

**Syracuse University
Biosafety Program**

Prepared by Environmental Health and Safety Services

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1.0 Introduction

The Syracuse University Biosafety Program (Program) provides the framework and requirements for Syracuse University faculty, staff, and students to safely and compliantly possess and use biohazardous materials at the University. The Program is administered by Environmental Health and Safety Services (EHSS). Activities involving biohazardous material must be conducted in a manner that complies with the Program. A violation of the Program requirements will be considered a violation of the University's EHSS Policy and/or Academic Affairs' Research Compliance Policy.

The University also maintains a separate Bloodborne Pathogen Program in accordance with the Occupational Safety and Health Administration's Bloodborne Pathogen Standard. Employees using human blood or bodily fluids known as other potentially infectious material including human organs, tissues, cells, or body fluid visibly contaminated with blood must also comply with the University's Bloodborne Pathogen Exposure Control Plan.

2.0 Applicability

The Program applies to all University faculty, staff and students possessing or using biohazardous materials. Biohazardous materials covered by this Program include:

- Recombinant and Synthetic Nucleic Acid Molecules
- Microorganisms (examples: bacteria, fungi, virus, etc.)
- Plants (examples: native, invasive, and transgenic species)
- Animals & Animal Materials (examples: fluids, tissues, organs, etc.)
- Human Materials (examples: fluids, tissues, organs, etc.)
- Cells and Cell Lines (including primary, established, and stem cells)
- Biological Toxins
- CDC/APHIS Select Agents and Toxins

Anyone possessing or using biohazardous materials at the University must comply with all applicable sections of this Program.

3.0 Roles and Responsibilities

3.1 Environmental Health and Safety Services

The responsibilities of Environmental Health and Safety Services (EHSS) include:

- Designate a staff member to serve as Biosafety Officer (BSO).
- Implement, maintain, and periodically review and revise this Biosafety Program.
- Review applications, standard operating procedures, and amendments for use of biohazardous materials.

- Coordinate and communicate with the University's Institutional Biosafety Committee.
- Conduct biohazardous material hazard evaluations, inspections and incident investigations.
- Implement, maintain, and periodically revise the EHSS Biosafety Training.
- Provide access to EHSS Biosafety Training for lab personnel.
- Coordinate biohazardous waste disposal for waste generated and accumulated in the labs.
- Provide guidance and consultation on biohazardous materials use and use area(s).
- Suspend, restrict or cease biohazardous material activities that present a serious, confirmed or perceived, hazard to the health, safety, or welfare of people, property, or the environment, or a clear or threatened violation of regulatory codes, laws, or requirements of university policy.

3.2 Institutional Biosafety Committee

Syracuse University's Institutional Biosafety Committee (IBC) functions in accordance with the National Institutes of Health Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids (*NIH Guidelines*).

- Review and approve applications, standard operating procedures, and amendments for use of biohazardous material requiring IBC approval.
- Advise the Vice President for Research (VPR), Provost, and University leadership on matters related to the use of biohazardous materials, as needed or requested.
- Provide guidance and support to BSO and EHSS in carrying out biosafety related mandates and initiatives.
- Periodically assess compliance relating to the possession and use of biohazardous material and review the annual biosafety inspections conducted by the BSO in conjunction with EHSS to confirm activities are being conducted safely and compliantly.
- Review biohazardous material incidents, injuries, and near misses. Review and recommend appropriate corrective actions.
- Review and recommend infrastructure requirements to support compliance and provide the appropriate level of safety for biohazardous material activities to be conducted.
- Report significant violations of the *NIH Guidelines* and any significant suspected or alleged violations of protocols, external regulations, University policies, or required biosafety practices to the Office of Research, the appropriate institutional official, and when necessary to the NIH Office of Science Policy.
- In cooperation with the Office of Research, recommend and require remedial action to correct any violation of *NIH Guidelines*, external regulation, University policy, or required biosafety practices.
- Review and recommend, in consultation with medical professionals, the need for medical surveillance of individuals working with biohazardous materials as appropriate.
- Maintain written records of all IBC meetings, actions, decisions, and recommendations.

