

:: csem



4<sup>th</sup> **Next-gen  
organ-on-chips  
& organoids**

Haus der Wirtschaft • Pratteln, Basel  
13-14 Feb, 2025

# Welcome to the Haus der Wirtschaft !



Dear participants,

We are thrilled to welcome you to the 4<sup>th</sup> edition of the Next Gen Organ-on-Chips & Organoids Workshop, taking place this year in one of Switzerland's thriving biotech hubs – Baselland. Building on the insights and success of previous editions, we have crafted an even more dynamic and enriching program for 2025!

At the heart of this year's workshop is bioconvergence – a transformative multidisciplinary approach that integrates biotechnology, engineering, and computing to solve complex challenges. This pioneering field is already reshaping industries like diagnostics, materials science, pharmaceuticals, and sustainable agriculture.

Historically, science has been compartmentalized into distinct disciplines. Today, the barriers between fields are breaking down. By merging expertise and technologies from biology, engineering, and digitalization, bioconvergence is propelling healthcare and life sciences into a new era of innovation. *"Bioconvergence will transform healthcare, biotech development, and manufacturing,"* co-Heads of Research & Business Development for Life Sciences Technologies, Samantha Paoletti and Gilles Weder.

This interdisciplinary synergy between science and technology is unlocking groundbreaking solutions for personalized healthcare, biotech innovation, and pharmaceutical advancements. Through standardization, parallelization, and artificial intelligence, the transition from manual to automated workflows is enabling faster, more cost-effective solutions.

We extend our gratitude to the Scientific Committee for curating such a comprehensive and thought-provoking program. During the breaks in the program, we encourage you to explore the exhibition spaces, where you'll discover the latest innovations driving the future of life sciences.

We look forward to two days of inspiring discussions, fruitful collaborations, and visionary ideas that will shape the next generation of healthcare and biotech solutions.

Sincerely yours,

CSEM Organization Team

## Scientific Committee

- Stéphanie Boder-Pasche, CSEM
- Rhiannon David, Astra Zeneca
- Olivier Guenat, University of Bern
- Alain Hirschy, Miltenyi Biotec
- Massimo Mastrangeli, Technical University Delft
- Madhu Nag, Insphero
- Samantha Paoletti, CSEM
- Adrian Roth, Roche
- Gilles Weder, CSEM

