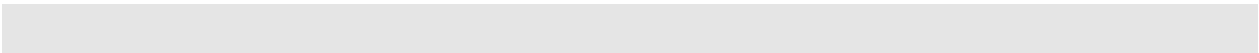


PLEASE READ BEFORE COMPLETING THE BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN!!

If you have any questions regarding the completing of this document contact the Environment, Health and Safety, Biosafety Division at extension 63929 or biosafety@ehs.ucla.edu.

The **Exposure Control Plan** on this file is an incomplete document. It must be modified to the characteristics of your lab. The PI is the responsible party, unless designated otherwise.

1. To complete the document, fill in the appropriate information in all highlighted areas.
 2. Modify lists of Engineering Controls, Work Practice Controls, and Personal Protective Equipment to reflect what are utilized in your lab
 3. Section VII. HIV AND HBV RESEARCH LABORATORIES must only be completed by labs that are engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. Clinical or diagnostic labs engaged solely in the analysis of blood, tissues, or organs are exempted from completing this section. To complete this section add any additional practices, containment equipment, facility and training requirements as applies. **No information in this section can be subtracted. All must be followed.**
 4. Remember that the **Exposure Control Plan** must be updated yearly.
 5. Remember that upon completion, the **Exposure Control Plan** must be made accessible to all employees in the laboratory.
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BLOODBORNE PATHOGENS STANDARD EXPOSURE CONTROL PLAN

I. POLICY STATEMENT

Facility David Eisenberg lab, Dept of Biological Chemistry
Principal Investigator or Supervisor David Eisenberg
Locations (Building/Room): Boyer Hall 219A, 225, 206, 229, 359
Date of preparation: May, 2015; this revision 5/12/2015

It is the policy of UCLA to ensure the safety of all its employees. The following exposure control plan has been developed for the purpose of:

- 1) Protecting employees by eliminating or minimizing their occupational exposure to human blood, other body fluids, tissues or organs; HIV, HBV or HCV containing cell or tissue cultures, culture medium or other solutions containing HIV, HBV or HCV; or blood, organs or other tissues from experimental animals infected with HIV, HBV or HCV;
- 2) Complying with the CAL/OSHA "Bloodborne Pathogens Standard" (Title 8, Code of California Regulations, Section 5193); and
- 3) Providing an exposure control plan that is consistent with the requirements of the Cal/OSHA "Injury and Illness Prevention Plan" (Title 8, Code of California Regulations, Section 3203).

Evaluation and Review

Dan Anderson has overall responsibility for the Plan, including reviewing and updating the plan annually, when procedures change or when a risk assessment of procedures is conducted. Copies of the Plan may be obtained from Dan Anderson in Boyer 219.

II. EXPOSURE DETERMINATION:

The exposure determination is made without regard to the use of personal protective equipment.

Category I: All personnel in these job classifications may reasonably be expected to be exposed to blood or OPIM in the course of the performance of their job duties:

(List all job titles that apply --such as examples below. Delete job titles listed below that do not apply to your area.)

Graduate Student
Postdoctoral Fellow
Staff Research Associate
Lab assistant (undergraduate)

Category II: Some personnel in these job classifications might perform duties which would put them at risk.

(List job classifications and associated tasks and procedures or groups of closely related tasks and procedures for this category as follows. See example below. Delete what does not apply.)

Job Classification

Laboratory Helper (undergraduate)
Staff Research Associate
Graduate Student
Post-Doc

Tasks/Procedures in which occupational exposure occurs:

1. Arranging samples in test tube racks.
2. Loading tubes and retrieving them from the centrifuge.
3. Handling contaminated garments: lab coats, masks, aprons, etc.
4. Loading tubes and retrieving from a centrifuge rotor.
5. Maintaining human cells in culture, and performing assays on the cells.

III. METHODS OF COMPLIANCE

General: As a mandate by the Standard, **Universal Precautions** shall be followed at UCLA at all times to prevent contact with blood or OPIM by those persons designated to be “at-risk”. Universal Precautions is an infection control mechanism which considers that all human blood and OPIM to be at risk for containing potentially infectious bloodborne pathogens.

