

UCSF

Bloodborne Pathogens Exposure Control Plan

April 2008

**Office of Environmental Health and Safety
University of California, San Francisco
50 Medical Center Way, San Francisco 94143-0942**

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UCSF BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

I. Application

This Exposure Control Plan (ECP) applies to non-clinical research laboratories at the University of California, San Francisco. Clinical Laboratories associated with the UCSF Medical Center must comply with the UCSF Hospital Epidemiology and Infection Control Department's (HEIC) Bloodborne Pathogens (BBP) ECP.

The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary as follows:

- To reflect new or modified tasks and procedures which affect occupational exposure;
- To reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
- To document consideration and implementation of appropriate commercially available needleless systems, needle devices, and sharps with engineered sharps injury protection;
- To include new or revised employee positions with occupational exposure;
- To review and evaluate the exposure incidents which occurred since the previous update; and
- To review and respond to information indicating that the Exposure Control Plan is deficient in any area.

II. Exposure Determination

(8 CCR 5193 (c)(3)(A) requires that the following lists be maintained as part of the ECP:

1. A list of all job classifications in which all employees in those classifications have occupational exposure,
2. A list of job classifications in which some employees have occupational exposure,
3. A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of subsection (c)(3)(A)2. of this standard.

The nature of a research institution precludes the possibility of using job classifications to identify at-risk personnel. Thus creating the list specified in #1 above is not possible, as no job classification is so rigid as to meet that description. Because of the nature of a research institution dedicated to life and medical sciences, virtually all research-associated job classifications, including faculty, staff and student personnel, almost certainly have at least a few persons who have occupational exposure. Also because of the nature of the institution, emergency responders such as police and hazardous materials specialists, are also included as having occupational exposure. The list of tasks and procedures are as follows:

Any manipulations involving needles or needle-syringe combinations

Any manipulations involving cutting tools such as scalpels, knives or energy-associated tools such as lasers

Any laboratory manipulations of any kind involving human blood, tissue or cell lines or OPIM*

Any emergency response during which there is exposure to human blood or OPIM, or violent behavior

To identify those with research-related occupational exposure, all research proposals involving biological materials are subject to review by a specialized Institutional Biosafety Committee, via a document entitled Biological Use Authorization. As part of the Biological Use Authorization (BUA) review process, a risk assessment is conducted that specifically includes the risks for potential exposure to BBP in a laboratory. The risk assessment and BUA approval process includes a review of currently available engineering controls and the selection and use of controls, as appropriate, to mitigate the risk of exposure to BBP. Reviews are conducted at the time of the initial BUA application and during periodic renewals. This determination shall be made without regard to the use of personal protective equipment (PPE). All employees with potential exposure to BBP must meet the same regulatory requirements regardless of job classification.

*Other Potentially Infectious Material (OPIM): Defined as (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 other body fluid that is visibly contaminated with blood such as saliva or vomitus, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids such as emergency response; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) Any of the following, if known or reasonably likely to contain or be infected with HIV, HBV, or HCV: (A) Cell, tissue, or organ cultures from humans or experimental animals; (B) Blood, organs, or other tissues from experimental animals; or (C) Culture medium or other solutions.

III. Requirements

In order to comply with the California Occupational Safety and Health Administration (Cal-OSHA) Bloodborne Pathogens Standard (CCR, Title 8, Section 5193), the following items are required for employees with a potential exposure to BBP:

- Annual Bloodborne Pathogens Training (on-line)
- Hepatitis B Immunization offered free of charge to the employee and documentation of vaccination or declination
- Implementation of engineering and work practice controls to reduce the risk of BBP exposure when possible
- When appropriate, PPE must be made available free of charge to the employee
- A Sharps Injury Log to document exposure incidents involving sharps

All UCSF campus employees with the potential for occupational exposure to BBP are required to read, understand and have the opportunity to comment on this plan. Each supervisor shall ensure that a copy of the ECP is accessible to employees in Appendix H of the Biosafety Manual, found at the following website: <http://www.ehs.ucsf.edu/Manuals/oehsManuals.asp> Employees may

provide comments regarding the Exposure Control Plan to the UCSF Biosafety Officer at 476-2097.

