-Cholesterol Diet   Nicky Kruit
14:30	ChemR23 receptor on macrophages modifies PVAT function and crosstalk within the arterial vasculature in atherosclerosis   Julia Schulz
14:40	Treatment of arterial media calcification by altering the nitric oxide metabolism   Saar Adriaensen
14:50	Anti-inflammatory treatment with dexamethasone preserves microvascular integrity during ex vivo mouse heart perfusion   Milou van Buren
15:00	High-oxalate diet kidney disease induces hypertension and inflammation and drives impaired murine arteriovenous fistula remodeling   Eduard de Winter
15:10	<b>Dietary Strategies for Vascular Health: From Preclinical Evidence to Translation   Florent Allagnat</b>
15:30	Break   4.OG, Aufenthaltsraum

ANGIOGENESIS & VASCULAR REMODELING

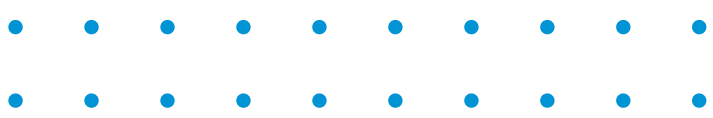
Chair:

Prof. Ferdinand le Noble & Prof. Manuel Mayr, PhD

16:10	<b>Design principles of vascular networks-defining novel targets for pro- and anti angiogenic therapies   Ferdinand le Noble</b>
16:30	Endothelial-to-Mesenchymal Transition is a defining feature of intussusceptive angiogenesis vs sprouting   Andrea Banfi
16:40	Characterization of Plaque Instability in Response to Anti-PD-L1 Therapy   Kayleigh van Dijk
16:50	Platelets Promote the 3-Dimensional Propagation of Vascular Fibrin as a Prerequisite for Thrombus Stability   Joanna Liu
17:00	A mouse model of impaired FXIII-mediated fibrin alpha-chain crosslinking shows increased venous thromboembolism   Cedric Duval
17:10	Length of ischaemia duration is associated with fibrin film coverage on thrombi from patients with acute myocardial infarction   Cedric Duval
17:20	Collagen in retrieved human thrombi   Hannah Eskender
17:30	Patients’ perspectives on treatment of thromboembolic diseases in the UK   Janice Tsui
17:40	<b>Cardiovascular Proteomics to Uncover New Disease Mechanisms   Manuel Mayr</b>
18:00	<b>Host’s speech   Maani Hakimi, Lucerne</b>
19:30	Dinner @ Zunfthausrestaurant Pfistern, Kornmarkt 4, 6004 Luzern

SESSION | 4.OG, ROTSEE 4.01/4.02





08:00 Registration

BIOENGINEERING & IMAGING

Chair:

Luke Brewster, MD, PhD & B. Walpoth, MD, PD, FAHA

CO-HOST:  **ISACB**  
INTERNATIONAL SOCIETY FOR APPLIED  
CARDIOVASCULAR BIOLOGY

08:30	<b>TBA   Cintica</b>
08:50	<b>Vascular mechanics - A Force to be Reckoned with Clinically   Luke Brewster</b>
09:10	Influence of shear stress on vascular endothelial cells regarding cellular senescence   Constantin Puppe
09:20	Functional and persistent microvascular networks in a VEGF-decorated matrix: a vascularization module   Andrea Banfi
09:30	Going Beyond the Diameter Criterion: The Predictive Value of 4D-Ultrasound Based Wall Motion Indices for Abdominal Aortic Aneurysm Rupture Risk Assessment   Manuel Schönborn
09:40	Comprehensive Analysis of Accelerated Atherosclerotic Lesion Composition Using Non-invasive Spectral Photoacoustic and Ultrasound Imaging.   Kayleigh van Dijk
09:50	Challenges in characterising lower limb arterial disease on CT imaging   Calvin Eng
10:00	Microvasculature assessment in peripheral arterial disease using high-resolution Photoacoustic tomography   Nam Huynh
10:10	Assessing revascularization success in patients with Peripheral Artery Disease using Multispectral Optoacoustic Tomography   Briain Haney
10:20	Quantitative Perfusion imaging in skeletal muscle: comparison of Arterial Spin Labelling MRI and contrast ultrasound   Conrad von Stempel
10:30	<b>TBA   Paula Keschenau</b>
10:50	Break   4.OG, Aufenthaltsraum

PIONEERING SCIENCES & INNOVATIONS

Chair:

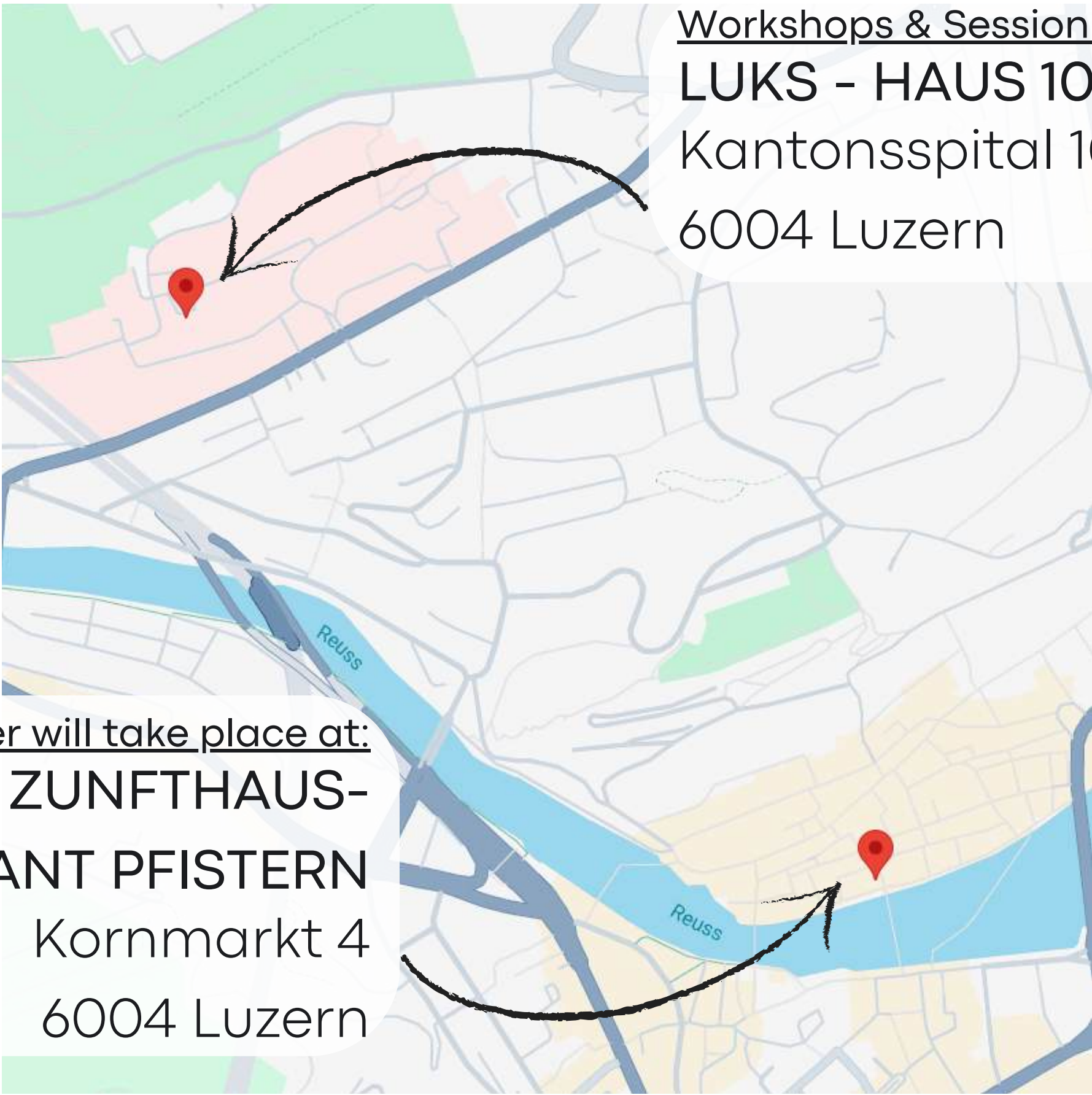
Prof. Dr. med. Maani Hakimi & Dr. Margreet R. de Vries

11:10	<b>No Free Lunch: Requirements and Rewards of Modern Data Use   Daniel Stekhoven</b>
11:30	Early time-restricted feeding decreases abdominal aortic aneurysm progression in a mouse model of elastase-induced AAA   Clémence Bechelli
11:40	PDGFR-β-driven vascular smooth muscle cell remodelling and aortic dilatation   Ryan Laloo
11:50	An APRIL-targeting immunotherapy for abdominal aortic aneurysm   Melissa Zenker
12:00	Thoracic Aorta in Mouse Models of Hereditary Aortic Diseases: Losartan Reduces Aortic Dilatation but Has no Effect on Aortic Rupture Force in Mice Modeling Marfan Syndrome   Janine Meienberg
12:10	Combining complex stem cell models and multiomics to reveal causality of aortic disease genetic variants   Aminder Singh
12:20	Whole-Genome Sequencing Reveals Co-Occurring Hereditary (Aortic) Diseases and Enables Pharmacogenetic Profiling   Janine Meienberg
12:30	<b>Biological Optimization - what we can learn from fundamental research to improve the next generation of stent grafts   Job van Helvoirt</b>
12:50	<b>Best Talks Award &amp; ISACB Award   Prof. P. Quax &amp; L. Brewster, MD PhD</b>
	<b>Closure   Dr. Celi de la Torre</b>
13:05	Photo session w/ all participants/awardees/hosts

SESSION | 4.OG, ROTSEE 4.01/4.02



# VENUE & DINNER



# SITE PLAN



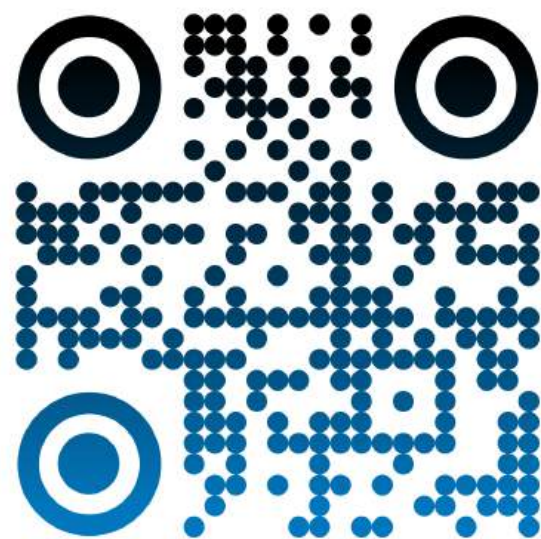
- Entrance House 10
- Feingut restaurants
- Parking/with walking disabilities
- Pharmacy
- Emergency
- Footpath to House 10
- Bus lines 9, 19 and 30
- Information





# INFOS

Keep updated on the meeting's program, workshops and keynote lectures and follow us for early notifications on upcoming events!



[www.bvssm.com](http://www.bvssm.com)



[www.linkedin.com/company/basicvascularscience](https://www.linkedin.com/company/basicvascularscience)

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