Engineering Controls and work Practice Controls – General Requirements:

Engineering and work practice controls will be used at UCLA to eliminate or minimize exposure to bloodborne pathogens. Supervisors will evaluate all tasks with exposure potential and will institute the use of engineering controls and work practices whenever possible to eliminate or minimize exposure to their employees. If occupational exposure remains after institution of these controls, then the facility will provide and assure its employees use personal protective equipment as supplemental protection.

Specific engineering controls and work practices used will be evaluated and updated on a regular schedule to ensure their effectiveness. Engineering controls used will be examined and maintained or replaced on a regular schedule to ensure their effectiveness. All procedures involving blood or OPIM will be performed in such a manner as to minimize splashing, spraying, spattering and generation of droplets of these substances.

Engineering and Work Practice Controls – Specific Requirements

A. Needleless Systems, Needle Devices and Non-Needle Sharps

1. Needleless systems will be used at UCLA for:
 - a. Withdrawal of body fluids after initial venous or arterial access is established;
 - b. Administration of medications or fluids; and
 - c. Any other procedure involving the potential for an exposure incident for which a needleless system is available as an alternative to the use of needle devices.

2. If needleless systems are not used, needles with engineered sharps injury protection shall be used for:
 - a. Withdrawal of body fluids;
 - b. Accessing a vein or artery;
 - c. Administration of medications or fluids; and
 - d. Any other procedure involving the potential for an exposure incident for which a needle device with engineered sharps injury protection is available.
3. If sharps other than needle devices are used, these items will include engineered sharps injury protection.

Exceptions:

1. The engineering control is not required if it is not available in the marketplace.
2. The engineering control is not required if a licensed healthcare professional directly involved in the patient's care determines, in the reasonable exercise of clinical judgment, that use of the engineering control will jeopardize the patient's safety or the success of a medical, dental or nursing procedure involving the patient. The determination will be documented.
3. The engineering control is not required if the employer can demonstrate by means of objective product evaluation criteria that the engineering control is not more effective in preventing exposure incidents than the alternative used by the employer.
4. The engineering control is not required if the employer can demonstrate that reasonably specific and reliable information is not available on the safety performance of the engineering control for the employer's procedures, and that the employer is actively determining by means of objective product evaluation criteria whether use of the engineering control will reduce the risk of exposure incidents occurring in the employer's work place.

In this facility the following engineering controls used are:

(List controls that apply to your facility; delete examples that do not apply.)

- Sharps containers in Boyer 219, 225, 205B are used for disposal of non-biohazard needles and other sharp tools.
- Sharps containers in Boyer 206 or 359 will be used for disposal of biohazard needles and other sharp tools, if need arises.
- Class II biological safety cabinets
- Contained centrifuge units
- Mechanical pipetting devices
- Capped centrifuge tubes

B. Prohibited Work Practices:

1. Shearing or breaking of contaminated needles and other contaminated sharps is prohibited.
2. Contaminated sharps will not be bent, recapped, or removed from devices. Contaminated sharps may be bent, recapped or removed from devices if the procedure is performed using a mechanical device or a one-handed technique, and the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.
3. Sharps that are contaminated with blood or OPIM will not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

4. Disposable sharps shall not be reused.
5. Broken glassware which may be contaminated will not be picked up directly with the hands. It will be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.
6. The contents of sharps containers will not be accessed unless properly reprocessed or decontaminated.
7. Sharps containers will not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of a sharps injury.
8. Mouth pipetting/suctioning of blood or OPIM is prohibited.
9. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
10. Food and drink will not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or OPIM are present.

C. Requirements for Handling Contaminated Sharps

1. All procedures involving the use of sharps in connection with patient care, such as withdrawing body fluids, accessing a vein or artery, or administering vaccines, medications or fluids, will be performed using effective patient-handling techniques and other methods designed to minimize the risk of a sharps injury.
2. Immediately or as soon as possible after use, contaminated sharps will be placed in a sharps containers.
3. At all time during the use of sharps, containers for contaminated sharps will be:
 - a. Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found.
 - b. Maintained upright throughout use, where feasible; and
 - c. Replaced as necessary to avoid overfilling.

D. Sharps Containers for Contaminated Sharps:

All sharps containers for contaminated sharps will be rigid, puncture resistant, leakproof on the sides and bottom, portable, if portability is necessary to ensure easy access, and labeled as biohazard waste.

