BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

This Exposure Control Plan is for:

Department:

Principal Investigator or Area Supervisor Name:

Location:

Date:

PRINCETON UNIVERSITY

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Introduction

In accordance with the OSHA Bloodborne Pathogens standard, 29 CFR 1910.1030, rev. 2001, Princeton University has developed an exposure control plan to minimize occupational exposure to bloodborne pathogens such as Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV). ***The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR must complete portions of this plan (see Appendix) and make the completed plan accessible to all employees who work with human blood, blood products or other potentially infectious materials in their area.***

DEFINITIONS:

Blood – human blood, human blood components and products made from human blood. Human blood components include plasma, platelets and serosanguinous fluids (e.g., wound exudates).

Bloodborne pathogens – any pathogenic microorganisms that may be present in human blood and can cause human disease. These pathogens include but are not limited to HIV and HBV. Other bloodborne pathogens include agents of hepatitis C, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, Human T-lymphotrophic Virus type I and viral hemorrhagic fever.

Contaminated – the presence or reasonably anticipated presence of blood or other potentially infectious materials on any item or surface.

Decontamination – the use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.

Employee – any permanent or temporary employee, graduate or undergraduate student that receives a University paycheck and could potentially be exposed to bloodborne pathogens in the course of their work.

Engineering controls – controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure incident – a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties. Non- intact skin includes skin with dermatitis, hangnails, abrasions, chafing, etc.

Hand washing facilities – a facility providing potable water, soap and single use towels or hot air drying machines.

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Occupational exposure – reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other potentially infectious materials – OPIM
(1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Needleless systems – a device that does not use needles for (1) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) the administration of medication or fluids; or (3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Parenteral – piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts and abrasions.

Personal protective equipment – specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts) not intended to function as protection against a hazard is not considered to be personal protective equipment.

Regulated waste – liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Sharp with engineered sharps injury protection – a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source individual – any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

Standard precautions(formerly universal precautions) – an approach to infection control in which all human blood and human body fluids, secretions and excretions except sweat are treated as if they are infected with HIV, HBV and other bloodborne pathogens.

Work practice controls – controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

The ECP is a key document to assist our organization in implementing and ensuring compliance with the BBP standard. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding exposure incidents

PROGRAM ADMINISTRATION AND RESPONSIBILITIES

Environmental Health and Safety

■Environmental Health and Safety is responsible for oversight and administration of the ECP. Responsibilities include:

- Review of the University's ECP on an annual basis. Review will be conducted by the Biosafety Officer.
- Development and provision of BBP training materials.
- Maintenance of BBP training records
- Development of procedures, policies and guidance needed to support the implementation of the ECP.
- Assisting supervisors with risk assessment of staff, student and faculty activities that involve handling of blood and OPIM.
- Investigating blood and OPIM exposures that have been reported to UHS.

■ **University Health Services** is responsible for ensuring that all medical actions required by the standard are performed. Responsibilities include:

- Provision of Hepatitis B immunization for all persons included within the scope of the University's BBP program.
- Providing a mechanism for timely follow-up to potential exposures to bloodborne pathogens in accordance with the OSHA standard and U.S. Public Health Service recommendations.
- Maintaining medical records, including documentation of HBV immunization.

■ **Principal Investigators/Area Supervisors** are responsible for conducting workplace risk assessment and identifying job positions and personnel who may have exposure to human blood and/or other potentially infectious materials (OPIM). The exposure determination will be made without regard for the use of personal protective equipment. Supervisors and Principal Investigators are also responsible for:

- Ensuring staff have participated in BBP training
- Ensure staff comply with the ECP, policies and guidelines established to prevent exposure to blood and OPIM
- Provision of all necessary personal protective equipment (PPE) and engineering controls, including sharps containers, disinfection and waste disposal supplies. All PPE must be available in the appropriate sizes.

■ **Individual Personnel**

Individuals who are determined to have occupational exposure to human blood or OPIM must comply with the procedures and requirements presented in this Plan. They must:

- Consult with supervisors/Principal Investigators regarding the safe handling and proper disposal of human blood or OPIM used in their specific work areas
- Complete required initial and annual training
- Report blood and OPIM exposures, to supervisors and UHS, sustained while working or conducting research to UHS.
- Wear PPE and use engineering controls provided to prevent and reduce exposure

EXPOSURE DETERMINATION

OSHA requires employers to determine which employees may incur occupational exposure to blood or OPIM. The exposure determination is made without regard to the use of personal protective equipment. This exposure determination is required to list all job classifications in which all employees may be expected to incur such occupational exposure, regardless of frequency. At Princeton, employees in the job classifications found in Appendix A are those that may be expected to incur such occupational exposure, regardless of frequency.

