



11th International Conference on *Legionella*

Commemorating 50 years
of *Legionella* discovery

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University of Zurich, Main Campus, Switzerland

Monday September 7 to Friday September 11, 2026

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Congress office Management

Meeting.com Congress Organisation – info@legionella2026.com
021 312 92 61 – Rue des Pâquis 1 – CH-1033 Cheseaux-sur-Lausanne
Registration on <https://legionella2026.com>



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- Conference buildings :
- Conferences: University Zurich, Building HAH, Hldeliweg 2, 8044 Zrich
 - Breaks, posters, exhibition: ETZ, E Foyer, Gloristrasse 35, 8092 Zrich

Organization

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Congress organization – Scientific committee

Paola Borella

University of Modena and
Reggio Emilia, Italy

Carmen Buchrieser

Institute Pasteur, France

Alexander Ensminger

University of Toronto, Canada

Ross Fitzgerald

University of Edinburgh,
United Kingdom

Antje Flieger

Robert Koch Institute,
Wernigerode, Germany

Elizabeth Hartland

Monash University, Australia

Yann Héchard

University of Poitiers, France

Hubert Hilbi

University of Zürich, Switzerland

Shaeri Mukherjee

University of California
San Francisco, USA

Hiroki Nagai

Gifu University, Japan

Maria Luisa Ricci

Istituto Superiore di Sanità, Italy

Kazuhiro Tateda

Toho University, Japan

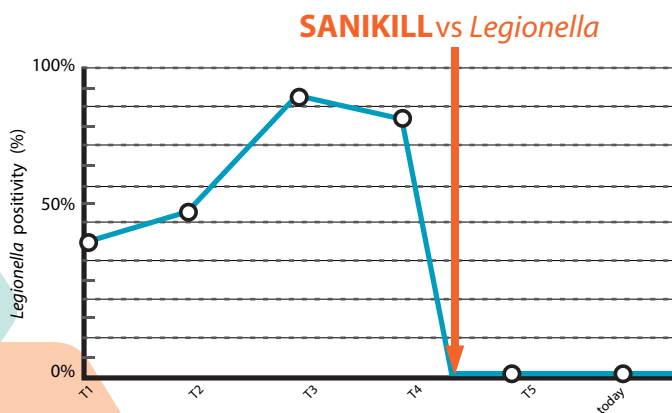


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Welcome to the 11th International Conference on *Legionella* 2026 in Zürich

Dear colleagues,

In the summer of 1976, more than 200 participants at an American Legion convention in Philadelphia developed severe pneumonia, leaving 34 dead. In the aftermath of the outbreak, microbiologist Dr. Joseph McDade and his team at the Centers for Disease Control and Prevention identified a previously unknown bacterium as the causative agent. Reflecting its first victims and its lifestyle, the pathogen was named *Legionella pneumophila*.

On behalf of the Scientific Committee, it is our great pleasure to welcome you to the 11th International Conference on *Legionella*, taking place September 7-11, 2026. Commemorating 50 years since the discovery of *Legionella*, the meeting will open with a keynote lecture on the history and fascinating biology of the pathogen, followed by a session highlighting rising stars and key questions in the field.

The conference will cover the many facets of *Legionella* and Legionnaires' disease through sessions on Virulence & Pathogenicity, Immunology & Disease, Ecology & Environment, Clinics & Diagnostics, and Epidemiology & Prevention. In addition to invited talks, short oral presentations and posters will be selected from submitted abstracts. The varied program is designed to foster exchange among researchers approaching the topic from different perspectives.

The conference will take place at the University of Zurich main campus, conveniently accessible from Zurich Airport and the city's main train station. Zurich is a picturesque city in the heart of Switzerland, surrounded by forests, hills, rivers, and Lake Zurich. The water temperature may still be permissive for the brave-hearted in September.

Alongside superb science, participants can look forward to a welcome reception and a networking dinner – not to mention cozy bars in downtown Zurich, renowned art and history museums, and the Giacometti frescoes in "Europe's prettiest police station." So don't miss the opportunity to be part of a fantastic meeting!