If discarded sharps are not to be reused, the sharps container shall be closable and sealable so that when sealed, the container is leak resistant and incapable of being reopened without great difficulty.

E. Regulated Waste

1. Handling, storage, treatment and disposal of all regulated waste will be in accordance with the California Medical Waste Management Act (California Health & Safety Code Chapter 6.1 sections 117600 through 118360) and other applicable regulations of the United States, the State, and political subdivision of the State.
2. When any container of contaminated sharps is moved from the area of use for the purpose of disposal, the container will be:
3. Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping; and
4. Placed in a secondary container if leakage is possible. The second container will be closable; constructed to contain all contents and prevent leakage during handling, storage, transport or shipping; labeled as biohazardous waste.

5. Regulated waste not consisting of sharps will be disposed of in containers which are closable, labeled as biohazardous waste, closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
6. If outside contamination of a container of regulated waste occurs, it will be placed in a second container. The second container will be closable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping.

F. Handling Specimens of Blood or OPIM

Specimens of blood or OPIM will be placed in a container which prevents leakage during collection, handling, processing, storage, transport or shipping.

1. The container for storage, transport or shipping will be labeled or color-coded and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding is required when such specimens/containers leave the facility.
2. If outside contamination of the primary container occurs, the primary container will be placed within a second container which prevents leakage during collection, handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of the facility.
3. If the specimen could puncture the primary container, the primary container will be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

G. Servicing or Shipping Contaminated Equipment

Work practice controls in place to reduce the likelihood of exposure include:

(List controls that apply to your facility; delete examples that do not apply. The examples are required by the law. Do not delete them unless they really do not apply to your facility.)

- Handwashing facilities are available in all lab areas.
- Gloves are removed when answering the telephone or use a Kleenex or Kimwipe when picking up the receiver.
- Employees wash their hands after removal of gloves and to not wear gloves outside of the work area.
- Employees thoroughly wash their hands or skin with hot water and soap after exposure to blood or blood products and to flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with potentially infectious material.
- Contaminated needles are disposed of in appropriately labeled containers. Needles and adapters are thrown out without removing or bending or breaking

the needles. The sharps containers are puncture resistant, leak-proof, and labeled to indicate biohazardous material.

- Eating, drinking, applying lip balm or lipstick or handling contact lenses in the laboratory is prohibited in those areas where there is a reasonable likelihood of occupational exposure.
- Food and drinks are prohibited from refrigerators, freezers, shelves, and bench tops where blood or other potentially infectious material is present.
- Mouth pipetting of potentially infectious material is prohibited.
- Equipment needing servicing or repair is decontaminated before the service representative is allowed to work on it. If portions cannot be readily decontaminated, a highly visible label will be affixed to the equipment to warn the service representative or manufacturer of the potential hazard and stating which parts may be contaminated before the equipment is sent for repair or service.

The above engineering and work practice controls will be inspected, maintained and if necessary, replaced on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows: ***(List schedule, such as daily, once/week, etc., list the name/position of the person(s) responsible for reviewing the effectiveness of these controls.)***

Every March, Technical Safety Services re-certifies the biological safety cabinet in 206 (Feng Guo Lab).

The AirClean Systems balance enclosure in 219A sounds an alarm about 2 months before its HEPA filter should be replaced. Its coarse air filters are replaced every 2-3 months (see SOP about weighing dry peptides).

Personal Protective Equipment:

1. Provision:

Dan Anderson (Lab Manager) is responsible for ensuring that employees are provided, without cost to them, with appropriate PPE as determined by their anticipated exposure to blood or OPIM.

2. Use:

Dan Anderson (Lab Manager) with enforcement backing from David Eisenberg (Principal Investigator) will ensure that employees use appropriate PPE as needed by their assigned tasks and will be responsible for investigating and documenting those unusual instances in which PPE is not worn when required.

3. Accessibility:

Dan Anderson (Lab Manager) will ensure that appropriate PPE in the appropriate sizes is readily available at this work site and is issued without cost to employees.

4. Cleaning, Laundering and Disposal

The facility is required to clean/laundry, repair, replace or dispose of any PPE when necessary without cost to the employee.

All garments including PPE penetrated by blood or OPIM shall be removed immediately or as soon as possible.

