

# **ILLINOIS INSTITUTE OF TECHNOLOGY SAFETY POLICY COMMITTEE**

## **Bloodborne Pathogens Program**

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## **I. PURPOSE**

Where it is reasonably anticipated that occupational exposure to blood and other potentially infectious materials may occur, the Occupational Safety and Health Administration requires that Illinois Institute of Technology establish a written Exposure Control Plan designed to eliminate or minimize employee exposure. (See 29 CFR 1910.1030). This Bloodborne Pathogens Program includes Illinois Tech's policy regarding compliance with regulation and, as an attachment, the Exposure Control Plan for the University.

To protect the safety of student, faculty, and staff, departments that fail to comply with the Bloodborne Pathogens Program shall be subject to administrative penalties, up to and including the closure of laboratory facilities.

## **II. SCOPE**

This Bloodborne Pathogens Program covers all employees, faculty, researchers and students (collectively "Employees") who could be "reasonably anticipated" as the result of performing their duties to have occupational exposure to human blood or blood products and/or other potentially infectious materials.

"Other potentially infectious materials" include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any (i) unfixed tissue or organ, other than intact skin, from a human (living or dead); (ii) human immunodeficiency virus (HIV) containing cell or tissue cultures, organ cultures, and HIV or Hepatitis B (HBV) containing culture medium or other solutions; and (iii) blood, organs, or other tissues from experimental animals infected with HIV or HBV.

"Occupation exposure" means 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. "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

## **III. PROGRAM ADMINISTRATION**

### **A. Maintenance and Review**

The University maintains a written Exposure Control Plan (ECP) designed to eliminate or minimize occupational exposure to human blood or blood products and/or other potentially infectious materials, a copy of which is attached as Attachment A.

This Bloodborne Pathogens Program, including the Exposure Control Plan, shall be reviewed at least annually and adjusted as required to meet the needs of the University and to stay current with applicable regulations. The review shall reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens, and document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

## **B. Responsibilities**

### 1. Department of Environmental Health and Safety

The Department of Environmental Health and Safety coordinates the Program, and is a resource for answering questions regarding Program implementation and compliance.

### 2. Laboratory Supervisors, Principal Investigators, and Department Heads

Laboratory supervisors and principal investigators are responsible for implementing the Program within their work areas. For non-research departments, department heads are responsible for ensuring that the Program is implemented. This includes:

- Preparing a list of all job classifications and/or tasks in the work area where employees have occupational exposure;
- Developing and implementing area specific Standard Operation Procedures (SOPs) to be used with the general procedures described in the Exposure Control Plan to protect against occupational exposure;
- Providing appropriate personal protective equipment to affected employees;
- Making the Hepatitis B vaccination available to all affected employees;
- Providing Exposure Control Plan training to all affected employees at least annually;
- Documenting and reporting all employee exposure incidents;
- Receiving approval from the Illinois Tech Institutional Biosafety Committee prior to beginning any project involving Bloodborne Pathogens and/or other potentially infectious materials; and
- Maintaining documentation of all of the previous items. Copies of the Exposure Control Plan, job classifications, and Standard Operating Procedures must be kept in the area's Laboratory Manual, or in the case of a non-research department, in a location known and readily accessible to Employees. All documentation must be available to the Department of Environmental Health and Safety upon request.

3. General Responsibilities – additional responsibilities relating to laboratory health and safety at the University are as described in the Laboratory and Workshop Safety Policy, which is available to deans, department heads, center directors, and principal investigators through the General Counsel webpage at [https://web.iit.edu/sites/web/files/departments/general-counsel/Laboratory%20and%20Workshop%20Safety%20Policy\\_Rev.%20Nov%201%2C%202021\\_.pdf](https://web.iit.edu/sites/web/files/departments/general-counsel/Laboratory%20and%20Workshop%20Safety%20Policy_Rev.%20Nov%201%2C%202021_.pdf).

