# Regulations and usage costs of the UKE Facility for Electron Microscopy and Morphology (UFEMM) (08.08.2024)

#### **General Guidelines**

The UKE Facility for Electron Microscopy and Morphology offers access to both internal and external users. UKE-associated institutions have the highest priority. Processing projects from other academic institutions is possible depending on our capacity. The UFEMM has its own internal booking system through which individual workstations and equipment can be booked for users. After extensive training and instruction, these can be booked independently. Users can only be trained by UFEMM employees. The UFEMM usage guidelines are mandatory for all users. All users have to sign the user agreement and accept the usage regulations.

#### Contact

Dr. Michaela Schweizer	m.schweizer@uke.de	040 7410 55084
Chudamani Raithore	c.raithore@uke.de	040 7410 56661
Emanuela Szpotowicz	e.szpotowicz@uke.de	040 7410 56661
Saskia Siegel	s.siegel@uke.de	040 7410 56894

### **Technical equipment**

The Core Facility for Morphology and Electron Microscopy is equipped with two transmission electron microscopes. Two Leica EM Ultracuts 7 (one with cryo attachment) and a Leica Ultracut S are used for sectioning. The group also has two automatic freeze substitution systems and a PC workstation for image analysis.

### **Electron Microscopes**

TEM JEOL JEM 2100plus TEM ZEISS 900

## **Projects and co-authorship**

At the beginning of every new project, an overview and documentation of the research project with a clear formulation of the central question is necessary. This should be sent to m.schweizer@uke.de. In the second step, a meeting takes place to discuss the scope, approach, and implementation of the project. In this discussion, it is also clarified which steps can be carried out by the users independently and which are carried out by the technical staff of the UFEMM. Depending on their wishes and needs, the users are instructed on the relevant devices. For projects that require above-average processing that goes beyond general support and advice, a scientific collaboration will be agreed. This includes co-authorship and participation in the writing of scientific publications. An order form is finally created as a user agreement with the documentation of the developed work steps, including a project number, and a cost plan.

# Acknowledgments

Acknowledgments are usually made with the names of the technical staff and a reference to the entry in the research infrastructure database of the German Research Foundation (RI\_00590)

### **Operating Costs**

The use of the services and equipment of the UKE Facility for Electron Microscopy and Morphology (UFEMM) is charged by an hourly usage fee as a contribution to our maintenance and consumables. This fee is mandatory for all researchers and can be found in the table below. The fees are calculated based on the DFG guidelines on equipment usage costs and equipment centers https://www.dfg.de/de/formulare-55-04-246878. Funds to cover usage fees can be requested from the DFG as part of funding applications. The UFEMM is happy to support researchers in estimating costs and applying for funds in the field of electron microscopy projects. The usage fees charged by the UFEMM are calculated twice a year, as a flat rate in hours of examination time required on the microscopes, and include the project-specific effort from sample preparation to the creation of publishable data. Depending on the project effort, consumables may be charged separately.

Dev	ice	Application operation (EUR/h)	Service operation (EUR/h)
TEM 80kV (Zeiss)	Instrumentation class (II)	45	90
TEM 200kV JEOL	Instrumentation class (II)	45	90
TEM 200kV JEOL	automated acquisition (Tomos)	100 Euro entry fees plus 85 Euro per started day	100 Euro entry fees plus 170 Euro per started day
SEM (TBD)	Instrumentation class (I)	30	60
Block-Face (TBD)	Automated acquisition	100 Euro entry fees plus 85 Euro per started day	100 Euro entry fees plus 170 Euro per started day

## Data backup and storage

Microscopy images generated by UFEMM staff are stored in the facility and passed on to the principal investigator when needed. Sample blocks embedded in epoxy resin are archived in the facility for at least ten years.

## Liability

The UKE is only liable for intent and gross negligence. A limitation of liability shall not apply in the event of a breach of material contractual obligations, damage resulting from injury to life, limb, or health, or in the event of guaranteed quality, fraudulent intent claims under the Product Liability Act, or other mandatory statutory liability.

In the event of a breach of material contractual obligations, UKE shall only be liable for simple negligence up to the amount of the foreseeable damage typical for the contract (material contractual obligations are those whose fulfillment characterizes the contract and on which the customer may rely).