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**Infectious Biological Agents Standard Operating Procedure**

This SOP template covers *in vitro* and/or *in vivo* experiments with infectious biological agents.

Procedure Title:		
Procedure Author:		
Principal Investigator:		
Creation Date:	Review Date(s):	Revision Date(s):
Experimental Location(s):		
1.	<b>THIS STANDARD OPERATING PROCEDURE (SOP) IS FOR:</b> <i>SELECT ALL THAT APPLY</i> <ul style="list-style-type: none"><li><input type="checkbox"/> Handling biological infectious agents or potentially contaminated materials<ul style="list-style-type: none"><li>• <i>Examples:</i> Culture of a pathogen</li></ul></li><li><input type="checkbox"/> Studies with human blood or other potentially infectious material (OPIM)<ul style="list-style-type: none"><li>• <i>Examples:</i> Evaluation of diagnostic samples</li></ul></li><li><input type="checkbox"/> Biological infectious agents used in animals or plants<ul style="list-style-type: none"><li>• <i>Examples:</i> Challenge/protection studies</li></ul></li><li><input type="checkbox"/> Involves recombinant or synthetic nucleic acids<ul style="list-style-type: none"><li>• <i>Examples:</i> Pathogen mutagenesis; plasmid construction &amp; protein expression</li></ul></li><li><input type="checkbox"/> Yields combined biological and chemical/radioactive hazardous waste<ul style="list-style-type: none"><li>• <i>Examples:</i> Radioisotope use with infectious agents</li></ul></li></ul>	
2.	<b>EXPERIMENTAL DESCRIPTION:</b> <i>Provide a sequential description of the work summarizing how infectious biological agent will be used, including pertinent safety precautions. Pictures/schematics are recommended for complex setups. For projects involving bloodborne pathogen exposure, list all tasks that may result in occupational exposures to blood or other potentially infectious material (OPIM).</i>	



<b>3.</b>	<b>RISK ASSESSMENT:</b> <i>Identify potential safety hazards. SELECT ALL THAT APPLY</i>			
	<b>EXPOSURE FACTORS</b>	<b>ENVIRONMENT FACTORS</b>	<b>ANIMAL/PLANT FACTORS</b>	<b>PROCESS RISKS</b>
	<input type="checkbox"/> Oral transmission route	<input type="checkbox"/> Environmental stability	<input type="checkbox"/> Amplifying host	<input type="checkbox"/> Cryogen
	<input type="checkbox"/> Percutaneous transmission route	<input type="checkbox"/> Reproducible agent/vector	<input type="checkbox"/> Agent shedding	<input type="checkbox"/> Corrosives
	<input type="checkbox"/> Mucosal transmission route	<input type="checkbox"/> Endemic host/vector	<input type="checkbox"/> Physical hazards (teeth, claws, etc.)	<input type="checkbox"/> Flammables
	<input type="checkbox"/> Inhalation transmission route	<input type="checkbox"/> Drug-resistant pathogen	<input type="checkbox"/> Exotic organism	<input type="checkbox"/> Oxidizers
	<input type="checkbox"/> Person-to-person communicable	<input type="checkbox"/> Human/Animal pathogen	<input type="checkbox"/> Noxious/invasive organism	<input type="checkbox"/> Carcinogens
<input type="checkbox"/> Fomite	<input type="checkbox"/> Plant pathogen	<input type="checkbox"/> Field study	<input type="checkbox"/> Radionucleotides	
Other risks/additional notes:				
<b>4.</b>	<b>ADMINISTRATIVE CONTROLS:</b> <i>SELECT ALL THAT APPLY</i>			
	<input type="checkbox"/> Biomedical Waste Training (EHS851)			
	<input type="checkbox"/> Bloodborne Pathogen & Biomedical Waste Training (EHS850G)			
	<input type="checkbox"/> <a href="#">UF Bloodborne Pathogen Exposure Control Plan</a> (including <a href="#">Training and Vaccination Form</a> )			
	<input type="checkbox"/> Shipping & Transport of Biological Materials (EHS852)			
	<input type="checkbox"/> Hazardous Waste Management Training (EHS809)			
	<input type="checkbox"/> Biosafety Training (EHS853 & Specific Lab-instructed)			
	<input type="checkbox"/> IBC/BSO Registration. #			
	<input type="checkbox"/> IACUC Registration. #			
	<input type="checkbox"/> Permits			
<input type="checkbox"/> Other:				
<b>5.</b>	<b>PERSONAL PROTECTIVE EQUIPMENT:</b> <i>SELECT ALL THAT APPLY</i>			
	<input type="checkbox"/> Re-usable lab coat/gown		<input type="checkbox"/> N95 respirator	
	<input type="checkbox"/> Disposable lab coat/gown/coverall		<input type="checkbox"/> Powered Air Purifying Respirator (PAPR)	
	<input type="checkbox"/> Disposable (latex/nitrile) gloves		<input type="checkbox"/> Heat-resistant gloves	
	<input type="checkbox"/> Safety glasses/goggles		<input type="checkbox"/> Cold-resistant gloves	
	<input type="checkbox"/> Faceshield		<input type="checkbox"/> Other:	
	<input type="checkbox"/> Hearing protection			
	<input type="checkbox"/> Surgical mask			
<b>6.</b>	<b>ENGINEERING CONTROLS:</b> <i>SELECT ALL THAT APPLY</i>			
	<input type="checkbox"/> Biological safety cabinet (BSC)		<input type="checkbox"/> Autoclave	
	<input type="checkbox"/> Fume hood		<input type="checkbox"/> Hand-washing sink	
	<input type="checkbox"/> Cages/Isolators/Growth chambers		<input type="checkbox"/> Other:	
	<input type="checkbox"/> Facility directional airflow			
	<input type="checkbox"/> Aerosolization			



