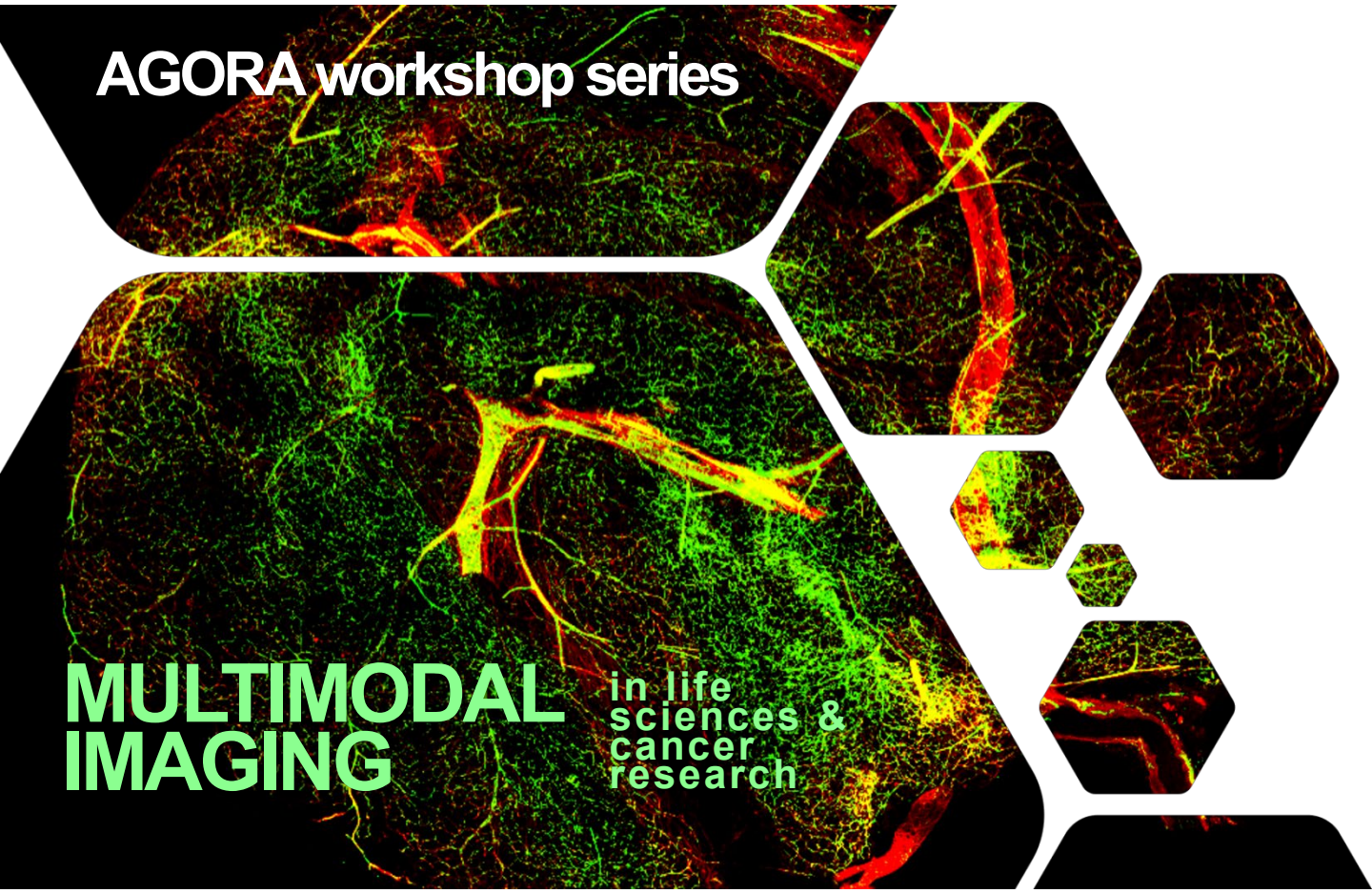
AGORA
PÔLE DE RECHERCHE SUR LE CANCER

ISREC
Fondation Recherche Cancer

CHUV

UNIL | Université de Lausanne

EPFL



Thursday 2nd of February 2023

Auditorium Paternot
AGORA

Rue du Bugnon 25A
Lausanne
Switzerland

Registration

Abstract book
http://bit.ly/40hlhaS

Breakthroughs in imaging technologies have been a driving force for new discoveries in biology. Indeed, the ability to visualize events occurring in the living organism is essential for understanding biomedical processes.