IV. Bloodborne Pathogens Training

Employers shall ensure that all employees with the potential for occupational exposure to BBP participate in a training program which must be provided at no cost to the employee and offered during working hours. Training shall be provided as follows:

- At the time of initial assignment to tasks where occupational exposure may occur;
- At least annually thereafter
- Supervisors shall provide additional training when changes are made which may affect the employee's occupational exposure, such as introduction of new engineering, administrative or work practice controls, modification of tasks or procedures, or institution of new tasks or procedures,.
- Material appropriate in content and vocabulary to the educational, literacy, and language levels of employees shall be used.

The training must contain a comprehensive discussion of the Bloodborne Pathogens Standard which includes, but is not limited to epidemiology, symptoms, and transmission of BBP, and the ECP. Additional discussion points include procedures for use and limitations of PPE, availability of the Hepatitis B vaccination, exposure emergency procedures, post-exposure follow-up procedures, hazard communication, and an opportunity to ask questions.

Bloodborne Pathogens Training is available to campus personnel via Research On-Line at www.ehs.ucsf.edu. Training records are kept for a minimum of three years.

V. MEDICAL SURVEILLANCE

A. Hepatitis B Vaccination

The Hepatitis B vaccination series shall be provided to all employees who may be potentially exposed to bloodborne pathogens. Post-exposure evaluation and follow-up shall be provided following BBP exposure.

- The Hepatitis B vaccination shall be made available after the employee has received the required training and within 10 working days of initial assignment. The immunization is made available to all employees who may have occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has indicated that the employee is immune, the vaccine is contraindicated for medical reasons, or the employee signs a declination form.
- If the employee initially declines the Hepatitis B vaccination but at a later date, while still covered under the Bloodborne Pathogen Standard, decides to accept the vaccination, the Hepatitis B vaccination shall be made available at that time. Hepatitis B vaccination

declination forms are currently kept in secure storage with the Principal Investigator. In the near future, provisions will be made for their transfer to UCSF's Occupational Health Services Program.

- If a routine booster dose(s) of Hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available.
- Hepatitis B vaccine will be offered to all unvaccinated emergency responders who render assistance in any situation involving the presence of blood or other potentially infectious material (OPIM) regardless of whether an actual exposure incident occurred.

B. Bloodborne Pathogen Post-exposure Evaluation and Follow-up

Following a report of an exposure incident, the employer shall immediately make available to the exposed employee a confidential medical evaluation and follow-up, to include the following elements:

- The employer shall provide for post-exposure treatment when medically indicated by current recommendations of the U.S. Public Health Service.
- The employer shall provide counseling and evaluation of reported illnesses.

C. Post-exposure Follow-up

- UCSF provides a "Needlestick Hotline" to initiate post-exposure reporting and treatment as indicated.
- Anyone who is a UCSF employee working at any UCSF campus EXCEPT SFGH who experiences a needle stick or exposure to BBP is instructed to call:

UCSF CAMPUSES (EXCEPT SFGH):
CALL 719-3898 (a pager number available 24 hours/per day)

- Anyone who is a UCSF employee working at SFGH who experiences a needle stick or exposure to BBP is instructed to call:

CALL 469-4411 (live operators available 24 hours/per day)

- Notify your supervisor immediately after any exposure.
- All first aid incidents involving the presence of blood or OPIM must be reported to the employer before the end of work shift during which the first aid incident occurred. Use the Employee Incident Report form found at : <http://ucsfhr.ucsf.edu/files/EIR.pdf>.
- The report must include the names of all first aid providers who rendered assistance, regardless of whether personal protective equipment was used and must describe the first aid incident, including time and date.

- The description must also include a determination of whether or not, in addition to the presence of blood or OPIM, an exposure incident occurred.
- This determination is necessary in order to ensure that the proper post-exposure evaluation, prophylaxis and follow-up procedures are made available immediately if there has been an exposure incident.
- Post-exposure follow-up is available to all employees who have had an exposure incident. The post-exposure follow-up is maintained in confidential medical records separate from personnel records.
- Employees exposed to human blood or OPIM will be provided serologic testing, post-exposure prophylaxis as appropriate, and counseling. Documentation of the circumstances of exposure and testing of the source individual(s) will be provided by the professional staff of the Needle stick Hotline.
- The full hepatitis B vaccination series will be made available as soon as possible, but not later than 24 hours, to all unvaccinated first aid providers who have rendered assistance in any situation involving the presence of blood or OPIM regardless of whether or not a specific exposure incident has occurred.

D. Sharps Injury Log

- Employees calling the Needlestick Hotline after an exposure will be asked for certain information, including the type and brand of sharp used, if any, in order for the Occupational Health provider to record the information in the Sharps Injury Log.
- The information in the Sharps Injury Log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee. The Sharps Injury Log shall be maintained for five years from the date the exposure incident occurred.