In addition, OSHA requires a listing of job classifications in which some employees may have occupational exposure. Not all employees in this category would be expected to incur exposure to blood or other potentially infectious materials. At Princeton, the job classifications for this category can be found in Appendix B.

Each Principal Investigator or Area Supervisor must complete exposure control plans for their respective areas. Those specific exposure control plans must include a list of those tasks conducted by employees that would cause employees to have potential occupational exposure.

EXPOSURE CONTROL COMPLIANCE

STANDARD PRECAUTIONS, formerly called Universal Precautions, will be observed in order to prevent contact with blood or other potentially infectious materials. Employees shall practice standard precautions and be trained in decontamination techniques prior to handling any blood or other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source individual.

ENGINEERING AND WORK PRACTICE CONTROLS will be used to eliminate or minimize exposure to employees.

Biosafety cabinets:

- Provide containment of infectious aerosols; isolate the operator from the agent; protect other personnel in the room.

- Should be used whenever procedures with high potential for creating exposure to infectious aerosols, droplets, splashes or spills are conducted, these may include: centrifuging, grinding, blending, vigorous shaking or mixing, sonic disruption, opening containers of infectious materials whose internal pressures may be different from ambient pressures, inoculating animals intranasally, and harvesting infected tissues from animals or eggs.

- Cabinets must be certified annually or whenever moved.

Sharps containers:
Sharps containers must be used for disposal of all needles, syringes and other sharps. All sharps shall be placed in an appropriate sharps container immediately or as soon as possible after use. Place sharps containers as near to procedure area as possible.
Sharps containers must be non-breakable, puncture resistant, leak proof, sealable and labeled with the universal biohazard symbol. Sharps containers must be closed and locked when 2/3 to ¾ full.

Reusable syringes and needles and other sharps must be placed in a separate container filled with disinfectant prior to decontamination and cleaning. To eliminate sorting later, do not place reusable sharps in pans containing pipettes or other glassware.

Sharps with engineered sharps injury protection and needleless systems are recommended. University personnel can request the Biosafety Officer for assistance with evaluation of devices in reducing the risk of exposure incidents.

Mechanical pipetting devices must be used. Mouth pipetting is prohibited.

Sealed rotor heads and centrifuge cups are used to avoid accidental spills and are an integral part of routine centrifuge operation.

Splash guards and plastic backed absorbent pads must be used to contain the spread of blood and potentially infectious material in the laboratory.

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of engineering controls is the responsibility of the Principal Investigator or Area Supervisor. Contaminated equipment (biosafety cabinets, mechanical pipetting devices, splash guard, etc.) must be decontaminated at the end of the workday or after a spill.

WORK AREA PRACTICES

Work practice controls are modifications of work procedures to reduce the likelihood of occupational exposure to blood or other potentially infectious materials. At Princeton University the following **work practice controls** will be utilized:

Hand washing: Hand washing facilities must be readily accessible to all employees who incur exposure to blood or other potentially infectious materials. Hand washing facilities are located in laboratories and clinical areas.
If hand washing facilities are not readily available, the Principal Investigator/Area Supervisor is required to provide alcohol sanitizers. If hand sanitizer is used then the hands are to be washed with soap and running water as soon as feasible. Refer to the CDC Guidelines for Hand Hygiene.
After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin areas immediately or as soon as feasible with soap and water.
If employees incur exposure to their skin or mucous membranes, those areas shall be washed or flushed with water as soon as feasible following contact.

Sharps/Needles: Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared or purposely broken. If a procedure requires that the contaminated needle be recapped or removed and no alternative is feasible, the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed scoop method. Consult with the Biosafety Officer for assistance with determining alternatives for recapping or removal of a needle.

Work Area Restrictions: In work areas where there is a reasonable likelihood of exposure to blood or OPIM, employees shall not eat, drink, apply cosmetics or lip balm, smoke or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.

Mouth pipetting/suctioning of potentially infectious materials is prohibited.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering and generation of droplets of blood or other potentially infectious materials. The Principal Investigator or Area Supervisor is responsible for identifying methods that will be employed in their areas.