**IV. APPROVAL**

The IIT Safety Committee reviewed and recommended the adoption of this Policy on June 19, 2006, and this Policy is approved and effective this 26<sup>th</sup> day of June 2006. The Safety Committee shall review the contents, implementation and effectiveness of this Policy no less than annually (but as often as necessary) to ensure that it is adequately providing a safe and healthful environment for IIT faculty, employees and students. Any modifications to this Policy have been reviewed and approved, and are effective as of the date noted on the cover page.

By: \_\_\_\_\_ /s/

Allan S. Myerson, Provost and Senior Vice President

By: \_\_\_\_\_ /s/

John P. Collins, Vice President for Business & Administration

## **Attachment A**

### **Illinois Institute of Technology Bloodborne Pathogen Exposure Control Plan**

1. **Date** – the date of this Exposure Control Plan: November, 2019
2. **Scope** - This document is the written Exposure Control Plan for Illinois Institute of Technology as required by the OSHA Occupational Exposure to Bloodborne Pathogens standard (29 CFR 1910.1030).
3. **Universal Precautions** - an approach to infection control in which all human blood and other potentially infectious materials are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. When it is difficult or impossible to differentiate between fluid types, universal precautions shall be observed.

#### **4. Engineering and Work Practice Controls**

##### **4.1. Definitions**

4.1.1. **Engineering controls** - controls that isolate or remove the bloodborne pathogens hazard from the workplace. Examples are sharps containers and self-sheathing needles.

4.1.2. **Work practice controls** - controls that reduce the likelihood of exposure by altering the manner in which a task is performed. If there remains a likelihood of occupational exposure even when engineering and work practice controls are in place, then personal protective clothing shall also be used.

##### **4.2. Controls to be Used**

4.2.1. **Handwashing** - Readily accessible handwashing facilities shall be provided, or, if this is not feasible, an appropriate antiseptic hand cleanser and clean cloth, or paper towels. In any case, employees shall wash hands with soap and running water as soon as feasible after removal of gloves or other personal protective equipment. The principal investigator or supervisor shall ensure that employees wash hands immediately or as soon as feasible after removing gloves or other personal protective equipment and also shall ensure that employees wash hands and any other skin with soap and water or flush mucous membranes with water immediately, or as soon as feasible, following contact of such body areas with potentially infectious materials.

4.2.2. **Needles and Sharps** - contaminated needles and other contaminated sharps shall not be bent, recapped or removed except as noted below. Shearing or breaking of contaminated needles is prohibited. Contaminated needles and sharps shall be recapped or removed only when no alternative is feasible or when it is required by a specific medical procedure. Any recapping or removal must be accomplished through the use of a mechanical device or a one-handed technique. The recapping or removal of contaminated sharps is actively discouraged under any circumstances because of the high potential risk of injection. Immediately after use, contaminated sharps shall be placed in sharps containers that are puncture-resistant, labeled or color-coded, and leakproof.

4.2.3. **Eating, Drinking, Smoking** - 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. Food and drink shall not be kept in refrigerators, freezers, shelves,

cabinets, or on countertops or benchtops where blood or other potentially infectious materials are present.

- 4.2.4. Splashing, Spraying, Spattering - all procedures involving blood or other potentially infectious materials shall be performed so as to minimize splashing, spraying, spattering, and generation of droplets.
- 4.2.5. Mouth Pipetting - mouth pipetting of blood or other potentially infectious materials is prohibited.
- 4.2.6. Specimen Containers - specimens of blood or other potentially infectious materials shall be placed in a container that prevents leakage during collection, handling, processing, storage, transport, or shipping. Secondary containers shall be used when transporting, storing or shipping specimens. Storage, transport, or shipping containers are closed and labeled; the label should include the biohazard symbol. Color-coded containers should be red or orange.
- 4.2.7. Potentially Contaminated Equipment - any equipment that may be potentially contaminated in the workspace shall be identified with a biohazard sticker. Potentially contaminated equipment shall be decontaminated prior to removal from the workspace, and a label shall be attached to the equipment detailing the name of the person performing the decontamination and the date it was accomplished.
- 4.2.8. Other Engineering Controls - other engineering controls include biological safety cabinets and chemical fume hoods. Engineering controls shall be examined and maintained on a regular schedule. Chemical fume hoods used for containment of potentially infectious material are inspected by the Department of Facilities, or a designated contractor, according to a regular schedule. The principal investigator or supervisor is required to ensure that biological safety cabinets used to protect workers from hazardous biological agents shall be tested and certified after installation, whenever they are moved and annually. Certification shall be in accordance with National Sanitation Foundation Standard Number 49.
- 4.2.9. Area Specific Standard Operating Procedures - principal investigators and supervisors are responsible for developing and implementing area specific Standard Operation Procedures (SOPs) to be used with the general procedures described in this Exposure Control Plan to protect against hazards unique to those areas. These SOPs shall be maintained as the area's Chemical Hygiene Plan.

