

## **Policies & Procedures**

### **Hazardous Materials**

Potentially hazardous materials—including bacterial, viral, or radioactive samples—are not permitted in the EM Core Facility (EMCF) unless they have been rendered harmless.

Please consult with EHS and the Core Director about proper preparation procedures for any potentially hazardous materials before bringing them to the facility.

### **Sample Fixation and Handling**

Some sample types and research goals may require specific fixation protocols. To ensure proper preparation and submission, please submit a project request through our iLab website and consult with the EM Core Director well in advance.

The EMCF is not responsible for sample fixation unless prior arrangements have been made. Guidance and fixation protocols are available upon request. Proper fixation is a critical step in EM studies, as inadequate fixation can lead to sample degradation, artifacts, and reduced image quality.

### **Sample Submission Requirements**

- A completed sample manifest must be added to your iLab project request or emailed to the Core Director prior to sample drop-off.
- All samples must be clearly labeled, with names matching those on the manifest.

### **Lab Access and Sample Storage**

- Lab access is by appointment only, due to limited staffing. Appointments can be arranged by emailing the Core Director. Please plan accordingly.
- Due to limited space, the EMCF cannot provide long-term sample storage. All materials, including blocks and grids, will be returned to users.

### **Quotes and Invoicing**

Cost estimates are provided at the start of each project, and users receive a quote for approval before work begins. Please note that these are estimates and may change as the project progresses, depending on the nature of the samples or user needs.

If additional work is required due to sample complexity or special requests, the corresponding charges will be included in the final invoice, and any changes will be discussed with the user.

Invoices are issued and payable on a monthly basis.

### **Typical Sample Analysis Workflow**

1. Submit an iLab project request.
2. Consult with the Core Director to discuss project details and requirements. (The Core Director also manages all EM Core scheduling.)
3. Schedule pickup of the fixation solution from the EM Core.
4. User performs sample fixation and schedules sample drop-off at the Core Facility.
5. EM Core processes and sections the samples.

6. EM Core and the user coordinate imaging session scheduling.
7. Consultation during imaging is provided as needed.
8. EM Core returns all data and remaining samples to the user.

## **Microscopy and Instrument Reservation**

- Once samples are processed and sectioned and ready for imaging, the Core Director will contact users to schedule their imaging sessions.
- Users requiring staff assistance will be scheduled by the Core Director to ensure a staff member is available during their session.
- Trained and independent users will have access to the online scheduling system and may reserve the JEOL JEM-120i TEM through iLab on a first-come, first-served basis.
- Non-CU Anschutz users may access instruments only during working hours when not reserved for CU Anschutz projects.
- Reservations can be made up to two weeks in advance.
- If demand increases, the facility may reduce maximum reservation times in iLab to ensure equitable availability for all users.

## **Training for Independent TEM Operation**

Users interested in independent operation of the TEM must first meet with the Core Director to determine whether training is appropriate based on experience level and anticipated instrument use. Training and retraining will be billed for both staff time and instrument time.

- If training is appropriate, one-on-one, hands-on training will be provided.
- Independent access will be granted once staff determine that the user can safely and effectively operate the TEM.
- Failure to follow operating manuals and core staff guidelines may result in suspension of access privileges. Any damage to the instrument as a result of negligence will be charged to the user's PI.
- Users who have not operated the TEM for six months or longer must complete a refresher training session and review the operating manual before independent access is reinstated.

## **Cancellations and Tardiness**

Cancellations:

- If you cannot attend your session, please cancel at least 24 hours in advance.
- Cancellations made less than 24 hours before the scheduled time will be billed for the reserved period unless another user utilizes the canceled time.

Tardiness:

- If a user does not arrive within 30 minutes of the scheduled start time, the reservation will be canceled, and the scope will be made available to others. The user will be charged for the full reserved period unless another user utilizes the remaining time.

## **Data Management**

After each imaging session, images are shared with the user via OneDrive. Users are responsible for downloading and backing up their images.

Please note: Users are solely responsible for saving and preserving their data, as **the EMCF does not back up or archive user data.**