

Responsible Conduct: Collaborating on RCR Training

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Responsible Conduct of Research

“Responsible Conduct of Research (RCR) denotes good citizenship in research conduct. Faculty, students and staff who report their work honestly, accurately, and objectively promote public trust in research and model ethical research practices for future generations of scholars.”

<https://ori.hhs.gov/sites/default/files/rcrintro.pdf>

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RCR Training

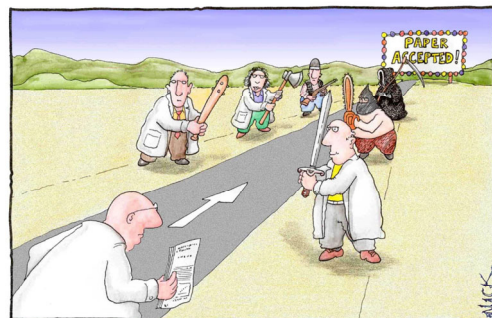
- Who must participate in RCR Training?
 - National Science Foundation (NSF)
 - Undergraduate and Graduate students supported by NSF grants
 - Post Docs supported by NSF grants
 - National Institutes of Health (NIH)
 - Trainees (Institutional Training, Education, and Institutional Career Development Awards)
 - Fellows (Individual Fellowships)
 - Researchers (Individual Career Development Awards)
 - Graduate students (Dissertation Awards)
 - USDA National Institute of Food and Agriculture
 - Program Directors on any USDA NIFA research project
 - Undergraduate and Graduate students supported by NSF grants on any USDA NIFA research project
 - Post Docs supported by NSF grants on any USDA NIFA research project
 - Participating Staff on any USDA NIFA research project

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RCR Training

- What is RCR training?
 - Human Subject Research
 - Publications/Authorship
 - Research Misconduct
 - Animal Resources
 - Mentorship
 - Data Management
 - Collaboration
 - Conflict of Interest/Conflict of Commitment
 - Peer Review
 - Research Ethics



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'
Image from: Eventbrite.com

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Designing an RCR Training Program

- Mode
 - Live
 - Online
 - Hybrid
- Defining audience
 - Faculty Researchers
 - Participating Staff
 - Post Docs/Post Bacs
 - Students
- Required or Elective
 - Federally required
 - Institution required
 - Elective / Institution desired

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Designing an RCR Training Program

- Don't Forget Logistics
 - Assigning Responsibilities
 - Locations
 - Schedules
 - Attendance Tracking
 - Make-up Sessions
 - Documentation

OAC Compliance [Home](#)

Home

Events and Topics

Name Lookup

Event: [2018 RCR Training Series - Post Docs](#)

Topics

Upload	List	Topic	Date	Time	Location	Description
		Research Misconduct Edit	09/18/2018	3:00 pm	Taylor Hall	Research Misconduct
		Collaboration Edit	10/16/2018	3:00 pm	Taylor Hall	Collaboration Module
		Human Subjects Edit	11/20/2018	3:00 pm	Campus Center	Human Subjects in Re
		Responsible Conduct in Research Edit	01/15/2019	3:00-4:30	Campus Center	Dr. Claire Frasier disc
		Authorship Edit	02/19/2019	3:00 pm	Baltimore	Authorship
		Data Management Edit	03/19/2019	3:00 pm	Baltimore	Ethical and Compreh
		Mentorship Edit	04/16/2019	3:00 pm	Taylor Hall	RCR training session
		Conflicts of Interest Edit	05/21/2019	3:00 pm	Baltimore	Conflicts of Interest

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RCR Examples



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE
INSTITUTE FOR GENOME SCIENCES

Scientific Ethics and the Role of the Scientist
in Contemporary Society

Claire M. Fraser, PhD
Professor, Department of Medicine
Director, Institute for Genome Sciences
cmfraser@som.umaryland.edu

October 2017

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Responsible Conduct of Research

Case Study – Responsible Conduct of Research

In one study by Ron Jackson and collaborators from Australia, a genetically engineered strain of mouse pox was produced by insertion of the IL-4 gene into the viral genome. The resulting virus was found to kill mice, even if the mice had either a natural immunity or had a vaccination using the normal strain of mouse pox. The findings and the Materials and Methods were published in the Journal of Virology. The concern is that the same kind of scientific procedures could be used to produce a vaccine-resistant smallpox.