## **5. Personal Protective Equipment**

- 5.1. Responsibility - the principal investigator or supervisor shall provide or ensure the provision of appropriate personal protective equipment to each employee who is subject to occupational exposure to human blood or potentially infectious material. The equipment is provided at no cost to the employee. Examples of such equipment include gloves, gowns, laboratory coats, head and foot coverings, face shields, masks and eye protection. The principal investigator or supervisor shall ensure that all personnel use personal protective equipment when warranted.
- 5.2. Availability - protective equipment in appropriate sizes shall be available in the work area or issued to employees. Hypoallergenic gloves or similar alternatives shall be readily available to those allergic to the normal gloves provided.

- 5.3. Cleaning and Repair - the principal investigator or supervisor shall ensure that personal protective equipment will be cleaned, laundered or disposed of at no cost to the employee. Personal protective equipment shall be repaired or replaced as needed to maintain its effectiveness.
- 5.4. Wear in Work Areas Only - all personal protective equipment shall be removed prior to leaving the work area.
- 5.5. Gloves - gloves shall be worn when it is reasonably anticipated that employees may have hand contact with blood, other potentially infectious materials, mucous membranes and non-intact skin. Gloves shall be worn when performing vascular access procedures and when handling or touching contaminated items or surfaces. Gloves shall be replaced as soon as practical when contaminated, torn, punctured, or otherwise compromised in their ability to function as a barrier. There are specific regulations related to phlebotomy. See the OSHA standard or contact the Department of Environmental Health and Safety for details.
- 5.6. Masks, Eye Protection, and Face Shields - masks (i.e. respirators) in combination with eye protection devices (such as goggles or glasses with solid side shields) or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious material may be generated and eye, nose, or mouth contamination can be reasonably anticipated. Use of masks requires compliance with the Illinois Tech Respiratory Protection Program. See the Department of Environmental Health and Safety for details.
- 5.7. Gowns, Aprons, and Other Protective Body Clothing - appropriate protective body clothing shall be worn in potential exposure situations. When gross contamination can be anticipated, surgical caps or hoods and shoe covers should be worn.

## 6. **Housekeeping**

- 6.1. Responsibility - the principal investigator or supervisor is responsible for ensuring that the work area is maintained in a clean and sanitary condition. A written schedule for cleaning and method of decontamination is required.
- 6.2. Cleaning - all equipment and environmental and working surfaces shall be cleaned and decontaminated with an appropriate disinfectant after contact with blood or other potentially infectious material. Contaminated work surfaces shall be decontaminated after completion of procedures, immediately or as soon as feasible after any contamination of surfaces or after any spill of blood or other potentially infectious materials, and at the end of the work shift if the surface may have become contaminated since the last cleaning.

Protective coverings such as plastic-backed absorbent paper shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the work shift if they may have become contaminated during the shift.

All bins, pails, cans, and similar receptacles intended for reuse that have a reasonable likelihood of becoming contaminated shall be inspected and decontaminated on a regularly scheduled basis. They shall be cleaned or decontaminated immediately or as soon as feasible if there is visible contamination.

Environmental surfaces (e.g., floors) are routinely cleaned either by Facilities personnel or by a designated contractor. Facilities or its designated contractor do not clean contaminated floors. If

floors are overtly contaminated or suspected of being contaminated, department personnel shall clean and decontaminate the floors using appropriate procedures.

