

THE GEORGE WASHINGTON UNIVERSITY RECOMBINANT DNA

Introduction

The National Institute of Health's (NIH) Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines) was published in the 1970s in response to scientists' concerns about the dangers of creating recombinant organisms. It has been revised and updated many times since then, but is still the standard for classifying recombinant deoxyribonucleic acid (rDNA) experiments according to hazard and recommending appropriate containment levels.

Guidelines

At the University, research involving rDNA that is funded by NIH, must comply with NIH Guidelines. (See <http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html>).

General

The NIH Guidelines are intended to assist the University and the principal investigator in determining appropriate safeguards that should be implemented.

The purpose of the NIH guidelines is to specify practices for constructing and handling:

- Recombinant DNA molecules
- Organisms and viruses containing recombinant DNA molecules

Definition

In the context of the NIH Guidelines, recombinant DNA molecules are defined as

- Molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell
- Molecules that result from the replication of those described above.

Responsibilities

At the University, general responsibilities relating to health and safety in the laboratory are described in the Chemical Hygiene and Exposure Control Plans.

The principal investigator (PI) is responsible for full compliance with the NIH Guidelines in the conduct of recombinant DNA research. The PI must notify the Office of Risk Management before any NIH-funded research involving rDNA is conducted.

Applicable Regulations

NIH Guidelines for Research Involving Recombinant DNA Molecules: Though technically not a regulation, NIH requires that any institution receiving NIH funding comply with this document.

Resources

- Office of Risk Management
(<http://www.gwu.edu/~riskmgnt/>)
202-994-3265
- Office of Recombinant DNA, Ross Hall 712
(<http://www.gwumc.edu/research/dna.htm>)
202-994-2715, 202-994-2995
- Office of Laboratory Safety & Compliance
(<http://www.gwumc.edu/research/labsafety>)
202-994-2085