## Diamond sponsor



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## Gold sponsors

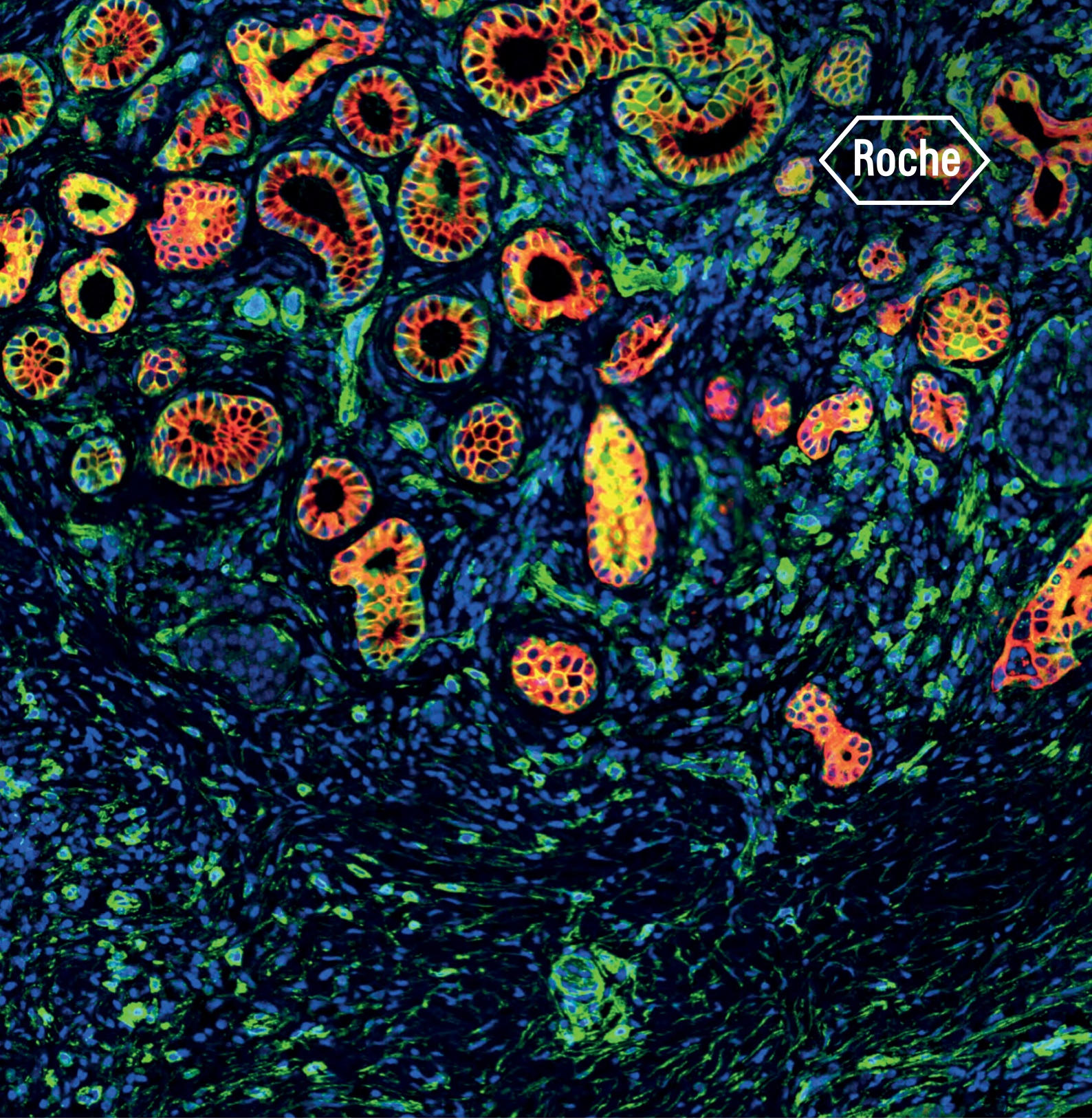


## Exhibitors



## Start-ups





Roche

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Engineering the most advanced human model systems for drug discovery, drug development and precision medicine.

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

# Scientific program day 1

Thursday February 13, 2025

09:30 **Registration & coffee**

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10:00 **Start of the event**

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**Bioconvergence to transform the future**

Gilles Weder, Head Research & BD Life Sciences, CSEM

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**Unveiling the secrets of life by empowering technology**

Vincent Revol, VP Industry 4.0 & Life Sciences, CSEM

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10:15 **INVITED SPEAKER**

**Bringing immune engineering for children to global health**

Stephen Wilson, CEO, Botnar Institute of Immune Engineering

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10:35 **INVITED SPEAKER**

**CuSTOMizing Organoids for Drug Discovery and Development**

Magdalena Kasendra, Director of Research and Development, Center for Stem Cells and Organoid Medicine, Cincinnati Children's Hospital Medical Center

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## ORGANOID ENGINEERING SESSION SPONSORED BY INSPHERO

10:55 **Session opening**

Felix Kurt, Group Leader Biosystems Engineering, CSEM

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11:00 **AirLiwell: An air-liquid interface technology for reproducible, scalable, & standardized spheroid & organoid models**

Sanae El Harane, Research Scientist, University of Geneva

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11:10 **Human organoids in pre-clinical drug testing**

Sylke Hoehnel-Ka, Founder, DOPPL

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11:20 **Harnessing Diversity: Primary Cell-Based 3D Models for Predictive Diabetes Research**

Burcak Yesildag, Vice President – Diabetes Research, InSphero

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11:30 **Leveraging microgravity for 3D tissue models**

Célia Metry, Research & Development Specialist, Prometheus

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11:40 **KEYNOTE SPEAKER**

**Cerebral organoids: Modeling human brain development and disease in stem-cell derived 3D culture**

Jürgen Knoblich, PhD, Director at Institute of Molecular Biotechnology of Austria

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12:10 **Exhibition opening**

Stéphanie Boder-Pasche, Group Leader Cell Microtechnologies, CSEM

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12:25 **Community picture**

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12:30 **Lunch & exhibition**

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## ORGANOID HANDLING SESSION SPONSORED BY 3BRAIN

13:45 **Session opening**

Tom Valentin, Group Leader Automated Sample Handling, CSEM

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13:50 **Automated workflow for scaffold-free and scaffold-based 3D models in drug screening**

Lucía Bruzzone, Senior Manager, Tecan // Bono Epifania, Research Associate, ZHAW

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14:00 **AI-powered automated laboratory device to sort organoids**