The principal investigator or supervisor shall ensure routine cleaning of work surfaces and equipment as well as cleaning and disinfection of equipment, environmental surfaces, and work surfaces that have been in contact with human blood or other infectious materials.

- 6.3. Broken Glassware - broken glassware that may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush or dustpan, a vacuum cleaner, tongs, or forceps.

## 7. Waste Disposal

- 7.1. Contaminated Sharps - contaminated sharps shall be discarded immediately or as soon as feasible in containers that are closable, puncture-resistant, leakproof, and labeled or color-coded. Sharps containers shall be easily accessible to employees and located close to the immediate area where sharps shall be used. Sharps containers shall be kept upright throughout use, be replaced routinely, and not be allowed to be filled more than  $\frac{3}{4}$  full.

Before sharps containers are removed from the work area, they must be closed securely. If leakage is possible, a closable, sturdy, leakproof, and labeled or color-coded secondary container shall be used.

Principal investigators or supervisors are responsible for ensuring that appropriate sharps containers and other biohazardous waste containers are made available and are used.

- 7.2. Other Biohazardous Wastes - other waste containers that contain blood or other potentially infectious material shall be closable, able to contain all contents, leakproof, labeled and color-coded, and closed securely prior to removal. If the primary waste container is contaminated on the outside, it shall either be decontaminated prior to removal, or a closable, sturdy, leakproof, and labeled or color-coded secondary container shall be used, and it shall also be closed prior to removal.

8. Laundry - contaminated laundry shall be handled as little as possible with a minimum of agitation. It shall be placed into bags or containers at the point of use. It shall not be sorted or rinsed in the location of use. The bags or containers shall be labeled with the biohazard symbol or color-coded (red/orange). The bag or container shall be constructed to prevent soak-through or leakage.

The principal investigator or supervisor shall ensure that personnel who handle contaminated laundry shall wear protective gloves and other appropriate personal protective equipment

Contaminated laundry shall be autoclaved or disinfected prior to laundering. This enhances the protection of those individuals who must handle the laundry after it leaves the laboratory and simplifies the laundry handling procedures in the facility which cleans it.

Contaminated sharps shall never be included with laundry. Contaminated laundry is never washed with an individual's personal belongings or sent to a laundry service not aware of the hazards.

## 9. Hepatitis B Vaccination and Postexposure Evaluation and Follow-up

- 9.1. Responsibility - the principal investigator or supervisor is responsible for making the Hepatitis B vaccine and vaccination series available to all employees who have occupational exposure. More

details about Hepatitis B infection and the vaccine are provided in Appendix A – “Information About Hepatitis B and Hepatitis B Vaccine for University Employees.” Post-exposure evaluation and follow-up shall be made available to all employees who have sustained an exposure incident. All laboratory tests shall be conducted by an accredited laboratory at no cost to the employee.

Vaccine, vaccination, and all medical evaluations and procedures:

- shall be made available at no cost to the employee;
- shall be made available at a reasonable time and place;
- shall be performed by or under the supervision of a licensed physician or other licensed healthcare professional; and
- shall be provided according to the recommendations of the U.S. Public Health Service at the time the evaluations and procedures take place, except as noted below.

**9.2. Hepatitis B Vaccination** - Hepatitis B vaccination shall be made available. The vaccination shall be provided/scheduled after the employee has received the training required in the training section of this document, and within 10 working days of initial assignment to any employee who has occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. Participation by the employee in a prescreening program shall not be a prerequisite for receiving Hepatitis B vaccination.

An employee who accepts vaccination shall complete and sign the “*Hepatitis B Vaccination Consent Form*” attached hereto.

An employee may decline vaccination but decide to accept it at a later date in accordance with Section 9.1 above. If an employee declines vaccination, the employee shall sign the “*Hepatitis B Vaccine Declination Form*” attached hereto.

Any booster doses that may be recommended by the U.S. Public Health Service at a later date shall be made available in accordance with the vaccination requirements of this section.

