



# SWISS SOCIETY FOR MICROBIOLOGY

PROGRAM

## **Annual congress 2025**

Congress Kursaal Interlaken,  
Strandbadstrasse 44, 3800 Interlaken

**August 27-28, 2025**



### **Congress office Management**

Meeting.com Congress Organisation  
Rue des Pâquis 1 · CH-1033 Cheseaux-sur-Lausanne  
nicole@meetingcom.ch · T 021 312 92 62



### **Registration on**

meeting-com.ch / Conferences & Meetings



# Table of content

Organization	<b>4</b>
Welcome word	<b>5</b>
General information	<b>6-7</b>
Poster Flash Session	<b>8</b>
Poster Sessions	<b>8</b>
My thesis in 180 seconds!	<b>9</b>
Early Career Round Tables Sessions	<b>9</b>
Awards	<b>10</b>
Early Career session & Early Career evening – 26.08.25	<b>11</b>
Program 27.08.2025	<b>12</b>
27.08.2025 – 17.00 – General Assembly SSM 2025	<b>23</b>
Program 28.08.2025	<b>24</b>
Exhibition plan	<b>33</b>
Sponsors	<b>34-35</b>
Location	<b>36</b>

## Congress organization – Scientific committee

**Prof. Hubert Hilbi**, Institute of Medical Microbiology  
University of Zurich, Zurich

**Prof. Adrian Egli**, Institute of Medical Microbiology,  
University of Zurich, Zurich

### Clinical Microbiology

Alexis Dumoulin, Sion ; Gilbert Greub, Lausanne

### Early career

Florian Tagini, Lausanne ; Fabio Palmieri, Neuchâtel ;  
Marion Aruanno, Lausanne

### Environmental Microbiology

Pilar Junier, Neuchâtel ; Marie Schölmerich, Zurich

### Lay Communication

Pilar Junier, Neuchâtel

### Molecular Microbiology

Alexander Harms, Zurich ; Hubert Hilbi, Zurich

### Mycology

Saskia Bindschedler, Neuchâtel ; Frédéric Lamothe, Lausanne ;  
Aleksandar Vjestica, Lausanne

### Virology

Silke Stertz, Zurich ; Volker Thiel, Bern



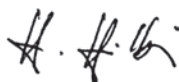
## Welcome to the SSM annual meeting in Interlaken

Dear microbiologists, dear participants,

On behalf of the Swiss Society for Microbiology and the scientific committee, it is my great pleasure to welcome you to Interlaken for the annual meeting on August 27th and 28th, 2025. The meeting will take place at the Congress Kursaal, located in the heart of the picturesque small village of Interlaken, home to 6259 residents and more than a million tourists annually.

I am happy to announce an exciting scientific program comprising five keynote lectures delivered by leaders in their fields and a total of 25 parallel sessions covering hot topics from the different sections of the SSM – Clinical Microbiology, Environmental Microbiology, Molecular Microbiology, Mycology and Virology. In addition to the authoritative scientific talks given by invited speakers, short talks will be selected from the submitted abstracts, and ample time will be given for stimulating poster sessions. We will also have inspiring sessions organized by the sections Early Career and Lay Communication (my thesis in 180 seconds).

At the congress, you will not only be exposed to great science but have the opportunity to network with friends and colleagues, socialize, and find your next job. For these activities, the Networking Dinner – taking place at the Congress Kursaal – will provide an ideal setting. Finally, there should even be time to enjoy the spectacular scenery of Interlaken and surroundings or take a swim in one of the two lakes. I am looking forward to an exciting meeting and hope that many of you will join the 2025 congress in Interlaken!



Prof. Hubert Hilbi  
SSM president and chair annual meeting 2025



## Venue

Congress Kursaal Interlaken  
Strandbadstrasse 44, 3800 Interlaken  
[www.congress-interlaken.ch](http://www.congress-interlaken.ch)

## Registration

online on [www.meeting-com.ch](http://www.meeting-com.ch) / Conferences & Meetings

### Registration fee

### Early fee

(until August 17, 2025)

### Late fee & onsite

(as of August 18, 2025)

MEMBER\*

CHF 300.00

CHF 400.00

NON-Member

CHF 400.00

CHF 500.00

Student Member\*

CHF 150.00

CHF 220.00

Student NON-Member\*\*

CHF 200.00

CHF 270.00

## Networking Dinner on Wednesday, August 27, 2025

CHF 120.00 (limited places)

### At the Congress Kursaal Interlaken

## Early career session – Tuesday, August 26, 2025

I participate in the early career session on Tue August 26, 2025 at 14h00

☐ yes (included in the registration fees)

I participate in the early career evening on Tue August 26, 2025 at 18h00

☐ yes (NOT included in the registration fees)

## Early Career Round Table Sessions

Engage in small group discussions about career development, building a professional network, skill developments or work-life balance at roundtable sessions and receive advice from leading experts in microbiology. Space is limited to 20 participants each day (first come, first served)!

☐ yes, I participate : 27.08 at 13.00-14.00 – max 20 participants

☐ Yes, I participate : 28.08 at 13.00-14.00 – max 20 participants

## Daily participation at 50 % of the indicated late rate. Please contact the congress management.

\* In order to benefit from the Member fee, the annual membership 2025 has to be duly paid to the SSM.

\*\* In order to benefit from the reduced fee, PhD students are required to send a document confirming their status to the Congress Management [info@meeting-com.ch](mailto:info@meeting-com.ch)



**BE A GAME CHANGER**  
You can make a global impact

## Networking Dinner

On Wednesday August 27, 2025 at Congress Kursaal Interlaken  
19.00-19.45    Aperitif & poster session  
As of 19.45    Networking Dinner

## Congress office management

Meeting.com Sàrl Congress Organisation  
Rue des Pâquis 1 · CH-1033 Cheseaux-sur-Lausanne  
Mrs Nicole Giacomini  
T +41 (0)21 312 92 62 · [nicole@meetingcom.ch](mailto:nicole@meetingcom.ch)



## Credits

- |   |            |
|---|------------|
| – FAMH in Microbiology                  | 12 credits |
| – Swiss Society for Infectious Diseases | 12 credits |
| – Animal Experimentation                |            |

## Book of abstracts & Online program

<https://ssm.event-mo.ch>



**BE A GAME CHANGER**  
You can make a global impact

**On Wednesday, August 27, 2025 at 10.00**  
**Plenary - Room Theatersaal**

**On Wednesday, August 27, 2025 at 15.15**  
**Ballsaal**

Speed science is a session where posters are highlighted in 3-minute time slot, in addition to a poster in paper format.