Lucie Jandet, COO & co-founder, Visienco

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14:10 **Advancing Drug Discovery with Assay-Ready Single Spheroids**

Martin Mojica Benavides, Research Scientist & Co-founder, Lucero

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# Schweizerische Akademie der Technischen Wissenschaften SATW

Die SATW ist das bedeutendste Netzwerk von Expert:innen für Technikwissenschaften in der Schweiz und informiert Politik, Gesellschaft und Industrie über relevante technologische Entwicklungen. Sie fördert auch das Technikinteresse und -verständnis bei Jugendlichen und ist politisch unabhängig und nicht kommerziell. Als verlässliche Informationsquelle für Entscheidungsträger:innen und die Öffentlichkeit ist die SATW einzigartig.



We are pleased to announce our new strategic collaboration between Health~Holland, the Netherlands Enterprise Agency (RVO), the Netherlands Embassy in Switzerland, and the life sciences & health industry. Together, we are developing a strategic internationalization roadmap to strengthen the collaboration between the Netherlands and Switzerland and jointly become leaders in the field of Organ-on-Chip.

Curious to learn more about the vibrant Life Sciences ecosystem in the Netherlands or our upcoming activities? Visit our booth or join us during the Apéro. We look forward to meeting you, exploring new collaborations, and further strengthening the ties between our countries.



# Scientific program day 1

## MPS SESSION SPONSORED BY THE NETHERLANDS EMBASSY

- 14:20 **Session opening**  
Massimo Mastrangeli, Delft University of Technology
- 14:25 **Vascularized tumor immune microEnvironment (vTIME)**  
Kyu Baek, CEO, Qureator
- 14:35 **Integrating immunological competence into a multi-organ MPS platform**  
Ilka Maschmeyer, Director Business Development, TissUse
- 14:45 **Turning standard multiwell plates into perfusable organs on well: case studies on breast cancer and adipose tissue organoids**  
Pierre Gaudriault, Chief Business Developer, Cherry Biotech
- 14:55 **Mechanoresponsive bone organoids: A platform for diagnostics and therapeutics testing**  
Gian Nutal Schädli, CEO, CompagOs
- 15:05 **What makes organ on chip technology industrial?**  
Roberts Rimsa, CTO, Cellbox Labs
- 15:15 **A microphysiological system for chronic cardiotoxicity assessment: Insights from HESI working groups**  
Bettina Lickiss, BD & Science Communications Manager, innoVitro GmbH
- 15:25 **Fluidic Control in Standard Well Plates: Advancing Sensitive Cell Cultures**  
Tessa de Korte, Director of Biology, Sync Biosystems
- 15:35 **UNLOOC - Unlocking the data content of Organ-on-Chip – 51 partners one common goal**  
Dr. Claudia Gärtner, CEO, Microfluidic ChipShop GmbH

## 15:45 Coffee break & exhibition

- 16:25 **Fireside chat Women health**  
Antonella Santuccione Chadha, Founder of the Women's Brain Foundation, Chief Medical Officer at WBF and Vice President at Euresearch  
Samantha Paoletti, Head Research & BD Life Sciences, CSEM

## SCIENCE SLAM SPONSORED BY ROCHE INSTITUTE OF HUMAN BIOLOGY

- 16:40 **Science slam opening**  
Gilles Weder, Head Research & BD Life Sciences, CSEM  
Manuela Estermann, Project Manager External Alliances, Roche Institute of Human Biology (IHB)
- 16:45 **PhD students pitches**
- 17:15 **Award ceremony**
- 17:30 **Apero riche (co-sponsored by the Netherlands Embassy) & exhibition**
- 19:00 **End of first day**

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# Scientific program day 2

Friday February 14, 2025

08:30 **Registration & coffee**

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09:00 **Session opening**

Erika Györvary, Lead of EU Affairs, CSEM

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09:05 **The innovation power of the Swiss biotech hub and its appeal for international partners**

Michael Altorfer, CEO of the Swiss Biotech Association

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## ORGANOID MATURATION & ANALYSIS SESSION SPONSORED BY MICROFLUIDIC CHIPSHOP

09:15 **Session opening**

Olivier Guenat, University of Bern

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09:20 **An easy-to-use and affordable automation platform for 3D cell culture**

Lisa Morisseau, Head of Biological Applications, Cellaven

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09:30 **Novel smart labware for enhanced organoid dissociation and single cell analysis**

Charlotte Fonta, Senior R&D Engineer, CSEM

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09:40 **Transforming advanced breast cancer care with personalized functional ex vivo drug screening**

