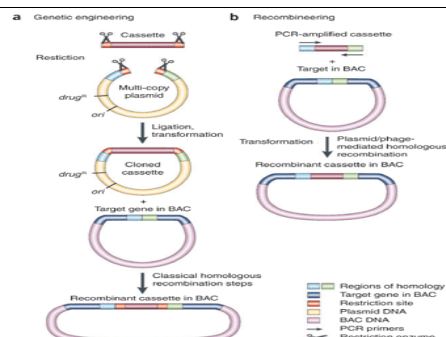


# Recombinant DNA Work

This fact sheet is designed to familiarize the University community with the requirements that must be met during the planning, initiation and termination of experiments involving recombinant DNA.

Recombinant DNA technology is not only an important tool in scientific research, but it has also impacted the diagnosis and treatment of diseases and genetic disorders in many areas of medicine. It can also be used in agriculture to produce pest and disease resistant crops that lead to better yields for farmers. As a result of these uses of recombinant DNA, many researchers have begun this technology for their studies.



## Introduction

In the context of the **NIH's Guidelines for Research Involving Recombinant DNA Molecules**, recombinant DNA molecules are defined as either: "(i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell, or (ii) molecules that result from the replication of those described in (i) above." Any research that meets the definitions listed above must comply with the **NIH's Guidelines for Research Involving Recombinant DNA Molecules**. Failure to follow NIH guidelines can result in the suspension, limitation, or termination of NIH funds for all rDNA research at the University. In addition, any intentional failure to comply has the potential to be defined as academic misconduct as outlined by University policy.

## Registration

One of the requirements of the NIH's Guidelines for Research Involving Recombinant DNA Molecules is that all recombinant DNA work must be registered with and approved by the Institution's Biological Safety Committee (IBC) prior to the start of any work. Although some projects will qualify as exempt from the NIH Guidelines, **all projects that involve recombinant DNA must be registered**. Research projects will be assessed by the IBC on an individual basis.

## Application for Research Involving rDNA

You must register your research project with the IBC to initiate the approval process. Registration forms or further information about the registration process may be obtained on the EH&S website at: [www.cmu.edu/ehs](http://www.cmu.edu/ehs). If you have previously registered your project, you are required to update registration information whenever there are changes in the facilities, personnel, and experimental protocols associated with the project.

## Disposal of Recombinant DNA Materials

All recombinant DNA materials must be disposed of via the University's Biological Waste Stream. No recombinant DNA materials should be disposed of via the ordinary trash. Please contact the Biological Safety Officer for information regarding Biological Waste at 8-8405.

## Transfer of Recombinant DNA and Transgenic Materials

Extramural or intramural transfers of rDNA and transgenic materials including transgenic animals and transgenic plants are prohibited without the written approval of the IBC. Please contact the Biological Safety Officer for information regarding transfers at 8-8405.

## Incidents Involving rDNA

University policy requires that significant research-related incidents be reported immediately to the Biological Safety Officer. Such incidents include research-related accidents and illnesses as well as inadvertent release or improper disposal of biohazardous or recombinant DNA materials.