VI. HAZARD COMMUNICATION

Warning labels must be affixed to containers of biohazardous materials and medical wastes, refrigerators, and freezers containing blood or OPIM, and other containers used to store, transport, or ship blood or OPIM.

Biohazard warning signs must be posted on the entrance of any restricted areas where certain biohazardous materials are used. The hazard warning sign must include the biohazard symbol, name of the agent(s), special entry requirements and 24-hour contact information for two responsible individuals, one of whom should be the Principal Investigator (PI).

Detailed information regarding laboratory-specific biohazard issues are found in the Principal Investigator's BUA, kept in the laboratory Biosafety Logbook.



International Biohazard Symbol

VII. METHODS OF COMPLIANCE

A. Schedule

Methods of compliance are implemented upon employee's initial training, and reviewed annually during Bloodborne Pathogen training.

B. Universal Precautions (at UCSF, these may also referred to as “standard precautions”)

Universal precautions are an approach to infection control. According to this concept, all human blood and body fluids are treated as if known to be infectious for Human Immunodeficiency Virus, Hepatitis B, Hepatitis C and other BBP. Universal precautions shall be observed to prevent contact with blood or OPIM. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious.

C. Engineering Controls

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Engineering and work practice controls must be evaluated and maintained on a regular schedule to ensure their effectiveness. The main engineered device for use with biohazardous materials is the Biosafety Cabinet. Safe sharps are also important engineered devices in preventing BBP exposures.

All procedures involving blood or OPIM shall be performed in a manner that minimizes splashing, spraying, spattering, and generation of droplets of these substances.

D. Work Practice Controls

- Eating, drinking, smoking, gum chewing, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure to BBP.
- Food and drink are not allowed in labs and shall not be kept in refrigerators, freezers, shelves, cabinets, countertops or benchtops where blood or OPIM are present.
- Mouth pipetting/suctioning of blood or OPIM is prohibited.
- Employers shall provide hand washing facilities, which are readily accessible to employees.
- When hand washing facilities are not feasible, the supervisor shall provide either an appropriate alcohol hand rub or antiseptic hand cleanser in conjunction with clean cloth/paper towels, or shall be washed with soap and running water as soon as feasible.
- Employees shall wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.
- Gloves must be removed and hands washed prior to entering public areas, such as lunchrooms and elevators.
- Safe sharps or needleless systems shall be used unless an evaluation has determined none is available for purchase, or if available, they are not safer than a sharp device.
- Shearing or breaking of needles is prohibited.
- Contaminated sharps shall not be bent, recapped, or removed from devices, unless done using a one-handed technique.
- Sharps that are contaminated with blood or OPIM shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.
- Disposable sharps shall not be reused.
- Broken glassware that may be contaminated must not be picked up directly with the hands. Mechanical means, such as a brush and dust pan, tongs, or forceps should be used.
- Sharps containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of sharps injury.

VIII. Biohazardous/ Medical Waste Disposal

A. Biosafety Level-1 Waste

Biosafety Level-1 waste includes non-pathogenic materials such as:

- E. coli K-12, D5-alpha, or other non-pathogenic strains
- Other non-pathogenic bacteria, yeast, or other microorganisms
- DNA or RNA
- Non-infectious, non-primate animal cell lines

Risk Group 1 waste can be placed into regular trash (consult your BUA for the Risk Group classifications of your research materials). No sharps materials, however, are allowed in the trash regardless of whether they are contaminated with Risk Group 1 materials; they must be placed in a sharps container.

B. Biosafety Level-2 (and greater) Medical Waste

Medical Waste includes Risk Group 2 materials and higher:

- Human and primate cell lines, blood, tissues or OPIM
- Biosafety Level-2 or greater infectious agents, including BBP (see BUA)
- Cells of any origin containing infectious agents
- Sharps

Non-sharp medical waste must be placed in a RED autoclave or pathology waste bag marked with the International Biohazard Symbol. Note that all red bag biohazardous waste is picked-up by OEH&S for distribution to a vendor who disposes of the waste by autoclaving or incineration,.

All red bag waste must be placed and stored within a leak-proof secondary container with a closable lid. The lid must be in place when not in active use. The secondary container requires the International Biohazard Symbols on all sides and lid of the container..

DO NOT USE ORANGE BIOHAZARD BAGS. They are illegal in California.