Eye wash and safety shower:

- The Occupational Safety and Health Administration (OSHA) require that suitable means for flushing and quick drenching of the eyes and body must be provided in any area where bio hazardous materials are used. Eyewash units and safety showers must be available for immediate emergency use.
- At Princeton, all safety showers, eyewashes and drench hoses are to be inspected at periods not to exceed six months by the University's Grounds and Building Maintenance Department.

Specimen Handling and Transport:

When transporting blood, OPIM and other biohazardous materials on the Princeton University campus, take precautions to prevent accidental spills of material, particularly in public areas within campus buildings and exterior walkways.

- Transport biohazardous material in a rigid primary (specimen) container that is leak-proof and secured with a tight-fitting cap.
- Place the primary container(s) in a secondary transport container that is also sealed and labeled with a biohazard symbol. The secondary container must be sturdy enough to remain closed in case the container is dropped.
- Add sufficient absorbent to the second container to take up contents of the first container in case of a spill or leakage.
- Carry a pair of clean disposable exam gloves with you when transporting biohazardous materials.
- Avoid transporting materials through eating areas or break rooms.
- The Institutional Biosafety Committee and the Institutional Animal Care and Use Committee must approve of intramural transport of experimentally-infected animals.
- Recommended secondary container for test tubes/vials:
  Nalgene Biotransport Carrier
  - http://www.thermoscientific.com/en/product/nalgene-biotransport-carrier.html
    Less expensive options include Plano tackle, ammunition or field boxes with O-ring seals, available at various sporting goods stores and through Amazon.

Transport of hazardous materials via motor vehicle and along public roads is illegal without proper training and credentials. Contact Environmental Health and Safety at 609-258-5294 for assistance with shipment of blood, OPIM and other biohazardous materials.

Contaminated Equipment: Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless that is not feasible. The Principal Investigator or Area Supervisor shall list any equipment that cannot be decontaminated prior to servicing or shipping when completing their department/lab specific Exposure Control Plan.

The Principal Investigator or Area Supervisor must contact the shipper or service provider to obtain their labeling requirements prior to shipping or servicing of contaminated equipment.

PERSONAL PROTECTIVE EQUIPMENT:

OSHA standard 29 CFR 1910.132 requires workplace assessment for potential hazards and mandates that employers provide appropriate personal protective equipment (PPE) for employees. Principal Investigators or Area Supervisors are responsible for performing the assessments and to select and train employees in the use of routine items such as lab coats, protective gloves, safety glasses, face shields, and other equipment deemed necessary to prevent exposure. PPE will be chosen based on the anticipated exposure to blood or OPIM. The PPE will be considered appropriate only if it does not permit blood or OPIM to pass through or reach the personnel's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the PPE will be used. Principal Investigators or Area Supervisor must consult with EHS for assistance with the selection and training of employees for the use of non-routine PPE, such as respirators.

PPE shall be provided **without cost** to all employees who are at risk of occupational exposure to bloodborne pathogens. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used.

PPE includes, but is not limited to: gloves, surgical gowns, laboratory coats and jackets, face shields, masks, protective eyewear with solid side shields and shoe covers.

Principal Investigator/Area Supervisor will ensure that PPE is provided and worn by employees as needed, and that training in the proper use and donning of the PPE is provided.

All garments that are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area.

Gloves:

- Gloves are worn whenever hand contact with blood can be reasonably expected and when handling or touching contaminated items or surfaces. Disposable gloves are replaced or changed as soon as practical when contaminated, torn, or punctured. Disposable gloves are not washed or decontaminated for reuse.
- Utility gloves such as heavy-duty vinyl or rubber gloves may be decontaminated for reuse if they remain in good condition. They are discarded if they become cracked, torn, punctured, are peeling, or are otherwise no longer providing a barrier to contamination.

Masks:

- Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.
- If work requires the use of a respirator, employees must participate in the University's respiratory protection program. Personnel must have prior medical clearance to wear a respirator and must consult with Environmental Health and Safety, x5294 for selection and use of respiratory protective equipment.

Other Protective Clothing:

Other protective clothing that may be needed to prevent exposure includes lab coats, gowns, aprons, or similar outer garments. Disposable fluid-impervious coverings shall be worn when contamination with blood or OPIM could contaminate street clothes. The Principal Investigator/Area Supervisor will list situations that require the use of protective clothing in department specific Exposure Control Plans.