- The allocated speaking time is 3 minutes and no time for discussion
- The moderators will ensure that the time limit is not exceeded.

Be prepared for an exciting session!

**Poster walk – Even Numbers**

**On Wednesday, August 27, 2025 at 12.45**  
**In the poster area**

**Poster walk – Odd Numbers**

**On Thursday, August 28, 2025 at 12.45**  
**In the poster area**

There will also be a general poster viewing during the aperitif on Wednesday, August 27, 2025 at 18.45.





**On Wednesday August 27, 2025 at 17.30 – 18.35**

### **Plenary Room Theatersaal**

Selected abstracts from the submission process from PhD and MD PhD students will present their thesis in 180 seconds using lay words.

There will be a prize for the best presentation. But it is not the quality of the science that is considered at all here. The jury will consider the following criteria :

- Timing
- Story telling
- Humor
- Illustrations
- Keep it simple
- Art of speaking
- The talks will be exactly 180 seconds (3mn) each
- No question/discussion since it is based on a talk of 180 seconds exactly
- The moderators will ensure that the time limit is not exceeded.

Be prepared for a dynamic session!

**On Wednesday, August 27, 2025 &  
Thursday, August 28, 2025 at 13.00**

### **Breakout room Brünig**

Join us for the Early Career Round Tables sessions on Wednesday, August 27th, and Thursday, August 28th, from 13:00 to 14:00. Dive into 30-minute roundtable discussions in groups capped at four early-career scientists, each guided by an inspiring expert in microbiology. These sessions offer a prime setting for delving into topics like career development, cultivating professional network, enhancing relevant skills, and achieving work-life balance. You'll gain insights from esteemed microbiologists and infectious disease specialists. It's a chance to forge meaningful connections with prominent figures in the field and your peers. With only 20 spots available each day, ensure your place at this exclusive event by registering promptly – attendance is on a first-come, first-served basis!



**BE A GAME CHANGER**  
You can make a global impact

# Awards

**On Thursday August 28, 2025 at 16.00-16.30**

**Plenary room Theatersaal**

During the meeting, you may be lucky and win one of the following awards :

- Best Oral Presentation : 5 Awards (one per section) in the context of the annual meeting presentations.
- Poster Award : 3 Awards selected during the annual meeting by an ad-hoc award committee
- My thesis in 180 seconds award : 1 award will be given to the best presentation

All the above-mentioned awards will be presented at the end of the meeting during the very last session.

## EARLY CAREER SESSION

BRÜNIG

### 14.00-15.30 **Artificial Intelligence session**

Chairs : Hanna Marti; Florian Tagini

### 14.00-14.45 **AI: the new assistant for scientific writing ?**

Anna C. Véron, University Library Zurich

### 14.45-15.30 **Coding with AI**

Marco Weber, Zurich

### 15.30-16.00 **Coffee break**

### 16.00-17.30 **Impostor syndrome session**

Chairs : Marion Aruanno; Florian Tagini

### 16.00-16.30 **Two point of views on the Impostor syndrome**

Alix Coste, Lausanne

### 16.30-17.00 **Two point of views on the Impostor syndrome**

Valeria Cagno, Lausanne

### 17.00-17.30 **Panel discussion & conclusion**

**As from 18.00 Early carrer Networking event** with apero in the city and dinner (not included in the congress fees)



**BE A GAME CHANGER**  
You can make a global impact

## Global view

	THEATERSAAL	BALLSAAL	BRÜNIG	CLUB CASINO	GRIMSEL
08.45-09.00	Welcome & introduction				
09.00-10.00	KEYNOTES				
10.00-10.30	Posterflash Session				
10.30-11.00	COFFEE BREAK in the exhibition				
11.00-12.00	Clinical Virology	Envrionmental Microbiology	Bacterial signal transduction	Molecular and Cellular Mycology: From Structures to Cells	Challenges in clinical and veterinary virology
12.00-12.45	Session Climate Change				
12.45-14.00	LUNCH BREAK / EXHIBITION / POSTER VIEWING (EVEN NUMBERS)		Early Career Round table session 13.00-14.00	LUNCH BREAK / EXHIBITION / POSTER VIEWING (EVEN NUMBERS)	
14.00-15.30	Clinical impact of diagnostic microbiology	Environmental Microbiology	Bacteriophages and bacterial immunity	Molecular and Cellular Mycology: Genetics and Genomics	Emerging viral infections
15.30-16.00	COFFEE BREAK in the exhibition				
16.00-17.30	Clinical parasitology & clinical mycology	Environmental Microbiology	Bacterial secretion systems and cell wall	Medical and clinical mycology	Virus-host interactions
17.30-18.35	MY THESIS IN 180 SEC				
18.35-19.20	SSM General Assembly				
19.00-19.45	APERITIF & POSTER SESSION (Foyer & Poster area)				
19.45-24.00	CONFERENCE DINNER in the Ballsaal				

Keynote lectures	Molecular Microbiology	Posterflash & Mythesis in 180 seconds
Clinical Microbiology	Mycology	Early career
Environmental Microbiology	Virology	

**07.30 Registration**

**FOYER**

**08.45-09.00 Welcome and Introduction**

**THEATERSAAL**

**09.00-10.00 KEYNOTES 1 & 2**

**THEATERSAAL**

**09.00-09.30** Gut microbiota-engineering for improved child growth

K01

Chair: Adrian Egli, Zurich

Pascale Vonaesch, Lausanne

**09.30-10.00** Exploring the interplay between bacteria & MGEs

K02

Chair: Alexander Harms, Zurich

Rafael Pinilla-Redondo, Copenhagen (DK)

**10.00-10.30 POSTER FLASH SESSION**

**THEATERSAAL**

Chair: Pilar Junier, Neuchâtel

**10.00-10.05** A bacterial cell wall repair and modification system  
PF 01\* / P 01\* to resist host antibacterial factors

