BLOODBORNE PATHOGENS PROGRAM
LABORATORY EXPOSURE CONTROL PLAN TEMPLATE

PURPOSE

The University of California, Santa Cruz (UCSC) Exposure Control Plan (ECP) was developed to eliminate or minimize employee exposure to potentially hazardous human bloodborne pathogens while they perform their jobs. The university makes every effort to determine employee exposure and to evaluate safety practices and engineering controls to eliminate work-related exposure risks. This ECP template is used to comply with Cal/OSHA regulations (8CCR§5193, effective on July 30, 1999) and the UCSC Injury and Illness Prevention Program (IIPP).

INSTRUCTIONS

All Principal Investigators (PIs) or Department / Unit Managers must provide the requested information about employees, tasks, procedures, materials, engineering controls, and equipment under their direction. It is the supervisor's responsibility to understand the requirements specified in the UCSC Bloodborne Pathogens Program (attached).

Carefully review the instructions and information provided to fill out a template for each area under your direction. Review the entire form to ensure that you have provided all the ECP information requested for your laboratory. Sign and date the verification statement in the space provided on the last page, and then make a copy for your department records. Forward the original signed form to Biosafety Officer, EH&S Trailer.

Exposure Determination [required by 8CCR§5193(c)(3)]

Name: _____

Department:_____

Location (Bldg./Room No.):_____

Phone: _____

Emergency Phone: _____

Email: _____

If the information in your laboratory's ECP template has not changed since the last review, check the appropriate box, sign and date, and return it to EH&S.

☐ No additions/changes to the ECP template for this laboratory (excluding employee names) since the last review. Template on file with EH&S dated _____ .

☐ No additions or changes to employee information since the last review. Template on file with EH&S dated _____ .

Completed By (Name) _____

Signature/Date _____

Exposure Determination – Source Materials of Potential BBP Exposure [required by 8CCR§5193(c)(3)]

Check *all materials* used in your work area that may result in employee exposure to human bloodborne pathogens. When assessing these materials, assume that employees are not using personal protective equipment.

☐ Human Blood	☐ Human Blood Components	☐ Human Blood Products	☐ Unfixed Human Tissues	☐ Unfixed Human Organs	
☐ Human Body Fluids	☐ Amniotic Fluid	☐ Synovial Fluid	☐ Pericardial Fluid	☐ Vaginal Secretions	☐ Semen
	☐ Cerebrospinal Fluid	☐ Pleural Fluid	☐ Peritoneal Fluid	☐ Saliva in Dental Procedures	
	☐ Body fluids contaminated with blood (e.g., saliva or vomitus)				
	☐ All body fluids where it is difficult to differentiate between fluids				
☐ Materials Potentially Infected with HIV, HBV, HCV	☐ Experimental Animal Blood, Organs or Tissue	☐ Cells/Tissue/Organ Cultures from Humans or Experimental Animals	☐ Culture Growth Media/Solutions		

Exposure Determination – Job Classifications [required by 8CCR§5193(c)(3)]

Record the job classifications/employee names of *all employees* who are exposed to human bloodborne pathogens. Record the job classifications in your work area where *some employees* (provide their names) are exposed to human bloodborne pathogens. Attach extra sheets if needed.

All employees in the following job classifications are exposed to human bloodborne pathogens. List names of all employees in these jobs.

Job Title	Employee Name(s)	Job Title	Employee Name(s)

Some employees in the following job classifications are exposed to human bloodborne pathogens. List only the names of employees with exposure risk.

Job Title	Employee Name(s)	Job Title	Employee Name(s)

Exposure Determination – Tasks and Procedures Performed in the Work Area [required by 8CCR§5193(c)(3)]

Check the boxes of all tasks and procedures performed in your work areas that may expose employees to human bloodborne pathogens. If unlisted tasks pose a risk to employees, check the "Other" box and describe the tasks/procedures involved.

- ☐ Phlebotomy or venipuncture of humans (including coworkers and students)
- ☐ Other use of needles with human specimens
- ☐ Injections of human specimens into research animals
- ☐ Pipeting, mixing, or vortexing human blood, fluid, or tissue
- ☐ Handling contaminated sharps or other contaminated waste
- ☐ Cleaning up spills of human blood or other body fluids
- ☐ Injections into humans
- ☐ Preparing, dissecting, cutting, or otherwise handling human tissue
- ☐ Centrifuging human blood, fluid, or tissue
- ☐ Handling tubes or other containers of human blood, fluid, or tissue
- ☐ Preparing or handling primary human cell cultures

☐ Other (describe process or processes) _____

_____

_____

_____

_____

Exposure Determination – Sharps Present in the Work Area

None Present

Sharps are devices or objects that may penetrate the skin. Check the boxes of *all categories of sharps* present in your work area. If sharps other than those indicated are used, check the "Other " box and describe the type of sharps present.

