



## **Responsible Conduct of Research (RCR)** Office of Sponsored Programs

### **PURPOSE:**

This guidance is designed to ensure compliance with federal granting agencies such as the National Science (NIF) and the National Institute of Health (NIH) requirements regarding research, responsible conduct for research, and to clarify the position of Merrimack College regarding research.

### **I. Scope**

The responsible and ethical conduct of research (RCR) is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists and engineers. Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 USC 1862o-1) requires that "each institution that applies for financial assistance from the Foundation for science and engineering research or education describe in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project."

### **II. Institutional Responsibilities**

Research institutions (universities, hospitals, private research companies, and so on) are required by law to have policies that cover various aspects of their research programs if they accept Federal funds. They must have committees to review human and animal research. They must have procedures for investigating and reporting research misconduct and conflicts of interest. They must approve and manage all research budgets, ensure that laboratory safety rules are followed, and follow established practices for the responsible use of hazardous substances in research. They must also provide training for researchers who use animal or human subjects in their research and for individuals supported on NIH training grants.

Source: US Department of Health and Human Services, Office of Research Integrity;  
<https://ori.hhs.gov/content/ori-introduction-responsible-conduct-research>

### III. Guidance for Merrimack College

Responsible Conduct in Research (RCR) is critical for Merrimack College's faculty and students. With or without federal mandate the institution would embrace the opportunity to ensure that students and faculty are responsibly and ethically conducting research.

Merrimack College provides resources to assist in this effort. The on-line training certificate program [Collaborative Institutional Training Initiative \(CITI\)](#) is available to faculty to completed the required RCR training program. The modules included in CITI can be used to guide and augment responsible conduct in research training in addition to face to face didactic interactions with students. Adequate training will include the following components:

- a) Conflict of Interest: personal, professional, and financial
- b) Policies regarding human subjects, live vertebrate animal subjects in research and safe laboratory practices
- c) Mentor/mentee responsibilities and relationships
- d) Collaborative research including collaborations with industry
- e) Peer review
- f) Data acquisition and laboratory tools; management, sharing and ownership
- g) Research misconduct and policies for handling misconduct
- h) Responsible authorship and publication
- i) The scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research.

### IV. Requirements for federal agencies:

- a) National Institutes of Health (NIH): According to the NIH's notice "*Update on the Requirement for Instruction in the Responsible Conduct in Research*" Notice Number: NOT-OD-10-019, dated 11/24/09, upon award of any NIH Institutional Research Training Grants, Individual Fellowship Awards, Career Development Awards, Research Education Grants, Dissertation Research Grants or other grant programs with a training component that requires instruction in responsible conduct in research as noted in the funding opportunity announcement, a formal training program which includes at least 8 hours of contact hours (face to face engagement) between faculty and trainees is required. This training program should be provided throughout the trainees' scientific career and should occur as an undergraduate, graduate and post-doc student, as well as during Career Awards and other milestones in a scientist's career.

Link to NIH requirement for RCR: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

- b) National Science Foundation (NSF): Pursuant to the 2007 America COMPETES Act, the National Science Foundation adopted a certification requirement effective January 4, 2010. The NSF Grant Proposal Guide states:

*“When submitting a proposal to NSF, the Authorized Organizational Representative is required to complete a certification that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.”*

The plan must also include a system to verify that the training has occurred. The plan does not have to be submitted with proposals, but NSF could request it at any time – and NSF could audit compliance. Currently, institutions are free to develop their own plans, and at present there are no NSF- recommended models.

- i. An institution must have a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research. Institutional certification to this effect is required for each proposal.
- ii. While training plans are not required to be included in proposals submitted to NSF, institutions are advised that they are subject to review, upon request.
- iii. An institution must designate one or more persons to oversee compliance with the RCR training requirement.
- iv. Institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received training in the responsible and ethical conduct of research.

Link to NSF’s implementation of Section 7009:

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/aag\\_4.jsp#IVB](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/aag_4.jsp#IVB)

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Office of Sponsored Programs  
Office of the Provost