

Standard Operational Procedure OHP-SOP-002

Occupational Health Screening Procedure for Work Involving Biohazardous Materials

1. Purpose

The purpose of this procedure is to prevent and detect illness related to laboratory exposure to infectious materials or toxins in the course of University Sanctioned Activities.

2. Scope

This procedure applies to all Members of the University Community participating in University Sanctioned Activities and who have been identified as having exposure or potential exposure to biohazardous materials, as defined in Section 3.1.

For Members of the University Community participating in University Sanctioned Activities which have been identified as having exposure or potential exposure to bloodborne pathogens, please see OHP-SOP-001 *Occupational Health Screening Procedure for Work Involving Human Blood, Body Fluids or Tissues*.

3. Definitions

3.1 Biohazardous Materials

Biohazardous materials are defined as materials of biological origin that are potentially harmful to humans, animals, plants, the economy or the environment. Biohazardous materials include, but are not limited to:

- Pathogenic microorganisms such as certain viruses, fungi, parasites and bacteria;
- Biological toxins from microorganisms, plants and animals;
- Materials that may contain the above-mentioned agents (e.g. cell cultures, tissue, blood and body fluids from humans and animals, environmental samples);
- Certain proteins, nucleic acids (siRNA, miRNA, DNA from pathogenic organisms, oncogenes);
- Genetically modified organisms (GMO) that may be hazardous to the environment if released.

3.2 Bloodborne Pathogens: Pathogenic microorganisms that may be present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

3.3 University Sanctioned Activity: May include but is not limited to working, research, studying, working as an intern, and/or volunteering.

3.4 Members of the University Community

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- Employee - a person who, under a contract of lease of personal service or contract of apprenticeship is hired to work full-time or part-time in a permanent or a temporary position at the University. Employees include faculty and staff.
- Student - an individual who has contracted with and is registered at the University for an academic purpose.
- Intern - Students performing an internship, with or without remuneration, for a company or an institution.

An Undergraduate, Graduate or Postgraduate student carrying work for the University is per definition, an employee.

4. Occupational Health Screening Requirements

The Occupational Health Screening requirements for any individual working with Biohazardous Materials are determined during the risk assessment conducted by the Biosafety Officer, in collaboration with the Supervisor/Principal Investigator and Occupational Health Physician.

4.1 Medical Assessment

A medical assessment may be required, as determined by the Biosafety Officer in consultation with the Occupational Health Physician. The following may be included as part of the medical assessment:

- Evaluation of health status (physical examine by licenced physician);
- Identification of any underlying medical conditions that could increase risk;
- Interview with Occupational Health Physician;
- Completion of personal medical history questionnaire;
- Review of current medications; and
- Review of prior immunizations.

Individuals who are immunocompromised or immunosuppressed (e.g. through medical therapy, pregnancy, diabetes, etc.) may need to be flagged, as they may be especially susceptible to infection, unable to take post-exposure treatment, or experience more severe illness if exposed

4.2 Immunizations

Immunizations or other prophylaxis may be required prior to starting work with a Biohazardous Material. In lieu of immunization, when the individual has already been immunized, testing of antibody titers may be required. Details of immunization requirements will be stipulated on the Biohazard Permit.

To ensure the requirements are met, all Members of the Community enrolled in the Occupational Health Screening Program for Work Involving Biohazardous Materials will be required to provide the Occupational Health Program Coordinator with one of the following:

- Proof of immunization;
- Proof of antibody titer to confirm immunity, or
- A signed immunization declination form.

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4.3 Declination Form

All individuals required to enroll in the Occupational Health Screening Program for Work Involving Biohazardous Materials can decline participation in the program. In order to do so, once the risks associated with potential exposure to the biohazardous materials and the risks associated with declining to participate in the program have been explained by the Occupational Health Physician, they must sign a declination form that will be prepared by the Occupational Health Program Coordinator.

4.4 Ongoing Occupational Health Screening

Ongoing Occupational Health Screening may be required; details will be stipulated on the Biohazards Permit.

An Occupational Health Physician will be available for consultation regarding changes in the health status of an individual that could increase their risk of exposure or disease susceptibility.

4.5 Occupational Health Physician Consultation

Any individual identified as requiring enrollment in the Occupational Health Screening Program for Work Involving Biohazardous Materials can consult with the Occupational Health Physician to discuss:

- Concerns related to the risks involved when handling biohazardous materials;
- The occupational health screening requirements;
- Post-exposure procedures; and/or
- Any medical or health condition (e.g. immunosuppressive medications, pregnancy, or illnesses that could compromise immune status) that could potentially change their risk if exposed to a biohazardous material.

Appointments with the Occupational Health Physician are coordinated by the Occupational Health Coordinator (Lorena Boju, 514-848-2424 ext. 5008).

4.6 Post-Exposure Procedure

The development of a risk-specific post-exposure procedure, including post-exposure prophylaxis and treatment may be required. Details will be incorporated in the Standard Operating Procedure involving the Biohazards Material and stipulated on the Biohazards Permit.

