

Details

Electron Microscopy Core Facility (EMcore)

The Electron Microscopy Core Facility (EMcore) offers researchers the use of a wide range of transmission and scanning electron microscopy methods (TEM, SEM). The participating institutions are the Institute for Disease Modeling and Targeted Medicine (IMITATE) and the Institute for Anatomy and Cell Biology. The EMcore is available to both the scientists of the institutes and external groups. Together with the users, we determine the appropriate method for answering their questions and offer the entire EM workflow as a full service: Sample preparation, fixation, preparation and recording of the data. For more work-intensive projects, we instruct the users on the devices so that they can work independently. In addition to classic electron microscopy (TEM, SEM), other methods such as cryopreparation techniques (cryosubstitution, cryo-ultramicrotomy), immune EM, serial block area scanning electron microscopy (SBF-SEM), array tomography scanning electron microscopy and electron tomography are offered.

Address: Breisacherstr. 113
79106 Freiburg
Baden-Württemberg
Deutschland
[To website](#)

Host Institution

Universitätsklinikum Freiburg - IMITATE
Breisacher Str. 113
79106 Freiburg
Baden-Württemberg
Deutschland
<https://www.uniklinik-freiburg.de/imitate.html>

Scientific Domain

Primary Subjects:

- Biology
- Medicine

Secondary Subjects:

Category

Analytical Facilities

Scientific Services

The EMcore offers researchers access to modern electron microscopy systems. The EM Core Facility team has years of experience in applying electron microscopy techniques to study various model organisms. Due to the complexity of the technique, the entire electron microscopy workflow is usually offered as a service. This includes experiment planning, sample preparation, device selection, image analysis, and image data processing. For more labour-intensive projects, users can be instructed on the devices so that they can work independently.

Scientific Equipment

- SEM (ThermoFisher Quattro – Location IMITATE)
- TEM (ThermoFisher Talos – Location IMITATE)
- Serial Block Face-SEM (ThermoFisher Volumescape – Location IMITATE)
- TEM (Philips CM100 – Location Neuroanatomie)
- TEM (Zeiss LEO 906 E – Location Neuroanatomie)
- Freeze Substitution System (Leica AFS2)
- Array Tomography Device (ARTOS 3D)
- Cryo-Ultramicrotome (Leica EM UC7)
- Sputter Coater (Leica EM ACE600)

- Microwave (Pelco BioWave Pro)
- Glass knife maker (Leica EM KMR3)
- Specimen trimming device (Leica EM TRIM2)

Keywords

- transmission electron microscopy
- scanning electron microscopy
- electron tomography
- volume EM
- immunocytochemistry
- cryosubstitution
- cryo ultramicrotome

Networks

Microscopy and Image Analysis Platform (MIAP)

<https://miap.eu/>

Users per annum

Internal Users: 15

External Users in total: 5

External Users: 4

External Users in the EU:

External Users outside of EU: 1