Jessica Burnier, Lausanne

**10.05-10.10** Direct bacterial headspace sampling for rapid online  
PF 02\* / P 02\* volatilomics analysis in medical microbiology diagnostics

Mehmet Berk Bilgin, Zurich

**10.10-10.15** Genetic variants of tetX linked to tetracycline susceptibility  
PF 03\* / P 03\* in *Mycobacterium abscessus* complex

Margherita Panza, Zurich

**10.15-10.20** Role of the transcription factor Wor2 in biofilm  
PF 04\* / P 04\* formation of *Candida auris*

Marine Louvet, Lausanne

**10.20-10.25** Phage-derived endolysins as precision tools against  
PF 05\* / P 05\* vancomycin-resistant enterococci

Samuel Staubli, Zurich

**10.25-10.30** Antimicrobial susceptibility testing of *Capnocytophaga*  
PF 06\* / P 06\* *canimorsus*: toward evidence-based treatment guidelines

Eleonora Pronzini, Zurich

\* Student presentation

**10.30-11.00 Coffee break / Poster viewing / Exhibition**

**EXHIBITION**

## 11.00-12.00

SESSION 1

### Clinical Virology

**THEATERSAAL**

Chairs : Adrian Egli, Zurich ; Linda Müller, Bellinzona

**11.00-11.30**

M 01

#### Diagnostic and Clinical Applications of Viral Metagenomic Sequencing

Karoline Leuzinger, Basel

**11.30-11.45**

S 01

#### Cure of a difficult-to-treat *Pseudomonas aeruginosa* canine chronic otitis externa (OE) with the PYO bacteriophage cocktail followed by antibiotics

Raphaël Baudin, Lausanne

**11.45-12.00**

S 02

#### Engineered phage therapy against catheter-associated urinary tract infections (CAUTI)

Shawna McCallin, Zurich

SESSION 2

### Environmental Microbiology

**BALLSAAL**

Chairs : Marie Schölmerich, Zurich ; Pilar Junier, Neuchâtel

**11.00-11.30**

M 02

#### From the physiology of methanogens to a robust biological methanation process

Wenyu Gu, Lausanne

**11.30-11.45**

S 03

#### Methylphosphonate driven methane production in oxic marine environments

Jan von Arx, Bremen (DE)

**11.45-12.00**

S 04

#### Growth in low carbon conditions reveals amino-acid-coupled iron uptake

Juanita Lara-Gutierrez, Zurich

SESSION 3

### Bacterial signal transduction

**BRÜNIG**

Chair : Elena Gomez-Sanz, Bern

**11.00-11.30**

M 03

#### Unique relationships between phages and spore-forming bacteria. Lessons from *Bacillus subtilis*

Anna Dragos, Ljubljana (SI)

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

- 11.30-11.45** **Functional dissection of nucleoside diphosphate kinase reveals its central role in Chlamydia trachomatis development**  
S 05  
Giti Ghazi-Soltani, Lausanne
- 11.45-12.00** **Influence of conserved Cys-residues in a transcription factor on ICElc activation in Pseudomonas putida**  
S 06\*  
Anthony Convers, Lausanne

SESSION 4 **Molecular and Cellular Mycology: From Structures to Cells** **CLUB CASINO**  
Chair: Aleksandar Vještica, Lausanne

**11.00-11.30** **Fungal models of Target Of Rapamycin signaling**  
M 04  
Robbie Joseph Loewith, Geneva

**11.30-11.45** **Nuclear basket proteins regulate the distribution and mobility of nuclear pore complexes in budding yeast**  
S 07  
Elisa Dultz, Zurich

**11.45-12.00** **Colloid osmotic pressure dictates nuclear size and efficient gene silencing**  
S 08  
Shin Ohsawa, Zurich

SESSION 5 **Challenges in clinical and veterinary virology** **GRIMSEL**  
Chair: Benjamin Meyer, Geneva

**11.00-11.30** **NGS applications at the Swiss veterinary virological reference laboratory**  
M 05  
Claudia Bachofen, Bern

**11.30-11.45** **Exploring Nanomotion Technology for Phage Therapy: A Novel Diagnostic Tool to Combat Antimicrobial Resistance**  
S 09\*  
Anthony Vocat, Lausanne

**11.45-12.00** **Enhanced molecular detection of tick-borne encephalitis virus in CSF using dual-target PCR assays: A paradigm shift in tick-borne encephalitis diagnosis?**  
S 10  
Onya Opota, Lausanne

\* Student presentation

**12.00-12.45 Climate change Session** **THEATERSAAL**

Chair: Jörg Jores, Bern

**12.00-12.45** The Importance of Soil Microbial Processes as Drivers of  
M 06 Atmospheric Greenhouse Gas Concentrations

Klaus Butterbach-Bahl, Aarhus (DK)

**12.45-14.00 Lunch Break / Poster walk / Exhibition** **EXHIBITION**  
**POSTERWALK EVEN NUMBERS**

**13.00-14.00 Early career round table session** **BRÜNIG**

**13.00-14.00 Discussion**

Typhaine Brual, Lyon (FR) ; Linda Müller, Bellinzona ; Pilar Junier, Neuchâtel ; Alix Coste, Lausanne ; Alexandre Colard, Biomérieux

**14.00-15.30**

**SESSION 6 Clinical impact of diagnostic microbiology** **THEATERSAAL**

Chair: Alexis Dumoulin, Sion

**14.00-14.15** **Eis2: a Swiss knife turning a resistance determinant into a**  
S 11\* **weapon against Mycobacterium abscessus**

Sinem Kurt, Zurich

**14.15-14.30** **Comparative analysis of cloacal microbiota in Chlamydia-**  
S 12 **infected and uninfected snakes**

Ehsan Ghasemian, Lausanne

**14.30-14.45** **Tracking Microbial Evolution in Raclette du Valais AOP**  
S 13

Vincent Sommerville, Zurich

**14.45-15.00** **Dismantling walls to grow - understanding the effect of**  
S 14\* / MT 08\* / **physiological and environmental influences on L-form**  
P 16\* **conversion during  $\beta$ -lactam treatment**