3.3 Deans, Directors, and Department Heads

The deans, directors, and department heads of schools, colleges, and departments where biohazardous material use laboratories are present are responsible for the safety of their laboratory personnel. The responsibilities of Deans, Directors, and Department Heads include:

- Ensure that their laboratory personnel understand and take seriously their roles in implementing this Program and overseeing and assisting with compliance of all requirements, procedures, and practices outlined in this Program.

3.4 Principal Investigator and Teaching Laboratory Supervisors

The responsibilities of Principal Investigators (PIs) and teaching laboratory supervisors with biohazardous material laboratories and work areas include:

- Ensure compliance with Program requirements in their biohazardous material use laboratories and work areas.
- Obtain and maintain an approved Biohazardous Materials Use Application for possession and use of biohazardous materials. Adhere to the requirements and stipulations of the approved application. Amend and renew the application as required.
- Develop and implement laboratory specific biosafety procedures and ensure their laboratory personnel are trained and following the procedures.
- Complete EHSS required biosafety training.
- Ensure laboratory personnel complete EHSS required biosafety training.
- Determine personal protective equipment requirements for lab personnel and provide at no cost, all required PPE to laboratory personnel. Ensure PPE is in good condition and is worn at all times.
- Maintain an accurate list of personnel using biohazardous materials or working in biohazardous materials use areas.
- Maintain an accurate inventory of biohazardous materials stored and/or used in their lab.
- Ensure work areas are kept neat, clean and routinely decontaminated after use of biohazardous materials.
- Ensure the laboratory door sign and additional signage uses the universal biohazard symbol to properly communicate the hazards within the biohazardous material use space.
- Obtain and maintain adequate engineering controls, instrumentation, equipment, and laboratories to facilitate the safe use, handling, and/or storage of biohazardous materials.
- Biosafety cabinets must be certified upon installation and annually thereafter by a University approved vendor.
- Ensure the safe transport of biohazardous material within and outside their laboratory.
- Ensure biohazardous materials and contaminated items are disposed of properly and in compliance with all applicable rules and requirements.

- Maintain a biological spill kit in areas where biohazardous materials are stored and used.
- Immediately notify Department of Public Safety in the event of a serious laboratory incident including any incident involving fire, explosion, personal injury, property damage or release of hazardous material. Follow the university lab incident and notification process.
- Report laboratory incident and near miss information.
- Report biohazardous material or exposure concerns or reported/observed unsafe working conditions to EHSS for evaluation.

3.5 Laboratory Personnel

Staff and students working in biohazardous material labs are required to:

- Adhere to the requirements of this Program.
- Conduct activities with biohazardous materials in accordance with their PI/supervisor's IBC approved Biohazardous Material Use Application, where applicable.
- Complete EHSS required biosafety training.
- Ensure PPE is in good condition and required PPE is worn at all times.
- Use appropriate engineering controls as outlined in the approved IBC application.
- Follow laboratory specific biosafety procedures and SOPs.
- Ensure work areas are kept neat, clean and routinely decontaminated after use of biohazardous materials.
- Ensure the safe transport of biohazardous material within and outside their laboratory.
- Ensure biohazardous materials and contaminated items are disposed of properly and in compliance with all applicable rules and requirements.
- Immediately notify Department of Public Safety in the event of a serious laboratory incident including any incident involving fire, explosion, personal injury, property damage or release of hazardous material. Follow the university lab incident and notification process. Advise supervisor of near misses or perceived/observed unsafe working conditions.

4.0 Biohazardous Material Use Application

Possession and use of biohazardous materials at the University requires approval from EHSS and/or the Institutional Biosafety Committee. This includes possession and use of:

- Recombinant and Synthetic Nucleic Acid Molecules
- Microorganisms (examples: bacteria, fungi, virus, etc.)
- Plants (examples: native, invasive, and transgenic species)
- Animals & Animal Materials (examples: fluids, tissues, organs, etc.)
- Human Materials (examples: fluids, tissues, organs, etc.)

- Cells and Cell Lines (including primary, established, and stem cells)
- Biological Toxins
- CDC/APHIS Select Agents and Toxins

4.1 Biohazardous Material Use Application

PIs and teaching laboratory supervisors intending to possess or use biohazardous materials must complete a Biohazardous Material Application and submit to EHSS for review. For research laboratories, the applicant must be a PI. For teaching laboratories, the applicant must be the teaching laboratory supervisor.

