Research/Instruction Involving Recombinant and Synthetic Nucleic Acid Molecules

SUNY New Paltz Institutional Biosafety Committee (IBC)

APPLICABILITY STATEMENT

The State University of New York (SUNY) at New Paltz is committed to the safe conduct of experiments involving recombinant and synthetic nucleic acid molecules (R/SNAM), as well as to the protection of health and of the environment. In consideration of these commitments and of the SUNY New Paltz facilities available for such research, all activities involving R/SNAM conducted under the auspices of SUNY New Paltz must conform the campus policy statement on research involving R/SNAM. Such activities must comply with the intent as well as the specifics of the *NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules* and the subsequent amendments to the NIH Guidelines.

Additional restrictions are described in the SUNY New Paltz Policy Statement for Research Involving Recombinant Synthetic Nucleic Acid Molecules, which supersedes the NIH Guidelines.

Definitions

Recombinant and synthetic nucleic acids are defined as:

(i) molecules that a) are constructed by joining nucleic acid molecules and b) that can replicate in a living cell, i.e., recombinant nucleic acids;

(ii) nucleic acid molecules that are chemically or by other means synthesized or amplified, including those that are chemically or otherwise modified but can base pair with naturally occurring nucleic acid molecules, i.e., synthetic nucleic acids, or

(iii) molecules that result from the replication of those described in (i) or (ii) above.

Laboratory work involving small DNA molecules such as oligonucleotides, PCR primers, PCR products, and nucleic acid probes do not require registration with IBC if the following applies: Those synthetic nucleic acids that: (1) can neither replicate nor generate nucleic acids that can replicate in any living cell (e.g., oligonucleotides or other synthetic nucleic acids that do not contain an origin of replication or contain elements known to interact with either DNA or RNA polymerase), and (2) are not designed to integrate into DNA, and (3) do not produce a toxin that is lethal for vertebrates at an LD50 of less than 100 nanograms per kilogram body weight. Additional insight into the guidelines.

- **If your research or instructional activities involve the use of recombinant or synthetic molecules as defined above, completely fill out this form.**
- **The information must be submitted at least one month prior to commencement of activities.**
- **The IBC registration form for R/SNAM must be submitted annually for on-going projects.**

IBC REGISTRATION FORM: R/SNAM

Check one:	**New Project**	**Renewal**
Project Title:		
Principal Investigator and department affiliation (if more than one, include name and affiliation of each):		
Corresponding PI campus address:		
Corresponding PI campus phone:		
Corresponding PI campus email:		
Laboratory space(s) in which activities will take place (Bldgs, rooms):		
Course in which recombinant or synthetic nucleic acid molecules will be used (if applicable, number and name):		
Name and brief description of R/SNAM (ex. gene name and function):		

1. Will you be performing ANY recombinant nucleic acid molecule experiments/ instructional activities that are **NOT** encompassed by one or more of the following allowable types of experiments?

☐ Yes ☐ No

- Recombinant DNA in tissue culture
- *Escherichia coli K-12, Saccharomyces, Bacillus subtilis* **or** *Bacillus licheniformis* Host-Vector Systems
- Extrachromosomal elements of Gram positive microorganisms
- Recombinant DNA consisting entirely of segments from the same species, closely related strains of the same species, or species known to naturally exchange DNA

2. Will eukaryotic viral genome segments used in tissue culture be comprised of more than ½ of the full viral genome?

☐ Yes ☐ No

3. Will organisms (including cells in culture) or viruses containing recombinant nucleic acid molecules be cultured in volumes exceeding 10L?

☐ Yes ☐ No

4. Will recombinant nucleic acid molecule be derived from risk groups 2-4 organisms)Biosafety Levels 2-4 containment be required (See the NIH Guidelines for details)

☐ Yes ☐ No

5. Will *E. coli* K-12 hosts contain conjugation proficient plasmids and/or will generalized transducing phages be employed? ☐ Yes ☐ No

6. Will *B. subtilis* or *B. licheniformis* hosts be spore-forming strains or revert to spore-formers with frequencies > 10^{-7} be employed? ☐ Yes ☐ No

7. Will genes coding for the biosynthesis of molecules toxic to vertebrates be deliberately cloned?

☐ Yes ☐ No

8. Will there be a deliberate attempt to express a protein?

☐ Yes ☐ No

If *Yes*, name the protein and describe how expression of the inserted DNA sequences will result in differences from the non-modified parental organism (e.g., morphological or structural characteristics, physiological activities and processes, growth characteristics). Indicate possible toxicity or other hazards, if any:

Response:

Please mail the completed R/SNAM Registration Form (without the applicability statement) to the Institutional Biosafety Committee c/o Sponsored Programs or email (with electronic signature) to **ibc@newpaltz.edu**.

I have read and I understand the Principle Investigator Responsibilities outlined in the NIH Guidelines for Research Involving R/SNAM and the SUNY New Paltz Policy Statement for Research Involving R/SNAM. I certify that the information in this questionnaire is correct and that the research will be conducted in full compliance with SUNY New Paltz policies and federal regulations. I take full responsibility for training all students who will be involved in the recombinant nucleic acid molecule experiments/ instructional activities.

_____ _____

Signature of corresponding Principal Investigator Date