Marco Burkolter, Zurich

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact



- 15.00-15.15** **Efficacy of dimercaptosuccinic acid in combination with imipenem in a murine model of experimental sepsis due to metallo- $\beta$ -lactamase-producing *Pseudomonas aeruginosa***  
S 15  
Soraya Herrera-Espejo, Seville (ES)
- 15.15-15.30** **ZAMP in-silico: evaluating impact of primer, database and classifiers choice on taxonomic classification accuracy**  
S 16  
Farid Chaabane, Lausanne

SESSION 7

**Environmental Microbiology**

BALLSAAL

Chairs : Wenyu Gu, Lausanne; Ianina Altshuler, Lausanne

- 14.00-14.30** **Carbon-Fluorine Bond Cleavage Across Microbiomes**  
M 07  
Serina Robinson, Dübendorf
- 14.30-14.45** **Horizontal transfer of ICEclc-like elements in *Pseudomonas aeruginosa* clinical isolates**  
S 17\*  
Valentina Benigno, Lausanne
- 14.45-15.00** **Exploration of AMR Enrichment Techniques for Monitoring Environmental Waters and Wastewater**  
S 18  
Helmut Bürgmann, Kastanienbaum
- 15.00-15.15** **The cyanosphere microbiota affects the growth of toxic benthic cyanobacteria**  
S 19  
Margaux Corset, Neuchâtel
- 15.15-15.20** **Where global warming stands on plasmids-encoded resistance transfer?**  
PF 07/ P 07  
Otávio Raro, Fribourg
- 15.20-15.25** **The BioPreparedness Biobank: A One Health Resource for Secure Microbial Preservation and Controlled Research Access**  
PF 08/ P 08  
Maria Erhardt, Bern
- 15.25-15.30** **Diet and stress in vervet monkeys: the role of the gut microbiome**  
PF 09\* /  
MT 02\* / P 09\*  
Daulet Amerthanov, Lausanne

\* Student presentation

SESSION 8

**Bacteriophages and bacterial immunity**

BRÜNIG

Chair: Grégory Resch, Lausanne

**14.00-14.30**

M 08

**What phage-bacteria interactions teach us on innate immunity**

François Rousset, Lyon (FR)

**14.30-14.45**

S 20

**Type IV-A3 CRISPR-Cas: A plasmid-encoded strategy in the arms race of mobile elements**

Fabienne Benz, Paris (FR)

**14.45-15.00**

S 21\*

**Suit up – Engineering Bacteriophages For Enhanced Therapeutic Efficacy**

Sebastian Bernauer, Zurich

**15.00-15.15**

S 22

**Discrimination of exogenous DNA by mitotic heterochromatin in fission yeast**

Hirohisa Ebina, Zurich

**15.15-15.30**

S 23

**Slipping Past the Slime: How Phages Crack E. coli's Colanic-Acid Armor**

Enea Maffei, Zurich

SESSION 9

**Molecular and Cellular Mycology: Genetics and Genomics**

CLUB CASINO

Chair: Markus Künzler, Zurich

**14.00-14.30**

M 09

**Exploiting divergent biology of two fission yeasts to understand membrane function**

Snezhana Oliferenko, London (UK)

**14.30-14.45**

S 24

**Antagonistic pathways of lipid transfer proteins (LTPs) for de novo membrane assembly in fission yeast**

Miguel Basante-Bedoya, Geneva

**14.45-15.00**

S 25

**The role of positively charged peptides in innate immune of yeast**

Théodore Bourquard, Zurich

**15.00-15.15**

S 26\*

**Hypoosmotic stress leads to rapid formation of chitin-containing protective caps at the hyphal tips of the basidiomycete *Coprinopsis cinerea***

Shurui Mai, Zurich

**15.15-15.30**

S 27

**Exploration of novel mechanisms of azole resistance in *Candida auris***

Jizhou Li, Lausanne

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 10	<b>Emerging viral infections</b>	GRIMSEL
	Chair: Silke Stertz, Zurich	
<b>14.00-14.30</b> M 10	<b>Genomics at the human-animal interface: Insights into emerging viruses and virus-host dynamics in reservoirs.</b>	
	Jenna Kelly, Bern	
<b>14.30-15.00</b> M 11	<b>MHC class II as novel entry receptor for influenza A viruses</b>	
	Umut Karakus, Zurich	
<b>15.00-15.15</b> S 28* / P 79*	<b>Staphylococcal Phage Diversity in a Single Wastewater Treatment Ecosystem</b>	
	Sandra Perez Jimenez, Bern	
<b>15.15-15.30</b> S 29* / P 86*	<b>A dual approach to discover and isolate staphylococcal temperate bacteriophages</b>	
	Davide De Rosa, Bern	

<b>15.30-16.00</b>	<b>Coffee break / Poster viewing / Exhibition</b>	EXHIBITION
--------------------	---	------------

## 16.00-17.30

SESSION 11	<b>Clinical parasitology &amp; clinical mycology</b>	THEATERSAAL
	Chairs: Gilbert Greub, Lausanne; Helena Seth-Smith, Zurich	
<b>16.00-16.30</b> M 12	<b>Diagnosis of Parasitic Infections: Challenges and Advances in Detection Methods</b>	
	Beatrice Nickel, Allschwil	
<b>16.30-16.45</b> S 30* / MT 05* / P 13*	<b>Uncovering global antimicrobial resistance in Capnocytophaga: insights from the largest genomic dataset to date</b>	
	Zoja Germuskova, Zurich	
<b>16.45-17.00</b> S 31	<b>Genomic analysis of ompA-genotype L4 Chlamydia trachomatis in Switzerland and across Europe</b>	
	Karina Andrea Büttner, Zurich	
<b>17.00-17.15</b> S 32	<b>CASE REPORT: Disseminated Borrelia infection in severe immunocompromised patient</b>	
	Leana Ducor, Lausanne	
<b>17.15-17.30</b> S 33	<b>First case of Brucella suis Biovar 1 infection in a dog in Switzerland</b>	
	Ezgi Akdesir, Bern	

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 12

## Environmental Microbiology

BALLSAAL

Chair: Serina Robinson, Dübendorf

**16.00-16.30**

M 13

**Microbially Mediated Soil GHG Fluxes in Alpine Ecosystems: Seasonal and Diurnal Patterns Under Current and Warmer Conditions**