EHSS will review the application to determine if Institutional Biosafety Committee (IBC) review and approval is also needed. IBC approval or notification is required for any experiments involving the following materials:

- Recombinant DNA categorized as “non-exempt” in the *NIH Guidelines* (e.g., Sections III-A, III-B, III-C, III-D, III-E).
- Any human-derived materials.
- Biosafety level 2 (BSL-2) or higher biohazardous materials.
- Human Stem Cells.
- Select Agents or Toxins as defined by the US Centers for Disease Control.

Depending on the type of biohazardous materials and experiments to be conducted, the approval process may require review and approval from the Institutional Animal Care and Use Committee (IACUC), Office of Research Integrity and Protections (ORIP), Institutional Review Board (IRB), and/or a Stem Cell Oversight Committee.

EHSS will facilitate the IBC Application approval processes and engage with the applicant to provide additional information as necessary. This may include the applicant attending an IBC meeting to explain intended biohazardous materials use.

The applicant will be notified of the application approval, denial, or contingencies. EHSS and/or the IBC approval of the application must be received prior to procurement or use of biohazardous materials.

4.2 Application Renewal

Biohazardous Material Use Applications requiring IBC review are generally approved for a 3-year period and must be renewed to remain active. To initiate the renewal process, the applicant must review their current application, update to include any proposed changes or modifications, and resubmit the application to EHSS. EHSS and/or the IBC will review the submitted renewal application.

EHSS will notify the applicant of the approval status.

4.3 Application Amendment

An amendment to an IBC approved Biohazardous Material Use Application is required for any of the following:

- Procurement of a new type of biohazardous material,
- New or modified experiment or protocol,
- New use location,
- Any change in operations that may alter or increase the biohazardous conditions previously reviewed by the IBC.

To initiate the amendment process, a Biohazardous Material Use Amendment Form must be completed and submitted to EHSS. EHSS and/or the IBC will review the submitted amendment request. EHSS will notify the applicant of the approval status.

5.0 Standard Operating Procedures

Standard operating procedures (SOPs) must be written and available for all use of biohazardous materials. SOPs must be written and available for all biohazardous material use that requires IBC approval.

All personnel working with biohazardous materials must review the SOP(s) before initiating any experiment with biohazardous materials. The PI or teaching laboratory supervisor is responsible for ensuring laboratory personnel are aware of and trained in proper techniques and handling procedures outlined in the SOP specific to their laboratory operations.

6.0 Biosafety Training

All PIs, teaching lab supervisors, and lab personnel working in a lab with BSL-2 biohazardous material must complete the following Biosafety training:

- Initial Biosafety Training provided by EHSS. This training must be completed prior to using biohazardous materials.
- Biosafety Refresher Training on an annual basis.
- Laboratory specific training on basic biosafety principles and lab specific biohazardous material use procedures.
- In clinical lab settings where human materials are used, the EHSS Bloodborne Pathogen Training may be substituted for Biosafety Training as determined by EHSS.

Depending on the materials and activities occurring in a specific laboratory, additional safety training

(i.e. respiratory protection training, etc.) may also be required.

7.0 Laboratory Biosafety Inspections

Laboratories using biohazardous materials will be periodically inspected by EHSS to confirm biohazardous material use and possession is conducted in compliance with the requirements of this Program. At a minimum, the biosafety inspections will include review of approved procedures, documented training, PPE, signage, biohazardous material inventory, and housekeeping.

The PI or teaching laboratory supervisor is responsible for ensuring that corrective actions to adequately address inspection findings are implemented in a timely manner. Failure to address corrective actions in a timely manner will result in actions outlined in Research Laboratory Safety and Accountability Policy.

8.0 Biosafety Levels

Biosafety levels (BSL) include a combination of facility design, safety equipment, engineering controls, standard practices and procedures, and personal protective equipment. The IBC in conjunction with EHSS has the authority to add more controls and reassign higher containment levels to biohazardous materials when warranted.

