

UI-MEPI-J

Responsible Research Conduct

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Overview

- Why, Who, What, When, Where of RRC/m
- Gains
- Consequences
- Roles
- Objectives
- Examples of Misconducts
- Where to go from here



Responsible Research Conduct

- Why are we talking about it?
- Who are those involved?
- What is it all about?
- When does this take place?
- Where does this happen?
- So what????????????



What we stand to gain



Consequences



Our roles as Researchers



Don't stand on the fence



Central Focus



Responsible Conduct of Research:
Research Misconduct



Research Conduct

- Question:
 - What does Research Misconduct mean to you?



Objectives

- Define Research Misconduct
- Discuss what to do if you suspect research misconduct
- Review examples of research misconduct
- Prepare responses to research misconduct case studies



Research Conduct (It's Philosophy)

- Many terms get used. What's the difference between
 - Moral Behavior
 - Ethical Behavior
 - Responsible Conduct
 - Accepted or Normative Behavior/Practices
 - Research Misconduct
- Some similar behaviors, such as forms of harassment, are prohibited by legal mandate...
- Why has research created a separate layer outside the legal system?



Moral behaviour

- Action or actions that produce good outcomes for the individuals as members of a community, or society, it can be applied to the whole global society. Ethical behavior is the standards that you hold for yourself of the attributes of honesty, responsibility, and how you treat others in all facets of your life. The same standards are applicable to whatever position you hold in commerce, in your, , and even behind your own doors where only you know what you do. Ethical behavior is applying these standards even when it is inconvenient to do so (**Martyrdom in Research!!!**)



Ethical behaviour

- Ethical behaviour is characterized by honesty, fairness and equity in interpersonal, professional and academic relationships and in research and scholarly activities. Ethical behaviour respects the dignity, diversity and rights of individuals and groups of people.



Responsible conduct-University of Maryland

- As members of a complex research institution, University faculty, administrators, and staff have significant responsibilities to ensure that research is conducted with the highest integrity, and in compliance with federal, state, and local laws and regulations, as well as University policy. Any fabrication, falsification, or unauthorized or unattributed copying of research data or conclusions derived from research data constitutes misconduct in research and is prohibited by University policy.



Research Misconduct – DHHS/NIH Definition (42 CFR Part 93)

- Research misconduct means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.



Research Misconduct – DHHS/NIH Definition (42 CFR Part 93)

- Fabrication:
 - making up data or results and recording or reporting them.

Cooking Up!!!!



Research Misconduct – DHHS/NIH Definition (42 CFR Part 93)

- Falsification:
 - manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
 - **Lying!!**



Research Misconduct – DHHS/NIH Definition (42 CFR Part 93)

- Plagiarism:
 - the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
 - **Stealing !!**



Research Misconduct – DHHS/NIH Definition (42 CFR Part 93)

- Research misconduct does not include honest error or differences of opinion.

Never try to play smart!!



Objectives

- Define Research Misconduct
- Discuss what to do if you suspect research misconduct
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What should you do if you suspect misconduct is occurring?

- Gather as much evidence as possible
- Make sure the evidence shows a clear picture of research misconduct
- Potentially discuss your concerns with the appointed person for research misconduct or a senior person
- Follow your institutional guidelines (**if there is any??**)



What should you NOT do if you suspect misconduct is occurring?

- Talk about your suspicions with a lot of people
- Set a trap to try to catch someone or gather more evidence
- Immediately call or email NIH or the DHHS ORI
- Call or email the media
- However, if you believe your concerns are not taken seriously by the institution where you work under an NIH grant you do have the right to pursue other options....



