Procedures for Clients Working with BSL2 Material on Microscopy Lab Microscopes

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Other Personnel Involved

Michael Cammer: 914-309-3270 (cell); 646-501-0567 (office); michael.cammer@med.nyu.edu
Yan Deng: 1-347-788-8212 (cell); 212-263-7635 (office); yan.deng@med.nyu.edu
Joseph Sall: 1-914-806-4953 (cell); 212-263-7635 (office); joseph.sall@med.nyu.edu

Important Telephone Numbers

Note: *In an emergency, Communications can page personnel from key departments*	
Any Medical Center Emergency	x33911
Building Services	x35071
Communications	x37403
NYULMC Urgency Care Center (UCC)	x35550
NYULMC Emergency Department (ED)	x30250
Occupational Health Services	x35020
Environmental Health and Safety (EH&S) Communications (x37403) can be contacted to connect to other departments or individuals.	x35159
NYULMC Facilities Management	x35275
Poison Control	(212) 764-7667
Radiation Safety	x36888
Security	x73000
Environmental Services	X34930

Whereas most work on microscopes is not BSL2, occasionally laboratories need to image unfixed material that requires specific safety protocols.

All work of this nature must:
1. Be approved by Core staff;
2. Follow existing safety protocols already on file with Environmental Health and Safety-Biosafety;
3. Follow Core protocol which may be additional to preexisting standards.

Approval by Core Staff

All live cell work may only be performed after consultation with Yan Deng or Michael Cammer and after the following completed form is received and approved.

Please type the answers into all fields in this form and copy and paste or attached to an email to BOTH michael.cammer@med.nyu.edu and yan.deng@med.nyu.edu

Date:

PI:

Postdoc/Student/Staff:

Chartfield:

Cell type(s):

If transient transfection, what reagents used?

Is this considered BSL2? Yes [ ] No [ ] If yes, attach safety protocol.

Goal of experiment. This may be very simple, for instance completing the sentence, "We want to see...":

General Information

The microscopy laboratories are located in various small rooms throughout the campus. All small rooms

- 2nd floor of the Skirball Institute, in back room of laboratory 2-4 which has access limited both by key and by combination keypad.
- 2nd floor of the Skirball Institute, midway down corridor which is swipe card limited access. One large table houses Zeiss and Nikon instruments.
- 3rd floor of the Skirball Institute, midway down corridor which is swipe card limited access.
- ACLSE 8th floor
- ACLSW421. Located 4th floor of ACLSW, this room has a door swipe access whereby only users with NYULMC IDs approved by the core and approved by Security have access.

Risk to Lab Personnel

All unfixed human and primate cell suspensions and tissues must be treated as potentially infectious, and handled in accordance with universal precautions for blood borne pathogens (i.e., handle as if infected with HIV, HBV, HCV etc.). This applies to cultured cell lines as well as primary tissue suspensions (e.g., blood, bone marrow, cells derived from solid organs). It also applies to nonhuman cells that have been deliberately infected with known or potential human pathogens.

Follow existing safety protocols

The complete existing protocol(s), signed by the lab Director/s and approved by EH&S must be submitted to the Core prior to any biological material entering the Core.

Core staff will review the protocol(s) and get back to user in a day or two.

Because original BSL2 protocols may not contain safety steps specific to microscopy, additional steps may need to be added to the existing protocols.

Because material will have to be transported to the Core, the protocol must contain a section on how this material will be safely transported.

Training
Prior to being allowed independent access to or performing work independently in the facility, all personnel will be trained by an approved lab user and must be approved by the Core staff or Director of the Microscopy Lab. Training will include knowledge of the Safety Manual and approved protocols, followed by observation of a certified user performing the intended procedures.

Restricted Access

Entry into the Microscopy Core Laboratory is restricted to authorized individuals who have received medical clearance from Occupational Health Services, have taken the Intro to Biosafety training, the OSHA Bloodborne Pathogens self-study, and reviewed the SOPs for the Microscopy Core Laboratory.

Core protocols which may be additional to preexisting standards.

All work must be scheduled in advance. There will be no walk-on work.

If a protocol calls for notification of other people in a lab, then email must be sent to all users on the Core emailing list who are registered to use that particular instrument every time an appointment is scheduled. Core staff will make this list available or send the email in coordination with the user.