In order to ensure the safety of medical waste handlers, the following must occur prior to pick-up by OEH&S:

- The container must be closed
- The container must be constructed to contain all contents and prevent leakage during handling, storage and transport
- All bins, pails, and cans intended for reuse which have reasonable likelihood for becoming contaminated with blood or OPIM shall be inspected and decontaminated immediately, or as soon as feasible, upon seeing evidence of visible contamination





C. Requirements for Handling Contaminated Sharps

Immediately after use, contaminated sharps shall be placed in sharps containers. Sharps containers shall be:

- 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
- Replaced as necessary to avoid overfilling (the fill line at the $\frac{3}{4}$ mark is considered the point at which a container is full)
- Rigid and puncture resistant
- Leak proof on the sides and bottom
- Portable, if portability is necessary to ensure easy access by the user
- Labeled with the International Biohazard Symbol



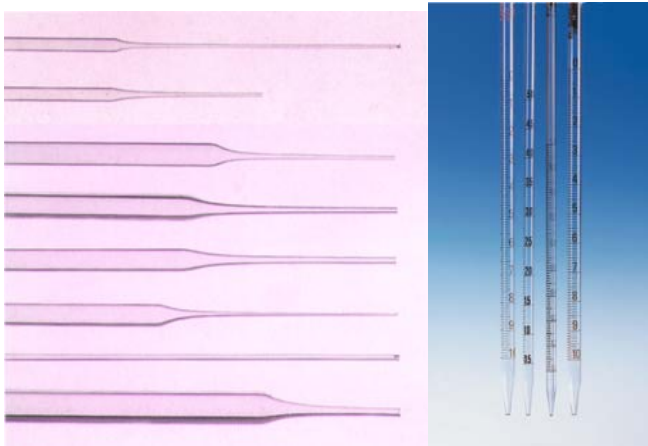
D. Disposal of Sharps Containers

When ready for disposal, the sharps container shall be:

- Closed and secured immediately upon reaching the $\frac{3}{4}$ full line to prevent protrusion or leakage of contents during handling, storage, transport, or shipping
- Placed in a secondary container prior to pick-up.

E. Pipette Disposal

Pipettes may puncture biohazard bags and are considered sharps. As such, they must be disposed of appropriately:



Pipettes must be placed in a pipette disposal pouch or box (shown below) prior to placement in a biohazard bag for disposal. Otherwise pipettes must be disposed in a rigid container, such as a sharps container.



IX. Handling Specimens of Blood or OPIM

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

- The container for storage, transport or shipping shall be labeled with the International Biohazard Symbol, and closed/sealed prior to being stored, transported or shipped.
- If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during collection, handling, processing, storage, transport, or shipping . The secondary container must also be labeled and closed/sealed.

X. Servicing or Shipping Contaminated Equipment

Equipment which may become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated if at all possible, and the decontamination procedure shall be documented.

- A readily observable biohazard label shall be attached to any equipment that cannot be reliably decontaminated stating which portions remain contaminated.
- Information concerning all remaining contamination shall be conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

XI. Cleaning and Decontamination of the Worksite

The worksite must be maintained in a clean and sanitary condition. All equipment, the environment, and work surfaces shall be cleaned and decontaminated after contact with blood or OPIM no later than the end of the shift.

Contaminated work surfaces shall be cleaned and decontaminated with an appropriate disinfectant immediately or as soon as feasible when:

- Surfaces become visibly contaminated
- There is a spill of blood or OPIM
- Procedures are completed

Appropriate disinfectants at UCSF are 0.5% aqueous sodium hypochlorite (1:10 dilution of household bleach), or 70% ethanol solution. Use of other disinfectants requires concurrence of the Biosafety Officer.

Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become visibly contaminated, or at the end of the work shift if they may have become contaminated during the shift.

XII. Personal Protective Equipment (PPE)

Where the potential for occupational exposure to BBP remains after implementation of engineering and work practice controls, the supervisor shall provide, at no cost to the employee, appropriate PPE. PPE will be considered “appropriate” only if it does not permit blood or OPIM to pass through or reach the employee’s work clothes, skin, eyes, mouth or mucous membranes under normal conditions of use, and for the duration of time in which the PPE will be used. The supervisor shall ensure:

- The employee uses appropriate PPE
- Appropriate PPE in the correct sizes is readily accessible at the worksite, or is issued to employees beforehand. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.
- PPE is cleaned, laundered, and disposed of at no cost to the employee.
- PPE is repaired or replaced as needed to maintain its effectiveness, at no cost to the employee.

