

## **Microscopic Imaging Core Facility User Guidelines**

The use of the microscopy facility has increased greatly in the past few years. With an increased number of users, proper use, care, and maintenance of the equipment and supplies in the facility becomes both more important and more difficult to ensure. Therefore, I would like to request your assistance in making some changes in the way that new microscope and related equipment users are oriented and trained as well as in the way that facility supplies are utilized.

### **1. Training new users**

In years past, there have been incidents of improper handling and use of the light microscopes and disregard for leaving the station clean and ready for the next user. Additionally, there have been many users who were completely unfamiliar and unsure of how to use the microscopes and cameras to get high quality images. To help prevent accidents with all the equipment and to help ensure that all users get quality results, when a person needs to conduct research using the equipment in the microscopy facility, they should be trained by the Director of Microscopy before they can begin using that equipment by themselves. By doing this, a number of positives will result:

- 1) The equipment will be used and cared for in the proper way
- 2) The Director, rather than other faculty and staff, will be responsible if mistakes are made due to lack of proper training
- 3) The Director will know each of the users in the facility rather than walking into the room and not knowing if someone should be in there or not. Controlling access will allow better monitoring of the facility.
- 4) The Director will be better able to maintain a database of facility usage and document both undergraduate and graduate student research projects utilizing facility equipment
- 5) The users will know and be comfortable coming to the Director for help with problems
- 6) The users will be more familiar with the microscope and generate high quality images
- 7) The users will be aware of all current issues related to equipment use – including upgrades and current equipment nuisances.

Once an individual has been trained on a particular piece of equipment, then they will be given card access into the facility. Typical training sessions for the LM or SEM will take approximately one hour. If a person is already a user of the facility and wants to begin using a new piece of equipment, then that person should be trained by the Director on that new piece of equipment before they begin using it by themselves. While many of you are willing and capable of properly training persons in the use of equipment in the facility, the direct and continual involvement of the Director in the training process will better enable the Director to perform the duties of maintaining the microscopy facility.

### **2. Use of facility supplies**

With the increased usage of the microscopy facility has come the depletion of sample preparation materials for the SEM, including stubs and carbon tape. The microscopy facility will maintain supplies needed to perform SEM experiments but the supplies in the facility should not be the exclusive source of supplies for individual labs' on-going research projects. Rather, please view the supplies in the facility in the following way:

- 1) As available for users who are in the preliminary stages of an experiment or procedure
- 2) As available for those who are trying to test out a procedure to determine if it will be feasible before purchasing all the necessary supplies

- 3) As available if a lab is temporarily out of said supplies
- 4) Not to replace the need of a research lab to purchase sample preparation supplies for on-going projects.

While the above referred to SEM-related supplies, these same guidelines should be respected regarding light microscopy sample preparation supplies including slides, coverslips, histological stains, and media.

To enable better accounting for the supplies in the facility and to ensure their equitable use among all departmental users, a log sheet will be placed on the countertop in the SEM room and on the countertop in the main room of the facility. Each time that supplies are taken from the facility, the type and number of supplies, lab group, and individual user should be documented on the log sheet.

### **3. Removing inactive names from the microscopy facility card access list**

To help ensure the security of research equipment and computer networks, it is important that only those persons with research or education related needs have access to the facility. To do this, the list of individuals with card access must be actively updated. This can only be successfully done with the help of the faculty. When a student, technician, or post-doc is no longer working with you or no longer needs to use facility equipment, please notify the Director so that his/her name can be removed from the list of users.

### **4. Good Core Facility Behavior**

Please observe the following guidelines when using facility resources. Remember the golden rule: Do unto others as you would have done to you!

- Turn off the light(s) on the microscope
- Replace the dust cover when finished to help keep the microscopes clean
- Put away all slides and supplies used when finished
- Do not leave wet, oily, or sticky areas on the work surfaces
- Clean the objectives, slides, and stage when using oil immersion
- Report any problems to the facility director
- Do not exceed your scheduled time when others are waiting
- Cancel appointments if you know you can't make them
- Notify the director when needed supplies are running low
- Turn off the lights when you leave the facility
- Always sign the log book

Thank you for your assistance in helping to care for and maintain the microscopic imaging core facility.