At beginning of each session, user will locate the 70% ethanol bottle and check it has fluid in it.

If bleach or other cleaner is required, user will locate the bottle or bring their own.

User will locate Kimwipes or other lint-free absorbent materials.

Transportation of Materials between laboratories

All dishes of cells will brought the Core in secondary containment. For instance, small dishes will be transported in a larger plastic box that is taped shut and has been wiped down on the exterior with bleach, ethanol, and or formalin. If the user does not believe it is safe to handle this containment without gloves, then this material may not be brought into the Core. This will assure contaminated gloves are not brought into the Core or worn in transit to the Core.

Please note that user could handle their live cells and live animals with gloves on, but they need to take off gloves before touching the microscope knobs and computer keyboard to avoid cross contamination.

Personal Protective Equipment (PPE)

~~The user will bring a box of gloves.~~ Gloves will be removed and thrown out immediately following removing a sample from the microscope stage or putting a new sample on the stage. Gloves will not be reused.

Lab coats are to be worn at all times while inside the lab.

Exposure Incidents:
Manage exposure incidents such as needle sticks, cuts with contaminated instruments, or splash to mucous membranes as follows:

1. If worn, remove contaminated gloves.
2. Wash the wound with soap and tepid water for at least 5 minutes and apply sterile gauze or a bandage, if necessary.

3. For splashes to mucosal membranes, rinse tissue surface with copious amounts of water. Eyes should be irrigated for at least 15 minutes using the emergency eye wash station.
4. Remove protective lab clothing and proceed immediately to the appropriate location for treatment and counseling. During working hours, proceed to Occupational Health Services (1 Park Avenue, 3rd floor) and in off hours to the Emergency Department (Tisch Ground Floor).
5. Complete EOIIR form which will be provided by the Emergency Department or Occupational Health Services
6. Report the incident to the PI and core staff.
7. Exposures incidents involving rDNA must be reported to the IBC immediately after the above steps have been taken.

Animal bite or scratch:

1. As soon as possible wash the wound with plenty of soap and water for at least 5 minutes.
2. If wound is bleeding, cover with sterile gauze, or a paper towel.
3. Remove protective lab clothing and proceed immediately to the appropriate location for treatment and counseling. During working hours, proceed to Occupational Health Services (1 Park Avenue, 3rd floor) and in off hours to the NYU Hospital Emergency Department (Tisch Ground Floor).
4. Complete the EOIIR form which will be provided by the Emergency Department or Occupational Health Services
5. Report the incident to the PI and core staff after the necessary treatment has been received.

Loose animal

1. If possible, confine the animal to a secure area (e.g. animal room or hallway).
2. Contact members of the veterinary staff and DCM animal care staff as soon as practical.
3. Assess the situation by determining if there are any immediate threats to the animal's health and well-being (open containers of hazardous chemicals, broken glass, breakable containers, etc.). If possible, remove any potential hazards.
4. Experienced personnel may attempt to recapture the animal.

Spill Procedures

If there is a spill, Core staff will be notified immediately regardless whether the user has cleaned the spill. All cloth/paper used to wipe spills must be deposited in red waste cans. After wiping dry, affected areas and the areas adjacent must be wetted and wiped thoroughly with 70% ETOH and/or 10% bleach. DO NOT SPRAY MICROSCOPE.

If there is a spill that the user cannot completely clean on his/her own and it is not during regular business hours when staff are available to assist, the user will post a full page note on both the microscope and the exterior door of the room stating that the equipment may not be used because of contamination, and email or call core staff immediately.

Standard Practices

- **Eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption must not be permitted in laboratory areas.**
- **At the end of every session, the microscope stage will be wiped with 70% ethanol and/or 10% bleach.** DO NOT SPRAY MICROSCOPE.
- **Touching the keyboard or microscope focus knobs with gloves is immediate grounds for expulsion from the Core.**

All users will sign below stating that they have read these policies.

Any time a user is found to violate any of these rules, EH&S may be notified without additional warning.

_____

User's name printed

_____

Signed and dated

Alice Liang Alice Liang 06/29/2017

Director, Core Staff/s Signature and date