Ianina Altshuler, Lausanne

**16.30-16.45**

S 34

**Spatial structure, chemotaxis and quorum sensing shape bacterial biomass accumulation in complex porous media**

Pietro de Anna, Lausanne

**16.45-17.00**

S 35\* /

MT 12\* / P20\*

**From seeding to post-harvesting: sugar kelp microbiome decoding for sustainable European aquaculture**

Federica R. Schanz, Wageningen (NL)

**17.00-17.15**

S 36

**Environmental cryo-electron tomography of ultra-small microorganisms in a deep Alpine subsurface ecosystem**

Vasil Gaisin, Zurich

**17.15-17.30**

S 37

**Phylogenomics of anatoxin-a-producing Microcoleus species at a local and global geographic scale**

Diego Gonzalez, Neuchâtel

SESSION 13

## Bacterial secretion systems and cell wall

BRÜNIC

Chair: Markus Seeger, Zurich

**16.00-16.30**

M 14

**A Bacterial Pirate Ship – Mechanism of Bacterial Predation via Ixotrophy**

Gregor Weiss, Zurich

**16.30-16.45**

S 38\*

**Are two competing symbionts occupying the same spatial niche in the honeybee gut?**

Jana Počuča, Lausanne

**16.45-17.00**

S 39

**Modulating gene expression and protein secretion in the bacterial predator Bdellovibrio bacteriovorus**

Simona Huwiler, Zurich

**17.00-17.15**

S 40

**The natural diversity of E. coli transporter-dependent capsules**

Elisabetta Cacace, Zurich

**17.15-17.30**

S 41

**Role of a new operon in cell wall homeostasis and antibiotic resistance in Pseudomonas aeruginosa**

Corentin Baussier, Lausanne

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 14

## Medical and clinical mycology

CLUB CASINO

Chair: Frédéric Lamoth, Lausanne

**16.00-16.30**

M 15

**Diagnosis in mycology: new tests, new strategies?**

Alexandre Alanio, Paris (FR)

**16.30-16.45**

S 42

**Impact of milbemycin oxime on fluconazole resistance in *Candida auris***

Jizhou Li, Lausanne

**16.45-17.00**

S 43

**Emergence of terbinafine-resistant *Trichophyton indotineae* strains in a Swiss dermatology laboratory**

Béatrice Ninet, Geneva

**17.00-17.15**

S 44

**FKS1 genotyping of *Candida albicans* strains with borderline anidulafungin MIC according to 2024 revised EUCAST Breakpoints**

Alix T. Coste, Lausanne

**17.15-17.30**

S 45

**In Silico Evaluation of Ribosomal Amplicon Targets for Fungal Identification: Comparative Performance of ITS, LSU and SSU Regions**

Marion Aruanno, Lausanne

SESSION 15

## Virus-host interactions

GRIMSEL

Chair: Jenna Kelly, Bern

**16.00-16.30**

M 16

**Unfolded protein response during viral infections**

Vibhu Prasad, Geneva

**16.30-17.00**

M 17

**Molecular characterization of clinical influenza B virus isolates in human lung explants**

Linda Brunotte, Münster (DE)

**17.00-17.15**

S 46 / P 78

**Tracing the tropism: How seasonal and avian influenza A viruses target epithelial cells across the human airway**

Josephine von Kempis, Zurich

**17.15-17.30**

S 47

**Distinct Transcriptomic Signature of HIV-positive Lymph Node Dendritic Cells during Chronic HIV infection**

Riddhima Banga, Lausanne

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

## 17.30-18.35 MY THESIS IN 180 SECONDS

THEATERSAAL

Chair: Pilar Junier, Neuchâtel

### 17.30-17.35 Introduction & rules

**17.35-17.40** Culturomics insights into phenotypic antimicrobial resistance evolution in the gut microbiota of allogeneic stem cell transplant patients

Elisa Sosa, Zurich

**17.40-17.45** Diet and stress in vervet monkeys: the role of the gut microbiome

MT 02\* / PF 09\* / P 09\* Daulet Amerzhanov, Lausanne

**17.45-17.50** Bacterial Rocket Science: Serovar-Specific Teichoic Acids Regulate ActA-Mediated Cell-to-Cell Spread in *Listeria monocytogenes*

MT 03\* / P 11\* Sven Krähenbühl, Zurich

**17.50-17.55** ImmunoPhage: Targeting Persistent Infections with Engineered Immunomodulatory Bacteriophages

MT 04\* / S 59\* / P 12\* Ellen-Aleksandra Svorjova, Zurich

**17.55-18.00** Uncovering global antimicrobial resistance in Capnocytophaga: insights from the largest genomic dataset to date

MT 05\* / S 30\* / P 13\* Zoja Germuskova, Zurich

**18.00-18.05** Siderophore-mediated interactions between bacteria isolated from potato and *Phytophthora infestans*: exploring chemical communication underlying disease suppression

Tanguy Schmidt, Fribourg

**18.05-18.10** Deficiency in peptidoglycan recycling promotes  $\beta$ -lactam drug sensitivity in *Caulobacter crescentus*

MT 07\* / P 15\* Malvika Modi, Uttar Pradesh (IND)

**18.10-18.15** Dismantling walls to grow - understanding the effect of physiological and environmental influences on L-form conversion during  $\beta$ -lactam treatment

MT 08\* / S 14\* / P 16\* Marco Burkolter, Zurich

**18.15-18.20** Uncovering genus-wide genetic determinants of L-form conversion in *Listeria*

MT 09\* / P 17\* Xiao-Hua Yan, Zurich

\* Student presentation



BE A GAME CHANGER  
You can make a global impact

<b>18.20-18.25</b> MT 10* / P 18*	<b>Ustilago maydis: a new model for understanding small GTPase-regulated actin assembly in endocytosis</b> Yushi Jiang, Geneva
<b>18.25-18.30</b> MT 11* / P 19*	<b>Single-cell analysis of the switch from vegetative to filamentous growth in <i>S.cerevisiae</i></b> Shashank Pandey, Lausanne
<b>18.30-18.35</b> MT 12* / S 35* / P 20*	<b>From seeding to post-harvesting: sugar kelp microbiome decoding for sustainable European aquaculture</b> Federica R. Schanz, Wageningen (NL)

