



Imaging

# ELECTRON MICROSCOPY FACILITY (EMF)

## OVERVIEW

Electron microscopy provides the highest resolution in structural investigations of materials, macromolecules, cells and tissue. Besides of structural information, electron microscopy can locate macromolecules within cells and tissue. In addition it is used to analyse the chemical composition of the investigated structure at high spatial resolution.

Electron microscopy of biological systems requires expertise and skills in both the sample preparation methods and handling of the different types of microscopes and imaging modes. The team of the Electron Microscopy Facility (EMF) of UNIL has this expertise and in own research projects is expanding the technology in preparation, imaging and analysis.

Interested users will be taught in preparation methodology and instrument handling to make best use of the facility for their research projects either autonomously or under our supervision. A limited number of specimen can be fully processed and observed by the team.

## INFORMATION & CONTACT

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## Services

### TEM

- Philips CM100 with EDAX.
- Philips CM100 with cryo-stage.
- FEI Tecnai 12 for (cryo-)electron tomography.

### SEM

- Jeol 6300 FEG with EDAX.
- FEI Quanta 250 FEG.

### FIB-SEM

- FEI Helios 650.

### EQUIPMENT

- High-pressure freezer.
- Freeze-substitution apparatus.
- Cryo-ultramicrotome.
- Sputter coater.
- Metal and carbon evaporator.
- Critical-point dryer.

### EXPERTISE OF THE TEAM

- Resin (serial) sectioning.
- Tokuyasu cryo-sectioning.
- Immunolabelling (LM & EM).
- Correlative light - electron microscopy.
- Cryo-preparation methods for cryo-EM.
- Electron tomography.

