



Bosch Institute Advanced Microscopy Facility

Conditions of Use

1. All persons entering the Bosch Advanced Microscopy Facility in the Anderson Stuart Building must be registered to use the Facility or have made prior arrangement to visit the Facility with the Microscopy Officer. No unauthorised personnel must enter this Facility.
2. Prior to the commencement of access, the Registered Users must have completed and have a delegated authorised signature on the Access Fee Payment – Journal Transfer Form.
3. The Registered User must NOT allow access to non-registered users.
4. All Registered Users must undertake appropriate training with the Microscopy Officer prior to using specialised equipment and/or areas.
5. The Registered User must at all times follow all rules and procedures for the use of the facility including the wearing of any required safety clothing, if appropriate.
6. The Registered User will be responsible for the general cleanliness of the equipment and areas being used including the safe disposal of any waste materials.
7. The Registered User must report any accidents or misuse of the Facility to Dr Louise Cole on 9351 2520 or 0403 072 516 or Dr Cathy Payne on 9351 5802.
8. In the event that you breach any of the obligations under this Agreement, the Bosch Institute is entitled to terminate this agreement without notice.
9. This Bosch Core Facility should be acknowledged on all publications and presentations resulting from its use, and, if appropriate, the Core Officer should also be acknowledged.

**Please ensure the workplace is safe for you and
your colleagues at all times**



Bosch Institute Advanced Microscopy Facility

1. USER RESPONSIBILITIES:

- All Bosch AMF users must have read the following information and have signed the declaration on the *user training form* to confirm that you fully understand all policies and procedures outlined.
- Undertake training by the microscopy officer.
- Get signed approval for facility use by the microscopy officer.
- Follow standard operating procedures (SOPs) and facility signage at all times.
- Record problems in the log sheet and report them immediately to the microscopy officer.

2. SAFETY INFORMATION:

Important information/contacts

- This facility is called the *Advanced Microscopy Facility (AMF)*.
- It is located in Anderson Stuart Building F13, Rooms E401, S443, S445, S448, N127, N135.
- Facility is managed by the Core Facilities Manager, Dr Louise Cole (x12520 or 0403 072516) and the Microscopy Officer, Dr Cathy Payne (x15802).
- *Emergency First Aid Officers* are Marcus Robinson (x12816), Clive Jeffery (x17589) and Adel Mitry (x16500)
- *Chief Building Warden* is Nabil El Massri (x12595)
- *School Safety Officer* is Adel Mitry (x16500)
- Campus Security EMERGENCY (24 hours) phone number is x13333
- Emergency Services (Police/Fire Brigade) phone number is 0-000
- Sydney University emergency guidelines:
<http://sydney.edu.au/whs/emergency/index.shtml>

Relevant Literature

This document summarises safety procedures for this facility, but further reading of general laboratory safety is highly recommended. Please refer to *Standard AS/NZS 2243.1 Safety in Laboratories (General)* (copy in the AMF OHS folder in S443). This and other standards can be accessed via the University of Sydney Library website. <http://sydney.edu.au/library/>

Hazards

Before beginning, users must identify any hazards relating to their work and notify the microscopy officer (include this information in the *User Training Form*). Refer to Risk Management *Guide to Hazardous substances* (copy in the AMF OHS folder in S443). <http://sydney.edu.au/whs/guidelines/hazardouswaste/index.shtml>

Personal protective clothing and equipment (PPCE)

- Enclosed footwear must be worn at all times; bare feet, sandals and thongs are not permitted.
- Lab coats, safety glasses, face shields, gloves and other protective equipment must be worn for certain procedures.
- Use the protective eye-guard attached to fluorescent microscopes at all times and do not look directly into the focussed fluorescent light.

Work practices

- Lab personnel shall observe the work practices outlined in *Standard AS/NZS 2243.1 Safety in laboratories* (see the AMF OHS folder in S443 or Sydney Uni Library website <http://sydney.edu.au/library/>).
- Do not bring food or drink (includes water) for personal consumption into the laboratory. Eating, drinking, smoking, shaving and the application of cosmetics shall be prohibited.
- Familiarise yourself with emergency contact numbers (above), evacuation procedures and the location of fire extinguisher (corridor).
- Chemicals other than water, ethanol and immersion oil are not allowed in this laboratory. Water and ethanol must be stored in the wet area only (sink top). Immersion oil can remain in the work area. Permission must be granted to use any other chemicals.
- Wash skin areas that come in contact with chemicals, irrespective of concentration.
- Sample preparation must be carried out prior to entering this room if possible.

Spills and Waste Disposal

- If chemicals are used, be prepared for spills by doing the following:
 - Read the MSDS of all chemicals and be aware of the appropriate spill procedure.
 - Inform Microscopy Officer.
 - Handle chemicals in containment trays where possible.
 - Avoid the possibility of incompatible chemicals mixing.
- Report significant spills and accidents immediately to the Microscopy Officer (x12520 or x15802). Do not proceed without notification.
- For cleaning and decontamination procedures, refer to Section 9 of *Standard AS/NZS 2243.3* (copy in AMF OHS folder in S443) and *Appendix E List of effective chemical disinfectants* (see the AMF OHS folder in S443 or Sydney Uni Library website <http://sydney.edu.au/library/>).
- Segregate specialised wastes at point of discard and dispose of according to regulations.

- *Non-infectious material* (paper, plastic) shall be disposed of in plastic bag-lined bin provided.
- *Sharps* (broken glass, scalpel blades) shall be disposed of in container provided.
- *Infectious material* SHALL NOT be disposed of in this room.
- Refer to The University of Sydney *Hazardous Waste Policy* (see the AMF OHS folder in S443 or <http://sydney.edu.au/whs/guidelines/hazardouswaste/index.shtml>).

