

SOP for imaging live samples in the UMass IALS Light Microscopy Facility

The Standard Operating Procedure (SOP) outlined in this document will ensure that you and all other users of the facility are safe when experiments using live samples are carried out.

1) Be sure to know what you are working with:

Know the [different BioSafety Levels \(BSL\)](#) for live research samples

BSL1 - Yeast, E. coli (K12 strains), etc. that are not known to cause disease in humans

BSL2 - All human cells (including cultured cell lines like HeLa) which may contain pathogens such as HIV or HBV, or other infectious (to humans) organisms

BSL3 & BSL4 - Very dangerous e.g. Ebola, airborne pathogens. You **CAN NOT** image such samples in the UMass IALS Light Microscopy Facility.

2) SOP for BSL2 samples

- a) Samples must be prepared either in your home lab or in one of the biosafety cabinets in LSL S570 using the appropriate TC hoods and safety procedures.
- b) The outside of culture dishes must be wiped with an appropriate disinfectant that is effective against the agent.
- c) Samples must be carried to S570 in a sealed secondary container with absorbent materials in the bottom of the container.
- d) Use gloves when moving the dish onto the stage, remove gloves **before** touching the microscope or computer.
- e) After imaging, the samples must be removed from the microscope and the microscope stage should be wiped down with tissue soaked in 70% ethanol (or another disinfectant that is effective against the agent). Any spills must be immediately and thoroughly cleaned with an appropriate disinfectant that is effective against the agent. Please inform LMF staff if you do spill something.
- f) All samples must be taken back to the host lab for disposal. LMCF is not able to handle biohazardous waste for you.
- g) Wash hands with soap when you are done.

Questions

If you aren't sure what to do please ask. For any procedures that may need to deviate from the above SOP, we can work with UMass EH&S.