Today, in vivo imaging provides crucial observations of cell dynamics, and allows for assessment and manipulation of cells at the molecular level. It is also possible to combine different imaging modalities to analyze life at different resolutions and scales.

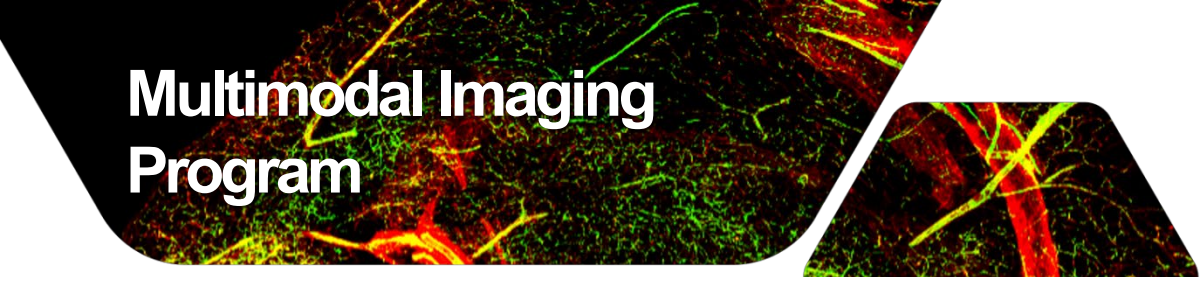
To advance knowledge and networking in this area, this one-day workshop will explore intravital microscopy, light-triggered functional interventions, macroscopic imaging techniques (e.g. PET-CT, MRI), and new tools for visualization, targeting, labeling and manipulation of cells in vivo. We will also discuss the combination of imaging modalities, and image analysis and the use of AI in this area. We will mostly focus on the application of these techniques to cancer research.

Meeting organizers

Alexandre Bénéchet, Susan Gasser, Mikael Pittet

This brochure (including the meeting program) is only available in electronic format in order to reduce paper use.
Thank you for your understanding.

Multimodal Imaging Program



- 08:30AM Coffee and croissants *with the speakers*

Welcome

- 09:00AM Susan Gasser, ISREC Foundation Director
- 09:10AM Alexandre Bénéchet, Lausanne University Hospital, Switzerland

Keynote (moderator: Mikaël Pittet)

- 09:20AM **Ralph Weissleder**, Harvard/MGH, USA.
  Imaging live: more, faster and possibly in patients

Session 1 - MICROSCOPIC IMAGING (moderator: Susan Gasser)

- 10:20AM **Jan Böttcher**, Technical University of Munich, Germany.
  Spatial and functional coordination of anti-cancer immunity by conventional type 1 DCs
- 10:50AM Coffee and croissants *with the speakers*
- 11:20AM **Matteo Iannacone**, San Raffaele Research Institute, Italy.
  In vivo imaging of antiviral immune responses in the liver
- 11:50AM **Colinda Scheele**, VIB-KU Leuven Center for Cancer Biology, Belgium.
  Multi-dimensional imaging of breast development and disease

Lunch

- 12:20AM Lunch + Poster Exhibition

Session 2 - MACROSCOPIC IMAGING & MULTIMODAL INTEGRATION (moderator: Ruud Van Heeswijk)

- 01:20PM **Johanna Joyce**, University of Lausanne, Switzerland.
  Multimodal imaging of the brain tumor microenvironment
- 01:50PM **Laura Mezzanotte**, Erasmus MC, Netherlands.
  Multiscale and multimodal imaging of cancer using novel bioluminescent tools
- 02:20PM **Margret Schottelius**, CHUV, Switzerland.
  The power of nuclear imaging in immuno-oncology
- 02:50PM Coffee break *with the speakers*

Session 3 - INNOVATIVE TOOLS, IMAGE ANALYSIS, AI (moderator: Alexande Bénéchet)

- 03:20PM **Adrien Depeursinge**, HES-SO Valais / CHUV, Switzerland.
  Multimodal image analysis using AI for precision oncology: an overview
- 03:50AM **Kuangyu Shi**, University of Bern, Switzerland.
  Quantitative analysis of molecular imaging for the interpretation of underlying physiology
- 04:20PM **González Santiago**, Institute for Research in Biomedicine, Switzerland.
  IMMUNEMAP, an intravital microscopy platform for spatio-temporal studies in immunology

Concluding remarks

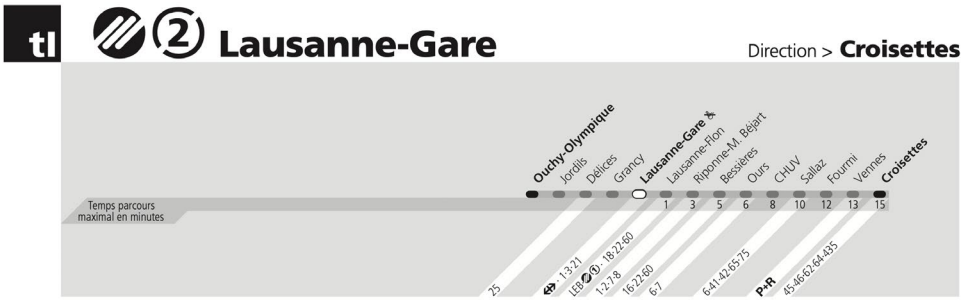
- 04:50PM Mikael Pittet, University of Geneva, Switzerland
- 05:00PM Networking Apéro + Poster Exhibition

Congress Venue

By public Transportation

From the Lausanne train station
use the Metro line 2 in the direction of
Croisettes or la Sallaz to the CHUV stop

Metro frequency: every 2 to 6 minutes



Ask at your hotel's reception, most of them are providing metro tickets

Useful apps

There are a few useful applications that can be downloaded on your cellphone for Lausanne:

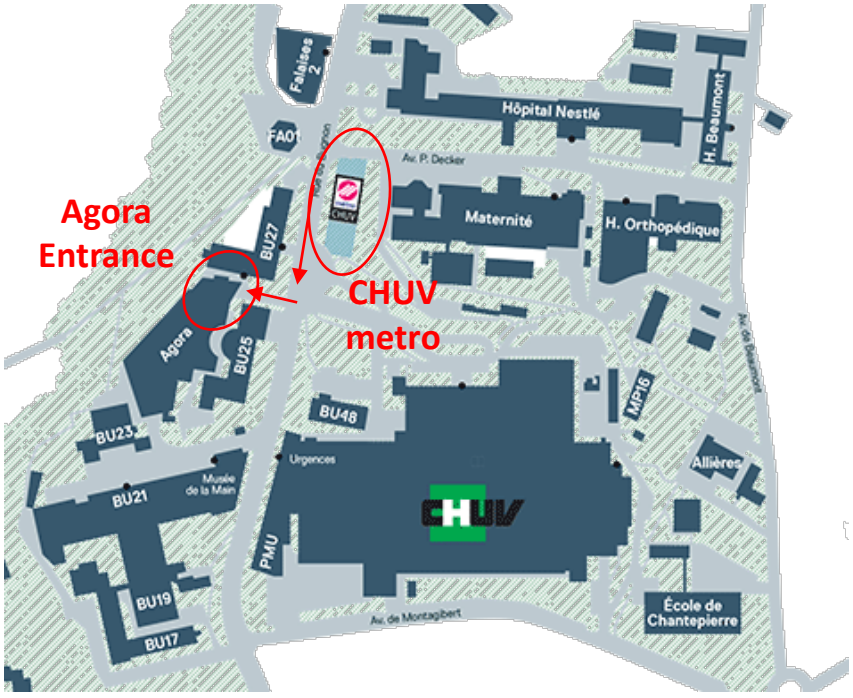
"Transport Lausannois" for metro, bus tickets

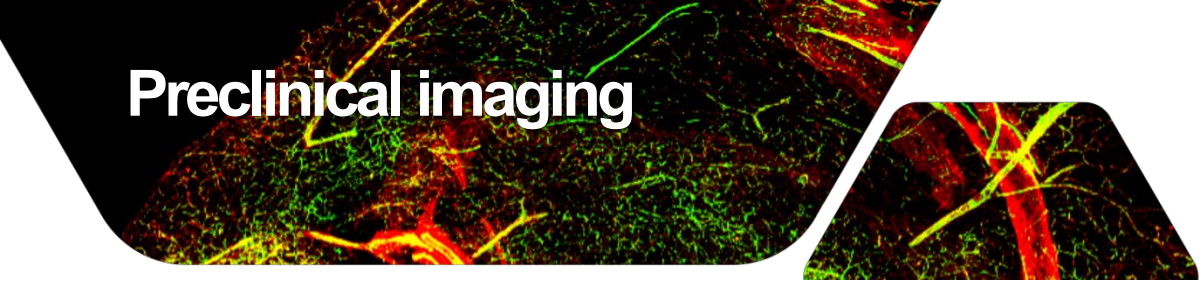
"SBB CFF" train tickets, time tables

Congress Venue

The congress is located by the CHUV, Lausanne University Hospital, at the AGORA building

