



Case Western Reserve University Department of Environmental Health & Safety

Laboratory Specific ECP:

CWRU Exposure Control Plan for Biohazards (including Bloodborne Pathogens)

All laboratories at CWRU that handle any biohazardous materials including bloodborne pathogens and other potentially infectious materials, as defined by OSHA, must complete a supplement to the University's exposure control plan. This supplement is to be updated by the laboratory's exposure control officer on an annual basis or as there are changes to procedures, pathogens or laboratory personnel.

The exposure control plan serves as laboratory training tool as well a means to communicate laboratory hazards to non-laboratory personnel such as security, maintenance, EH&S and first responders. It is for this reason that this ECP supplement should be located in the lab and easy to find.

This supplement needs to address the following:

- PI and laboratory staff information and training
- Biohazard(s) information
- Possible exposure risk (risk analysis)
- Risk mitigation including engineering and administrative controls, along with required PPE
- Decontamination procedures

Principal Investigator: _____ Date: _____

PI Department: _____

PI office location: _____

PI office phone: _____

PI emergency phone: _____

PI email: _____

Laboratory Exposure Control Officer (if not PI): _____

Exposure Control Officer phone (office & emergency): _____

Exposure Control Officer email: _____

Laboratory Personnel: (include all personnel who have access to the laboratory)

Name	Position <i>(and OSHA employee category if working with BBP)</i>	Dates Training Completed <i>(laboratory specific training)</i>	Email	Phone number

Biohazard Locations: (list all laboratory locations where biohazards are used or stored)

Building	Room Number	BSL/ABSL containment level	Please list storage and containment equipment in each room <i>(ex. -80 freezer, incubator, etc.)</i> For biosafety cabinets, list the Class and Type <i>(ex. Class II A2)</i>

Inventory of Biological Materials: (materials of human or non-human primate origin are captured in the following question)

Nature of Materials <i>(animal, virus, bacteria, toxin, parasite, recombinant or synthetic nucleic acids, etc.)</i>	Species/ Name	Risk Group <i>(can be found here)</i>	Medical monitoring required or recommended <i>(including HepB vaccine)</i> <i>(if yes, what?)</i>	Additional concerns for immuno-compromised individuals?

Materials of Human or Non-Human Primate Origin: (Only one line needs to be addressed for similar materials)

Material <i>(cells, tissue, organ)</i>	Obtained from a primary donor or vendor? (If obtained from a vendor, which one?)	Do these materials have a product specification sheet?	If obtained from a primary donor, is your study population known or expected to be infected with a pathogen? If so, what.	Are you using known oncogenic, tumorigenic or cancerous materials?

Potential Exposure Information:

What are the potential transmission routes for any pathogens you are using?

- | | | |
|--|--|------------------------------------|
| <input type="checkbox"/> Airborne | <input type="checkbox"/> Bloodborne | <input type="checkbox"/> Ingestion |
| <input type="checkbox"/> Mucus Membranes | <input type="checkbox"/> Opportunistic | <input type="checkbox"/> Zoonotic |

Briefly describe symptoms of exposure:

Do you have post-exposure procedures in place? Yes No
(If yes, please send a copy along with your ECP submission)

If Yes, does University Health Services have a copy of these procedures? Yes No

General Regulatory Information:

Do your experiments include the use of recombinant or synthetic nucleic acids (including but not limited to RNAi in animals, viral vectors, GFP/luciferase integration or nanoparticles **but not including**, PCR primers, PolyI:C or cDNAs)? Yes No

Do your experiments utilize gene editing technologies such as CRISPR, TALENS or zinc fingers?
Yes No

Do your experiments include the use of transgenic animals or plants (including *D. melanogaster*, *C. elegans*, *E. coli* or yeast)? Yes No

Are you using a select agent (Find a list of Select Agents [here](#))? Yes Yes, exempt quantities No
(If either Yes box is marked, please ensure the agent is listed in the biological inventory.)

Will you be using hazardous chemicals simultaneous with biohazards? Yes No

Will you be using radioactive materials simultaneous with biohazards? Yes No

Will you be sending or receiving samples?

Yes (intrastate) Yes (interstate) Yes (international) No

Do your materials require a permit from the USDA or CDC? Yes No Unsure

Aerosols:

Will you be performing any aerosol producing procedures, such as:

- | | | | |
|--|--------------------------------------|------------------------------------|-------------------------------------|
| <input type="checkbox"/> Centrifugation | <input type="checkbox"/> Blending | <input type="checkbox"/> Vortexing | <input type="checkbox"/> Sonicating |
| <input type="checkbox"/> Pipetting | <input type="checkbox"/> Mixing | <input type="checkbox"/> Grinding | <input type="checkbox"/> Necropsy |
| <input type="checkbox"/> Flow cytometry /sorting | <input type="checkbox"/> Other _____ | | |

What types of engineering controls will be employed to mitigate the aerosol risks?