New or renovated biohazardous material use laboratories must be designed in accordance with the University's biohazardous laboratory design standards. The design standards include requirements for ventilation, access, hand washing and emergency wash equipment. Additional laboratory safety and compliance requirements may need to be considered and addressed depending on the materials and operations to be performed in the laboratory. EHSS should be consulted during the initial phase and throughout all laboratory design and renovation projects. In addition, appropriate biohazardous laboratory practices must be always followed to help protect University personnel, visitors, the community, and the environment from exposure to biohazardous materials. The PI must consider the appropriate biosafety levels and follow the lab design standards prior to procurement of biohazardous materials and initiation of experiments.

8.1 Biosafety Level 1 Material

Biohazardous materials that are categorized as biosafety level 1 (BSL-1) are well-characterized biological agents not known to consistently cause disease in healthy adult humans. These materials pose minimal potential hazard to laboratory personnel and the environment.

8.1.1 Biosafety Level 1 Laboratory Design

The minimum lab design standards include a hand-washing sink, non-porous surfaces, floors, and

furniture, and a lockable door. Additional laboratory safety and compliance requirements may need to be considered and addressed depending on the materials and operations to be performed in the laboratory.

8.1.1.1 Biosafety Level 1 Laboratory Practices

Laboratory personnel must minimally adhere to the following standard biohazardous material lab practices in all BSL-1 laboratories. PIs or teaching lab supervisors may have their own additional safety practices based on the biohazardous materials and operations performed in their laboratory. The following practices must be followed when working in a BSL-1 laboratory:

- Keep laboratory door closed when experiments are in progress.
- Use procedures that minimize the generation of splashes and/or aerosols.
- Do not eat, drink, or store food in lab areas.
- Wear appropriate personal protective equipment (PPE) such as lab coat, gloves, and eye protection.
- Wash hands after completing experimental procedures and before leaving laboratory.
- Do not mouth pipette. Use mechanical pipetting devices.
- Substitute plasticware for glassware whenever possible.
- Avoid using sharps including needles and syringes. Implement the use of engineered safety sharps whenever possible.
- Disinfect work surfaces at least daily and immediately after any spill or splash.
- Decontaminate all liquid biohazardous waste before disposal.
- Decontaminate reusable materials (i.e. flasks, plasticware, etc.) that are contaminated with biohazardous materials before use.
- Animals and plants not associated with the work being performed are not permitted in the laboratory.
- Report spills, accidents, and near misses to DPS. Follow the University's incident reporting process. Advise supervisor of near misses or perceived/observed unsafe working conditions.

8.2 Biosafety Level 2 Material

Biohazardous materials that are categorized as biosafety level 2 (BSL-2) pose moderate hazards to personnel and the environment. These materials are generally associated with human diseases of varying severity.

8.2.1 Biosafety Level 2 Laboratory Design

The minimum lab design standards include lab ventilation, eyewash station, hand-washing sink, non-porous surfaces, floors, and furniture, and a self-closing and self-lockable door. All manipulations of biohazardous materials must be conducted in a biosafety cabinet (BSC). Additional laboratory safety

and compliance requirements may need to be considered and addressed depending on the materials and operations to be performed in the laboratory.

8.2.1.1 Biosafety Level 2 Laboratory Practices

Laboratory personnel must adhere to following practices listed below, in addition to all lab practices required for BSL-1 research. PIs or teaching lab supervisors may have their own additional safety practices based on the biohazardous materials and operations performed in their laboratory. The following practices must be followed when working in a BSL-2 laboratory:

- Keep laboratory door closed and secured at all times.
- Allow only trained lab personnel to enter BSL-2 facilities.
- Assure biohazard labels are properly posted on equipment and where biohazardous materials are used and stored.
- Wear appropriate personal protective equipment (PPE), change PPE when soiled or compromised, and remove PPE before leaving the laboratory.
- Use biological safety cabinets (BSCs) to contain aerosol producing procedures, techniques, and equipment.
- Maintain a biological spill kit within the laboratory.
- Report spills, accidents, near misses and disease symptoms related to laboratory acquired infection to DPS. Follow the University's incident reporting process. Advise supervisor of near misses or perceived/observed unsafe working conditions.

8.3 Biosafety Level 2 Plus Material

Biohazardous Level 2 plus (BSL-2+) materials at Syracuse University include certain attenuated strains of high-risk pathogens, and antibiotic-resistant bacteria.