General Housekeeping

- The use of power should be kept to a minimum. Please turn off all equipment that is not in use and lights that are not required.
- The air-conditioner control unit controls temperature in BOTH S443 and S448 (a pleasurable temperature in the microscope room may mean an Arctic one in the neighboring office).
- At the end of the day, the last user should turn off all lights and equipment and check that the door is closed upon leaving.

Please refer to the Risk Management webpages for more detail on -

Guidelines on laboratory safety:

http://sydney.edu.au/whs/guidelines/others/laboratory_safety.shtml

Emergency guidelines:

<http://sydney.edu.au/whs/emergency/index.shtml>

Chemical safety (hazardous substances):

<http://sydney.edu.au/whs/guidelines/chemical/index.shtml>

Radiation and laser safety:

<http://sydney.edu.au/whs/guidelines/radiation/index.shtml>

Biological safety:

<http://sydney.edu.au/whs/guidelines/biosafety/index.shtml>

EQUIPMENT USE:

Before using any piece of equipment independently, the following must be undertaken:

- Training with the Core Facilities Manager or the Microscopy Officer
- Completion of *User training and registration forms* including being signed off by Microscopy Officer
- Standard Operating Procedures to be adhered to at all times

Equipment

- A complete list can be found on the Bosch AMF website.
<http://sydney.edu.au/medicine/bosch/facilities/advanced-microscopy/index.php>

- Nuance multi-spectral imaging microscope (E401)
- Olympus Stereology microscope (E401)
- Leica SPEll confocal microscope (S443)
- Zeiss “Deconvolution” microscope (S443)
- Zeiss LSM 510 Meta confocal microscope (S443)
- PALM laser microdissection microscope and optical tweezers system (N135)
- LaVision Biotec two-photon microscope (S445)
- Zeiss AxioScan Z1 Slide Scanner (N119)
- LaVision BioTec Ultramicroscope (S448)
- Imaging computers (PC and Mac), which contains software for image processing and analysis (E401)

Computers

- Computers are to be used for image analysis, processing and storage only.
- No unauthorized software is to be installed onto computers.
- No software is to be copied from the computers.
- All data files must be stored in the appropriate folder or they will be erased.
- Ensure a virus check is run on any discs, memory sticks, etc that have been in other computers.

Guidelines

- Training will be conducted as needed/requested by users. Please contact the Core Facilities Manager, Dr Louise Cole (x12520 or 0403 072 516) or the Microscopy Officer Dr Cathy Payne (x15802). The Core Facilities Manager or Microscopy Officer must approve this induction process (by signature) before a new user can work independently.
- Details of experiments must be provided **before** equipment use (via the *user training form*).
- All equipment must be booked via the online booking system. See link on Bosch AMF website: <https://au.ppms.info/bosch/>
- In addition to booking, equipment usage must be recorded on the log sheet after each session.
- Bookings on the Zeiss “Deconvolution”, Leica Spe II and LSM 510 Meta microscopes are limited to 6hrs Mon-Fri 9am-5pm plus 8hrs during other times. If the microscope is free or has low-level use, then this limit may be extended upon approval by the lab supervisor.
- Bookings on all other microscopes and computers are unrestricted.
- If a booking cancellation is made, users are urged to give as much notice as possible so that other arrangements can be made for another user to use the equipment.
- If you are more than **30 minutes late for your booking**, other users will be permitted to use the equipment. If you are running late, please notify the Core Facilities Manager or Microscopy Officer directly

- Users are encouraged to be considerate of the needs of others when making equipment bookings, which means limiting multiple session booking within a week to allow other users access.
- For after hour access, users must have undertaken training and reached a reasonable competency level as assessed by the lab supervisor. Users must then provide the supervisor with their security card number. After hours is considered to be Monday - Friday before 9am and after 5:00pm, and weekends.
- Equipment failure, software problems etc are to be brought to the attention of Dr Louise Cole (x12520 or 0403 072 516) or Dr Cathy Payne (x15802) immediately. These should also be noted in the log sheet for future reference.

3. DATA MANAGEMENT

- Users must store their data as soon as possible. The user must provide his/her own disks/memory sticks, and is responsible for transferring and/ or maintaining their own data.
- It is recommended that the registered User should request, if they do not already have, access to sufficient digital data storage space on the [Research Data Store](#) (RDS) at the University of Sydney (or an equivalent datastore) in order to store all data acquired through use of the Bosch Advanced Microscopy Facility.
- Data saved correctly in the appropriate user folders are occasionally backed up on heavily used equipment.
- If assistance is needed in transferring images to disc or network, please contact Dr Louise Cole (x 12520 or 0403 072 516) or Dr Cathy Payne (x15802).

4. TECHNICAL SUPPORT

If any problems arise please contact Dr Louise Cole (x12520 or 0403 072 516) or Dr Cathy Payne (x15802). Users are encouraged to email (louise.cole@bosch.org.au or cathy.payne@sydney.edu.au) with questions and suggestions regarding the use of all equipment. Users should not contact microscope companies directly.

5. LIVE CELL IMAGING POLICIES AND PROCEDURES

- Infectious materials (capable of causing infectious disease) are NOT permitted in this facility. The Bosch AMF microscopes are NOT within a PC1 or PC2 facility except for the PALM laser microdissection microscope which is located in room N135.
- If you are using live cells you must fill in the relevant section in the *user training form* **before** you use the microscope and return this to the Microscopy officer. Information required includes the type of cells you are using and a safe work practice procedure for decontamination of spills etc.