<p>7.</p>	<p><b>CONTAINMENT SETTING(S):</b> <i>SELECT ALL THAT APPLY</i></p> <table border="1" data-bbox="370 384 1443 485"> <tr> <td><input type="checkbox"/> BSL-1</td> <td><input type="checkbox"/> ABSL-1</td> <td><input type="checkbox"/> BSL-1P</td> <td><input type="checkbox"/> ACL-1</td> </tr> <tr> <td><input type="checkbox"/> BSL-2</td> <td><input type="checkbox"/> ABSL-2</td> <td><input type="checkbox"/> BSL-2P</td> <td><input type="checkbox"/> ACL-2</td> </tr> <tr> <td><input type="checkbox"/> BSL-3</td> <td><input type="checkbox"/> ABSL-3</td> <td><input type="checkbox"/> BSL-3P</td> <td><input type="checkbox"/> ACL-3</td> </tr> </table> <p><input type="checkbox"/> Other:</p>	<input type="checkbox"/> BSL-1	<input type="checkbox"/> ABSL-1	<input type="checkbox"/> BSL-1P	<input type="checkbox"/> ACL-1	<input type="checkbox"/> BSL-2	<input type="checkbox"/> ABSL-2	<input type="checkbox"/> BSL-2P	<input type="checkbox"/> ACL-2	<input type="checkbox"/> BSL-3	<input type="checkbox"/> ABSL-3	<input type="checkbox"/> BSL-3P	<input type="checkbox"/> ACL-3
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<input type="checkbox"/> BSL-3	<input type="checkbox"/> ABSL-3	<input type="checkbox"/> BSL-3P	<input type="checkbox"/> ACL-3										
<p>8.</p>	<p><b>INFECTIOUS AGENT TRANSPORT:</b> <i>SELECT ALL THAT APPLY</i></p> <p><input type="checkbox"/> Transported between rooms within a building using secondary containment.</p> <p><input type="checkbox"/> Transported between buildings. <span style="margin-left: 150px;"><input type="checkbox"/> Other Transport</span></p> <p>Describe containment: <span style="margin-left: 150px;">Explain:</span></p>												
<p>9.</p>	<p><b>ROUTINE DISINFECTION:</b> All work surfaces should be disinfected upon completion of an experiment and at the end of day with: <i>SELECT ALL THAT APPLY</i></p> <p><input type="checkbox"/> Freshly prepared 10% bleach solution (1 part bleach to 9 parts water). Residual bleach should be washed off with 70% alcohol solution (EtOH or IPA) or water.</p> <p><input type="checkbox"/> Other disinfectant:</p>												
<p>10.</p>	<p><b>WASTE DISPOSAL:</b> <i>SELECT ALL THAT APPLY</i></p> <p><b>I. Solid Infectious/Potentially-Infectious Waste:</b></p> <p><input type="checkbox"/> Collected in a leak-proof, covered container lined with a red autoclave bag.</p> <p><input type="checkbox"/> Autoclave inactivation (121°C/15 psi for 60-90 minutes) before disposal as biohazardous waste.</p> <p><input type="checkbox"/> Other:</p> <p><b>II. Liquid Infectious/Potentially-Infectious Waste:</b></p> <p><input type="checkbox"/> Inactivated by autoclaving (121°C/15 psi for 60-90 minutes) before sanitary sewer disposal<sup>1</sup>.</p> <p><input type="checkbox"/> Inactivated with bleach (1 part bleach to 9 parts waste for a contact time of at least 30 minutes) before sanitary sewer disposal<sup>1</sup>.</p> <p><input type="checkbox"/> Other:</p> <p><sup>1</sup> Sanitary sewer disposal is limited to waste void of any regulated chemical/radiological hazard. Regulated contaminated waste is disposed of through <a href="#">Hazardous Waste Management</a>.</p> <p><b>III. Sharp Infectious/Potentially-Infectious Waste:</b></p> <p><input type="checkbox"/> All medical sharps, including syringe needles, must be discarded in medical sharps containers.</p> <p><input type="checkbox"/> Non-medical sharps, such as razor blades, are placed in a hard-sided container and collected in a leak-proof, covered container lined with a red autoclave bag.</p> <p><input type="checkbox"/> Autoclave inactivation (121°C/15 psi for 60-90 minutes) before disposal as biohazardous waste.</p> <p><input type="checkbox"/> Other:</p> <p><b>Additional Resources:</b> <a href="#">Biohazardous and Biomedical Waste Disposal Guidelines</a> <a href="#">Packaging of Biological/Biomedical Waste Instructions</a></p>												
<p>11.</p>	<p><b>Emergency Procedures:</b></p> <p><i>Biological spills should be responded to in accordance with the following guidance:</i></p> <p><a href="http://webfiles.ehs.ufl.edu/handling_bio_spills.pdf">http://webfiles.ehs.ufl.edu/handling_bio_spills.pdf</a></p> <p>Please refer to the Lab Safety Information Sheet for additional Emergency Response Procedures.</p> <p>Specify deviations or additional measures: <a href="#">Click or tap here to enter text.</a></p>												