8.3.1 Biosafety Level 2 Plus Laboratory Design

The minimum lab design standards include lab ventilation, eyewash station, hand-washing sink, non-porous surfaces, floors, and furniture, a self-closing and self-lockable door, and card access door entry. The BSL-2+ laboratory is typically self-contained with all equipment required for the experiment located within the laboratory and segregated from public access with an anteroom. All manipulations of biohazardous materials must be conducted in a biosafety cabinet (BSC). Additional laboratory safety and compliance requirements may need to be considered and addressed depending on the materials and operations to be performed in the laboratory.

8.3.1.1 Biosafety Level 2 Plus Laboratory Practices

Laboratory personnel must adhere to following practices listed below, in addition to all lab practices required for BSL-1 and BSL-2 research. PIs or teaching lab supervisors may have their own additional

safety practices based on the biohazardous materials and operations performed in their laboratory. In addition to following the standard BSL-2 practices, the following must be implemented:

- Don and doff PPE in anteroom.
- Limit access to lab personnel that have completed lab specific training.

8.4 Biosafety Levels 3 and 4

Biohazardous material categorized as Biosafety level 3 (BSL-3) and Biosafety level 4 (BSL-4) poses a greater risk for respiratory transmission and may result in a serious threat (and potentially lethal) to human health.

Biohazardous material categorized as BSL-4 pose a high risk of life-threatening disease and no and/or limited treatment is available. A BSL-4 laboratory requires specific facilities with special engineering and design features.

Currently, the University does not have the facilities required for the use or storage of BSL-3 and/or BSL-4 biohazardous materials and they are not allowed at the University at this time.

9.0 Biosafety Cabinets

A biosafety cabinet (BSC) is an engineering control device required when working with biohazardous materials of BSL-2 and higher organisms. It is required that all aerosol generating procedures and manipulations take place in a BSC to protect the workers and the environment from any infectious aerosols.

Biosafety cabinets in use at the University must be certified upon installation and annually thereafter by a University approved vendor. PIs or teaching lab supervisors are responsible for ensuring BSCs in their laboratories or used by their lab personnel are properly certified and maintained.

Uncertified BSCs or BSCs that are not functioning properly must not be used for manipulation of BSL-2 materials.

10.0 Personal Protective Equipment

Personal protective equipment (PPE) is protective gear and clothing used to keep laboratory personnel safe while performing their research. All lab personnel working with biohazardous materials must wear appropriate PPE that at a minimum includes a lab coat, gloves, and eye or face protection. In addition, personnel must also wear closed-toe shoes, long pants, and a shirt that covers the midriff.

PIs or teaching lab supervisors must provide appropriate PPE at no cost to their lab personnel and

ensure that PPE is maintained in good condition, replaced as needed and worn by lab personnel while handling biohazardous materials.

Different laboratory operations may warrant different types of PPE. EHSS is available to assist the researcher with the selection and assessment of PPE upon request.

11.0 Biohazardous Material Laboratory Signage

Storage and use areas for biohazardous materials classified as BSL-2 or higher must be posted with signs and labels that communicate the presence of biohazard(s). PIs or teaching lab supervisors are responsible for contacting EHSS to obtain required biohazard signage.

11.1 Entryway and Door Posting

The entryways and doors to any area where biohazardous materials classified as BSL-2 or higher are used or stored must be posted with a biohazard sign. The sign must have the universal biohazard symbol, bear the word “Biohazard”, and the name of the biohazardous material used or stored in the area.

11.2 In-Lab Postings

Biohazard “in-lab postings” that display the universal biohazard symbol must be posted in all areas where biohazardous materials classified as BSL-2 or higher are used or stored. Biohazard in-lab postings must be affixed to equipment and containers used for biohazardous materials, including, but not limited to, transport containers, refrigerators, freezers, incubators, water baths, sonicators, biosafety cabinets, and centrifuges.

12.0 Biohazardous Materials Inventory and Security Measures

Principal Investigators or teaching lab supervisors are responsible for maintaining an accurate inventory of all biohazardous material in their possession and confirm accuracy on a routine basis. The lab must communicate inventory updates to EHSS as biohazardous materials are added or deleted, and on an annual basis even if no inventory changes occurred.

Biohazardous material must be appropriately secured in the laboratory when not in use. If biohazardous materials are stored in a shared space, secured storage must be used (i.e. locked refrigerator, cabinet, freezer) and only accessible to trained personnel.