Mohamed Bentires-Alj, Professor of Experimental Surgical Oncology, University of Basel, University Hospital Basel

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09:50 **Organoids for toxicity testing**

Ellen Fritsche, Director, SCAHT - Swiss Centre for Applied Human Toxicology, Basel, Switzerland

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10:00 **Bringing Electrophysiology into Organ-on-Chip and Organoids**

Jannis Meents, Head of Advanced Technologies, Harvard Bioscience & Multi Channel Systems

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10:10 **Coffee break & exhibition**

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10:40 **Advancements in tissue chips & organoid systems for space research: The european space agency's strategies for LEO and beyond**

Ian Johnson, Senior Coordinator for Life Sciences, Human Exploration Science – Directorate of Human and Robotic Exploration, Telespazio for the European Space Agency

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10:50 **Sensor integration in vascularized organoids on chip: shaping the future of the precision medicine**

Fabrice Navarro, Head of research unit « Microtechnologies for living systems interactions», CEA Leti

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11:00 **How interdisciplinary collaboration can turn inventions into successful industrialised products**

Andy Tonazzi, Owner & co-CEO, konplan Group AG

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11:10 **Phenotypic disease modeling for immune oncology**

Henriette Lanz, VP Biology, MIMETAS BV

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11:20 **Javelin multi-MPS platform for mechanistic ADMET applications**

Murat Cirit, CEO, Javelin Biotech

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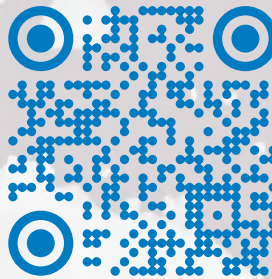


## HyperCAM Delta

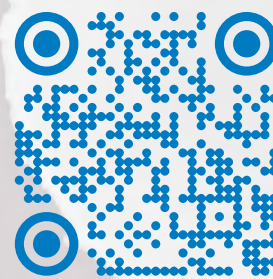
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wells and electrodes

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quality

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# Scientific program day 2

11:30 **Fireside chat Human Biology**

Adrian Roth, Principal Scientific Director Precision Safety, Product Development Safety, F. Hoffmann-La Roche Ltd  
Samantha Paoletti, Head Research & BD Life Sciences, CSEM

11:45 **Lunch & exhibition**

## PHARMA SESSION SESSION SPONSORED BY KONPLAN

13:00 **Session opening**

Alain Hirschy, Miltenyi Biotec

13:10 **Brain organoid electrical activity recording to evaluate new treatment**

Sylvain Lengacher, co-CEO, Gliapharm

13:20 **Lung Organoids in R&D: Closing the Gap Between Model Development and Pharmaceutical Applications**

Lauriane Cabon, Group Lead, Roche Institute of Human Biology

13:40 **Establishing immune-competent human lung organoids to assess pre-clinical drug safety risks in vitro**

Kelly Evans, Senior Scientist, AstraZeneca UK

13:50 **Disruption of serotonin homeostasis in intestinal organoids provides insights into drug-induced gastrointestinal toxicity**

Katie Kubek-Luck, Principal Scientist II, Novartis

## KEYNOTE SESSION SPONSORED BY NOVARTIS

13:50 **Keynote session opening**

Madhu Nag, inSphero

13:55 **KEYNOTE SPEAKER**

**12 years of Organ-on-a-Chip commercialisation - choices and considerations**

Paul Vulto, CEO, Mimetas

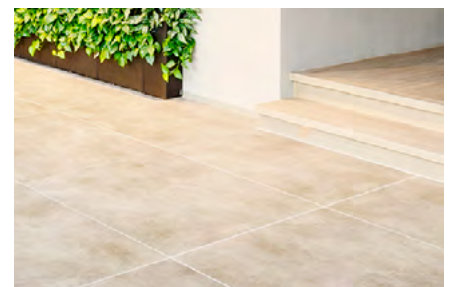
14:25 **Closing**

14:45 **End of the event**

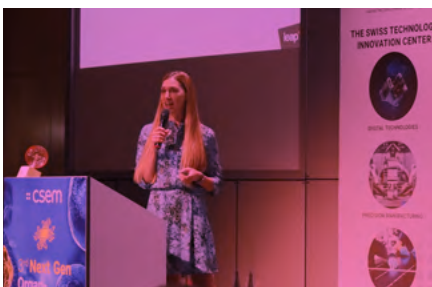
## Venue

This event will take place on February 13-14, 2025, at the Haus der Wirtschaft, Hardstrasse 1, 4133 Pratteln ([access map](#))