In another study, American scientists had used synthetic biology to manufacture a polio genome by attaching together commercially available strands of DNA in accordance to a map of the RNA polio genome (published on the internet). They created a "live" virus that paralyzed mice. The findings and the Materials and Methods were published in Science.

The concern is whether publishing these studies might allow others to produce dangerous pathogens. Historically, this kind of decision has fallen on the scientific community's voluntary self-governance. Others argue that there should be censorship of this type of scientific study, since, "this kind of manufacture of biological weapons is relatively easy and inexpensive."

Now the National Science Advisory Board for Biosecurity can address some of these issues, but...

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Responsible Conduct of Research

Discussion Prompt – Responsible Conduct of Research

The following is The Scientist's Oath proposed by Joseph Rothblat who resigned from his work in the Manhattan Project, which developed the atomic bomb. Rothblat was the recipient of the 1995 Nobel Peace Prize because of this decision and his work to promote scientific responsibility:

I promise to work for a better world, where science and technology are used in socially responsible ways. I will not use my education for any purpose intended to harm human beings or the environment. Throughout my career, I will consider the ethical implications of my work before I take action. While the demands placed upon me may be great, I sign this declaration because I recognize that individual responsibility is the first step on the path to peace.

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Institutional Expertise

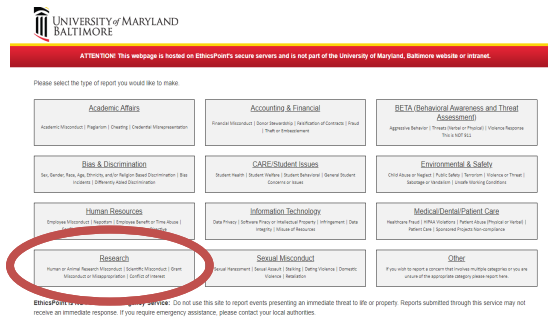
- Experts are All Around
 - Faculty
 - Think multi-disciplinary options
 - Increases the breadth of experience
 - Differing and tailored expertise
 - Perspective
 - Returning Scholars
 - Program Graduates
 - Application of Principles
 - Real life scenarios and how the training changed their response
 - Increased confidence due to ethical foundation
 - Staff
 - Professional staff have expertise others do not

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Customizing your Content

- Make it applicable to your institution
 - What types of grants/funding is being received?
 - What types of research is being conducted?
- Guidance on responding to unethical, irresponsible research and research misconduct
 - Introduce your Research Integrity Officer
 - Reporting Hotline



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Discussion

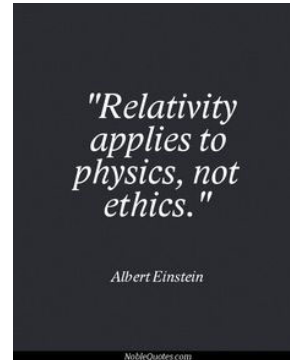
- Our Experiences
 - Experts aren't always experts!
 - Some faculty/researchers are more engaging than others
 - Small group discussions can go off the rails
- Your Experiences
- Questions?

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Constant Improvement & Consistent

- Freshen it up!
 - Get feedback to make sure the messaging is resonating and the key takeaways are being communicated effectively
 - Post assessment
 - Scenario Feedback
 - Surveys
- Keep it consistent
 - Responsible research should not be subjective
 - Incoming researchers should understand expectations in the lab



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Resources

- U.S. Department of Health and Human Services, Office of Research Integrity
 - Introduction to the Responsible Conduct of Research
<https://ori.hhs.gov/ori-introduction-responsible-conduct-research>
 - Administrators and the Responsible Conduct of Research (by Boston College)
<https://ori.hhs.gov/education/products/rcradmin/>
 - RCR Casebook
<https://ori.hhs.gov/rcr-casebook-stories-about-researchers-worth-discussing>
- National Institutes of Health
 - Resources for Training Directors
<https://oir.nih.gov/sourcebook/ethical-conduct/responsible-conduct-research-training/resources-training-directors>
 - Instruction in Responsible Conduct of Research - Postdoc IRTA, CRTA, VF, Research Associates
<https://oir.nih.gov/sourcebook/ethical-conduct/responsible-conduct-research-training/instruction-responsible-conduct-research-postdoc-irta-cрта-vf-research>
 - Instruction in Responsible Conduct of Research - Postbacs and GPP Students
<https://oir.nih.gov/sourcebook/ethical-conduct/responsible-conduct-research-training/instruction-responsible-conduct-research-postbacs-gpp-students>

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