The healthcare professional responsible for the employee’s Hepatitis B vaccination shall be provided with a copy of the OSHA Occupational Exposure to Bloodborne Pathogens Standard. The written opinion for Hepatitis B vaccination shall depend on whether Hepatitis B vaccination is indicated and if the employee has received the vaccination.

Principal investigators or supervisors shall provide personnel the information on the vaccination. Students should report to the Student Health and Wellness Center to receive the vaccination. Other personnel should contact Human Resources for information on recommended healthcare providers or healthcare providers with whom the University contracts to provide vaccination services. Individuals do have the option of using their own healthcare provider at their own cost.

### **9.3. Postexposure Evaluation and Follow-up**

**9.3.1. Required Elements** – following a report of an exposure incident, the principal investigator or supervisor shall ensure that a confidential medical evaluation and follow-up are made available to the exposed employee. The evaluation shall include:

- documentation of the route of exposure and the circumstances under which the exposure incident occurred – please refer to the “*Healthcare Professional Information Checklist*” attached hereto;

- identification and documentation of the source individual unless it is not feasible or prohibited by law;
- collection and testing of the exposed employee's blood for HBV and HIV serological status;
- collection of an exposed employee's blood as soon as feasible and testing after consent is obtained – testing may take place at a later date if the employee chooses;
- post-exposure prophylaxis, when medically indicated, as recommended by US Public Health Service;
- counseling; and
- evaluation of reported illnesses.

9.3.2. Notification Requirement – when an exposure incident occurs, notify Human Resources if the exposed individual is an employee. All incidents shall be reported to the Department of Environmental Health and Safety using the “*Post-Exposure Evaluation and Follow-up Checklist*” form attached hereto.

9.3.3. Information Provided to the Healthcare Professional – the principal investigator or supervisor shall ensure that the following information is supplied to the evaluating healthcare professional using the “*Healthcare Professional Information Checklist*” form attached hereto. The information shall include:

- a copy of the OSHA Occupational Exposure to Bloodborne Pathogens Standard;
- a description of the exposed employee's duties as they relate to the exposure incident;
- documentation of the route of exposure and circumstances under which the exposure occurred;
- results of the source individual's blood testing, if available; and
- all medical records relevant to the appropriate treatment of the employee including vaccination status that the department head is responsible for maintaining, if any.

9.3.4. Written Opinion Requirement – the principal investigator or supervisor is required to obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion shall be limited to whether Hepatitis B vaccination is indicated for the employee and, if the individual has received such vaccination, a statement that the individual has been informed of the results of the evaluation and that the individual has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment. All other findings or diagnoses shall remain confidential and shall not be included in the written report.

All laboratory tests shall be conducted by an accredited laboratory. The University must be able to document (e.g., by certificate) that the laboratory is accredited by a national accrediting body (such as CDC or College of American Pathologists) or equivalent state agency that participates in a recognized quality assurance program.

9.3.5. Medical Record - an accurate medical record for each personnel with exposure is maintained by Human Resources. The record includes:

- name and Social Security number of the employee;

- a copy of the person's Hepatitis B vaccination status, including the dates of all the Hepatitis B vaccinations and any medical records relative to the person's ability to receive vaccination;
- a copy of all results of examinations, medical testing, and follow-up procedures;
- a copy of the healthcare professional's written opinion; and
- a copy of the information provided to the healthcare professional.

The subject's medical records shall be kept confidential and shall not be disclosed or reported without the subject's express written consent to any person except as required by the OSHA Standard and by law. If the University has contracted with a clinic or other healthcare facility to provide the follow-up programs, the confidentiality requirements must be part of the contract.

When an exposure incident occurs, the results of the source individual's testing become a part of the confidential medical record and must be made available to the person. Personnel must be afforded unrestricted access to their medical records.

Medical records are required to be maintained confidentially for each person with exposure for the duration of employment or attendance of the University, plus 30 years and include name and social security number, Hepatitis B vaccination status (including dates), results of any examinations, medical testing and follow-up procedures, a copy of the healthcare professional's written opinion, and a copy of information provided to the healthcare professional.