- | | | | |
|--|--|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> Biosafety cabinet | <input type="checkbox"/> Sealed rotors | <input type="checkbox"/> Tube opener | <input type="checkbox"/> Sealed vials |
| <input type="checkbox"/> HEPA filter | <input type="checkbox"/> Other _____ | | |

Sharps:

Do any of your procedures include the use of sharps, such as:

- | | | | |
|---|--------------------------------------|------------------------------------|---------------------------------|
| <input type="checkbox"/> Needles and syringes | <input type="checkbox"/> Scalpels | <input type="checkbox"/> Glassware | <input type="checkbox"/> Razors |
| <input type="checkbox"/> Pasture pipettes | <input type="checkbox"/> Other _____ | | |

Will any of your procedures utilizing sharps involve:

- | | |
|---|---|
| <input type="checkbox"/> Human subjects | <input type="checkbox"/> Non-anesthetized, living animals |
|---|---|

What types of engineering controls will be employed to mitigate the sharps risks?

- | | | | |
|---|---|--|--------------------------------|
| <input type="checkbox"/> Sharps container | <input type="checkbox"/> Broken glass box | <input type="checkbox"/> Broom & dustpan | <input type="checkbox"/> Tongs |
| <input type="checkbox"/> Recapping stand | <input type="checkbox"/> Engineered (safe) sharps | | |
| <input type="checkbox"/> Other _____ | | | |

Disinfection/Decontamination:

Which of the following primary disinfectants will be employed for work space and spill clean-up?

- | | | |
|---|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> 10% Bleach | <input type="checkbox"/> 1-5-1 Clidox | <input type="checkbox"/> Phenolytics |
| <input type="checkbox"/> Quaternary ammonia | <input type="checkbox"/> Other _____ | |

Personal Protective Equipment:

Indicate all PPE to be used while working with the biohazards listed in this document:

- | | | | |
|-----------------|---|---|--------------------------------------|
| Gloves: | <input type="checkbox"/> Nitrile | <input type="checkbox"/> Latex | <input type="checkbox"/> Other _____ |
| Eye Protection: | <input type="checkbox"/> Safety glasses | <input type="checkbox"/> Safety goggles | <input type="checkbox"/> Face shield |
| Lab coat: | <input type="checkbox"/> Reuseable | <input type="checkbox"/> Disposable | |
| Respirator: | <input type="checkbox"/> N95 | <input type="checkbox"/> Cartridge | <input type="checkbox"/> PAPR |
| Additional PPE: | <input type="checkbox"/> Tyvek Suit | <input type="checkbox"/> Shoe covers | <input type="checkbox"/> Hair bonnet |
| | <input type="checkbox"/> Apron | <input type="checkbox"/> Ear plugs | |
- Other _____

Biohazardous/Medical Waste:

Waste containment:

- | | | |
|---|---|-----------------------------------|
| <input type="checkbox"/> Rigid sharps container | <input type="checkbox"/> Cardboard burn box | <input type="checkbox"/> Red bags |
| <input type="checkbox"/> Broken glass box | <input type="checkbox"/> Other _____ | |

Hazard neutralization:

- | | | |
|--------------------------------------|---|--|
| <input type="checkbox"/> Autoclave | <input type="checkbox"/> Mixed waste, EH&S to dispose | <input type="checkbox"/> Chemical disinfection |
| <input type="checkbox"/> Other _____ | | |

Work Practices (Please attach relevant SOPs or fill out the section below):

Please describe any specific work practices that will be employed while utilizing the biohazards listed in this document which have not previously been described in University's ECP or this supplement:

Assurances:

As the Principal Investigator of the research described within this document, I understand the safety of all persons who enter my laboratory is ultimately my responsibility. Furthermore, I understand it is my duty to:

- Ensure all new staff and students have undergone EH&S Laboratory Standard and Biosafety training.
- Provide laboratory specific training to all new personnel. This will include a review of this document as well as a review of CWRU's Exposure Control Plan and Laboratory Safety Manual.
- Ensure annual laboratory and EH&S Biosafety retraining for all staff members.
- Provide all necessary Personal Protective Equipment to all laboratory members.
- Update and re-submit this document annually or whenever there is a change in procedure, pathogen or staff.
- Ensure each member of the laboratory has been adequately informed of the risks associated with the biohazards in use and is aware of the symptoms of exposure.
- Properly train each laboratory member on each procedure to be performed and all equipment.

Signed _____ Date _____
Exposure Control Officer

Signed _____ Date _____
Principal Investigator

Electronic signatures are acceptable. The signature of the ECO and/or the PI also represents that all laboratory staff have reviewed and understand this document.

Send/Deliver this form to:

EHS

Service Building, First Floor

Location Code: 7227

Attention: Safety Services

OR email to cwruehs@case.edu