☐ Hypodermic Needles ☐ Scalpels ☐ Razor Blades ☐ X-acto®-Type Blades

☐ Broken Glass Items (e.g., Pasteur pipettes, microscope slides, thermometers)

☐ Other: _____

_____

Sharps Engineering Controls [required by 8CCR§5193(d)(2) and (d)(3)]

Record the specific engineering controls that are used in your work area to prevent or minimize employee exposure to sharps injury and contact with human bloodborne pathogens. *If specific engineering controls are not used, document the reasons by checking the applicable box(es).*

Type of Engineering Control	Laboratory Usage	Brand Name(s) of Engineering Control	Vendor/Model No.	*Laboratory Procedures* (Circle all that apply.)
Needle-Free Systems	☐ Used ☐ Not Used			A B C D
Needle Devices with Engineered Sharps Injury Protection	☐ Used ☐ Not Used			A B C D
Non-Needle Sharps with Engineered Sharps Injury Protection	☐ Used ☐ Not Used			A B C D

*A – Accessing a vein or artery B – Withdrawal of body fluids after establishing venous/arterial access C – Administering medications or fluids

D – Other procedure involving potential exposure to human bloodborne pathogens. Describe: _____

Engineering controls are not used in this work area for the following reason(s).

- ☐ Sharps are not present in this work area. Therefore sharps engineering controls are not applicable.
- ☐ Sharps engineering control(s) needed in this work area are not currently available in the marketplace.
- ☐ Use of the engineering control would jeopardize employee or patient safety or the success of the medical, dental, or nursing procedure being performed.
- ☐ The attached product evaluation data demonstrates that the engineering control is no more effective in preventing exposure incidents than the controls currently being used.
- ☐ Reliable safety performance data are not available for the engineering controls applicable to this unit's work procedures.
- ☐ This unit is currently evaluating engineering controls to determine if they will reduce employee exposure to human bloodborne pathogens.

  The evaluation will be completed and documented by the following date: _____

Sharps Work Practice Controls Used in the Work Area [required by 8CCR§5193(d)(2) and (d)(3)]

The following are mandatory Work Practices. Check all that apply to your laboratory.

- ☐ Effective patient handling techniques are used to access/withdraw blood and body fluids and when administering vaccines, medications, or fluids.
- ☐ Shearing or breaking contaminated sharps is strictly prohibited.
- ☐ Contaminated sharps are not recapped or removed from devices unless the procedure uses mechanical devices or one-handed techniques.
- ☐ The following procedures require use of mechanical devices or one-handed techniques: _____

  _____
- ☐ Disposable sharps are not reused.
- ☐ Contaminated sharps are placed in appropriate sharps containers *immediately or as soon as possible* after use. Container Type_____

  _____
- ☐ Sharps containers are rigid, puncture-resistant, leak-proof on the sides and bottom, portable, and labeled per the requirements in 8CCR§5193, (g)(1)(A)(2).
- ☐ Sharps containers used for disposable sharps are leak-resistant and difficult to reopen when closed and sealed. Container Type_____

  _____
- ☐ At all times, sharps containers are easily accessible to employees and located in the immediate areas where they are used.
- ☐ Sharps containers are maintained upright where feasible and replaced as often as needed to avoid overfilling.
- ☐ Contaminated sharps are not stored or processed in a manner that requires employees to put their hands into the sharps containers.
- ☐ Sharps containers are not opened, emptied, or cleaned in any manner that exposes employees to sharps injury risk.
- ☐ The contaminated sharps are not accessed until the sharps containers have been properly decontaminated or reprocessed.
- ☐ When removing sharps containers from the work area, they are first closed/sealed to prevent spillage or exposure of contaminated sharps. If leakage is possible, they are also placed into a second leak-resistant container before further handling, labeling, storage, and transport.