**18.35-19.20** **GENERAL ASSEMBLY** (OPEN TO MEMBERS ONLY) **THEATERSAAL**  
Chair: SSM Board Committee

<b>19.00-19.45</b>	<b>Aperitif &amp; poster viewing</b>	<b>POSTER AREA</b>
<b>19.45</b>	<b>Networking diner</b>	<b>BALLSAAL</b>

**00.00** **END OF DAY 1**

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

## Global view

	THEATERSAAL	BALLSAAL	BRÜNIG	CLUB CASINO	GRIMSEL
09.00-10.00	KEYNOTES				
10.00-10.30	COFFEE BREAK in the exhibition				
10.30-12.00	Microbiology for Gynecology/obstetrics	Environmental Microbiology	Cell biology of infection	Environmental mycology	Advanced culture systems to study viral pathogenicity
12.00-12.45	Session Emerging pathogens in Switzerland: Advices for clinical microbiologists				
13.00-14.00	LUNCH BREAK / EXHIBITION / POSTER VIEWING (ODD NUMBERS)		Early Career Round table session 13.00-14.00	LUNCH BREAK / EXHIBITION / POSTER VIEWING (ODD NUMBERS)	
14.00-15.30	Artificial intelligence in Diagnostic Microbiology	Environmental Microbiology	Bacterial cell biology and physiology	Fungi in microbiomes	Immune response to virus infections
15.30-16.00	COFFEE BREAK in the exhibition				
16.00-16.30	AWARDS				
16.30-17.00	KEYNOTE				
17.00	END OF THE MEETING				

Keynote lectures	Molecular Microbiology	Posterflash & Mythesis in 180 seconds
Clinical Microbiology	Mycology	Early career
Environmental Microbiology	Virology	



08.00

Registration

FOYER

09.00-10.00 **KEYNOTES 3 & 4**

THEATERSAAL

**09.00-09.30** Value-based laboratory medicine

K 03

Chair: Linda Müller, Bellinzona

Mario Plebani, Padova (IT)

**09.30-10.00** Drivers of phage transport in soil

K 04

Chair: Saskia Bindschedler, Neuchâtel

Lukas Wick, Leipzig (DE)

10.00-10.30 **Coffee break / Poster viewing / Exhibition**

EXHIBITION

10.30-12.00

SESSION 16 **Microbiology for gynecology/obstetrics**

THEATERSAAL

Chairs: Gilbert Greub, Lausanne; Karoline Leuzinger, Basel

**10.30-11.00** **Ureaplasma & Mycoplasma infection: clinical significance**

M 18

Manon Vouga, Lausanne

**11.00-11.15** **Diagnosis and antimicrobial susceptibility testing of *Neisseria gonorrhoeae* in four different laboratories from 2014 to 2024**

S 48

Géraldine Jost, Geneva

**11.15-11.30** **Differential transcriptional analysis of *Chlamydia trachomatis* following iron chelation**

S 49\* / P 80\*

Daniel Rodriguez Rozo, Lausanne

**11.30-11.45** **Deciphering the Intracellular Trafficking of *Chlamydia trachomatis* to Improve Therapeutic Targeting**

S 50

Evgeniya Save-Trofimenko, Lausanne

**11.45-12.00** **Impact of genital bacteria on human sperm physiology**

S 51

Miloš Stojanov, Lausanne

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 17

**Environmental Microbiology**

BALLSAAL

Chairs : Bledina Dede, Zurich; Alice Bosco, Lausanne

**10.30-11.00**  
M 19

**The ecology and evolution of small bacterial communities**  
Sara Mitri, Lausanne

**11.00-11.15**  
S 52

**Evaluation of *Bacillus thuringiensis* var. israelensis spillover from mosquito-treated areas to agricultural fields**  
Patrick Hilpisch, Mendrisio

**11.15-11.30**  
S 53\*

**Evaluating the importance of pyoverdine in two potato-associated *Pseudomonas* strains on their anti-*Phytophthora* activity**  
Livia Jerjen, Fribourg

**11.30-11.45**  
S 54

**Nutrients and flow shape the cyclic dominance games between *Escherichia coli* strains**  
Xiangyi Li Richter, Bern

**11.45-12.00**  
S 55

**Microbial communities influencing methane cycling in temperate Swedish peatlands**  
Giulia Fiorito, Zurich

SESSION 18

**Cell biology of infection**

BRÜNG

Chair: Hubert Hilbi, Zurich

**10.30-11.00**  
M 20

An epithelial perspective on cellular crosstalk in the intestinal mucosa  
Annika Hausmann, Zurich

**11.00-11.15**  
S 56\*

Characterization of mitochondria-targeting *Legionella pneumophila* effectors  
Tong Chen, Zurich

**11.15-11.30**  
S 57

Deciphering the Non-Canonical Endocytic Trafficking of *Chlamydia trachomatis*: A Rab14-Dependent Pathway  
Evgeniya Save-Trofimenko, Lausanne

**11.30-11.45**  
S 58

Goblet cell invasion by *Pseudomonas aeruginosa* promotes breaching of human respiratory epithelia  
Leoni Swart, Basel

**11.45-12.00**  
S 59\* / MT 04\* / P 12\*

ImmunoPhage: Targeting Persistent Infections with Engineered Immunomodulatory Bacteriophages  
Ellen-Aleksandra Svorjova, Zurich

