

Postdoc position in correlative cryoET of bacterial pathogens

Weiss Lab – Institute of Medical Microbiology, University of Zürich

www.weiss-laboratory.com

About us

The Weiss Lab (www.weiss-laboratory.com) at the Institute of Medical Microbiology, University of Zürich, investigates the lifecycle of bacterial pathogens using an integrative approach that combines infection biology, advanced structural biology, and functional assays. In close collaboration with clinical partners and our in-house diagnostic department, we develop workflows for direct cryo-EM imaging of patient-derived samples, to understand disease mechanisms across scales and in situ.

The project

You will study **bacterial cell–cell interactions in disease-relevant contexts**, leveraging cutting-edge structural biology, including:

- Bacterial infection assays (BSL2 and potentially BSL3)
- Plunge-freezing/High-pressure freezing
- Cryo-FIB milling with serial lift-out
- Cryo-electron tomography (cryo-ET) and subtomogram averaging
- Correlative light and electron microscopy (CLEM)

Your profile

- PhD in structural biology, microbiology, biochemistry, biophysics, or a related field.
- Strong interest in **infection biology** and quantitative analysis of cellular ultrastructure.
- Hands-on experience with **cryo-EM/cryo-ET**, **FIB-SEM**, or correlated imaging workflows is a plus.
- Familiarity with data processing/analysis pipelines; **coding/scripting** (e.g., Python, MATLAB, R) is an advantage.
- Independent, highly motivated, and a strong **team player** with excellent communication skills.

What we offer

- A collaborative, interdisciplinary environment with access to **state-of-the-art cryo-EM infrastructure (several Titan Krios, two pFIB instruments)**.
- Opportunities to work with **clinically relevant samples** and to develop new **correlative and in situ** methods.
- Mentoring, career development support, and opportunities to publish and present at leading conferences.
- Very **competitive employment conditions** according to UZH/Swiss standards.

How to apply

Please send your application including your **CV** and a **cover letter** (briefly outlining your research background, key skills, and motivation) to **Gregor Weiss** at gweiss@imm.uzh.ch. Informal inquiries are welcome.