5. Roles and Responsibilities

In addition to the Roles and Responsibility stated in the Occupational Health Program Standard Operating Procedure OHP-DOC-001, the following roles and responsibilities also apply:

5.1 Individual Requiring Enrollment in the Occupational Health Screening Program for Work Involving Biohazardous Materials

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All individuals identified as requiring enrollment in the Occupational Health Screening Program for Work Involving Biohazardous Materials are responsible for:

- Adhering to the Occupational Health Screening requirements;
- Completing the required vaccinations, titer check and/or booster shots and providing documentation of immunization and/or protective titers to the Occupational Health Program Coordinator before beginning to handle Biohazardous Materials;
- Completing all required training before beginning to handle Biohazardous Materials;
- Being aware of and following the applicable post exposure procedure(s);
- Reporting any exposure, injury, near-miss, or illness that may be associated with the handling of Biohazardous Materials to their Supervisor, and submitting an Injury/Near Miss Report Form (EHS-FORM-042) as soon as possible, as per the University's Policy on Injury Reporting and Investigation (VPS-42);
- Reporting to the Occupational Health Physician any medical or health condition (e.g. immunosuppressive medications, pregnancy, or illnesses that could compromise immune status) or change in medical or health condition that could potentially change their risk if exposed to a Biohazardous Materials; and
- Consulting their physician, a physician through Health Services, or the Occupational Health Physician regarding concerns related to handling Biohazardous Materials and the associated occupational health screening requirements or post-exposure procedures.

Individuals identified as requiring enrollment in the Occupational Health Program due to their exposure or potential exposure to Biohazardous Materials who wish to refuse participation, prior to beginning to handle Biohazardous Materials, are responsible for:

- Meeting the Occupational Health Physician;
- Signing the declination form; and
- Submitting the signed declination form it to the Occupational Health Program Coordinator.

5.2 Supervisors/Principal Investigator

Supervisor and Principal Investigators are responsible for:

- Submitting to EHS a Biohazard Permit Application for all activities involving Biohazardous Materials;
- Participating in the risk assessment conducted by the Biosafety Officer;
- Identifying individuals requiring Occupational Health Screening;
- Complying with all requirements, including Occupational Health Screening, stated on the Biosafety Permit;
- Ensuring that all individuals under their responsibility have been informed about the potential risks of working with Biohazardous Materials and the required safety measures to be implemented, including potential routes of exposure, consequences of exposure (signs and symptoms) and the post exposure procedure;
- Ensuring Occupational Health Screening requirements are met for all individuals under their responsibility before allowing them to work with Biohazardous Materials;

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- Assuming all costs associated with this procedure (e.g. immunization costs);
- Ensuring all required training is completed before work commences, including knowledge of procedures involving the handling of Biohazardous Materials;
- Providing all required PPE and safety equipment;
- Reporting to the Occupational Health Program Coordinator and/or Biosafety Officer, any medical or health condition (e.g. immunosuppressive medications, pregnancy, or illnesses that could compromise immune status) or change in medical or health condition that individuals have self-identified that could potentially change their risk if exposed to a Biohazardous Material, including mitigating strategies that could be instituted. A medical recommendation from the Occupational Health Physician may be required; and
- Reporting any exposure, injury, near-miss, or illness that may be associated with the handling of Biohazardous Materials to the Occupational Health Program Coordinator and/or Biosafety Officer, and submitting an Injury/Near-Miss Report Form (EHS-FORM-042) as soon as possible, as per the University's Policy on Injury Reporting and Investigation (VPS-42).

5.3 Health Services

Health Services is responsible for:

- Providing access to a physician for consultation regarding changes in health status that could increase risk of exposure or disease susceptibility.

5.4 Environmental Health & Safety

Environmental Health & Safety is responsible for:

- Ensuring the services of an Occupational Health Physician are available for consultation, when required by the Occupational Health Program Coordinator, the Biosafety Officer or any individual identified as requiring enrollment in the Occupational Health Screening Program for Work Involving Biohazardous Materials.

5.5 Occupational Health Physician

The Occupational Health Physician is responsible for:

- Being available for consultation, when required, by the Occupational Health Program Coordinator, the Biosafety Officer or any individual identified as requiring enrollment in the Occupational Health Screening Program for Work Involving Biohazardous Materials;
- Reviewing the Occupational Health Screening Program for Work Involving Biohazardous Materials; and
- Assisting in the identification of target populations for enrolment in the Occupational Health Screening Program for Work Involving Biohazardous Materials;
- Providing medical expertise for any individual who reports exposure, injury, near-miss, or illness that may be associated with the handling of Biohazardous Materials.

5.6 Occupational Health Program Coordinator (EHS)

The Occupational Health Program Coordinator is responsible for:

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- Coordinating the Occupational Health Screening Program for Work Involving Biohazardous Materials, in collaboration with Health Services, the Biosafety Officer and the Occupational Health Physician;
- In collaboration with the Biosafety Officer, responding promptly to any reported exposures, injuries, near-miss, or illness that may be associated with the handling of Biohazardous Material; and
- Maintaining and preserving the confidentiality of all records pertaining to vaccination and immune status.

5.7 University Biosafety Committee

The University Biosafety Committee is responsible for reviewing this procedure periodically and recommending changes.

5.8 Biosafety Officer

The Biosafety Officer is responsible for:

- Reviewing Biohazard Permit applications and determining if Occupational Health Screening is required, in consultation with an Occupational Health Physician;
- Determining degrees of exposure and identifying the target populations for enrolment in the Occupational Health Screening Program for Work Involving Biohazardous Materials; and
- Conducting investigations for all reported exposures, injuries, near-misses, or illnesses that may be associated with the handling of Biohazardous Materials.

6. Signature

This SOP requires the following approvals:

Pietro Gasparrini

June 1, 2017

Director

Environmental Health & Safety

Signature

Date

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