US DHHS Office of Research Integrity

ORI maintains oversight of institutional handling of research misconduct allegations involving Public Health Service (PHS) funding

ORI 2008 Statistics:

- 201 allegations of scientific misconduct received
- 17 new cases opened, 17 cases closed, 35 active cases at end of year – most appear likely to lead to findings of misconduct
- 13 of 17 closed cases resulted in misconduct findings and/or HHS administrative actions
 - 3 debarment for 5 years – very long
 - 1 debarment for 4 years
 - 2 debarment for 3 years – customary
 - 1 debarment for 1 year
 - Supervisory plans for a number as well
- All involved falsification, fabrication, or both



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ORI Office of Research Integrity

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HANDLING MISCONDUCT - CASE SUMMARIES

This section contains summaries of closed inquiries and investigations. Institutions are not required to report inquiries to ORI if an investigation is not warranted unless the allegation had been forwarded to the institution by ORI. Closed investigations that found misconduct, or that imposed administrative actions without a misconduct finding, are reported in the first section.

The listing of summaries involving misconduct findings is limited to the current year and two previous years because administrative actions are typically imposed for three years. A list of all individuals currently under a PHS Administrative Action is available on the PHS Administrative Action Bulletin Board. ORI does not maintain a listing of all persons against whom a finding of research misconduct has been made.

The second section contains summaries of all closed inquiries and investigations that did not result in findings of research misconduct since 1994. These summaries are sanitized to protect the privacy of the individuals involved.

Findings of Research Misconduct and Administrative Actions

2010	2009	2008
Brodie, Scott J.	Alshah, Nema	Blarisch, Lori
Chang, Hung-Sha	Arriaga, Jennifer	Coronado, Roxana
Chackis, Boris	Contreras, Juan Luis	Gu, Peili
Goodwin, Elizabeth	Couvertier, Norma	Hampton, J. Keith
Hamath, Emaly M.	Dang, Zhong Bin	Monke, Scott E.
Lain, James Gary	Fogel, Robert	Spencer, Jose
Mungekar, Sagar	Njuyon, M.	Vandera, Homer
Paez, Orlando L.	Ningaraj, Nagendra B.	Yang, Jusan
Sezan, Bengu	Robertson, Rashanda	
	Tanaka, Kazuhito	
	Thomas, Judith	
	Wanichuk, Jennifer	
	Wolfort, Ryan	
	Van Parys, Luk	
2007	2006	Before 2006
Jorge-Rivera, Juan Carlos	Aronica, Susan M.	Gelband, Craig H.
Prabhakaran, Kartik	Kornak, Paul H.	Footman, Eric
Roovers, Kristin	Leadon, Steven A.	
Surbio, Jon	Robinson, Clifford R.	
Uzalmaier, Rebecca		

*Includes cases resolved through negotiations where administrative actions were imposed without a finding of scientific misconduct.

Summaries of Closed Inquiries and Investigations Not Resulting in Findings of Research Misconduct

2007	2006	2005	2004	2003	2002	2001
2000	1999	1998	1997	1996	1995	1994

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http://ori.hhs.gov

Case Study: Eric Poehlman, M.D.

- Tenured clinical researcher at University of Vermont specializing in menopause, aging and metabolism
- Admitted to submitting false and fabricated research data in 17 federal grant applications and numerous published articles over almost a decade
- Allegedly obtained \$2.9 million in NIH and USDA funding based on fraudulent applications
- Sentenced to 1 year in prison, 2 years probation
- Agreed to pay \$180,000 to settle civil complaint and attorney's fees for research assistant who made complaint
- Barred for life from seeking or receiving funding from any federal agency; permanently excluded from all federal health care programs
- Agreed to submit numerous letters of retraction and correction to scientific journals
- ORI and the U.S. Attorney's Office "*acknowledge the important role that individual scientists have in identifying and responding to research misconduct. . . . Without their assistance, ORI and HHS would have great difficulty in taking appropriate actions to protect the public health.*"



Examples of Research Misconduct

Lois Bartsch, Ph.D., University of Nebraska Medical Center, former postdoctoral research trainee:

- (1) falsified DNA sequence files in a grant application poster presentation;
- (2) fabricated a claim in a grant application; and
- (3) falsified the research results in a grant application

Dr. Bartsch has entered into a Voluntary Exclusion Agreement (Agreement).



Examples of Research Misconduct

M. Nguyen, M.D., University of California, Los Angeles, former Associate Professor at UCLA:

- (1) falsified and fabricated the results of an experiment in Figure 3 of *Oncology Reports* 8:1355-1357, 2001;
- (2) falsified and fabricated the results of an experiment in Figure 9 of an NIH grant Application;
- (3) falsified data for Figure 1 of *Oncology Reports* 8:1355-1357, 2001; and
- (4) falsified the number of subjects in *The Lancet* 356:567-569, 2000.

Dr. Nyugen has entered into a Voluntary Settlement Agreement.



Examples of Research Misconduct

Nima Afshar, Ph.D., University of California, San Francisco, former postdoctoral fellow at UCSF:

in 36 instances falsified files containing raw scanned microarray images from another researcher's experiments to demonstrate experiments that she claimed to have conducted.

Dr. Afshar has entered into a Voluntary Settlement Agreement.



Guiding Principles in Handling Allegations of Scientific Misconduct

Federal Office for Research Integrity Website

<http://ori.dhhs.gov/>

Northwestern University Policy for Scientific Misconduct

<http://www.research.northwestern.edu/ori/misconduct/NUPolicySciMis.pdf>



Situation #1

- You have a rapidly approaching grant deadline
- Your grad student is feverishly working on an experiment to confirm a preliminary experiment
- She comes to lab meeting and presents a figure with fantastic data you were hoping for
- Looking more carefully, however, it seems the error bars are tighter than usual – perhaps too tight?
- Should you be suspicious? If so, what do you do?
 - How much pressure have you put on to get the data?
 - How closely have you reviewed her primary data? How often? Most recently?
 - Have you ever talked with her or your group about when and how data can be excluded?



Situation #2

- Your grad student just came to you to raise a concern that he thinks your lab tech is using PhotoShop to make gel bands look better. What are the possibilities you need to consider?
 - The two of them don't get along and it has escalated
 - Yes he is using PhotoShop but what he is doing is appropriate within the limits of image enhancement without altering results
 - Your tech is going through problems at home and cutting corners to make up for recent poor lab results
 - The tech is significantly altering the gels and the data from them
 - Other options?



Situation #2

- What do you do to sort out what is going on?
 - Try to stay neutral in listening to the 'evidence' presented – may depend on what is presented to you – but don't jump to conclusions or dismiss the accusation
 - Create a non-threatening reason to review some gels and their processing
 - Look through primary data from your tech when others are not around
 - Response may depend on the amount of time the tech has worked for you and the amount of data you have seen/been involved with



Situation #3

- Your postdoc has just brought you the first draft of his first major paper since joining your lab
- You start reading and are pleasantly surprised by the quality of the content and writing in the Introduction
- The Methods section is ok but not nearly as good
- When you get to Results, the form and content really go down hill which continues in the Discussion



Situation #3 - Continued

- Should this cause you any concern? If so, what?
 - At what stage should you be concerned that the Introduction is not his own work?
- Have you reviewed anything he has written before? Was it more like the good or poor aspects of the paper?
- Should you go looking to see if you can find portions of the Introduction in references he used, or bluntly ask him if he has taken it from somewhere else? Are there other options?



What do you think you will do?

- Now that we have talked through the issues, how do you see yourself guiding others to minimize the chances they will commit scientific misconduct?



What do you think you will do?

- Now that we have talked through the issues, how do you see yourself guiding others to minimize the chances they will commit scientific misconduct?
 - Clear, non-threatening expression of what you expect
 - Reiterate and model that no pressure to obtain a certain result can trump the importance of accuracy & honesty
 - Especially at the start, establish a pattern of review of primary data
 - Open discussion about not dropping data that does not 'look good' or fit what is expected
 - Periodic discussion and/or modeling of how to avoid plagiarism and importance of giving credit to others
 - Other ways???



University Policies



Questions & Discussion



- What have we not covered related to research misconduct you would like to talk about or know more about?