Hubert Hilbi & Carmen Buchrieser

General Information

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Venue

University of Zurich (City Campus), Haldeliweg 2, 8044 Zürich, Switzerland

Registration online on <https://legionella2026.com/registration>

Registration fee	Early fee (until June 25, 2026)	Late & onsite fee (as of June 26, 2026)
PhD/postdoc	CHF 500.00	CHF 650.00
Academic	CHF 700.00	CHF 850.00
Industry	CHF 1'100.00	CHF 1'250.00

Please note that registration is possible **without submitting an abstract**.

Conference Dinner on Thursday, September 10, 2026 (limited places), CHF 70.00
Restaurant Sonnenberg, Hitzigweg 15, 8032 Zürich

Free Guided City Tour on Wednesday, September 9, 2026
Free of charge (limited places)

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

Rising star session	Monday 7 September, 17.30-19.30
Poster session 1 (P001-P038)	Tuesday 8 September, 17.10-19.10
Poster session 2 (P039-P078)	Wednesday, 9 September, 13.35-15.35
Poster session 3 (P079-P108)	Thursday, 10 September, 17.10-19.10



Abstract book

<https://legionella2026.event-mo.ch>



This meeting was selected by the Federation of European Microbiological Societies (FEMS) to offer a grant

microLife Poster Prize

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The microLife Poster Prize, awarded by the FEMS journal *microLife*, recognises an outstanding poster presentation showcasing scientific excellence, clear communication and originality. The prize celebrates innovative microbiological research and highlights the achievements of researchers within the FEMS community. The winner of this award will be announced during the Award Ceremony which will take place on Friday, September 11, 2026 at 13.15.

Program

Monday September 7, 2026

12.00-16.00 **Registration** BUILDING HAH, FOYER

16.00-16.30 **Welcome address** BUILDING HAH, PLENARY ROOM
Hubert Hilbi, University of Zürich (CH);
Carmen Buchrieser, Institute Pasteur (FR)

16.30-17.30 **Opening session – 50 years of *Legionella*** BUILDING HAH, PLENARY ROOM
Chair: Carmen Buchrieser, Institute Pasteur (FR)

16.30-17.30 **50 years of the Perfect Replication Vacuole**
M01 *Ralph Isberg, Tufts University, Boston, USA*

17.30-19.30 **Rising stars and burning questions** BUILDING HAH, PLENARY ROOM
Chair: Alexander Ensminger, University of Toronto (CA)

17.30-18.00 Discovery of antiphage defence systems targeting a
RS01*/P101* novel bacteriophage of *Legionella pneumophila*
Dustin Loso, Toronto (CA)

18.00-18.30 Single-cell spatial metabolomics during *Legionella pneumophila*
RS02 infection reveals specific metabolic signatures in human macrophages
Paula Martinez-Oca, Paris (FR)

18.30-18.45 *Legionella* effector AnkX puts the brakes on IMPDH2 filaments
RS03 *Marietta Sandkamp-Kaspers, Hamburg (DE)*

18.45-19.00 Subversion of IMPDH2 oncoprotein activity by
RS04* *Legionella pneumophila* effector AnkX
Pia Stauffer, Zurich (CH)

18.45-19.30 CRISPR-Cas12a detection of *Legionella* cell-free
RS05* DNA for the diagnosis of Legionnaires' Disease
Elizabeth Chernysheva, Christchurch (NZ)

20.00 **Welcome reception** ETZ, E FOYER

Tuesday September 8, 2026

07.45

Registration

BUILDING HAH, FOYER

08.30-10.15

Session 1

BUILDING HAH, PLENARY ROOM

Ecology and environment

Chair: Valeria Gaia, Swiss National Reference Center, Bellinzona (CH)

08.30-09.00

Where is Legio, a not so simple question in the environment?

M02

Yann Héchard, University of Poitiers (FR)

09.00-09.15

Two chemical-free approaches to *Legionella* control in building water systems: dissolved oxygen reduction and charged-membrane filtration

S01

Chris Nancrede, Indianapolis (USA)

09.15-09.30

U.S. Cruise-associated case surveillance of Legionnaires' disease – 2016-2025

S02

Sooji Lee, Atlanta (USA)

09.30-10.00

How treatment reshapes the water microbiome and *Legionella* presence

M03

Laura Gomez-Valero, Institut Pasteur, Paris (FR)

10.00-10.15

Comparative genomic analysis reveals distinct population structure in *Legionella anisa*

S03*/P102*

Maria Najeeb, Montreal (CA)

10.15-10.50

Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

10.50-12.35

Session 2

BUILDING HAH, PLENARY ROOM

Epidemiology and diagnostics

Chair: Kazuhiro Tateda, Toho University, Tokyo (JP)

10.50-11.20

Ending legionnaires' disease: an audacious or achievable goal?