PPE is worn only when needed for protection and is removed prior to leaving the work area. When PPE is removed, it is placed in a designated area or container for storage, washing, decontamination or disposal.

5. Gloves

Gloves will be worn when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, and other non-intact skin; when performing vascular access procedures, and when handling or touching contaminated items or surfaces.

Disposable gloves will not be washed or decontaminated for re-use and will be replaced when they become contaminated, or if they are damaged in any way that compromises their ability to function as a barrier.

Utility gloves may be decontaminated for re-use unless they show any signs of deterioration or when their ability to function as a barrier has been compromised, in which case they must be discarded.

Gloves will not be worn in public areas but will be removed prior to leaving the work area.

6. Masks, Eye Protection and Face Shields

Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, will be worn whenever splashes, spray, splatter or droplets of blood or OPIM may be generated and eye, nose or mouth contamination can be reasonably anticipated.

The following procedures in this facility would require such protection: ***(List/describe the procedures that require mask, eye protection or face shields.)***

Vortexing; For cryopreservation: smashing dry ice; pouring liquid nitrogen.

7. Gowns, Aprons and Other Body Protection

Appropriate protection will be worn in situations where gross contamination can be reasonably anticipated.

The following procedures require that protective clothing is worn: **(List/describe the procedure)**

Wear lab coats and gloves for all lab work. Wear long pants and full-coverage shoes even to set foot in the lab. Wear ear protection to use or be near the sonicator.

Housekeeping:

Dan Anderson (Lab Manager) is responsible for writing, implementing and maintaining spill cleanup procedures that are site-specific and for training all employees in such procedures.

All receptacles (reusable cans, sharps containers) which may be contaminated will be inspected and decontaminated on a regularly scheduled basis: **(List frequency and person responsible by name and position.)**

<u>Frequency</u>	<u>Responsible Person</u>
Path bucket(s) in 225 will be inspected at least weekly	by Jose Rodriguez or Qin Cao, both Post-Docs.
Red-bag containers and aspiration flask in Boyer 206	are inspected once or several times per weekday by Dan Anderson.

The work area will be cleaned and decontaminated according to the following schedule: **(List areas, schedules, and disinfectants used.)**

<u>Area</u>	<u>Schedule</u>	<u>Procedure and disinfectant</u>
Boyer 219A HPLC	Cleanup at every use	wipe with detergent/water, ethanol, water
Boyer 219A sonicator	Cleanup at every use	sonicate detergent, ethanol, water
Boyer 225 prion cabinet, tidy (and clean) weekly.		Wipe with NaOH, water
Boyer 225 benches	Cleanup at every use.	Wipe with detergent/water, ethanol, water
Boyer 225 Bio-Rad chromatography equipment:	See prion SOP for cleanup at every use.	

Dan Anderson (Lab Manager) is responsible for ensuring that written guidelines are available for work site clean up and that employees are properly trained in clean up procedures.

All equipment, environmental and working surfaces are cleaned and decontaminated after contact with blood or OPIM as soon as feasible using appropriate disinfectant; wherever there is overt contamination; after any spill of blood or OPIM; and at the end of the work shift.

Any protective coverings used to cover equipment, environmental or working surfaces are removed and replaced as soon as feasible once contaminated.

All bins, receptacles, or cans intended for reuse are lined with red plastic biohazard bags.

Glassware that is broken and may be contaminated is picked up using mechanical means (brush, dust pan, tongs, forceps) and not by hand.

Contaminated sharps are never retrieved by hand from receptacles.

Laundry:

Laundry will be cleaned by Mission Linen. Pickup site is in Chemistry and Biochemistry Receiving (Young Hall 1224). Drop off coats Wednesday for pickup by Mission early Thursday morning. Retrieve laundered coats Thursday of the next week.

Contaminated laundry will be handled as little as possible and with a minimum of agitation.

Contaminated laundry will be bagged or containerized at the location where it was used; do not sort or rinse it in the location of use.

Contaminated laundry must be placed and transported in labeled or color-coded bags or containers.

Supervisors will ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate PPE.

Regulated Waste:

1. Sharps waste

Contaminated sharps will be disposed of as soon as possible into sharps containers which are properly labeled, puncture resistant, leak-proof and closeable to assure containment.