HOUSEKEEPING:

The facility will be cleaned according to Princeton University Building Services sanitation cycle. The Principal Investigator/Area Supervisor *shall* ensure that the laboratory is maintained in a clean and sanitary fashion.

DECONTAMINATION:

Establishing decontamination procedures is the responsibility of the Principal Investigator/Area Supervisor. For assistance with selecting an appropriate disinfectant, contact the Biosafety Officer at x5294.

All contaminated work surfaces will be decontaminated:

- after completion of procedures.
- immediately or as soon as feasible after any spill of blood or OPIM.
- at the end of the workday if the surface may have become contaminated since the last cleaning.

Contaminated plastic backed absorbent pads shall be removed immediately or as soon as feasible after any spill of blood or other potentially infectious materials as well as at the end of the workday.
All bins, pails, cans, and similar receptacles shall be inspected and decontaminated according to a schedule to be determined by the facility manager of each school.
Any broken glassware which may be contaminated must not be picked up directly with bare or gloved hands. It must be removed by mechanical means such as tongs and/or dustpans and broom and placed in an appropriate infectious waste sharps container.

SPILLS
Laboratory personnel must be prepared to respond to spills of potentially infectious materials in their areas. Biohazardous spill response procedures are available at the EHS website.

For spills of blood or body fluids associated with injuries that occur outside of laboratory facilities, such as spills at athletic facilities, dormitories and administrative buildings, Building Services janitorial staff is trained to respond and clean/disinfect the spill area. Contact Building Services at x8000.

The Principal Investigator/Area Supervisor will describe the procedure to be used for decontamination and spill cleanup.

LAUNDRY
Apparel, such as cloth lab coats or linen that is overtly contaminated with blood or other potentially infectious materials will be handled as little as possible and will be decontaminated, using chemical disinfectant or autoclaving, prior to being sent to a laundry for cleaning. Soiled personal protective equipment may not be taken home to launder.

WASTE HANDLING:

Biohazardous Waste (Regulated Medical Waste)

Some wastes associated with biological materials must be segregated from other waste streams. These potentially infectious or biohazardous materials are defined by NJ regulations as **Regulated Medical Waste**. Regulated medical waste must be placed in appropriate infectious waste containers located in laboratories or clinical areas. See the EHS website for more information on proper disposal of regulated medical waste.

Labels and Signs

Labels

Warning labels using the standard biohazard symbol, wording, and coloration shall be attached to containers of regulated waste, refrigerators and freezers containing blood or OPIM, lab equipment in which biohazards are stored or used, such as incubators, centrifuges, etc., and containers used to transport or ship blood or other potentially infectious materials.

Labels shall:

- include the universal biohazard symbol:

- be fluorescent orange or orange-red or predominantly so with lettering of symbols in a contrasting color
- red bags or containers may be substituted for labels

Signs:

Biohazard warning signs shall be posted at the entrance to HIV/HBV research laboratories and other work areas in which biohazards are used. Contact EHS at x 5294 to request a room sign.

MEDICAL SURVEILLANCE:

In accordance with the Health Insurance Portability and Accountability Act or HIPAA, effective April 14, 2003, all patient-related medical information will be kept confidential.

Hepatitis B Vaccine: All employees who have been identified as having exposure to blood or other potentially infectious materials are offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials.

It is the responsibility of the Principal Investigator/Area Supervisor to ensure that all employees who have been identified as having exposure to blood or OPIM are offered the Hepatitis B vaccine at no cost to the employee.

The vaccine will be administered to the employee by or under a licensed physician or under supervision of another licensed health care professional. It will be made available to the employee during normal work hours at a reasonable time.

Employee Health Services
Location: McCosh Health Center, Garden Level, Room G07
Hours: Monday - Friday 8:00 a.m. – 4:00 p.m.
Phone: (609) 258-5035

Employees who decline the hepatitis B vaccine will be asked to sign a Declination Waiver that uses the following wording:
"*I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of 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 the hepatitis B vaccine, I can receive the vaccination series at no charge to me*."

The vaccine will be provided at no cost to employees who initially decline the vaccine but later wish to receive it.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

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 an infectious agent over a large area of apparently intact skin.

To the SKIN: Immediately remove contaminated clothing and wash the contaminated area with soap and water for 15 minutes.

To the EYES: Immediately flush the eye with water for at least 15 minutes at an eyewash or faucet. Remove contact lenses while flushing the eye.