Medical records must be made available to the subject, anyone with written consent of the subject, OSHA and National Institute of Occupational Safety & Health. Medical records should not be disclosed or reported without the subject's written consent to any person within or outside the workplace except as required by the Standard or as may be required by law. Disposal of records must be in accord with OSHA's standard covering access to records.

**10. Communication of Hazard to personnel** - warning labels are required on containers of biohazardous waste, refrigerators and freezers containing blood or other potentially infectious material, and other containers used to store, transport, or ship blood or other potentially infectious materials. Warning labels, shall include the orange or orange-red biohazard symbol. Red bags or containers printed with the biohazard symbol may be used instead of labeling. Signs must be used to identify restricted areas in HIV and HBV research laboratories and production facilities.

**11. Communication of Hazard to Employees: Information and Training**

**11.1. Responsibility** - principal investigators or supervisors shall prepare a list of all job classifications and/or tasks in the work area where personnel have occupational exposure to bloodborne pathogens. This list shall be included as part of the area's Chemical Hygiene Plan. Principal investigators or supervisors are responsible for ensuring that all employees with occupational exposure participate in a training program, which must be provided during working hours at no cost to the employee.

**11.2. Training Program Available** - the Department of Environmental Health and Safety maintains a training program that, when supplemented by site-specific information, can satisfy the training requirement of the Standard. If the researchers are required to take CITI training (required for animal users and IACUC), the bloodborne pathogen training offered there is also acceptable.

Background information that will be covered in such training is given in Appendix A. Training materials shall include (i) a copy of the regulatory text of the Standard and explanation of its contents; (ii) a general discussion on bloodborne diseases and their transmission as well as the department's exposure control plan, engineering and work practice controls, and Hepatitis B vaccination policy; (iii) a review of available personal protective equipment and procedures for responding to emergencies involving blood, including how to handle exposure incidents; and (iv) a presentation on the department's post-exposure evaluation and follow-up program and its warning (hazard communication) system. Training also includes an opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter. Laboratory and facility workers must receive additional specialized initial training.

**11.3. Schedule** - Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter. Annual training shall be provided within one year of previous training.

**11.4. Additional Training** - Principal investigators or supervisors shall ensure that employees receive additional training when changes, such as modifications of tasks and procedures or institution of new tasks or procedures, affect the individual's risk of exposure.

**11.5. Language, Literacy, and Educational Level** - Training shall consist of material appropriate in content and vocabulary to the educational level, literacy, and language of the individual. If an individual is proficient in a foreign language only, the trainer or an interpreter must convey the information in that language.

**11.6. Content** - at a minimum, the training program shall contain:

- an accessible copy of the OSHA Standard and an explanation of its contents;
- a general explanation of the epidemiology and symptoms of bloodborne diseases;
- an explanation of the modes of transmission of bloodborne pathogens;
- a general explanation of this Exposure Control Plan and how to obtain a copy of the written plan;
- an explanation of how to recognize tasks and activities that may involve exposure to blood and other potentially infectious materials;
- an explanation of the use and limitations of methods that shall prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;
- information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment;
- an explanation of the basis for the selection of personal protective equipment;
- information on the Hepatitis B vaccine;
- information on appropriate actions to take and persons to contact in an emergency;
- an explanation of the procedure to follow if an exposure incident occurs;
- information on post-exposure evaluation and follow-up;
- an explanation of the signs and labels and/or color coding; and
- an opportunity for interactive questions and answers.

Common bloodborne diseases other than HIV and HBV, such as Hepatitis C should be described. Uncommon diseases do not need to be described in detail unless employees work with particular bloodborne pathogens.

11.7. Records - training records shall be maintained by the principal investigator or supervisor and shall include the following information:

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

Training records shall be maintained for three years from the date on which the training occurred. Training records shall be provided on request for examination and copying to personnel and to personal representatives. These records shall become a part of the Laboratory Safety Profile, comprising the set of safety documents required for each particular space or experiment. This can include but is not limited to: Chemical Hygiene Plan, Safety Data Sheets, BioSafety Plan, Radiation Safety Plan, Laser Safety Plan, and relevant Standard Operating Procedures.