  Type of Secondary Container _____

Work Practice Controls Used in the Work Area (continued)

- ☐ Protective gloves and other necessary personal protective equipment (PPE) are worn when handling specimens of blood or other potentially infectious materials (OPIM), or when handling contaminated items and surfaces.
- ☐ Blood/OPIM specimens and contaminated laundry are placed in leak-resistant containers before further handling, labeling, storage, and transport removal.
- ☐ Contaminated broken glassware is not picked up by hand. Mechanical means such as forceps, tongs, or brush/dust pans are used.
- ☐ Mouth pipeting or mouth-suctioning procedures are strictly prohibited.
- ☐ Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas. Employees may not put anything into their mouths (e.g., pens, pencils, pipettes, pins).
- ☐ Food and drink are not allowed in refrigerators, freezers, shelves, cabinets, bench tops, ovens, or microwave ovens where blood or OPIM are present.
- ☐ Employees wash their hands frequently while working with biohazardous agents and immediately after removing gloves and other personal protective wear.
- ☐ Immediately after contact with blood or OPIM, employees wash their hands/other contact skin with soap and water, and flush mucous membranes with water.
- ☐ Work areas, work surfaces, equipment, and receptacles are kept clean and sanitary using cleaning/sanitization procedures that are effective for the areas and types of contaminants present. Disinfectants Used/Location:_____

  _____
- ☐ Work areas are cleaned and disinfected according to the following schedule procedure(s):_____

  _____
- ☐ All equipment is examined before servicing or shipping and is decontaminated as necessary. If the equipment (or portions of the equipment) cannot be decontaminated, it is labeled with the word "Biohazard," the Biohazard Symbol, and a statement indicating which portions remain contaminated.

Personal Protective Equipment Controls [required by 8CCR§5193(d)(4)]

PPE and work clothing (in appropriate sizes) are provided for use at no cost to employees to minimize or eliminate exposure to human bloodborne pathogens. All PPE are inspected, cleaned, or replaced as needed to maintain its effectiveness.

If employees are allergic to standard gloves, they must be provided with hypoallergenic gloves, glove liners, or powderless gloves as alternatives to ensure adequate protection. Employees *must wear* disposable gloves if they have cuts, scratches or other breaks in their skin, if they are receiving phlebotomy training, and if they are performing phlebotomy procedures during risky situations (e.g., working with uncooperative patients).

Employees must wear masks combined with eye protection gear (e.g., goggles, safety glasses with side shields) or chin-length face shields if they can reasonably expect to encounter splashes, spray, spatter, or droplets of blood, OPIM, or other human bloodborne pathogens in their work areas. Surgical caps and shoe covers must be worn if work procedures (e.g., autopsies, orthopedic surgery) involve possible exposure to gross contamination.

Contaminated PPE from the work area must be handled as little as possible. It should be placed in leak-resistant bags/containers that are appropriately labeled and color-coded.

Check all types of PPE used to prevent or minimize exposure to human bloodborne pathogens.

☐ Disposable gloves	☐ Disposable shoe covers	☐ Face shields	☐ Resuscitation bags
☐ Powderless gloves	☐ Disposable gowns	☐ Face masks	☐ Safety glasses with side shields
☐ Utility gloves	☐ Laboratory coats	☐ Pocket masks	☐ Goggles
☐ Glove liners	☐ Surgical caps	☐ Ventilation devices	☐ Other: _____
☐ Hypoallergenic gloves	☐ Hair covering	☐ Respirators	☐ Other: _____

Record the tasks and procedures in this laboratory that require use of additional PPE or clothing: _____

_____

_____

Record the locations where PPE may be obtained for use in this work area: _____

Record the locations where contaminated PPE is placed for disinfection or disposal: _____

Equipment Controls [required by 8CCR§5193(e)(2)(C)]

Check all containment equipment (or PPE) used to prevent or minimize exposure to human bloodborne pathogens. For biological safety cabinets, circle the class number (I, II, or III).

For each type of containment equipment (or PPE) checked, record the frequency of maintenance (e.g., weekly, monthly, annually), the last date of maintenance inspection, and the location where the inspection record is posted.

Type of Equipment	Maintenance Schedule (e.g., weekly, monthly, annually)	Location of Posted Inspection Record
□ Autoclaves		
□ Certified biological safety cabinets (Class I, II, or III)		
□ Centrifuge safety cups		
□ Sealed centrifuge rotors		
□ Containment caging for animals		
□ Respirators (PPE)		

HIV, HBV, and HCV Research Laboratories [required by 8CCR§5193(e)(1-3, 5)]

The Cal/OSHA Bloodborne Pathogen Standard defines HIV, HBV, and HCV laboratories as those engaged in the culture, production, concentration, experimentation, and manipulation of HIV, HBV, or HCV. Use the supplemental "Special Pathogen ECP Template" to document the additional exposure control measures taken to reduce or eliminate work-related exposure risks.

If your laboratory is planning to engage in these research activities, check the appropriate box below and contact EH&S to obtain the Special Pathogens ECP Template. Principal Investigators are required to notify EH&S (459-2553) and the Institutional Biosafety Committee to apply for a Biohazard Use Authorization (BUA) before beginning this work.

