Prevention of Biological Cross-Contamination

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# Purpose

<<<< This SOP is left in DOCX format so that you may edit it for your own laboratory>>>

The purpose of this SOP is to lay out the responsibilities, equipment and procedures required for prevention of biological cross-contamination, specifically with reference to portable and personal electronic equipment.

**The Presidential Biosafety Advisory Committee does not recommend the use of personal electronic equipment in laboratory wet-work areas.**

# Scope

This SOP applies to all persons and their Supervisors in any biological containment zone where portable electronic equipment is used.

This SOP does not apply to chemical or radiological cross-contamination. For guidance, please contact:

* fhsso@mcmaster.ca for chemical cross-contamination guidance within FHS
* eohss@mcmaster.ca for chemical cross-contamination guidance in all other Faculties
* hphys@mcmaster.ca for radiological cross-contamination guidance

# Responsibilities

## Supervisors

Supervisors are responsible for:

* **Reviewing this SOP on a regular basis. Review is to consider and mitigate the risks of spill, loss of containment, biological cross-contamination and exposure or other harm. Refer to Performing Risk Assessments SOP.**
* Communicating clearly any local policies related to use of personal or portable electronic equipment within the laboratory or within laboratory wet-work areas.
* Ensuring any facility-specific policies are communicated to and followed by their workers.
* Ensure the Desk Area SOP is implemented within their area of responsibility.
* Assessing the requirement for any procedure which involves biohazardous materials to include portable electronic equipment.
* Providing a standard operating procedure related to decontamination of any specific piece of portable electronic equipment used in any procedure which involves biohazardous materials.
* Ensuring that all workers under their supervision are trained on and are proficient in performing the steps of this SOP.

## Workers

Workers are responsible for:

* Following this SOP as approved by their Supervisor.
* Disclosing the use of any personal electronic equipment within the laboratory or laboratory wet-work areas to their supervisor.
* Ensuring any created SOP related to decontamination of personal electronic equipment complies with their manufacturer’s recommendations for cleaning of their equipment.
* Following SOPs related to the use and decontamination of portable and personal electronic equipment.
* Reporting spills and biological contamination of portable electronic equipment to their supervisor.

# Equipment

## Laptops

1. Laptops are to be attached to research equipment in such a manner to minimize the risk of biological contamination, damage or accident to equipment or personnel.
2. Laptop keyboards are to be covered with impermeable material which prevents leakage of liquids into the chassis.
3. Laptop surfaces are to be cleanable with isopropanol.
4. Spills to laptops are to be reported to the supervisor immediately.
5. Contaminated laptops are to be reported to the Biosafety Office and stored in a biological safety cabinet or gasket-fitted leakproof container until disassembled and decontaminated.

## Tablets and Cell Phones

1. Cellphones and tablets are to be attached to research equipment in such a manner to minimize the risk of biological contamination, damage or accident to equipment or personnel.
2. Cellphones and tablets are to be removed from their cases.
3. Cellphones and tablets are to be placed or wrapped in clear plastic in such a manner which allows for use of the equipment as planned.
4. Cellphone and tablet surfaces to be cleanable with isopropanol.
5. Spills to cellphones and tablets to be reported to the supervisor immediately.
6. Contaminated cellphones or tablets cannot be decontaminated.

# Procedure for Spill

1. Adapt this procedure for your location.
2. Immediately assess for personal biological contamination or exposure. Follow exposure protocols.
3. Immediately disconnect the equipment and power off.
4. Immediately cover any droplets with paper towel.
5. Using isopropanol moistened paper towels, wipe all surfaces of the equipment, discarding the paper towels into a biohazard waste receptacle. Repeat this at minimum, three times on all surfaces.
6. If warranted, bring the portable equipment to a biological safety cabinet and directly spray the equipment with isopropanol.
7. If it is suspected that the contaminant has gone inside the equipment, contain the equipment and contact the Biosafety Office for next steps.