



**UNIVERSITY OF TOLEDO
INSTITUTIONAL BIOSAFETY COMMITTEE**
research.utoledo.edu



RSP602 (05/07)

Part 2: Application for Research Involving Recombinant DNA Molecules

A. Description of the Proposed Research

1. State briefly the general objectives of the project for which recombinant DNA will be employed.
2. Provide the following information about the DNA source.

DNA Source	Source Genus/Species	Source Subtype

3. If the DNA is from a virus, state what fraction of the genome will be employed in recombinant DNA experiments, and whether you intend to do shotgun cloning of the viral genome.
4. Is the organism a pathogen in humans or other vertebrate species? Consult the guidelines for recombinant DNA (Appendix B) for a classification, and specify below.
5. Are you introducing antibiotic resistance genes into an infectious pathogen (as opposed to a laboratory strain of low infectivity)? If so, specify.
6. Are you deliberately releasing rDNA-modified plants into the environment? If so, specify.
7. Are you genetically engineering plants by rDNA methods or using plants with microorganisms or insects containing rDNA? If so, specify.
8. Are you using select agents/toxins? If so, specify.
9. Vectors to be employed - identify both generically and by their specific designations (e.g., pBR322, λgt11). If the vector is not one commonly used, supply a map.

Vector Type*	Specific Vector	Transmissible (y/n) **

* viral, plasmid, conjugative plasmids, phages
 ** conjugative plasmids, phages that do not require suppressors for growth

Host cells to be employed - identify bacterial strains and eukaryotic cells by their designations (e.g., E. Coli HB101).

Host	Host Subtype

Nature of the experiments for which recombinant DNA will be employed (e.g., library screening, Northern, Southern).

10.

a) Will the proposed experiments involve the expression of a protein in the host strain used for recombinant DNA?

No

Yes - If "yes," identify the host strain to be used for production of the protein and the protein's biological or enzymatic activity.

b) Is the protein a known vertebrate toxin? No Yes - If "yes," describe:

11. What is the maximum volume of culture to be grown at any one time? Note that culture volumes of 10L or more may require higher levels of containment, even for material that would normally require BL1 level of containment.

More than 10 liters Less than 10 liters

Risk Assessment: Indicate the appropriate Risk Group (NIH *Guidelines*, Section II) for this project

Risk Group 1 (RG1): Agents not associated with disease in healthy adult humans

Risk Group 2 (RG2): Agents associated with human disease which is rarely serious and for which preventive or therapeutic interventions are *often* available

Risk Group 3 (RG3): Agents associated with serious or lethal human disease for which preventive or therapeutic interventions *may be* available

Risk Group 4 (RG4): Agents likely to cause serious or lethal human disease for which preventive or therapeutic interventions *are not usually* available

Experiments Covered by the NIH Guideline: Consult the NIH *Guidelines*, Section III, and give the citation of the applicable section(s):

Containment:

Procedures: **BSL1/PBSL1** **BSL2/PBSL2** **BSL3/PBSL3**

Cite the specific sections of the NIH *Guidelines* that describe and govern the containment requirements of your proposed project:

Equipment: **BSL1/PBSL1** **BSL2/PBSL2** **BSL3/PBSL3**

Cite the specific sections of the NIH *Guidelines* that describe and govern the containment requirements of your proposed project:

Facilities: **BSL1/PBSL1** **BSL2/PBSL2** **BSL3/PBSL3**

Cite the specific sections of the NIH *Guidelines* that describe and govern the containment requirements of your proposed project:

Lab location(s) for project: Building/Room(s) _____ BSL2/PBSL2 Lab Location _____

Location of the autoclave to be used: Building/Room _____

Distance between lab location(s) of the project and the autoclave: _____

Describe waste disposal and decontamination procedures:

Disposal:

- Household bleach (4-5% sodium hypochlorite) diluted 1:10. Please note that strength decreases with time and solution should be used within 24 hours., then standard bin
- tie/tape red bag and deposit in the biohazardous bin
- autoclave, tie/tape red bag then deposit in the biohazardous bin
- bleach, tie/ tape red bag, then deposit in the biohazardous bin
- Other : (describe)

Decontamination:

- Household bleach (4-5% sodium hypochlorite) diluted 1:10. Please note that strength decreases with time and solution should be used within 24 hours.
- Ethanol for hood work surfaces
- Other : (describe)

Health Surveillance

Are there health risks associated with this research. No Yes If yes, what are they?

Please sign below to indicate your agreement to the following statements:

I agree to comply with the NIH and Institutional requirements pertaining to shipment and transfer of recombinant DNA materials, and will obtain the proper training related to the safe packaging and shipping of the biological materials.

I am familiar with and agree to abide by the provisions of the current NIH *Guidelines* and other specific NIH instructions pertaining to the proposed project as well as provisions of the University of Toledo Biosafety Manual.

I have read the *NIH Guidelines for Research Involving Recombinant DNA Molecules* (April 2002) and the current CDC Biosafety Manual, and am willing to abide by them.

I take full responsibility for ensuring others in my laboratory have been appropriately trained and will comply with these guidelines.

Any unusual illness of any personnel engaged in this research will be reported to the IBC and if appropriate NIH.

All of the above answers are true and complete to the best of my knowledge.

P.I.'s Signature: _____ Date: _____