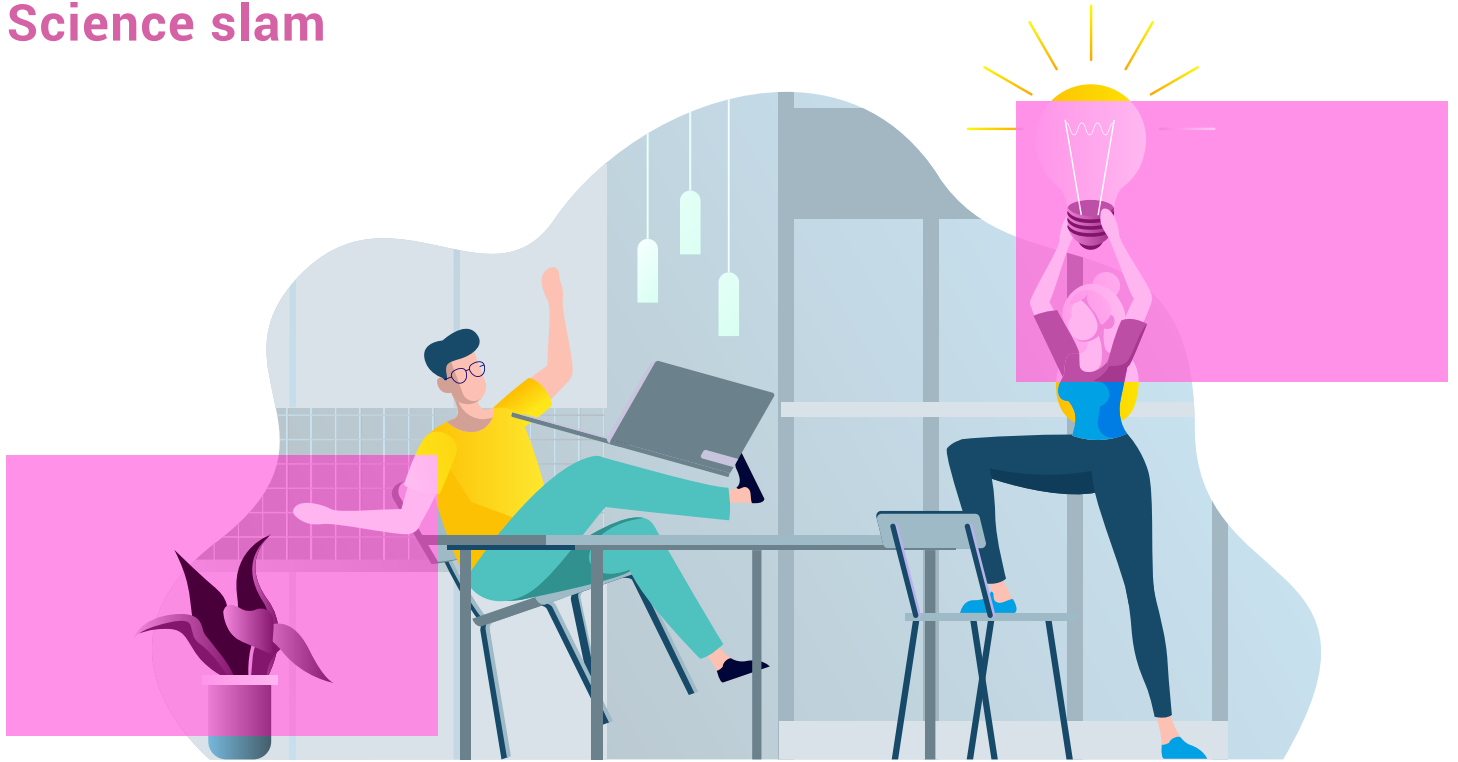
[www.csem.ch/events](http://www.csem.ch/events)



# Memorable moments from 2023



# Science slam



## What is a Science Slam?

Imagine a stage where 8 PhD students captivate the audience with their research, presented in a short and entertaining way. This is your chance to learn about the latest breakthroughs across various domains in a fun and informative atmosphere, all while supporting young researchers.

- At the end of the Science Slam, the audience will vote to crown the Science Slam Winner!
- The winner will be invited as a speaker at the next edition.

As a Diamond sponsor, you have a unique opportunity to show your support for young researchers and gain visibility in front of the entire audience during your introductory pitch.