M04

Janet Stout, University of Pittsburgh (USA)

11.20-11.50

Pulmonary and extrapulmonary legionellosis: diagnostic challenges and unresolved questions

M05

Sophie Jarraud, University of Lyon (FR)

11.50-12.20 *Legionella* diagnostics: from culture to metagenomics
M06 Valeria Gaia, Swiss National Reference Center, Bellinzona (CH)

12.20-12.35 Evaluation of the national enhanced *Legionella*
S04 surveillance system in England, 2025
Katie Wrenn, London (UK)

12.35-13.35 Lunch break / Poster viewing / Exhibition

ETZ, E FOYER

13.35-15.20 **Session 3**

BUILDING HAH, PLENARY ROOM

Microbe interactions

Part 1: Secretion systems and the regulation of virulence

Chair: Yann Héchard, University of Poitiers (FR)

13.35-14.05 *Legionella* and its secreted phospholipases:
M07 a universe in a nutshell
Antje Flieger, Robert Koch Institut, Wernigerode (DE)

14.05-14.20 Exploring the biphasic lifecycle of *Legionella* through
S05*/P103* characterization of *L. pneumophila* protein Lpg1968
Tiffany Penner, Winnipeg (CA)

14.20-14.35 Capsule-mediated lethality in *Legionella longbeachae* is associated
S06* / P006* with host immune dysregulation and increased NET formation
Pedro Henrique Medeiros Câmara, São Paulo (BR)

14.35-15.05 Expanding role of the *Legionella pneumophila* type II secretion system
M08 Nicholas Cianciotto, Northwestern University, Chicago (USA)

15.05-15.10 From source to tap: mapping the water distribution
PF01 / P001 system microbiome and analyzing opportunistic
pathogens at species-level resolution
Pierre Foucault, Paris (FR)

15.10-15.15 Experimental evolution of copper resistance in *Legionella*
PF02* / P002* *pneumophila* also selects for improved recovery after stress
Gillian Cameron, Montreal (CA)

15.15-15.20 Association between genetic lineage and antimicrobial
PF03 / P003 susceptibility in clinical and environmental
Legionella pneumophila isolates from Japan
Shoko Komatsu, Kobe (JP)

15.20-15.55 Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

15.55-17.10 **Session 4**

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Microbe interactions

Part 2: Immunology and virulence

Chair: Shira Ninio, Kinneret Limnological Institute, Migdal (ISR)

15.55-16.25 Protein sociology of *Legionella pneumophila*
M09 PPlase Mip and infection interference
Michael Steinert, University of Braunschweig (DE)

16.25-16.40 Macrophage dysfunction in VEXAS syndrome
S07 *Abdelrahim Zoued, Lyon (FR)*

16.40-17.10 Innate immune detection and restriction
M10 of *Legionella pneumophila*
Sunny Shin, University of Pennsylvania, Philadelphia (USA)

17.10-19.10 **Poster session 1 and aperitive**
P001 – P038

ETZ, E FOYER

Wednesday September 9, 2026

07.45

Registration

BUILDING HAH, FOYER

08.30-10.15

Session 5

BUILDING HAH, PLENARY ROOM

Microbe interactions

Part 3: Remodeling of the pathogen vacuole

Chair: Antje Flieger, Robert Koch Institut, Wernigerode (DE)

08.30-09.00
M11

Structural elucidation of the essential *Legionella pneumophila* effector SdhA
Sagar Bhogaraju, EMBL Grenoble (FR)

09.00-09.15
S08/P104

SidL is an adenylyltransferase that modifies the host glycolytic metabolite 3-phosphoglycerate
Joshua Black, Baltimore (USA)

09.15-09.30
S09

Cryo-EM structure of *Legionella pneumophila* 3-methylcrotonyl-CoA carboxylase reveals substrate-induced filamentation
Amit Meir, Glasgow (UK)