Sharps containers will be easily accessible to personnel and will be located as close as possible to the immediate area where sharps are being used.

Sharps container will be kept upright when used and will not be overfilled and will be replaced routinely.

Sharps container will be closed immediately prior to their removal from the area of use and during handling, storage, transport or shipping.

A secondary container will be used if leakage of the primary container is possible. The secondary container will be properly labeled, closeable, leak-proof and constructed to contain all contents.

2. Other Regulated Waste

Other regulated waste will be placed in containers/bags which satisfies the requirements of the California Medical Waste Management Act.

IV. HEPATITIS B VACCINATION AND POSTEXPOSURE EVALUATION AND FOLLOW-UP.

Hepatitis B Vaccination

All employees determined to be at risk will be offered the Hepatitis B vaccine series and tested for antibodies to the hepatitis B antigen (HBsAg) free of charge to the employee after they have received required training and within 10 days of initial job assignment. Employees who do not respond to the primary vaccine series will complete a second vaccine series and re-test for development antibodies to the hepatitis B surface antigen (HbsAg).

Employees who decline to take the vaccination will be required to sign the Cal/OSHA waiver indicating their refusal. However, employees who initially refuse the vaccine may change their decision and receive the vaccine at any time as long as they are still considered to be at risk.

Exception: Designated first aid providers who have occupational exposure are not required to be offered pre-exposure hepatitis B vaccine if the primary job assignment of the designated first aid provider is not the rendering of first aid.

At UCLA Occupational Health Facility will make available the Hepatitis B vaccine and antibody testing for hepatitis B surface antigen (HBsAg) to all employees who have occupational exposure, and post-exposure follow-up to employees who have had an exposure incident.

Dan Anderson is in charge of the Hepatitis B vaccination program and will ensure that all medical evaluations and procedures including the Hepatitis B vaccination and post-exposure follow-up, including prophylaxis are:

- made available at not cost to the employees,
- made available to the employee at a reasonable time and place,
- performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional;
- provided according to the recommendation of the US Public Health Service.

HBV VACCINATION DECLINATION FORM

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 hepatitis B vaccine, at no charge to myself. However, I decline to have the hepatitis B vaccination at this time. I understand that by declining to have 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 hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Date

Signature

Print Name

Post-Exposure Evaluation and Follow-up

Any exposure incident will be reported immediately to the supervisor and the employee will report immediately to either Occupational Health Facility or the UCLA Emergency Room. Page them at pager ID number 93333 (On campus dial 231 and enter the ID number when prompted.). Go to Occupational Health Facility (67-120 CHS) between 7:30 a.m. and 12 noon or 1:00 p.m. and 4:00 p.m.; otherwise report to the emergency room (Ronald Reagan UCLA Medical Center).

All exposure incidents on campus will be reported, investigated and documented by UCLA Office of Risk Management, the Office of Environment, Health & Safety and/or the supervisor of the facility. The form titled, "Employee's Referral Slip for Industrial Injury and Report of an Accident" is required to be completed within 24 hours of the incident.

Medical Record Keeping

Records will be maintained by the UCLA Occupational Health Center. Such records would include the employee's name, Social Security number, hepatitis B vaccination status, copy of all results from examinations, testing and follow-up, and the Health-care Professional's (Occupational Health Center's physician) evaluation.

These records are governed by the University of California's policies regarding the Information Practices Act.

V. HAZARD COMMUNICATION

Suitable red or orange/red biohazard signs will be affixed to all containers of possible biohazardous material or contamination including refrigerators, freezers, incubators and containers used to transport samples and regulated waste. Red biohazard bags will be used to dispose of non liquid biohazardous wastes.

VI. TRAINING

Copies of the OSHA Standard and the Exposure Control Plan are kept with the safety manual. Training is given within 12 months of previous training and at the time of initial assignment to task which may result in exposure to potentially infectious materials. Training is given during normal work hours in person by a knowledgeable individual. Employees are given the opportunity for interactive questions and answers with the trainer.