Medical Treatment

- If an injury is life-threatening or you need transport assistance, call 911 from a University phone or 609 258 3333 from a cell phone.
- During weekday, daytime hours, seek treatment at University Health Services. Ask a co-worker to call ahead (609 258 5035).
- For exposures that occur after 4 p.m. on weekdays and weekend hours, contact the Department of Public Safety and request transport to the Emergency Room at the Princeton University Medical Center.
- Report all exposures to your Principal Investigator/Area Supervisor and to EHS Biosafety (x5294).
- EHS Biosafety will perform a follow-up investigation of the incident.

The Principal Investigator/Area Supervisor will provide the following information to the healthcare provider:

- A description of the employee's job duties relevant to the exposure incident
- Route(s) of exposure
- Circumstances of the exposure incident

The evaluation and follow-up will include the following under the direction of the Director of Employee and/or Medical Director, University Health Services:

- Documentation of the route of exposure and the circumstances related to the incident.
- If possible, the identification of the source individual and the status of the source individual. The blood of the source individual will be tested (after consent is obtained through a licensed healthcare provider) for bloodborne pathogens, including HIV and HBV.
- Results of testing of the source individual will be made available to the exposed person along with information about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The exposed person will be offered the option of having blood collected for testing of his/her HIV/HBV serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the exposed person decides prior to that time that testing will be conducted; the blood sample will be discarded after the results are obtained.
- The exposed person will be offered post-exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service (USPHS). For a copy of these recommendations, call EHS at x 5294 or Employee Health at x5035.
- The exposed person will be provided with counseling concerning precautions to take during the period after the exposure incident. The exposed person will also be given information on potential signs and symptoms of illness and told to report to UHS if these should occur.
- Medical records will be maintained by UHS in accordance with all applicable regulations.

INFORMATION PROVIDED BY THE HEALTH CARE PROFESSIONAL

The health care professional's written opinion (whether from an outside source or UHS) is provided to the exposed individual within 15 days of the completion of the evaluation and included in the patient chart. The written opinion regarding hepatitis B vaccination is limited to whether hepatitis B vaccination is indicated for the exposed person and if the person has received such vaccination. The written opinion for post-exposure follow-up is limited to the following information:

1. That the individual has been informed of the results of the evaluation, and

2. That the individual has been told about any medical conditions resulting from exposure to blood which require further evaluation or treatment.

All other findings or diagnoses remain confidential and are not included in the written report.

PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT

The Principal Investigator/Area Supervisor is responsible for reviewing the circumstances of exposure incidents, with the assistance of the Biosafety Officer. The evaluation shall, at a minimum, consider the following:

- Controls and work practices in use at the time of the incident
- PPE in use at time of incident
- Location of incident
- Training of exposed person
- Procedure being performed when exposure occurred

INFORMATION AND TRAINING

Training: Training for all employees potentially at-risk will be conducted prior to initial assignment to tasks where occupational exposure to human source materials or other potential infectious materials may occur.
Training will be provided by EHS.
Training for employees will include the following:

- Details of the OSHA standard, "Occupational Exposure to Bloodborne Pathogens".
- Epidemiology, symptoms and mode of transmission of bloodborne diseases.
- This Exposure Control Plan, i.e., points of the plan, lines of responsibility, how the plan will be implemented, etc.
- Procedures that might cause exposure to blood or other potentially infectious materials.
- Methods used to control exposure to blood or other potentially infectious materials.
- Personal protective equipment available and who should be contacted concerning its provision, replacement and laundering.
- Post-exposure evaluation and follow-up.
- Signs and labels.
- Hepatitis B vaccine program
- An opportunity to ask questions

Employees will receive annual refresher training, which will be conducted within one year of the employee's previous training.

Information about training is available from EHS, x 5294.

2) Record keeping:

Training Records:

Training records are maintained for at least three years by EHS. Employee training records will be provided upon request to the employee, or to an authorized representative of the employee, within 15 working days.

The training records include:

- the dates of the training sessions
- the contents or a summary of the training sessions
- the names persons conducting the training
- the names and job titles of all persons attending the training sessions.

Medical records

Medical records are maintained for each employee with occupational exposure in accordance with 29 *CFR* 1910.1020, "Access to Employee Exposure and Medical Records."