09.30-10.00
M12

Manipulation of the nucleoli by a powerful Dot/Icm T4SS protease effector
Gunnar Schroeder, University of Belfast (UK)

10.00-10.15
S10

Using mitochondrial signals and AI to predict *Legionella pneumophila* replication within human macrophages
Pedro Escoll, Paris (FR)

10.15-10.50

Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

10.50-12.35 **Session 6**

BUILDING HALL, PLENARY ROOM

Microbe – Environment interactions

Part 1: Genetics, conjugation, phages

Chair: Tamara O'Connor, John Hopkins Medicine, Baltimore (USA)

- 10.50-11.20 M13 Blame the phage – on the unexpected origins of Legionnaires' disease
Alexander Ensminger, University of Toronto (CA)
- 11.20-11.35 S11 Global climate gradients structure soil *Legionella* diversity, abundance and pathogen distributions
Hans Singh, Honolulu (USA)
- 11.35-11.50 S12 Modulation of *L. pneumophila* biofilm growth through a unique protein conformational switching mechanism
James Garnett, London (UK)
- 11.50-12.20 M14 Structural and functional insights into natural transformation in *Legionella pneumophila*
Manuela Hospenthal, ETH Zürich (CH)
- 12.20-12.25 PF04 / P004 Targeted degradation of SidJ as a strategy against *Legionella pneumophila* infection
Giulio Giuliani, Frankfurt am Main (DE)
- 12.25-12.30 PF05 / P005 Elucidating genetics of *Legionella micdadei* biofilm and amyloid production through transposon mutagenesis screening
Christa Chatfield, Cortland (USA)
- 12.30-12.35 PF06 / P029 Lipid droplets: emerging targets in *Legionella pneumophila* pathogenesis
Daniel Schator, Zürich (CH)

12.35-13.35 Lunch break / Poster viewing / Exhibition

ETZ, E FOYER

13.35-15.35 **Poster session 2**

ETZ, E FOYER

P039 – P078

15.35-17.20	Session 7 Microbe – Environment interactions Part 2: Natural and artificial reservoirs – protozoa, persistence Chair: Nicholas Cianciotto, Northwestern University, Chicago (USA)	BUILDING HAH, PLENARY ROOM
15.35-16.05 M15	Co-option of a cell surface signaling system to control vacuole integrity <i>Tamara O'Connor, John Hopkins Medicine, Baltimore (USA)</i>	
16.05-16.20 S13	Impact of amoeba hosts on <i>Legionella</i> effector horizontal gene transfer and evolution <i>Tera Levin, Pittsburg (USA)</i>	
16.20-16.35 S14 / P105*	Modulation of intercellular tunnelling nanotubes of <i>Dictyostelium discoideum</i> by <i>Legionella pneumophila</i> <i>Luca Langlois, Zurich (CH)</i>	
16.35-17.05 M16	Beyond the tap: <i>Legionella</i> niche differentiation in a natural freshwater lake <i>Shira Ninio, Kinneret Limnological Institute, Migdal, (ISR)</i>	
17.05-17.20 S15	Do different <i>Legionella</i> strains behave differently within <i>Pseudomonas</i> biofilms? <i>Ana Rosa, Porto (PT)</i>	

17.20-17.55 Coffee break / Poster viewing / Exhibition ETZ, E FOYER

17.55-18.55	Session 8 Prevention, diagnostics and control Chair: Janet Stout, University of Pittsburgh (USA)	BUILDING HAH, PLENARY ROOM
17.55 - 18.25 M17	Prevention and control of <i>Legionella</i> : emerging perspectives from artificial intelligence <i>Maria Luisa Ricci, Istituto Superiore di Sanità, Rome (IT)</i>	
18.25-18.55 M18	<i>Legionella</i> story in Japan: between basic science and clinical Relevance <i>Kazuhiro Tateda, Toho University, Tokyo (JP)</i>	

19.15 **Free Guided City Tour** (registration mandatory, limited places)

Thursday September 10, 2026

07.45

Registration

BUILDING HAH, FOYER

08.30-10.15

Session 9

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Using whole genome sequencing in outbreak investigations: the good, the bad and the puzzling