Explanations of or information on the following were included in the training:

- an explanation of contents of Exposure Control Plan;
- a general discussion on bloodborne diseases and their transmission;
- an explanation of facility's exposure control plan and its availability;
- a discussion of use and limitations of engineering and work practices controls and personal protective equipment;

- information on types, selection, use, handling and disposal of personal protective equipment
- Hepatitis B vaccine information;
- emergency response procedures involving blood or OPIM;
- information on how to handle exposure incidents;
- an explanation of the post-exposure evaluation and follow-up program;
- an explanation of signs, labels and/or color coding.

Records of the training session will be maintained for 3 years by Dan Anderson (Lab Manager) and will include the date of the session, speaker, list of attendees and their job titles. Training records will be maintained in Boyer 219 and uploaded to LabBook.

Dan Anderson (Lab Manager) will be held responsible for training the staff on the above listed topics.

Date of this document: 5/12/2015

VII. HIV AND HBV RESEARCH LABORATORIES

All UCLA laboratories engaged in the culture, production, concentration, experimentation, and manipulation of HIV or/and HBV are required to comply with the following special provisions in addition to the other requirements contained in this Plan and guidelines established by the National Institutes for Health and the Centers for Disease Control. These special provisions do not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissue or organs.

Special Practices

Supervisory personnel shall be responsible for preparing, implementing, reviewing and updating written biosafety procedures for their worksite (i.e., biosafety manual). This manual is required reading for all personnel and will be adopted into the Exposure Control Plan.

Personnel are advised of the potential hazards, must read instructions on practices and procedures and must follow them.

All regulated waste is incinerated or decontaminated by a method known to effectively destroy bloodborne pathogens.

Before disposal all waste from work areas and from animal rooms is incinerated or decontaminated.

Laboratory doors are kept closed when work with HIV or HBV is in progress.

Contaminated materials are placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area for decontamination.

Access to the work area is limited.

Written policies and procedures are established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements (vaccination, PPE, etc.) and comply with all entry and exit procedures will be allowed to enter the work areas and animal rooms.

When OPIM or infected animals are present in the work place, hazard warning signs are posted on all access doors, and all doors are kept closed while work is in progress.

No work with OPIM is conducted on the open bench. Biological safety cabinets or other physical containment devices are used for manipulations with OPIM.

Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing is used in the work areas and animal areas.

PPE is not worn outside the work area and is decontaminated before being laundered.

Skin contact with OPIM is avoided. Gloves are worn when handling infected animals and making hand contact with OPIM materials.

Vacuum lines are protected with liquid disinfectant traps and HEPA filters or similar quality filters. Traps and filters are routinely checked.

Only needle-locking syringes or disposable syringe-needle units (i.e., needle is integral to syringe) is used for infecting or aspirating potentially infectious materials. Hypodermic needles and syringes are used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles.

Needles are not bent, sheared, replaced in sheath or guard, or removed from syringes after use.

After use needles and syringes are promptly placed in a sharps container.

All spills are contained and cleaned-up immediately by trained personnel.

A spill or accident that results in exposure is reported immediately to the Principal Investigator or other responsible supervisor.

Containment Equipment

Certified biological safety cabinets or other appropriate combinations of personal protection or physical containment devices (e.g., special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals) are used for activities with OPIM that pose a threat of exposure to droplets, splashes, spills or aerosols.

Biological safety cabinets are certified when installed, whenever they are moved or undergo major servicing and at least annually.

Facility Requirements

Each laboratory is equipped with handwashing and eye wash facilities which are readily available within the work area.

An autoclave for decontamination of regulated waste is available.

Additional Training Requirements

Principle investigators/laboratory supervisors ensure that prior to working with HBV or HIV, employees:

Demonstrate proficiency in standard microbiological practices and techniques, and in those specific to their work site.

Be experienced in handling human pathogens or tissue culture.

Demonstrate proficiency in techniques in a progression of work activities but without handling pathogens, if there is no prior experience in pathogen handling. Employees are allowed to participate in work activities involving infectious agents only after proficiency has been demonstrated.

_____ **(insert name/position)** is responsible for ensuring that laboratory employees use the appropriate containment equipment and adhere to the proper laboratory procedures while carrying out their work tasks.

_____ **(insert name/position)** is responsible for writing and maintaining written biosafety procedures for this facility and ensures that all laboratory personnel who are required to do so have read these procedures.

Training and documentation is the responsibility of
_____ **(insert name/position)**.