A. Removal of PPE

- If a garment(s) is penetrated by blood or OPIM, the garment(s) shall be removed immediately or as soon as feasible.
- All PPE shall be removed prior to leaving the work areas.
- When PPE is removed, it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

B. Gloves

- Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, or non-intact skin, and when handling contaminated items or surfaces.
- Disposable (single use) gloves, such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn or punctured, or when their ability to function as a barrier is compromised.
- Disposable (single use) gloves shall not be washed or decontaminated for re-use.
- Utility type gloves may be decontaminated for re-use if the integrity of the glove is not compromised. The gloves must be discarded, however, if they are cracked, peeling, torn, or punctured.

C. Masks, Eye Protection, Face Shields and Respirators

Masks 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 OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated. Understand that surgical masks ARE NOT air-purifying respirators, they are barriers to large particulates only.

When air purifying respirators are required, the OEH&S fit testing administrator (476-7361) must be contacted to ensure compliance with the UCSF Respiratory Protection Program. For additional information on the UCSF Respiratory Protection Program, see www.ehs.ucsf.edu , click on “Services” then look under “Clinical’ , and then “Environmental Monitoring.”



N-95 Respirator



Surgical Mask



Powered Air Purifying Respirator (PAPR)

Gowns, Aprons, and Other Protective Body Clothing

Appropriate protective clothing including, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations.

XIII. HIV, HBV and HCV Research Laboratories and Production Facilities

Additional special practices are required by Cal/OSHA for HIV, HBV, and HCV research laboratories and production facilities. Information regarding these required special practices are conveyed to employees of these facilities during initial training, and reviewed annually during Bloodborne Pathogen training.

- Laboratory doors shall be kept closed when work involving HIV, HBV or HCV is in progress.
- Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter areas and animal rooms where work involving HIV, HBV or HCV takes place or potentially infected animals are housed.
- When OPIM or infected animals are present in the work area, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors.
- All activities involving OPIM shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with OPIM shall be conducted on the open bench.
- Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.
- Special care shall be taken to avoid skin contact with OPIM. Gloves shall be worn when handling infected animals and when making hand contact with OPIM is unavoidable.
- Vacuum lines shall be protected with liquid disinfectant traps and HEPA filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.
- Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of OPIM. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.
- All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
- A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.
- Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

Containment Equipment

- Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with OPIM that pose a threat of exposure to droplets, splashes, spills, or aerosols.
- Biological safety cabinets shall be certified by the employer that they meet manufacturers' specifications when installed, whenever they are moved, and at least annually.

A. HIV, HBV and HCV research laboratories shall meet the following criteria:

- Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.
- An autoclave for decontamination of regulated waste shall be available.

B. HIV, HBV and HCV production facilities shall meet the following criteria:

- The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.
- The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.
- Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.
- Access doors to the work area or containment module shall be self-closing.
- An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.
- A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

C. Training Requirements for the staff of HIV, HBV and HCV research laboratories and production facilities.

In addition to the UCSF online BBP annual training available through Research Online at the Office of Research website at <http://www.research.ucsf.edu/>:

- The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV, HBV or HCV.
- The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV, HBV or HCV.
- The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

XIV. RECORDKEEPING

A. Medical Records

California regulations require UCSF to establish and maintain an accurate record for each employee with occupational exposure. This record shall include:

- The name and social security number of the employee;
- A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination
- A copy of all results of examinations, medical testing, and follow-up procedures
- The employer's copy of the healthcare professional's written opinion
- A copy of the information provided to the healthcare professional

Records are kept confidential and not disclosed or reported without the employee's express written consent to any person within or outside the workplace, except as required by law. Records are maintained for at least the duration of employment plus 30 years.

Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

- The employer shall document the route(s) of exposure, and the circumstances under which the exposure incident occurred;
- The employer shall identify and document the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;
 - The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV, HCV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be

- obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.
- When the source individual is already known to be infected with HBV, HCV or HIV, testing for the source individual's known HBV, HCV or HIV status need not be repeated.
 - Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

The employer shall provide for collection and testing of the employee's blood for HBV, HCV and HIV serological status; the exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

Additional collection and testing shall be made available as recommended by the U.S. Public Health Service.

For additional Biosafety information please log onto the Office of Research website at <http://www.research.ucsf.edu/>, and click on "Technical Committees".