

# Biological Sciences First Year Seminar on Research Ethics

## Research Training

**Due:** Sunday, February 23<sup>rd</sup> by 12:00PM (noon) via email to us.

Late research training certification will *not* be accepted unless you have requested and we have granted a *prior* reasonable accommodation.

**Background:** Most research conducted at Carnegie Mellon University must be reviewed and approved by Institutional Review Boards (IRBs) in both Pittsburgh and Doha before the research can be initiated. In addition, both IRBs require all personnel involved in that research to demonstrate completion of an education program concerning proper research conduct. For this course, you are required to complete this education in order to become certified to conduct undergraduate-level research at Carnegie Mellon University. This program is online, provided by the Collaborative Institutional Training Initiative (CITI) at [www.citiprogram.org](http://www.citiprogram.org).

**Setting Up:** Use the following information to create a CITI account.

- Institution: Carnegie Mellon University [in "participating institutions"]
- Language Preference: English
- Institutional email address: [your email]@qatar.cmu.edu
- Highest Degree: High School [we assume?]
- Employee Number: [leave blank]
- Department: Biological Sciences
- Role in research: Student Researcher - Undergraduate
- Address Field 1: [leave blank]
- Address Field 2: [leave blank]
- Address Field 3: [leave blank]
- City: Doha
- State: [leave blank]
- Zip/Postal Code: [leave blank]
- Country: Qatar
- Phone: [leave blank]

Answer with the following to select your curriculum.

- Question 1: Biomedical Research Investigators
- Question 2: RCR Undergraduates
- Question 3: "Working with the IACUC Course"
- Question 4: I do not need to take the Export Control course at this time

**Module Sets:** There will be 5 CITI module sets due throughout the course. We will not grade these; they are simply to keep you on track. Be warned, however, that some modules may take time to complete, so putting your certification off until the last minute is not advised. (Remember: your certification is graded pass/fail; there is *no partial credit* for completing some, but not all, of the required modules.)

**CITI Module Set #1** (Due Sunday, January 19<sup>th</sup>)

A. Course: Biomedical Research - Basic/Refresher

1. Belmont Report and CITI Course Introduction
2. History and Ethical Principles
3. Basic Institutional Review Board (IRB) Regulations and Review Process

B. Course: Investigators, Staff and Students

1. Introduction to Working with the IACUC
2. Working with the IACUC
3. Federal Mandates
4. The Veterinary Consultation
5. Getting Started
6. Alternatives
7. Avoiding Unnecessary Duplication
8. Surgery

**CITI Module Set #2** (Due Sunday, January 26<sup>th</sup>)

A. Course: Biomedical Research - Basic/Refresher

1. Informed Consent
2. Social and Behavioral Research (SBR) for Biomedical Researchers
3. Records-Based Research
4. Genetic Research in Human Populations

B. Course: Investigators, Staff and Students

1. Antibody Production
2. Collecting Blood Samples
3. Personnel Training and Experience
4. Occupational Health and Safety
5. USDA Pain/Distress Categories
6. Endpoint Criteria

**CITI Module Set #3** (Due Sunday, February 2<sup>nd</sup>)

A. Course: Investigators, Staff and Students

1. Using Hazardous and Toxic Agents in Animals
2. Housing Social Animals
3. Housing Rodents on Wire Floors
4. Dog Exercise
5. Primate Psychological Enrichment
6. Prolonged Restraint
7. Euthanasia
8. Using Human Patient Care Areas for Animal Research

**CITI Module Set #4** (Due Sunday, February 9<sup>th</sup>)

A. Course: RCR Undergraduates

1. Carnegie Mellon University
2. Introduction to the Responsible Conduct of Research
3. Research Misconduct (RCR-Biomed)
4. Responsible Conduct of Research (RCR) Course Conclusion

B. Course: Investigators, Staff and Students

1. Using Explosive Agents in the Animal Facility
2. Making Changes after You Receive Approval
3. Reporting Misuse, Mistreatment, or Non-Compliance
4. Final Comments

**CITI Module Set #5** (Due Sunday, February 16<sup>th</sup>)

A. Course: Biomedical Research - Basic/Refresher

1. Research With Protected Populations - Vulnerable Subjects: An Overview
2. Vulnerable Subjects - Research Involving Prisoners
3. Vulnerable Subjects - Research Involving Children
4. Vulnerable Subjects - Research Involving Pregnant Women, Human Fetuses, and Neonates
5. Avoiding Group Harms - U.S. Research Perspectives
6. Carnegie Mellon University

**Your Certificate:** Once you have completed all these modules, please email us copies of your three CITI training certificates. Your certificates will be sent to Carnegie Mellon University's Pittsburgh IRB, with whom we will confirm that they have your certificate on file.