Copies of training records shall be sent to the Department of Environmental Health and Safety, the Department Safety Officer and the Faculty Lab Safety Coordinator.

12. **First Aid Provision** - First aid providers whose primary job is not first aid administration do not have to be offered pre-exposure Hepatitis B vaccination, according to OSHA. These providers may include facility workers who are required by OSHA to take first aid to perform their tasks and others who have chosen to be certified in first aid, CPR and AED. If the so-called secondary first aid providers are exposed to human blood or other potentially infectious materials on the job, the vaccine must then be offered within 24 hours of the incident. In addition, appropriate post-exposure evaluation, prophylaxis, and follow-up must be provided to employees who have an exposure incident.

If you have secondary first aid providers in your department, your lab specific procedures must address this issue, including:

- a reporting procedure for incidents;
- a list (a log) of first aid incidents; and
- documentation of employee training in the specifics of the reporting procedure.

Exposure incidents must be reported before the end of the same shift during which the exposure incident occurred.

## Appendix A

### **Information About Hepatitis B and Hepatitis B Vaccine for University Personnel**

#### The Disease

Hepatitis B is a viral infection caused by Hepatitis B virus (HBV), which causes death in 1% to 2% of patients. Most people with HBV recover completely, but approximately 5 to 10% become chronic carriers of the virus. Most of these people have no symptoms but can continue to transmit the disease to others. Some may develop chronic active Hepatitis and cirrhosis. HBV also appears to be a causative factor in the development of liver cancer. Hepatitis B may be transmitted from a pregnant woman to the fetus. Thus, immunization against HBV can prevent acute Hepatitis and also reduce the sickness and death from chronic active Hepatitis, cirrhosis, and liver cancer. Hepatitis B vaccine will not prevent Hepatitis caused by other agents, such as other viruses known to infect the liver.

#### The Vaccine

The recombinant Hepatitis B vaccine is a noninfectious viral vaccine derived from HBV surface antigen (the viral coating material) produced in yeast cells. A portion of the Hepatitis B virus gene is cloned into yeast, and the vaccine is produced from cultures of this recombinant yeast strain. This vaccine is not produced from human blood or blood products. The safety and effectiveness are similar to the previously available vaccine derived from human plasma. The vaccine itself cannot cause Hepatitis B.

Immunization requires three doses of vaccine over a six-month period, although some people may not develop immunity even after three doses. The second and third doses are given one month and six months after the first dose and must be taken on time or the series will be discontinued. If in the future you want to receive the Hepatitis vaccine, you must start over again with the first dose. Clinical studies have shown that the vaccine produces protective levels of immunity in greater than 90% of healthy individuals when the three-dose regimen is administered. The duration of the protective effect is unknown at present. The need for booster doses is not yet defined.

#### Possible Vaccine Side Effects

The literature indicates that Hepatitis B vaccine is generally well tolerated. No serious reactions have been reported. Some injection site soreness has been reported. Less common local reactions have included redness, swelling, warmth, or induration. These are generally well tolerated and usually subside within two days of vaccination. Low-grade fever occurs occasionally and is usually confined to a 48-hour period following vaccination. Other complaints such as malaise, headache, dizziness, and muscle and joint aches are infrequent and have been limited to the first few days.

You may wish to consult with your personal physician about the potential risk/benefits of this vaccine and to consult current medical literature.

#### Completing the Hepatitis B Vaccination Series

Employees covered by the University's Bloodborne Pathogens Program are entitled to receive the Hepatitis B Vaccination series at no cost. If the worker was previously immunized, they are eligible for a titer to determine immunity. Employees who chose to be vaccinated must complete the Hepatitis B Vaccination form.

Employees who choose to decline the vaccination must complete the Hepatitis B Vaccine Declination form.