□ This laboratory currently does not engage in research activities using HIV, HBV, and/or HCV.

□ This laboratory currently engages in research activities using HIV, HBV, and/or HCV and has obtained a BUA.

□ This laboratory is planning to engage in research activities using HIV, HBV, and/or HCV within the next 12 months. An application has been submitted to EH&S for a BUA.

HBV Vaccination Program [required by 8CCR§5193(f)(1-2)]

Supervisors are responsible for ensuring that all employees with occupational exposure to human bloodborne pathogens are offered the HBV vaccine (at no charge to them). This vaccine is an effective preventive measure against Hepatitis B infection. Supervisors (or their designate) must inform all new employees of the vaccination program as specified in the Bloodborne Pathogen Program Policy ***within 10 working days*** of their employment start date. If an employee declines to be vaccinated, the Supervisor must ensure that they sign the HBV Vaccination Declination Statement and that a copy is on file in the department records.

Check the boxes that apply indicating your compliance with this requirement, and record the requested tracking information.

- ☐ All employees in this work area have been informed of the HBV vaccination program *within 10 working days of their employment start date*. They have been offered the vaccine at no charge and have been instructed on how to receive the vaccination from the Santa Cruz Occupational Medical Center (SCOMC).
- ☐ For all current employees who have received the vaccine, medical confirmation is on file in department records.
- ☐ For all current employees who have declined the vaccine, a Hepatitis B Vaccination Declination Statement is on file in department records.

Post-Exposure Evaluation and Follow-Up [required by 8CCR§5193(f)(3-6)]

Check all the boxes that describe the actions you take whenever an employee exposure incident occurs.

- ☐ ***All exposure incidents*** are reported to EH&S, Risk Services and the Santa Cruz Occupational Medical Center immediately upon being notified by the injured employee. (NOTE: EH&S and SCOMC will investigate the circumstances surrounding the exposure, make recommendations for medical follow-up, and work with you to modify work practices whenever possible to prevent recurrence of these incidents.)
- ☐ For *sharps injury exposure incidents*, a Sharps Injury Log Form is filled out with the injured employee's input *within 14 days* of the incident. A copy of the form is given to the employee, and the original is submitted to EH&S for investigation and follow-up.
- ☐ The injured employee is sent to Santa Cruz Occupational Medical Center to receive a confidential medical evaluation as soon as possible after in the incident (at no cost to the employee). If circumstances merit the use of another health care provider, the injured employee is sent there instead.
- ☐ A UCSC Incident Report (http://risk.ucsc.edu/forms/RiskIncidentReportFormFill.pdf) , an Authorization for Medical Treatment (http://risk.ucsc.edu/forms/AuthorizeWCMedical.pdf) , and a Supervisor's Incident Investigation and Report of Occupational Injury (http://risk.ucsc.edu/forms/IncidentInvestigation.pdf) are filled out *within 24 hours of notification*. Copies of the forms are retained for department records and the original is forwarded to the Office of Risk Services as specified in the campus Workers' Compensation Handbook. (NOTE: Failure to fill out the forms within the specified time frame may result in legal and financial consequences.) Information and forms are available at http://risk.ucsc.edu/workerscomp/index.html .

Communication of Hazards to UCSC Employees [required by 8CCR§5193(g)]

Check all the boxes that apply to the safety/ECP training that your employees have received.

- ☐ During the past 12 months, all new employees with occupational exposure in this work area have received training on the Standard and the campus ECP. The training has been documented and is on file in department records.
- ☐ During the past 12 months, all new employees have received on-the-job training for safe work practices and the types of biohazards in their work environment. The training has been documented and is on file in department records (for a minimum of 3 years).
- ☐ All employees with longer employment service have received an annual training update on the Standard and the campus ECP. The training has been documented and is on file in department records.

Check all the boxes that apply to the use of warning labels and signs in your work area.

- ☐ The Biohazard symbol and orange-red warning labels that display the word "Biohazard" are used to identify containers of regulated waste, refrigerators/freezers containing blood or OPIM, and other containers used to store, transport, or ship blood/OPIM.
- ☐ Contaminated equipment is also labeled with the biohazard warning label. The label documents the portions of the equipment that remain contaminated.

Verification Statement

I have read and understood the requirements of the UC Santa Cruz Bloodborne Pathogen Program and the Exposure Control Plan. The information I have provided in this form is accurate and verifiable during audits of this work area and corresponding department records. A copy of this signed, completed form is on file with department records. The original form is being forwarded to EH&S for retention and future follow-up as needed to address action items or deficiencies.

_____ _____

Signature of Responsible Supervisor Date