

Details

Electron Microscopy Core Facility (EMCF)

The Electron Microscopy Core Facility (EMCF) is a competence center for electron microscopy and a central scientific facility of Heidelberg University. It is an associated institution with the CellNetworks Core Technology Platform (CCTP). The CCTP is the umbrella organization for the Core Facilities and emerged from the Cluster of Excellence "CellNetworks", which has been instrumental in promoting the infrastructure of the Heidelberg Life Science Campus. The EMCF is managed by a Steering Committee consisting of one representative from each of the professorships of the Heidelberg Medical Faculty, the Faculty of Life Sciences and one member of the "Heidelberg Molecular Life Sciences (HMLS) - Research Council". The Steering Committee is appointed by the Rector of Ruprecht-Karls-Universität Heidelberg on the proposal of the participating faculties (Faculty of Life Sciences and Heidelberg Medical Faculty).

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Host Institution

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<https://www.uni-heidelberg.de/de>

Scientific Domain

Primary Subjects:

- Biology
- Medicine

Secondary Subjects:

Category

Analytical Facilities

Scientific Services

The Electron Microscopy Core Facility (EMCF) provides technical and scientific support for transmission (TEM) and scanning electron microscopy (SEM) to all members of the University of Heidelberg. Depending on the need we provide full service of sample processing and imaging as well as advice on project workflow. We also teach EM techniques and offer equipment training. The techniques we provide include high pressure freezing, ultramicrotomy, cryo sectioning, immunostaining, negative staining, hands on imaging with correlative, light, scanning and transmission electron microscopy. We also offer electron tomography and array tomography imaging techniques. Our background in diverse fields of cell biology help to optimize biological sample preparation, which is the key to successful electron microscopy.

Scientific Equipment

- Transmission electron microscope 120kV
- Transmission electron microscope 200kV
- Scanning electron microscope
- High pressure freezer
- Freeze substitution device
- Ultra microtome
- Carbon coater

- Sputterer
- Critical point dryer
- Microwave processor

Keywords

- electron microscopy
- correlative light and electron microscopy
- immunogold labelling
- negative staining
- electron tomography
- array tomography
- transmission electron microscopy
- scanning electron microscopy
- high pressure freezing
- freeze substitution
- critical point drying
- microwave processing
- sample preparation
- ultramicrotomy
- chemical fixation

Networks

Volume EM

<https://www.volumeem.org/#/>

TechEM seminar series, organized by Erin Tranfield, Gulbekian Institute, Portugal

Users per annum

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