Any missing inventory or suspected loss or theft of biohazardous materials must be reported to DPS.

13.0 Surface Decontamination

Principal Investigators or teaching lab supervisors are responsible for selecting a chemical disinfectant that will effectively deactivate biohazardous materials used in the lab. The chemical disinfectant must be applied at the correct concentration and allowed to remain on the surface for the required contact time to ensure effective deactivation and removal of biohazardous material.

At a minimum, all work area surfaces must be routinely and thoroughly decontaminated at the frequency listed below:

- After completion of any work involving biohazardous materials
- At the end of each workday
- Immediately following any spill or splash of biohazardous materials

14.0 Biohazardous Waste Disposal

Biohazardous materials and contaminated items must be disposed of properly in accordance with all applicable New York State and University requirements. The disposal of all biohazardous waste generated at the University must be coordinated through EHSS.

14.1 Biohazardous Solid Waste

Solid biohazardous waste materials must be disposed of as regulated medical waste (RMW) and may not be disposed of into the regular trash. EHSS provides labeled RMW disposal containers to laboratories generating solid biohazardous waste. The lab personnel are responsible for contacting EHSS to request an RMW pickup.

14.2 Biohazardous Liquid Waste

Liquid biohazardous waste may not be disposed of in regular trash or regulated medical waste (RMW) containers. Liquid biohazardous waste must be collected in a leak proof container and deactivated prior to drain disposal. Liquid biohazardous waste can be deactivated by applying a chemical disinfectant that is appropriate for neutralizing the specific biohazardous material(s) present. The disinfectant must be used at the correct concentration and allow sufficient contact time to ensure effective deactivation. For example, a 10% bleach (sodium hypochlorite) solution applied for a minimum of 30 minutes is commonly used for deactivation of many biohazardous materials.

14.3 Biohazardous Sharps Waste

Sharps (i.e. needles, syringes, razor blades, etc.) contaminated with biohazardous materials may not be disposed of in regular trash or in RMW containers. A labeled, puncture-proof, sealable sharps container must be used for sharps disposal. The laboratory is responsible for purchasing its own sharps containers. The lab personnel are responsible for contacting EHSS for sharps container pickups when the container is 75 % full.

15.0 Laboratory Decommissioning

PIs or teaching lab supervisors are responsible for ensuring the proper decommissioning of biohazardous materials and use areas when they or their laboratory personnel leave the University or transition to another laboratory. Disposal of biohazardous materials and decontamination of equipment and instruments that may have been contaminated by biohazardous materials must be conducted in accordance with the University lab departure guidelines. Any transfer of biohazardous materials to another institution must be coordinated through EHSS.

16.0 Transfer and Transport of Biohazardous Materials

PIs, teaching lab supervisors, and lab personnel must follow all biohazardous material transfer and transport requirements.

16.1 Biohazardous Material Transfers

All transfers of biohazardous materials must be registered with EHSS. A Biohazardous Material Transfer form must be submitted to EHSS prior to physical transfer of biohazardous materials on campus. For transfer of biohazardous materials from or to another institution outside of Syracuse University, contact EHSS for more information. The PI is responsible for coordinating the transfer of any biohazardous material with EHSS. No physical transfer may occur until approved by EHSS.

16.2 Transport of Biohazardous Materials on Campus

Principal Investigators or teaching lab supervisors are responsible for meeting the requirements listed below for the transport of biohazards materials on campus:

1. The receiving PI must have an IBC approved application covering the biohazardous materials prior to transfer.
2. Individuals physically transferring biohazardous materials must complete required biosafety training prior to handling or transferring materials.
3. All biohazardous materials must be transported in secondary containment that is sealed, leakproof, and labeled with a biohazard sticker.

16.3 Transport of Biohazardous Materials off Campus

Principal Investigators or teaching lab supervisors are responsible for meeting the requirements listed below for the transport of biohazardous materials off campus:

1. Individuals physically transferring biohazardous materials must complete required biosafety training prior to handling or transferring materials.
2. All biohazardous materials must be transported in secondary containment that is sealed, leakproof, and labeled with a biohazard sticker.
3. The University shuttle system, public buses, taxi cabs, driving services, or other payment for

transport methods must not be used for transportation biohazardous materials.

4. Biohazardous materials may not be carried on an airplane. Materials must be shipped.
5. Personal vehicles must not be used for the transport of biohazardous materials without prior approval from the IBC.

16.3.1 Shipment of Biohazardous Materials

Several federal agencies regulate the shipping of biohazardous material. Failure to comply with federal and international regulations can result in refusal of shipment by the airline, penalties and/or fines. The PIs and teaching lab supervisors must ensure compliance with all the applicable agencies and regulations.

All biohazardous material shipments must be coordinated through EHSS. An Intent to Ship Form must be completed at least 24 hours prior to shipping. PIs or teaching lab supervisors are responsible for all fees associated with packaging and transport of the shipment to its' destination.

17.0 Biohazardous Material Incidents and Emergencies

Emergency notifications and appropriate response procedures must be followed in the event of a biohazardous material emergency or incident that includes:

- Release of biohazardous material
- Personal injury, exposure or contamination
- Property damage

17.1 Incident Notification

The PI or teaching lab supervisors must ensure the University incident reporting procedures are followed if a biohazardous materials incident occurs in their laboratory, including notifying DPS (315.443.2224). The PI or teaching lab supervisor is responsible for notifying their department chair, and the college's associate dean of research if the incident occurs in a research laboratory. The PI or teaching lab supervisor is also responsible for confirming EHSS has been notified in event of a serious biohazardous material incident.

17.2 Personal Injury, Exposure, and/or Contamination

Personnel involved in exposure, contamination, and/or injury must remove any contaminated PPE and/or clothing and wash contaminated area(s) with antiseptic soap and warm water for 15 minutes. If a splash to the face has occurred, flush eyes in eyewash for 15 minutes.

Injured or exposed individuals are advised to have a post-exposure evaluation by medical professionals. Arrangements for medical transport to the hospital for post-exposure evaluations should be coordinated through the Department of Public Safety.

17.3 Incident Reporting and Investigations

The PI or teaching lab supervisors must ensure the University incident reporting procedures are followed if a biohazardous materials incident occurs in their laboratory. All lab incidents must be properly documented and investigated by EHSS.

The PI and laboratory personnel are expected to collaborate with EHSS to perform the incident investigation of the laboratory incident. The PI or teaching lab supervisors must ensure that any corrective actions identified during the post incident investigation are promptly implemented.

The University's IBC will report significant research-related accidents to the NIH Office of Science Policy as required.

17.4 Spill Clean Up

In the event of a spill, lab personnel must take immediate steps to report the incident. If the spill has the potential to result in an exposure, injury or environmental release, steps must be taken to evacuate and secure the laboratory and contact DPS immediately. Spill cleanup may only be performed by trained lab personnel. All spills must be documented.

17.4.1 Biological Spill Kit

The PI or teaching lab supervisor is responsible for maintaining a biological spill kit where biohazardous materials are stored and used. The biological spill kit should contain at a minimum PPE (eye and face protection, lab coat, gloves, shoe covers), forceps or tongs, sharps containers or a puncture proof container, concentrated disinfectant, spray bottle, and absorbent material (paper towels). The disinfectant selected for the kit must not be expired and deactivate the biohazardous materials used in the lab.

18.0 General Medical Care and Consultation

Laboratory personnel working with biohazardous material have an opportunity to receive medical care and consultation, including necessary follow-up visits, under the following circumstances:

1. Whenever an individual develops signs or symptoms associated with a biohazardous material to which the individual may have been exposed in the laboratory.
2. Whenever an event takes place in the work area, such as a spill, leak, explosion, or other occurrence resulting in potential exposure to a biohazardous material.

Laboratory personnel that have been exposed to biohazardous material, or are experiencing adverse health effects, should contact DPS (315.443.2224), to report the incident, and request medical care. Seeking immediate medical attention is key in reducing the risk of infection.

For medical follow-up, injured or exposed individuals will be offered transport to a local hospital emergency room for a post-exposure evaluation. Requests for medical transport are made by contacting DPS at 315.443.2224.

18.1 Special Medical Considerations

Lab personnel with underlying medical conditions (i.e. immunocompromised) or special conditions (i.e. pregnancy) should consult with their medical provider.