**IBC Reference No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Missouri University of Science and Technology**

**Institutional Biosafety Committee (IBC) Registration Document**

Protocol Title:

Principal Investigator:

 Department:

 Campus Address and Phone Number:

Other Personnel:

 Campus Address:

Application Type \_\_\_\_\_ New \_\_\_\_\_ Amendment \_\_\_\_\_ Renewal

Approve Reject Revise\* Signature of IBC Member Date

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\*Comments on revision needed:

Final Recommendation of Committee:

Signature of Chairman: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Scope of Work
2. Purpose of the study
3. Rationale for the use of hazardous agents:
4. Description of the experimental procedures

2. Protocol Risk Assessment\*

1. List source of cloned or synthetic molecules

\_\_\_\_\_ Constructed in my lab

\_\_\_\_\_ Bought from a commercial source

\_\_\_\_\_ Obtained from a collaborator

\_\_\_\_\_ Other (explain): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List nature of the molecule(s):
2. List phage vector(s) used:
3. List plasmid vector(s) or replicon used:
4. Viral component(s) sequence(s) present? \_\_\_\_\_\_\_\_\_\_
5. Name of the host organism(s) for foreign sequences:
6. Will the foreign genes (i.e., synthetic or recombinant genes) be expressed? \_\_\_\_ Yes \_\_\_\_ No
	1. What protein will be produced?
	2. Indicate possible cytotoxicity or hazards, if any:

\*Whenever necessary, provide literatures to support your application in the below section:

Note: Dual use research of concern:

1. Use of a select agent/toxin? \_\_\_\_\_ Yes \_\_\_\_\_ No
2. Name all select agents/toxins to be used in conjunction with this protocol

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use of research animal subjects? \_\_\_\_ Yes \_\_\_\_\_ No
	1. Species name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Transgenic animals \_\_\_\_ Yes \_\_\_\_\_ No
		1. Specify genetic alteration(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		2. IACUC Protocol Approval Number \_\_\_\_\_\_\_\_\_\_\_\_ or pending approval
2. Use of radioactive materials? \_\_\_\_ Yes \_\_\_\_\_ No
	1. Type of isotope(s) to be used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Date of Radiation Safety Committee approval: \_\_\_\_\_\_\_\_\_\_ or pending approval
3. Use of whole plants? \_\_\_\_ Yes \_\_\_\_\_ No
	1. Species name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		1. Genetic alteration(s):
		2. Location of plant housing:
		3. USDA permit number(s):
	2. Any rDNA derived from a plant pathogen. Describe if any.
4. Use of animal blood/tissue (OPIM, zoonotic)? \_\_\_\_\_ Yes \_\_\_\_\_No
	1. Name of animal species: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Other potentially infectious materials (OPIM) \_\_\_\_\_ Yes \_\_\_\_\_ No
		1. Specify zoonotic disease \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Use of human blood, tissues, cells, or OPIM? \_\_\_\_\_ Yes \_\_\_\_\_ No
	1. Are you using human subjects? \_\_\_\_\_ Yes \_\_\_\_\_ No
	2. IRB Protocol Approval No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_ pending approval
	3. Identify OPIM, if any: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Conducting gene therapy or vaccine trial? \_\_\_\_\_ Yes \_\_\_\_\_ No
	1. IRB Protocol Approval No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_ pending approval
7. Will over 10 liters of materials be possessed at any one time? \_\_\_\_\_ Yes \_\_\_\_\_ No
8. Pathogenicity
	1. Is the agent a human pathogen? \_\_\_\_\_\_\_\_ Yes \_\_\_\_\_\_\_ No
	2. Describe pathogenicity:
	3. Virulence (i.e., infectious dose, LD50):
	4. Route(s) of transmission:
	5. Environmental stability:
	6. Agent countermeasures/treatment (i.e., antibiotic)
	7. Effective decontamination materials:
	8. Vaccine or treatment availability:

3. Proposed Biosafety Level \_\_\_\_\_ BL-1 \_\_\_\_\_BL-2 \_\_\_\_\_BL-3

4. Mitigation Assessment

1. Personal protective equipment (PPE) devices to be used:

\_\_\_\_\_ Gloves \_\_\_\_\_ Safety Glasses \_\_\_\_\_ Respirator/Mask

\_\_\_\_\_ Lab Coat \_\_\_\_\_ Others

1. Is access to the laboratory controlled? \_\_\_\_\_ Yes \_\_\_\_\_ No
	1. Describe the type(s) of control:
2. Is a biosafety cabinet available for use? \_\_\_\_\_ Yes \_\_\_\_\_ No
	1. Date of last certification:
3. Has an emergency plan been developed to respond to an incident? \_\_\_\_\_ Yes \_\_\_\_\_ No
4. Has emergency notification and biohazard signage been posted? \_\_\_\_\_ Yes \_\_\_\_\_ No
5. Personnel vaccinations/titer record.
	1. Type of vaccinations/titer

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. In the next page, attach a sketch of research locations. The sketch should include the location of exits/entrances, biosafety level 2 equipment (centrifuges, incubators, biosafety cabinets), sinks, workbenches, etc.

Signatures:

Principal Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Co-Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**LABORATORY SPACE SKETCH**

**ASSURANGE PAGE**

1. I certify that the information in the registration document (RD) form is accurate to the best of my knowledge. I agree to comply with all IBC requirements with regard to the use, handling, storage and disposal of biohazardous agents and recombinant or synthetic nucleic acid molecules. I also agree to follow the current NIH Guidelines for the Use of Recombinant or Synthetic Nucleic Acid Molecules, the CDC recommendations from the CDC/NIH handbook, Biosafety in Microbiological and Biomedical Laboratories, and all biosafety guidelines and regulations specified by the Missouri S&T Department of Environmental Health and Safety.
2. I attest that all personnel under my supervision on this project have attended all necessary biosafety training sessions. They are familiar with the hazards of exposure pertaining to the biological materials used in the lab. All lab personnel have been briefed on emergency procedures, good laboratory work practices, and the safe operation of laboratory instruments before conducting any experiments.
3. I will notify the Missouri S&T IBC, EHS, and my departmental chair of any incident that leads to inoculation, ingestion, or inhalation of biohazardous agents or recombinant DNA and of any accident, that causes serious exposure of personnel or environmental contamination.
4. I acknowledge and understand that failure to comply with any aforementioned regulations and policies should be reported to the IBC. The IBC has the power and authority through the Vice Chancellor of Research to take appropriate actions to rectify any non-compliance. The actions may include, but are not limited to, letters of reprimand, sanctions against the Principal Investigator, suspension of research activities of Principal Investigator, and revocation of all IBC approved research protocols.

Signatures:

Principal Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Co-Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_