## Post exposure Evaluation and Follow-Up Procedure

In the rare occurrence of an employee or student being exposed to blood or other potentially infectious material, follow the procedures described below. In the event of an exposure incident, it is the department head's responsibility to ensure that a confidential medical evaluation and follow-up is made available to the exposed person.

### Students

Students should notify their supervisor and consult with a physician. The physician shall determine what course of treatment is appropriate for the exposure incident. The physician's evaluation should include the required elements listed in your Exposure Control Plan. If the exposure is coupled with life threatening circumstances, call 911 immediately.

### Employees

If the exposure incident is coupled with life threatening circumstances, call 911 immediately and IIT's Department of Public Safety thereafter.

### All

Incidents shall be reported to the Department of Environmental Health and Safety.

<b>ILLINOIS INSTITUTE OF TECHNOLOGY</b>	
Title: BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN	Author: Adapted from CFSAN's 1998 Plan

<b>Hepatitis B Vaccination Consent Form</b>		
<p>I have read the information about hepatitis B and the hepatitis B vaccine. I have had the opportunity to ask questions and understand the benefits and risks of hepatitis B immunization. I agree to receive the three doses required for the optimum immune response. However, as with all medical treatment, I understand there is no guarantee that I will become immune or that I will not experience adverse side effects from the vaccine.</p>		
Name of person to receive HB vaccine (please print):		
Signature of person receiving vaccine:		Date:
Witness:		Date:
Primary Dose:	Given By:	
Lot#:	Manufacturer:	Expiration Date:
1 Month After:	Given By:	
Lot#:	Manufacturer:	Expiration Date:
6 Months After:	Given By:	
Lot#:	Manufacturer:	Expiration Date:
Place in Employee's Personnel File		

<b>ILLINOIS INSTITUTE OF TECHNOLOGY</b>	
Title: BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN	Author: Adapted from CFSAN's 1998 Plan

<b>Hepatitis B Vaccine Declination Form</b>	
<p>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 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 hepatitis B vaccine, I can receive the vaccination series at no charge to me.</p>	
Employee Name (please print):	
Employee Signature:	Date:
Witness Signature:	Date:
Place in Employee's Personnel File	

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**Healthcare Professional Information Checklist**

Directions: A confidential medical evaluation and follow-up is to be made available immediately to any employee who has had an exposure incident involving eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials as a result of the employee's duties. Ensure that the following information is provided to the exposed employee's healthcare professional. The principal investigator or supervisor must complete the following form for documentation purposes and file the completed form in the employee's Human Resources medical file. See Section 9.3.5 for additional details.

1. Employee name:

DOB:

2. Healthcare professional's name and address:

3. Information forwarded to the employee's healthcare professional:

- a. A copy of 29 CFR 1910.1030, Bloodborne Pathogens.
- b. A description of the exposed employee's duties as they relate to the exposure incident.
- c. Documentation of the route(s) of exposure and circumstances under which the exposure occurred.
- d. Results of the material or source individual's blood testing, if available.
- e. All medical records relevant to the appropriate treatment of the employee.
- f. Employee HBV vaccination status.

4. Information sent by:

5. Date sent:

Place in Employee's Personnel File

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Author:  
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**Post-Exposure Evaluation and Follow-up Checklist**

Directions: A confidential medical evaluation and follow-up is to be made available immediately to any employee who experiences an exposure incident involving eye, mouth, other mucousmembrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials as a result of the employee's duties. The Principal Investigator or Supervisor must complete the following information upon being notified of an employee exposure incident. File the completed form in the employee's file. See Section 9.3.5 for additional details.

1. Employee name:

DOB:

2. Date of exposure:

Route(s) of exposure:

3. Material involved:

4. Circumstances under which the exposure occurred:

5. Identification, testing and documentation of the material or source individual (If infeasible or consent cannot be obtained, document why):

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Date:

6. Results of the material or source individual's testing provided to the exposed employee and exposed employee informed of confidentiality laws:

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Date:

7. Exposed employee's blood collected and tested after consent obtained:

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Date:

8. Prophylaxis:

9. Counseling:

10. Evaluation of reported illnesses:

Place in Employee's Personnel File