Agora Building; Rue du Bugnon 25A
CH-1011 Lausanne; Switzerland





Contribution of preclinical multimodal *in vivo* imaging for animal welfare advancement

Among the 3Rs principles (Replacement, Reduction and Refinement of animal experimentation), non invasive *in vivo* imaging is crucial for both Reduction and Refinement.

Reduction as one group of animal can be imaged longitudinally

Refinement as we are applying non-invasive imaging methods (Magnetic Resonance - MRI, ultrasound, computed tomography - microCT, positron emitted tomography PET, optical imaging bioluminescence/fluorescence) to observe biological processes.

Animal experimentation continuous training

This Conference counts for **0.5 day**
of animal experimentation continuous training:

https://www.unil.ch/resal/home/menuinst/continuing-education/symposiums-accredites.html

A certificate of attendance from RESAL (Réseau lemanique suisse, Genève et Vaud) will be sent to you after the meeting.

If you come from other cantons, you can submit this certificate to your respective authorities for validation.

We express our sincere gratitude to all sponsors who generously contributed to the success of the meeting

Endorsed meeting by

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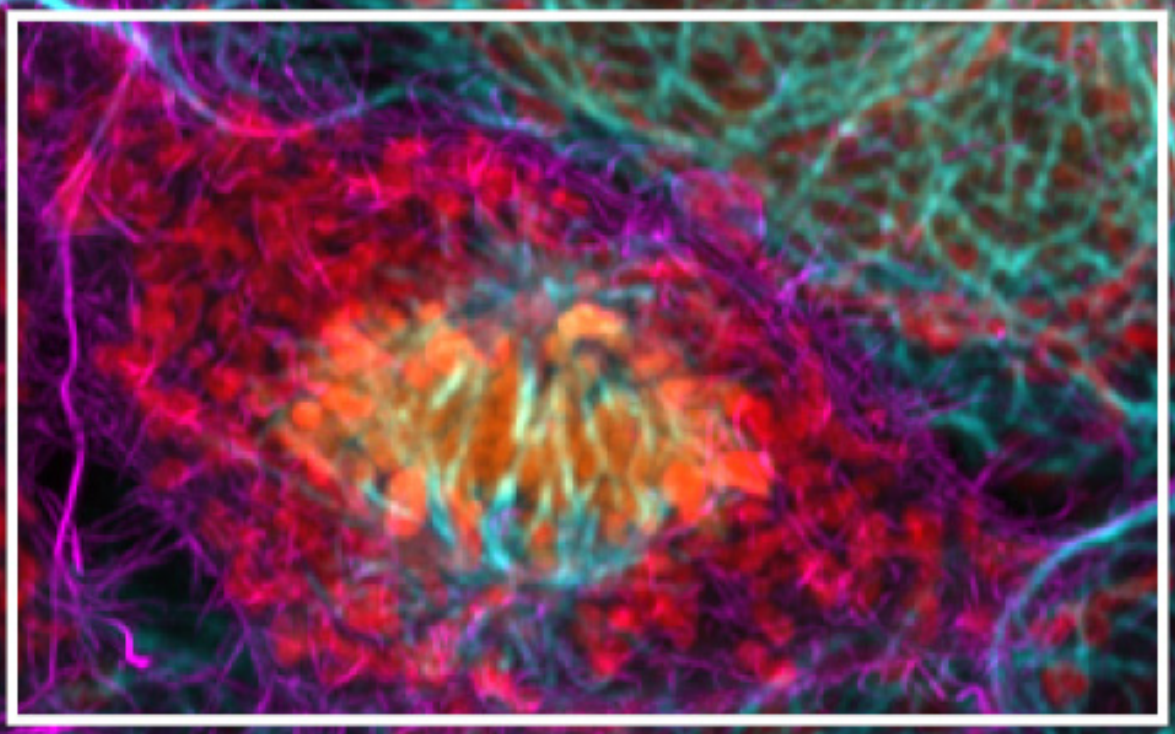

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