University Health Services is responsible for maintenance of the required medical records. These confidential records are kept for at least the duration of employment plus 30 years. Employee medical records are provided upon request to the employee or to anyone having written consent of the employee, within 15 working days. Requests must be sent to:

Employee Health Services
McCosh Health Center, Garden Level, Room G07
Princeton University
Princeton, NJ 08540

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are the responsibility of UHS.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log by UHS. All incidences must include at least:

- date of the injury
- type and brand of the device involved (syringe, suture needle)
- department or work area where the incident occurred
- explanation of how the incident occurred

This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

HIV/HBV RESEARCH LABORATORIES

The Principal Investigator/Area Supervisor shall consult with EHS for a description of applicable criteria and additional training required for employees who work in HIV/HBV laboratories.

APPENDIX A

Job classifications in which all employees may be expected to incur occupational exposure to blood or other potentially infectious material.

Administrative Captain, DPS
Animal Care Tech I
Animal Care Tech II
Associate Director, LAR
Associate Director, Support Services
Associate Fire Marshal
Attending Veterinarian
Cage Wash Technical
Environmental Health and Biological Safety Officer
Fire Marshal
Lead Technician, LAR
Manager, LAR
Patrol Captain
Staff Veterinarian
Transgenic Breeding Technician
Veterinary Technicians
Lieutenant
Sergeant
Detective Sergeant
Sergeant/Community Relations
Patrolman
Security Officer
Head Security Supervisor
Head Art Museum Supervisor
Library Security Supervisor
Lead Officer, Museum Security
Physician
Director of Medical Services
Assoc Director of Medical Services
Director, Athletic Medicine and Assistant Director, Medical Services
Director, EE Health and Assist Director Medical Services
Nursing Manager, Infirmary
Head Athletic Trainer
Nurse Practitioner
Coordinator, Travel and Immunization Services
Coordinator, Outpatient Medical Services
Coordinator, Physical Therapy
Coordinator, Radiology
Physician Assistant
Athletic Trainer and Physical Therapist
Assistant Head Athletic Trainer
Registered Nurse
Medical Clinic Triage Nurse
Athletic Trainer
Medical Assistant
Nurses' Aide

APPENDIX B

Job classifications in which some employees may have occupational exposure, regardless of frequency.

Assoc Professional Specialist
Assoc Research Scholar
Postdoc Research Associate
Postdoc Research Fellow
Professional Specialist
Research Scholar
Senior Scholar
Sr Professional Specialist
Sr Research Assistant
Sr Research Scholar
Vis Assoc Professional Specialist
Vis Assoc Research Scholar
Vis Postdoc Res Associate
Vis Professional Specialist
Vis Research Collaborator
Vis Research Scholar
Vis Sr Research Scholar
Visiting Fellow
Research Specialist I
Research Specialist II
Director for Operations, DPS
Laboratory Safety Specialist
Building Services Janitorial Supervisor
Lead Custodian
Building Custodian
Lead Janitor
Leadperson
Janitor
Building Services Moving Supervisor
Lead Mover
Mover
Storage Facility Operator
Warehosue Attendant II
Building Services Sanitation Supervisor
Lead Sanitation Equipment Operator
Sanitation Equipment Operator
Supervisor, Building Services
Energy Plant Manager
Chief Engineer
Assistant Chief Engineer
Lead Utility Plant Engineer
Senior Shift Operator
Sr. Shift Operator
Relief Sr. Shift Operator
Instrument and Control Tech
Utility Plant Engineer
Apprentice Operations Engineer
Shop Foreman
Assistant Shop Supervisor
Sr Special Facilities Supervisor
Psychiatrist

Appendix C

Department Specific Exposure Control Plan

This form to be completed by the Principal Investigator or Area Supervisor.

1. **List job classifications not listed in Appendix A or B in which employees may have occupational exposure to blood or other potentially infectious materials. This assessment will be made without regard for the use of personal protective equipment.**

2. **Identify all blood and other potentially infectious materials that may be handled by employees:**

3. Identify tasks and procedures in the laboratory that may create a risk of exposure to blood or other potentially infectious material:

4. List personal protective equipment available to prevent exposure to blood and other potentially infectious material:

PPE	Tasks Requiring Use	Person Responsible for Providing	Disposal/Decontamination

5. **List equipment, other than PPE, available to prevent and control exposures and the schedule for maintenance. This might include items such as sharps containers and biosafety cabinets.**

6. **List any equipment which cannot be decontaminated prior to servicing or shipping:**

7. Describe procedures to be used for decontamination and spill-cleanup.