Chair: Ursula Lauper; Danielle Wroblewski,
NYSDOH, New York (USA)

08.30-09.00
M19

Session introduction and NYS Investigations using WGS
*Ursula Lauper and Danielle Wroblewski and
Wolfgang Haas, NYSDOH, New York (USA)*

09.00-09.20
M20

Epidemiological and bioinformatic aspects of WGS
*Camille Jacqueline, EURL-PH-LEGI,
Hospices Civils de Lyon (FR)*

09.20-09.40
M21

How to consider *Legionella* diversity and
dynamics for source matching
*Michèle Prévost and Sebastien Faucher,
McGill University, Montréal (CA)*

09.40-10.00
M22

WGS of *Legionella*: Swiss stories and new technologies
Helena Seth-Smith & Tim Roloff, University of Zürich (CH)

10.00-10.15

Questions

10.15-10.50

Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

10.50-12.35 **Session 10**

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Type IV secretion system and effectors

Chair: Shaeri Mukherjee, University of California,
San Francisco (USA)

10.50-11.20 Structural and functional analysis of
M23 the *Legionella pneumophila* Dot/Icm Type IV
secretion system
Melanie Ohi, University of Michigan, Ann Arbor (USA)

11.20-11.35 The *Legionella* effector MavP targets host cell PMP70
S16* / P007* to recruit peroxisomes to the replication vacuole
Katerina Romanov, Baltimore (USA)

11.35-11.50 *Legionella pneumophila* subverts mitochondrial
S17*/P100* dynamics and mtDNA quality control to
promote intracellular replication
Tobias Jäggi, Zurich (CH)

11.50-12.20 *Legionella pneumophila* counteracts vacuole acidification
M24 through amino acid antiport
Matthias Machner, NIH, Bethesda (USA)

12.20-12.35 Beyond canonical domains: *Legionella* effectors use
S18 conserved α -helical folds to target phosphoinositides
Ramona Neunuebel, Delaware (USA)

12.35-13.35 Lunch break / Poster viewing / Exhibition

ETZ, E FOYER

13.35-15.20 **Session 11**

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Type IV effectors and host response

Chair: Aymelt Itzen, University of Hamburg (DE)

13.35-14.05 How to make a home in the ER: *Legionella* shows the way
M25 *Shaeri Mukherjee, University of California, San Francisco (USA)*

14.05-14.20 Post-translational modifications of the conserved Hippo
S19 pathway control host defense against pathogenic *Legionella*
Pei-Chung Lee, Detroit (USA)

14.20-14.35 Caspase-8 mediates host resistance to *Legionella*
S20* *longbeachae* independently of inflammasome signaling
Rhanoica Guerra, São Paulo (BR)

14.35-15.05 *Legionella* effectors modify the host epitranscriptome
M26 *Elizabeth Hartland, Hudson Institute, Melbourne (AUS)*

15.05-15.20 The *Legionella* effector RidL binds the large fission
S21 GTPase Drp1 to promote mitochondrial fragmentation
Ana Katic, Zurich (CH)

15.20-15.55 Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

15.55-17.10 **Session 12**

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Type IV effectors and posttranslational modifications

Chair: Matthias Machner, NIH, Bethesda (USA)

15.55-16.25 Towards the function of Fic enzymes in
M27 posttranslational modifications of *Legionella*
Aymelt Itzen, University of Hamburg (DE)

16.25-16.40 Structural basis for membrane targeting and
S22 secretion of *Legionella* SidE ubiquitin ligases
Mohit Misra, Frankfurt am Main (DE)

16.40-17.10 Regulation of host mitophagy by *Legionella pneumophila*
M28 *Tomoko Kubori, Gifu University, Gidai (JP)*

17.10-19.10 **Poster session 3 and aperitive**
P079 – P108

ETZ, E FOYER

As from 19.30 **Conference dinner** (registration mandatory) RESTAURANT SONNENBERG

Friday September 11, 2026

08.30

Registration

BUILDING HAH, FOYER

09.00-10.15

Session 13

BUILDING HAH, PLENARY ROOM

Genomics, evolution and surveillance

Chair: Laura Gomez-Valero, Institut Pasteur, Paris (FR)