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 19

## Environmental mycology

CLUB CASINO

Chair: Saskia Bindschedler, Neuchâtel

**10.30-11.00**

M 21

**40 years of forest tree diagnostics and advisory service – interesting emergence patterns for pine foliage diseases**

Valentin Queloz, Birmensdorf

**11.00-11.15**

S 60\*

**Identifying biocontrol traits and boosting them through amino acid adjuvants**

Michele Cereghetti, Fribourg

**11.15-11.30**

S 61

**Genetic variation among progeny shapes symbiosis in a basidiomycete with poplar**

Benjamin Dauphin, Birmensdorf

**11.30-11.45**

S 62

**Agroforestry through the eye of the Stametsian model – The co-culture of fruit trees and morel mushrooms**

Robin Jacquat, Neuchâtel

**11.45-12.00**

S 63

**Electrical Signalling in Fungal Mycelia: Past, Present, and Future**

Pilar Junier, Neuchâtel

SESSION 20

## Advanced culture systems to study viral pathogenicity

GRIMSEL

Chair: Umut Karakus, Zurich

**10.30-11.00**

M 22

**Ex vivo modelling of tissue resident antimicrobial responses in precision cut lung slices**

Mirco Schmolke, Geneva

**11.00-11.30**

M 23

**Decoding the mechanisms of virus infection using advanced human models**

Marco Alves, Bern

**11.30-11.45**

S 64

**Establishing a phage collection as a first step towards a new strategy for the management of non-typhoidal Salmonellosis (NTS)**

Raphaël Baudin, Lausanne

**11.45-12.00**

S 65

**Impact of viral morphology on infectivity of influenza A virus in airborne transmission**

Lu Liu, Zurich

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

<b>12.00-12.45</b>	<b>Emerging pathogens in Switzerland: Advices for clinical microbiologists</b>	<b>THEATERSAAL</b>
	Chair: Alix Coste, Lausanne	
<b>12.00-12.20</b> M 24	Update on Trichophyton indotineae Philipp Bosshard, Zurich	
<b>12.20-12.25</b>	Discussion	
<b>12.25-12.40</b> M 25	Neoehrlichia mikurensis Gilbert Greub, Lausanne	
<b>12.40-12.45</b>	Discussion	

<b>12.45-14.00</b>	<b>Lunch Break / Poster walk / Exhibition POSTERWALK ODD NUMBERS</b>	<b>EXHIBITION</b>
--------------------	--	-------------------

<b>13.00-14.00</b>	<b>Early career round table session</b>	<b>BRÜNIG</b>
<b>13.00-14.00</b>	<b>Discussion</b> Typhaine Brual, Lyon (FR); Linda Müller, Bellinzona; Pilar Junier, Neuchâtel; Alix Coste, Lausanne; Alexandre Colard, Biomérieux	

## 14.00-15.30

<b>SESSION 21</b>	<b>Artificial intelligence in diagnostic microbiology</b>	<b>THEATERSAAL</b>
	Chairs: Alexis Dumoulin, Sion; Alix Coste, Lausanne	
<b>14.00-14.30</b> M 26	Artificial intelligence in microbiology Adrian Egli, Zurich	
<b>14.30-14.45</b> S 66*/ P 82*	Batch effects and data representation in maldi-tof ms data for machine learning driven identification of microorganisms Eline Meijer, Zurich	

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

<b>14.45-15.00</b> S 67	<b>Validation of digital slide scanning and artificial intelligence (AI) assisted interpretation for the detection of intestinal parasites in human stool specimens</b> Alexander Oberli, Bern
<b>15.00-15.15</b> S 68* / P 73*	<b>Nanomur: innovative nanomotion technology for antibiotic susceptibility testing - a game-changer for urinary tract infections?</b> Alexandre Delfino, Lausanne
<b>15.15-15.30</b> S 69* / P 77*	<b>A journey to antimicrobial discovery: roadblocks and interesting side quests</b> Johanna Buchheit, Zurich

SESSION 22	<b>Environmental Microbiology</b>	<b>BALLSAAL</b>
	Chair: Sara Mitri, Lausanne; Dave Johnson, Dübendorf	
<b>14.00-14.30</b> M 27	<b>Viral Control of Biosignatures in Anoxic World</b> Alice Bosco, Lausanne	
<b>14.30-14.45</b> S 70	<b>Investigating the ecology and temporal dynamics of <i>Microcoleus</i> species in a Swiss river</b> Sami Zhioua, Neuchâtel	
<b>14.45-15.00</b> S 71*	<b>Anthropogenic Impact on AMR Dynamics in Switzerland's Aare River</b> Denise Wälchli, Zurich	
<b>15.00-15.15</b> S 72	<b>Drivers of ecological success for <i>Escherichia coli</i> vary among human gut microbiome samples from different individuals</b> Mathilde Boumasmoud, Zurich	
<b>15.15-15.30</b> S 73	<b>Distribution of Wood-Ljungdahl Pathway in global metagenomes</b> Bledina Dede, Zurich	

\* Student presentation

SESSION 23

## Bacterial cell biology and physiology

BRÜNIC

Chair: Hanna Marti, Zurich

**14.00-14.30**

M 28

**The cellular function of the Penicillin Binding Protein 1b (PBP1b)**

Paula Navarro, Lausanne

**14.30-14.45**

S 74\*

**Mycobacterium tuberculosis leucine aminopeptidase (Rv2213) activates a promising anti-TB hit compound**

Rui Wang, Zurich

**14.45-15.00**

S 75\* / P 83\*

**The role of ribosomal hibernation factors for Legionella pneumophila starvation, virulence, and intracellular persistence**

Camille Schmid, Zurich

**15.00-15.15**

S 76

**Targeting the outer membrane of Gram-negative bacteria to potentiate the effect of antimicrobial peptides**

Nicolas Jacquier, Lausanne

**15.15-15.30**

S 77

**Dual RNA-seq identifies druggable factors supporting Streptococcus pneumoniae fitness during influenza virus superinfection**

Marion Lagune, Geneva

SESSION 24

## Fungi in microbiomes

CLUB CASINO

Chair: Fabio Palmieri, Neuchâtel

**14.00-14.30**

M 29

**Dissecting the genetic machinery of aryl hydrocarbon receptor (AhR) agonist production in the skin commensal yeast Malassezia**

Giuseppe Ianiri, Campobasso CB (IT)

