



Research Integrity

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Values - Choices

- Values - we all have them
 - Many sources
- Values help us to make choices, guide decisions
- Decisions
 - Pragmatic: paths to accomplish tasks; choice may lead to efficiency or accuracy, but no one is harmed
 - Ethical: choices you make have the potential to cause harm

Scholars make ethical decisions

- Research/scholarship is an inherently social activity
- Advances in science or the humanities are not made in isolation/vacuum
- Our decisions as researchers and scholars have social consequences; they impact others; researchers have responsibilities to each other and to society
- Some of the decisions we make as researchers are ethical decisions

Core values in research and scholarship

- Research integrity
- What does it mean?
 - Ensuring and preserving the accuracy and completeness of the research record
- A core responsibility of everyone who conducts research or practices scholarship
- Purdue's statement on integrity and Policy on Integrity in Research

Policy on Integrity in Research

“Integrity in research is an essential part of Purdue University's intellectual and social structure, and adherence to its spirit and principles must be maintained. These principles include commitment to truth, objectivity, fairness, honesty, and free inquiry.”

[Executive Memorandum C-22]

http://www.purdue.edu/policies/pages/teach_res_outreach/c_22.html

Research Misconduct

- Offenses against research integrity; corruption of the research record.
- Misconduct is intentionally misleading or misrepresenting through:
 - Fabrication
 - Falsification
 - Plagiarism
 - Other practices that seriously deviate from those that are commonly accepted in the scientific and academic community for proposing, conducting, or reporting research
 - Committed knowingly, intentionally, or recklessly

But not ...

- Honest error
- Disagreements over the design of experiments, or analysis or interpretation of data
- It's not research misconduct to be wrong.

Why is it important to talk about this?

- We all know it's wrong to lie!
- But do we know what to do if we observe actions that we believe may represent misconduct?
- Is it likely that this will happen?
- Do we have to do anything?

Remember “Grandma’s china”

- Accusations or suspicions of misconduct can damage an individual’s reputation, even if eventually found to be untrue.
- Discretion is critical
 - Check the facts
 - Quietly bring your concern to the attention of someone who can resolve the suspicions
 - At Purdue, allegations of research misconduct should be brought to the attention of a dean
 - If uncomfortable speaking first with the dean, speak with your department head or the Graduate School’s Ombudsperson.

What will happen?

- Purdue policy and federal regulations identify specific due process procedures
 - Confidential
 - The accused (respondent) must be informed and given a chance to respond
 - Inquiry: determination if the allegation merits further investigation
 - Investigation: determination if more likely than not that research misconduct occurred

A Case Study – “The Whole Truth”

- AAAS film
- Senior postdoc, Kevin, returns from presenting a poster at a scientific meeting
- Poster was prepared at the last minute; although all team members are authors, no one but Kevin saw the poster before the meeting
- Sandy, a lab technician, has concerns when she sees the poster

“The Whole Truth”

- In the film, Sandy becomes concerned regarding experiments, data and conclusions that Kevin had reported in his poster and decides to inform Dr. Cornwall of her concerns.
- (a) Were Sandy’s concerns reasonable and based on sufficient information to justify her actions? Explain.
- (b) After expressing her concerns regarding the poster to a graduate student, the student asks whether Sandy should or has to do anything about her concerns. How would you answer this question?
- (c) Could Sandy face any risks from her decision to express her concerns to Dr. Cornwall? If yes, what are some of these risks?

- Upon leaving Dr. Cornwall after describing her concerns, Sandy appears dissatisfied with his response.
 - Was Dr. Cornwall's initial reaction to Sandy's concerns appropriate? Explain. If not, what else might he have said or done at that time?
 - Do Dr. Cornwall's later discussions with Kevin resolve these issues?
 - What is your impression of Dr. Cornwall as a laboratory director? As a mentor?

- Dr. Cornwall suggested that any problems with the research could/would be identified during peer review. From your understanding of the peer review process, is it likely that this form of potential research misconduct might be detected during peer review? Explain.

- Many of Sandy's concerns arise from the content of the research poster that Kevin presented at a scientific meeting. Can you suggest an alternative approach to preparing a poster describing results from a research team that might have ensured that the poster was more accurate? What is Dr. Cornwall's responsibility regarding ensuring the integrity of the poster?

- Do you believe that anyone committed research misconduct (falsification, fabrication, or plagiarism) in this case study? If yes, who and what was the research misconduct?

