



“Case Studies in Research Misconduct”

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Disclaimer

- The speakers do not claim expertise on the topic of Research Misconduct
- This presentation is designed to demonstrate the teaching effectiveness of Responsible Conduct of Research training through case studies and interactive technology

References

- Dr. Jeffrey R. Botkin, M.D., MPH
Associate Vice President for Research, Integrity
The University of Utah
- Understanding Nursing Research,
Burns, Nancy and Grove, Susan K., pp. 187-188.
- <http://en.wikipedia.org/wiki/>
- http://ccnmtl.columbia.edu/projects/rcr/rcr_misconduct/foundation/index.html#1_B_3
- <http://www.responsibility.research.umich.edu/case/materialsdir.html#plag>
- <http://www.dailycamera.com/news/ongoingcoverage/wardchurchill/>

Definition of Research Misconduct

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

42 CFR 93.103





Fabrication

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



Infamous Cases

John Darsee

- Research Fellow at Harvard University, 1979
- Produced 5 major papers in 15 months; offered faculty position in 1981
- Colleagues became concerned about the accuracy of Darsee's results.



John Darsee

- Investigation found that Darsee had been altering dates on his laboratory work to make a few hours' work appear to be several weeks of data.
- Further scrutiny revealed Darsee had previously used false data between 1966 and 1970 at Notre Dame University; subsequently, 52 papers and abstracts published between 1974 and 1979 at Emory University were retracted.



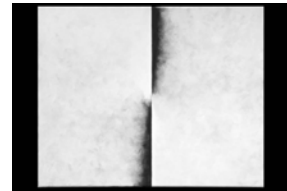
John Darsee

- Darsee later apologized in the New England Journal of Medicine citing career ambition and professional pressures as motivation.
- Coauthors were criticized for their unfamiliarity with his work and their lack of awareness of the scientific misconduct.



Falsification

- Falsification is 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.



Infamous Cases

Robert Slutsky

- Cardiologist, University of California at San Diego, 1986
- Published 161 articles in 6 years; at one time he was completing an article every 10 days
- Included the names of many co-authors to mislead editors and cover up for what was later found to be false output



Robert Slutsky

- Publications between 1975 to 1985 contained “statistical anomalies” and “duplicated data” that raised the question of falsified research records
- Investigation of 137 of his publications found that 77 were valid, 48 were questionable, and 12 were fraudulent



Infamous Cases

Jan Hendrik Schön

- Bell Labs Researcher, 2002
- Performing groundbreaking electronics research in superconductivity, molecular crystals, and molecular electronics
- Producing one paper every 8 days and was deemed to be on the ‘fast track’ to a Nobel Prize



Jan Hendrik Schön

- An independent committee found Schön had made up or altered data at least 16 times between 1998 and 2001; Bell Labs terminated his employment
- Schön "did this intentionally or recklessly and without the knowledge of any of his co-authors"
- *New Scientist* editors stated that collaborators should have been held accountable since only one of them actually witnessed the research



Plagiarism

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



STEALING

If you can't get what you want legitimately.



A Famous Case

Ward Churchill

- Professor, Ethnic Studies, University of Colorado
- Wrote an essay in 2002 about the Sept. 11th terrorist attacks referring to World Trade Center workers as "little Eichmanns," a reference to Nazi Adolf Eichmann, the "architect of the Holocaust."
- Following public outcry, CU began probing his work. He was fired in 2007 for academic misconduct after officials concluded he plagiarized and lied about historical facts in his writings.
- Churchill has won a wrongful-termination lawsuit against CU and is now seeking reinstatement.



Clarifications

- Research misconduct does not include honest error or differences of opinion
- The definition of research misconduct does not include disputes over authorship or credit



Authorship

Who should be an author?

- People who have left the lab?
- Technical staff?
- PI with no involvement in the work?
- Contributors on already published work?

How should authors be listed?

- First author, last author, co-first authors?
- Should authors specify who did what?
- Patent percentage vs. authorship?

When should work be published?

- Can you publish without the PI?
- “Incomplete” work?
- To which journal or journals?
- Should practical issues influence decision?
(graduation, grant deadline, tenure)



What Causes Research Misconduct

- “Bad Apples”
- Academic environment
 - Career advancement:
 - tenure / fame / reputation
 - Financial rewards
 - Poor training in standards and methods
 - Conflicts of interest
 - Large collaborative groups
 - Remote laboratory managers



How Prevalent?

Office of Research Integrity (ORI)

- 2006: 111 institutions reported a total of 151 allegations of misconduct
 - 69 allegations of falsification
 - 53 of fabrication
 - 29 of plagiarism
- 2007: ORI opened 14 new cases, 39 remained open, 28 closed
 - ~33% of ORI cases find misconduct
- Most common actions
 - 2/3rds were debarred from federal funding for minimum of 3 years to lifetime



How Prevalent?

- Titus, et al. Nature 2008; 453:980.
- Surveyed 4,298 researchers, 2,212 responded (51%), primarily biomedical
 - 8.7% observed or had direct evidence of misconduct over the previous 3 years
 - 60% fabrication or falsification
 - 36% plagiarism
 - 37% of incidents were not reported
 - Rank of those suspected
 - Professor or senior scientist: 22%
 - Associate professor 14%
 - Assistant professor 17%
 - Graduate student 14%



Conclusion

- Not all unethical or inappropriate behavior in the conduct of research constitutes “research misconduct” under federal or institutional policies
- A variety of institutional policies beyond research misconduct policy may be relevant to addressing problems



Resources

- University of Utah Policy
 - <<http://www.admin.utah.edu/ppmanual/6/6-1-1.html>>
- Federal PHS Policy
 - <http://ori.dhhs.gov/documents/FR_Doc_05-9643.shtml>
- Federal Office of Research Integrity (ORI)
 - <<http://ori.dhhs.gov/>>