**14.30-14.45**

S 78

**Interplay Between Malassezia spp. and Candida auris in Skin Colonization**

Maialen Areitio, Zurich

**14.45-15.00**

S 79

**Fungal highways as drivers of microbial diversity in soils**

Aureline Bouchard, Neuchâtel

**15.00-15.15**

S 80

**Harnessing fungi and their interactions with bacteria and metals for unconventional mining applications**

Saskia Bindschedler, Neuchâtel

\* Student presentation



**BE A GAME CHANGER**  
You can make a global impact

SESSION 25	<b>Immune response to virus infections</b>	GRIMSEL
	Chair: Mirco Schmolke, Geneva	
<b>14.00-14.30</b> M 30	<b>Resilience and protective immunity against African swine fever depends on host-environment interactions</b>	
	Charaf Benarafa, Bern	
<b>14.30-15.00</b> M 31	<b>The co-inhibitory receptor TIGIT promotes tissue protective functions in T cells</b>	
	Nicole Joller, Zurich	
<b>15.00-15.30</b> M 32	<b>SARS-CoV-2-specific mucosal immunity reduces infection susceptibility and virus shedding</b>	
	Benjamin Meyer, Geneva	

<b>15.30-16.00</b>	<b>Coffee break / Poster viewing / Exhibition</b>	EXHIBITION
--------------------	---	------------

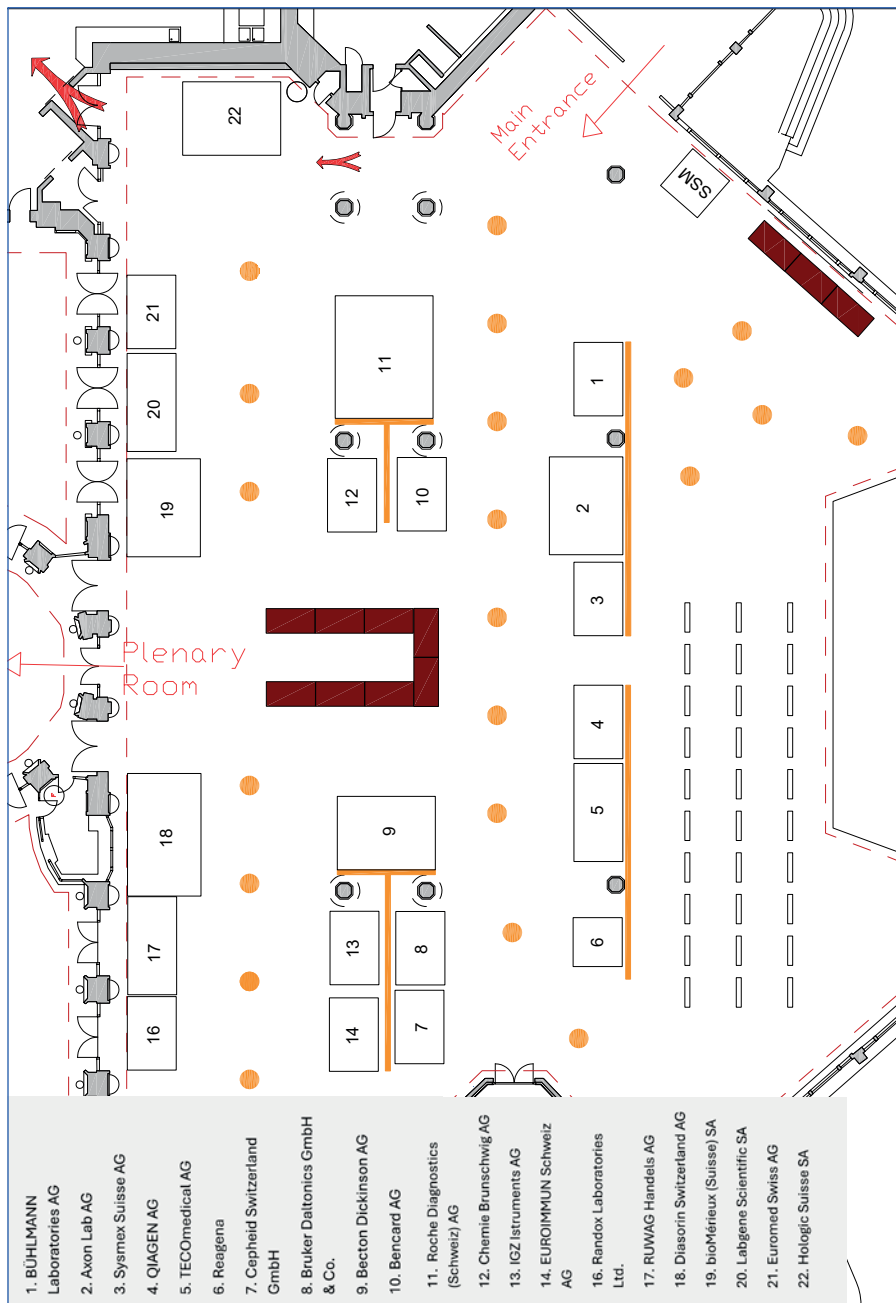
<b>16.00-16.30</b>	<b>POSTER &amp; SHORT TALKS AWARDS</b>	THEATERSAAL
	Chairs: Hubert Hilbi, Zurich; Adrian Egli, Zurich	

<b>16.30-17.00</b>	<b>KEYNOTE 5</b>	THEATERSAAL
	Chairs: Volker Thiel, Bern	
<b>16.30-17.00</b> K 05	<b>MxB-mediated inhibition of herpesvirus infection</b>	
	Beate Sodeik, Hannover (DE)	

<b>17.00</b>	<b>END OF THE SSM ANNUAL MEETING 2025</b>
--------------	---







# Sponsors

Kind thanks to our sponsors



**BE A GAME CHANGER**  
You can make a global impact

# Sponsors

Kind thanks to our sponsors



**BE A GAME CHANGER**  
You can make a global impact



## Arrival

- By car Exit motorway “Interlaken Ost” and follow the signs to Casino Kursaal. There are many public car parks in the immediate vicinity. These can be paid for with the PayByPhone – App and others payment options.
- By train, go to Interlaken West from the railway station you can reach the Kursaal Interlaken in about 13 minutes on foot or in a few minutes by taxi.

## Venue

Congress Kursaal Interlaken  
Stranbadstrasse 44, 3800 Interlaken  
[www.congress-interlaken.ch](http://www.congress-interlaken.ch)

Meeting rooms : Theatersaal, Ballsaal, Brünig, Club Casino, Grimsel

## Networking Dinner

On Wednesday August 27, 2025 at Congress Kursaal Interlaken  
18.45-19.30 Aperitif & poster session  
As of 19.30 Networking Diner