



Standard operating Procedure for BioSafety Level 2 (BSL-2) samples in the Bioimaging core facility, an academic shared facility.

Introduction

Any work with cells or materials classified as BioSafety Level 2 (BSL-2) must be approved by the federal office of environmental protection and the federal office of public health (Ecogen notification). Nevertheless, please note that not all BSL-2 work will be approved by the Bioimaging Core Facility.

Before any reservation and access to the BSL-2 microscope room it is necessary to:

- Possess a federal authorization (n° Ecogen) obtained by the group leader.
- Have completed the « Risques Biologiques » training provided by the STEPS training center.
- Have been informed of good working practices and specific rules by the BSL-2 microscope room respondents.
- Have been trained to the use of the microscope of interest by one dedicated personnel of the Bioimaging core facility.

Once these four requirements are met, an access to the laboratory with the multi-service card will be granted and online booking will be possible.

Working in our BSL-2 microscope room means:

- Respect the current rules posted into the BSL-2 microscope room.
- Be neat and organized.
- Protect yourself, and also protect others.
- Inform other users in the room and the bioimaging team in case of a spill or an accident.
- Use common sense.

Any person with inappropriate behaviour or manner of work will be sanctioned and banned from the BSL-2 microscope room.

The safety and protocol requirements listed below will ensure you and other users of the shared facility are safe when such experiments are carried out.

Regarding the main rules of the BSL2 microscope room:

- Access to the room is restricted to persons designated and trained by the Bioimaging staff.
- Users must book the microscope P2 Nikon widefield on the PPMS on line booking system.
- A member of the Bioimaging team will systematically assist users at the beginning of their imaging session or during the whole session.
- The door to the work area must be closed during the experiment.
- No eating, drinking, smoking, snuffing, use of cosmetics or storage of food.
- No sharp objects allowed (needles, glass culture dishes or glass slide, etc...)

- Two people maximum are authorized to work at the same time in the BSL-2 microscope room.
- The Bioimaging staff can assist by remote session users if necessary.

Regarding BSL2 samples, transport, and storage:

- Users must prepare samples outside the Bioimaging Core Facility using the appropriate tissue culture hoods and safety procedures.
- Users must use cell culture chambers in plastic or any other types of material tailored to light microscopy.
- Users must use breathable sealing membrane, multi-well sealing film, plate sealers, plate sealing film, sealing film to close the plates. In case of a plate falling no liquid should exit this sealing.
- Users must label samples with identity, biosafety hazard level, PI's name, user's name, Biohazard symbol, and date.
- Users must carry samples to the Bioimaging facility in a secondary container that is closed and leak proof.
- Users may not store biohazardous samples inside the Bioimaging facility.
- Samples in culture dishes or any other supports should not exceed 10 mL at the maximum.
- Perfusion experiments should be routinely reported to Bioimaging staff prior to implementation.
- If you significantly change the procedure speak first with the Bioimaging staff.

Regarding Personal Protective Equipment (PPE):

- **Users must wear required PPE at all times:**
 - Users must wear nitrile gloves or other appropriate protective gloves when handling samples in accordance with STEPS guidelines in regard to the specific agent in use.
 - Users working with BSL-2 samples must wear disposable lab coats available in the Bioimaging BSL-2 room and keep gloves to touching the microscope or computer.
- **Users must remove PPE (gloves and lab coat) before leaving the BSL-2 room.**

Regarding shared research facility:

- Users must keep laboratory doors shut when experiments are in progress.
- Users must follow all STEPS and Bioimaging policy, procedures, at all times.
- Pregnant women, person's on steroid therapy, or immunodepressive drugs shall not work in the facility prior to a thorough evaluation of the risks involved. The decision to allow these persons to work in the facility is made by the occupational medical service ("Médecine du Travail").
- Persons with a fresh or healing laceration or skin lesions should not work with infectious material unless the injury is completely protected. Personnel with injuries of this type must notify their medicine doctor prior to working in the facility.

Regarding Cleaning, Spills and Personal Etiquette:

- Users must wipe down microscope stage and prep area with tissue soaked in 70% Ethanol. If other disinfectants are required to inactivate samples, please discuss first with the BSO and the Bioimaging team. Users must decontaminate all potentially contaminated equipment and workspaces.

- Users must perform all procedures in a way that minimizes the creation of spill and/or aerosols.
- Users must thoroughly clean up spills and report any spills to the Bioimaging staff, the BSO and their PI (unconfined exposures **are obliged to be reported**).
- Users must report any illnesses or symptoms known to be associated with organisms, or any change in medical conditions to their PI, STEPS and Bioimaging management.
- The Bioimaging facility is NOT equipped to handle any BSL-2 waste. All BSL-2 waste must be removed from the facility (except gloves and lab coats that should be deposited in the dedicated red trash bin available in the microscope room).
- Users must wash hands with soap and water thoroughly:
 - After working with any biohazard
 - After removing gloves, laboratory coats, and other contaminated protective clothing
 - Before leaving the laboratory area
 - After a spill and appropriate clean up
- Users must not touch their face when handling biological material.

BSL2 Operator Authorization form

Hereby, I (print name) _____

Certify, that:

- I have completed a self-study course in “BSL-2” safety from _____
- I understand the biological hazards associated with BSL-2 samples.
- I have read through and understand the above policy and procedures regarding working with BSL-2 samples in shared research spaces.

User signature: _____ Date: _____

Organism(s) user is approved to work with: _____

Principal Investigator Signature: _____ Date: _____

Short Description of the imaging project:
