# Purpose

This exposure control plan is prepared by Longwood University Environmental Health and Safety to reduce employee exposure to Bloodborne Pathogens in accordance with OSHA standard 29 CFR 1910.1030 and Virginia State Law. Any workspace specific additions to this plan must be reviewed by the Supervisor/Principal Investigator annually or whenever interim changes are implemented. A copy of this plan is available for review by any employee during their work shift.

## Exposure Determination

This plan covers all employees who may reasonably be anticipated to be at risk for exposure to human blood, or other potentially infectious materials (“OPIM”’ see list below). Supervisors and Principal Investigators must determine whether an employee has the potential for exposure without considering the use of personal protective equipment (PPE).

Other Potentially Infectious Materials (“OPIM”):

* Human tissue or organs (unfixed)
* Human tissue cultures
* Human blood components
* Blood, organs or tissue from research animals inculcated with human cell lines, human tissue
* Blood, organs or tissue from research animals infected with HIV, HBV, HCV or other human pathogens
* Semen and vaginal secretions
* Cerebrospinal fluid
* Peritoneal fluid
* All body fluids visibly contaminated with blood

*Identified Longwood job classifications with potential for exposure to human blood or OPIM:*

* Biology & Environmental Science Faculty
* Chemistry & Physics Faculty
* Research Staff (including student researchers)
* Police Officer
* Physical Education Trainers and Therapists
* Custodian
* Facilities Management Personnel
* yyy

*Tasks and procedures performed by employees which pose a significant risk for occupational exposure to bloodborne pathogens:*

* Handling and manipulating human blood or OPIM
* Administering First Aid
* yyy

# 3.0 Methods of Compliance

All Longwood staff shall comply with the OSHA Bloodborne Pathogens Standard 29 CFR 1910.1030 using the following methods:

**3.1 Standard Precautions (*previously called Universal Precautions*)**

A conservative approach to infection control that assumes that all human blood and OPIM are contaminated with pathogens. Subsequently potential human blood and OPIM exposures are treated as if they were known to be infectious.

**3.2 Engineering and Work Practice Controls**

Engineering controls and safe work practices will be used to minimize exposure to human blood and OPIM. Needles and other sharp medical devices that incorporate built-in safety features shall be used. Safe work practices are reviewed by the Environmental Health and Safety Office and the Institutional Biosafety Committee (IBC).

**3.3 Personal Protective Equipment (PPE)**

If the potential for exposure remains in spite of work practice and engineering controls, personal protective equipment (PPE) must be used. Longwood University must provide, clean and dispose of PPE at no personal cost to the employee.

* PPE must be worn during procedures in which human blood or OPIM exposure to skin, eyes, nose or mouth is reasonably anticipated.
* PPE must be selected based on the type of exposure anticipated.
* PPE must cover all body parts and street clothes that may be exposed and must prevent soak through.
* Gloves, fluid-resistant gowns, face shields, masks, and other types of PPE should be made available from the department conducting the work.
* Non-latex gloves should be available for employees with latex sensitivity or allergy.
* PPE and personal clothing must be removed if they become contaminated.
* Disposable PPE that is contaminated must be discarded as Regulated Medical Waste.
* Reusable PPE such as goggles and lab coats that have become contaminated must be placed in a specified container for decontaminations and reprocessing.

Additional Requirements inside the laboratory:

* Disposable lab coats or gowns must be worn when working with human blood or OPIM when the potential for exposure exists. All PPE should be removed before leaving the laboratory for non-Laboratory areas (office, library, cafeteria etc.). Home laundering of lab coats and other PPE is not permitted. Gloves must be worn when hands may come in contact with human blood, or OPIM, contaminated items or surfaces. Gloves must be worn when handling animals that have been inoculated with human pathogens. Gloves must be replaced as soon as feasible if they are torn or contaminated. Disposable (single use) gloves must not be washed or decontaminated for reuse. Utility gloves may be decontaminated for reuse, but must be discarded if they are cracking, peeling or show other signs of deterioration. Glove selection should be based on an appropriate risk assessment.
* Protection for eyes, nose and mouth. Work must be performed in a certified Biological Safety Cabinet, or mask and eye protection (goggles or face shields) must be worn whenever splash or spray of human blood or OPIM to the face is anticipated.

**3.4 Hand Washing**

Hands must be washed with soap and water after contact with specimens, as soon as possible after removing PPE, and whenever they become contaminated with human blood, or OPIM. Antiseptic hand cleanser may be used if soap and water are not available, but hands must be washed with soap and water as soon as feasible.

**3.5 Personal Hygiene**

Eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses is not permitted in work areas with reasonable risk of bloodborne pathogen exposure.

**3.6 Food**

Food and drink must not be stored in work areas where human blood or OPIM are present.

**3.7 Pipetting**

Mouth pipetting is not permitted

**3.8 Minimization of Aerosols**

Splash, spray, splatter, or generation of droplets must be minimized during any procedure that involves human blood or OPIM. If spattering or the generation of aerosols is reasonably anticipated, work should either (1) be performed in a certified Biological Safety Cabinet or (2) eye protection plus a mask or face shield must be worn to prevent an exposure to the mucus membranes of the eyes, nose and mouth.

**3.9 Sharps Handling**

Careful management of needles and other sharps are of primary importance. Bending, recapping or removing needles is prohibited, except under specific infrequent circumstances. If recapping, bending or removing needles or other sharps is required by a specific procedure and no alternative is feasible then a one handed scoop technique, mechanical device or forceps must be used. Written justification supported by reliable evidence should be included as a work area specific addendum to this Exposure Control Plan. This justification must state the basis for the Supervisor's/Principal Investigator’s determination that no alternative is feasible and must describe the specific procedure that requires the recapping, bending, or breaking of needles or other sharps.

* Disposable sharps must be placed in plastic sharps container as soon after use as possible. Sharps containers must be easily accessible, with the opening visible, as close as possible to the area where sharps are used and maintained upright during use.
* Sharps containers must be promptly closed, removed, and replaced when they are ¾ full. Close the sharp container until lid “clicks” securely.
* Contact EHS or the building coordinator to request pick up of full sharps containers.
* Reusable sharps, such as surgical instruments and large bore reusable needles pose the same exposure hazards as disposable sharps and must be handled in a manner similar to disposable sharps until they are reprocessed. The container used for temporary storage of contaminated reusable sharps must be puncture resistant, and labeled as Biohazard.

**3.10 Safe Medical Devices**

Safe medical devices are used to prevent percutaneous injuries (examples may include needleless devices, shielded needle devices or plastic capillary tubes). The Supervisor/Principle Investigator is responsible for involving employees in the selection of effective engineering and whenever practical, should adopt improved engineering and work practice controls that reduce risk of sharps injury.

**3.11 Specimen Transport on Campus**

For transport to sites within the campus of Longwood University, specimens of human blood and OPIM must be placed in a secondary leak proof carrier that can contain the contents if the primary container were to leak or break. Carriers must have the biohazard label affixed to the outer surface of the transport container.

**3.12 Servicing Contaminated Equipment**

Before servicing or shipping, contaminated equipment must be decontaminated if possible. In situations where it is not possible to decontaminate equipment, it must be marked with a biohazard label describing what parts remain contaminated.

**3.13 Housekeeping**

The workplace must be maintained in a clean and sanitary condition. Human blood, or OPIM spills must be cleaned up immediately with a freshly made 1:10 bleach solution or other approved disinfectant using appropriate spill cleanup procedures.

**3.14 Equipment and Working Surfaces**

Contaminated work surfaces must be disinfected with 1:10 freshly made dilution of bleach or an alternative approved disinfectant. The decontamination of work surfaces must be done as soon as possible when:

* Contaminated with human blood, or OPIM
* After competing procedures or at the end of the work shift if the surface may have been contaminated since the last cleaning
* Temporary coverings (plastic backed paper, chux, plastic wrap, foil, etc.) over bench tops, equipment and other surfaces must be removed and replaced as soon as possible when contaminated or at the end of the work shift if the surface may have become contaminated since the last cleaning.
* All reusable bins, pails, cans, and similar receptacles which may become contaminated must be regularly inspected and decontaminated as soon as possible if they become contaminated.

# 4.0 Communication of Hazards to Employees

Biohazard warning labels must be affixed to refrigerators, freezers, incubators and other vessels used for storing human blood, or OPIM. Containers used for transporting human specimens beyond the immediate work area must have the biohazard label affixed to the outer surface of the transport container. Biohazard labels are required on areas and equipment reasonably anticipated to be contaminated with human blood, or OPIM.

Biohazard labels are not required on individual specimens that are transported inside a carrier with in Longwood University’s Campus or on infectious waste that has been decontaminated by steam sterilization.

# 5.0 Hepatitis B Vaccination

Employees identified as having potential for exposure to human blood, or OPIM (see section 2 “Exposure Determination”), must be offered the Hepatitis B vaccine at no charge to the employee. The vaccination is a series of three injections given at approximately 0, 1, and 6 months. A routine booster dose is not recommended, but will be given at no charge in the U.S. Public Health Service (PHS) recommends it in the future.

* The vaccine must be offered within 10 working days of the initial assignment to a job category where exposure may occur.
* Employees who decline the Hepatitis B vaccine must sign a statement of declination located at the end of this plan.
* The signed statement must go to Human Resources for inclusion in the employees record
* Supervisors/Principle Investigators should keep a of this declination statement on file
* Contact EHS for information on receiving the vaccination series.

# 6.0 Procedure for Exposure Incidents

An exposure is defined as: blood or OPIM contact with broken skin, eyes, nose, mouth, other mucous membranes, a percutaneous injury with a contaminated sharp, or contact with blood or OPIM over a large area of apparently intact skin.

In the event of exposure:

* Wash area with soap and water.
* Flush eyes, nose or mouth with water for up to 15 minutes.
* Report to the emergency room as soon as possible.
* Supervisory staff must immediately notify EHS
* All exposures must be reported to the immediate supervisor.
* Supervisor is responsible for filling out an Accident/Incident Report Form.
* EHS will perform a follow-up investigation of the incident and report findings to the Institutional Biosafety Committee (IBC).

# 6.1 Evaluation and Treatment of Exposure

The evaluation and treatment of an exposure is confidential and will be given by or under the supervision of a licensed physician and will follow an established protocol in compliance with OSHA Standard 29 CFR 1910.1030, U.S. Public Health Service, CDC guidelines, and Virginia state law.

If the infectivity status of the source individual is unknown and blood is available, it will be tested for HIV, hepatitis B and C in accordance with state law. The exposed employee will be told what the test results are and what they mean.

If the employee consents, his or her blood will be tested as soon as possible after exposure to provide baseline hepatitis B, C, and HIV status. If the employee does not consent to HIV testing, the sample will be stored for 90 days and tested if the employee consents in that time period.

Post-exposure prophylaxis will be offered to exposed employees when medically indicated and as recommended by U.S. Public Health Services. Counseling and medical evaluation will be offered for any reported illnesses the employee develops as a result of exposure.

**6.2 Documentation of Circumstances**

Documentation of the circumstances surrounding the exposure incident is required and allows for the identification and correction of occupational hazards. Longwood's process for this uses the Accident/Incident Report form with follow-up investigation by EH&S

**7.0 Employee Training**

All employees who may have the potential for occupational exposure to human blood, or OPIM must complete a Bloodborne Pathogens training session at the time of their initial assignment to tasks where occupational exposure may take place and annually thereafter. Additional training must be provided whenever there are changes in tasks or procedures which affect employees’ potential for exposure. Additional work area specific training may be provided by the Supervisor/Principal Investigator.

**8.0 Recordkeeping**

**8.1 Medical Recordkeeping**

Longwood University will establish a medical record for employees who have exposures. The record will be maintained for the duration of employment plus 30 years. The record is confidential and will not be disclosed to anybody within or outside the workplace without the employee’s written consent, except as required by law or regulation.

The record will include; employee name and social security number; dates of hepatitis B vaccinations and medical records relative to the employee’s ability to receive vaccination; examination results, medical testing, and follow-up procedures; the healthcare professional’s written opinion; information provided to the healthcare professional who evaluated the employee for suitability to receive hepatitis B vaccination.

**8.2 Training Records**

Environmental Health and Safety will track all employees who complete Bloodborne Pathogen training. Records will be maintained for at least 3 years.

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Make this a separate form

**Hepatitis B Vaccination Statement**

Employees identified as having potential for exposure to human blood or other human derived materials must be offered the Hepatitis B vaccine at no charge to the employee. Employees who decline the Hepatitis B vaccine must sign a statement of declination. The record of declination will be kept on file in by Longwood University’s Human resources. The PI should also keep a copy of the declination.

Check One:

**\_\_\_\_Statement of Prior Vaccination**

I have already completed, I am currently undergoing, or am about to begin Hepatitis B vaccination.

**\_\_\_\_Hepatitis B Vaccine Declination**

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk for acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the hepatitis B vaccine, at no charge to myself. However, I decline the hepatitis B vaccination at this time. I understand that by declining this vaccine I continue to be at risk for acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Longwood Employee Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_