09.00-09.30

M29

Genome size evolution and dynamics of horizontal gene transfers in 100 *Legionella* species
Lionel Guy, Uppsala University (SE)

09.30-09.45

S23

From ST154 to ST574: recombination within Norwegian *L. pneumophila*?
Anne V. Kroevel, Stavanger (NO)

09.45-10.00

S24

What is a cluster? The 6 km / 6 month rule and the challenge of community legionnaires' disease detection
David Howett, London (UK)

10.00-10.15

S25

Strengthening national surveillance of Legionnaires' disease: evidence from SwissLEGIO
Melanie Bigler, Allschwil, (CH)

10.15-10.50

Coffee break / Poster viewing / Exhibition

ETZ, E FOYER

10.50-12.35

Session 14

BUILDING HAH, PLENARY ROOM

Microbe interactions

Part 4: Cell biology

Chair: Elizabeth Hartland, Hudson Institute, Melbourne (AUS)

10.50-11.20

M30

The outer mitochondrial membrane as a platform for effector activity
Hayley Newton, Monash University, Melbourne (AUS)

11.20-11.35

S26

The bacterial effector LpDot1 triggers a unique methylation on SFPQ to hijack paraspeckles and alternative splicing
Sonja Nicchi, Paris (FR)

11.35-12.05 Mechanistic insights into LnaB-mediated regulation
M31 of ubiquitin signaling and immunity
Zhao-Qing Luo, Jilin University, Changchun (CN)

12.05-12.35 Multifaceted strategies for *Legionella pneumophila*
M32 evasion of host autophagy
Craig Roy, Yale University, New Haven (USA)

12.35-13.15 Short break – sandwiches

13.15-14.00 **Short talks and poster awards**

BUILDING HAH, PLENARY ROOM

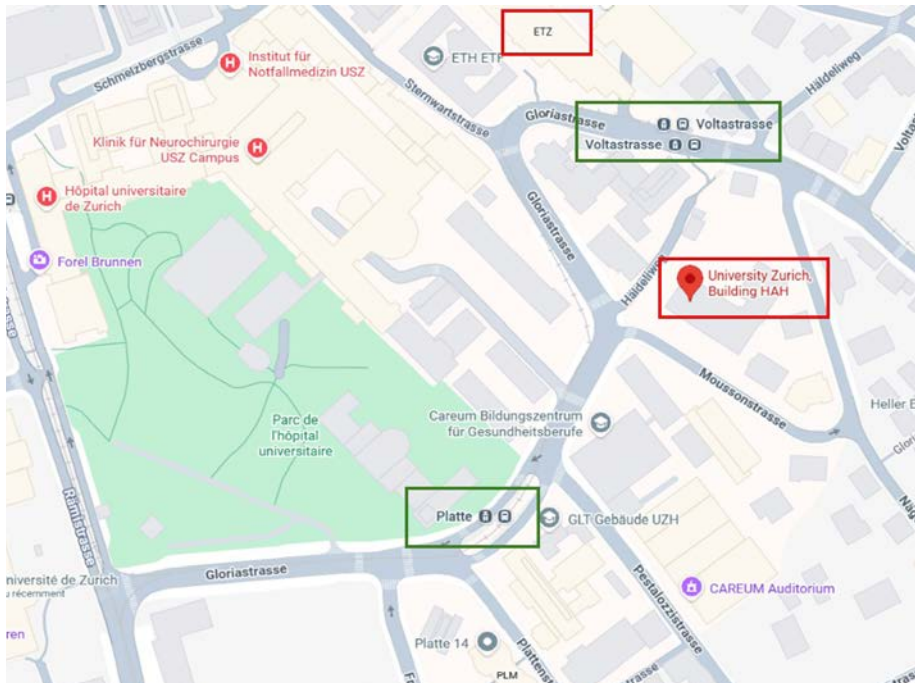
14.00-14.30 **Closing remarks**

Location

Arrival

By train, you can reach the UZH HAH building and the ETH ETZ building by taking the tram nr 6 (from Zürich main station) or nr 8 (from Bellevue) until “Zürich, Platte” or “Zürich, Voltastrasse”. From there, it is 2-3 minutes on foot.

By plane, you can reach Zürich main station from Zürich airport conveniently by train. The trains run frequently, and it takes ca. 10-12 min.



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