

RESEARCH MISCONDUCT



AGENDA

- **Defining Terms**
- **Why Discuss Research Misconduct?**
- **Research in Action**
- **Research on Research Misconduct**
- **Video Case Scenarios**
- **Who to Contact**



DEFINING TERMS

Research Misconduct - Fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.



DEFINING TERMS

- **Fabrication** - Making up data or results and recording or reporting them.
- **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.
Changing data
- **Plagiarism** - Appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- *Research misconduct does not include honest error or differences of opinion.*

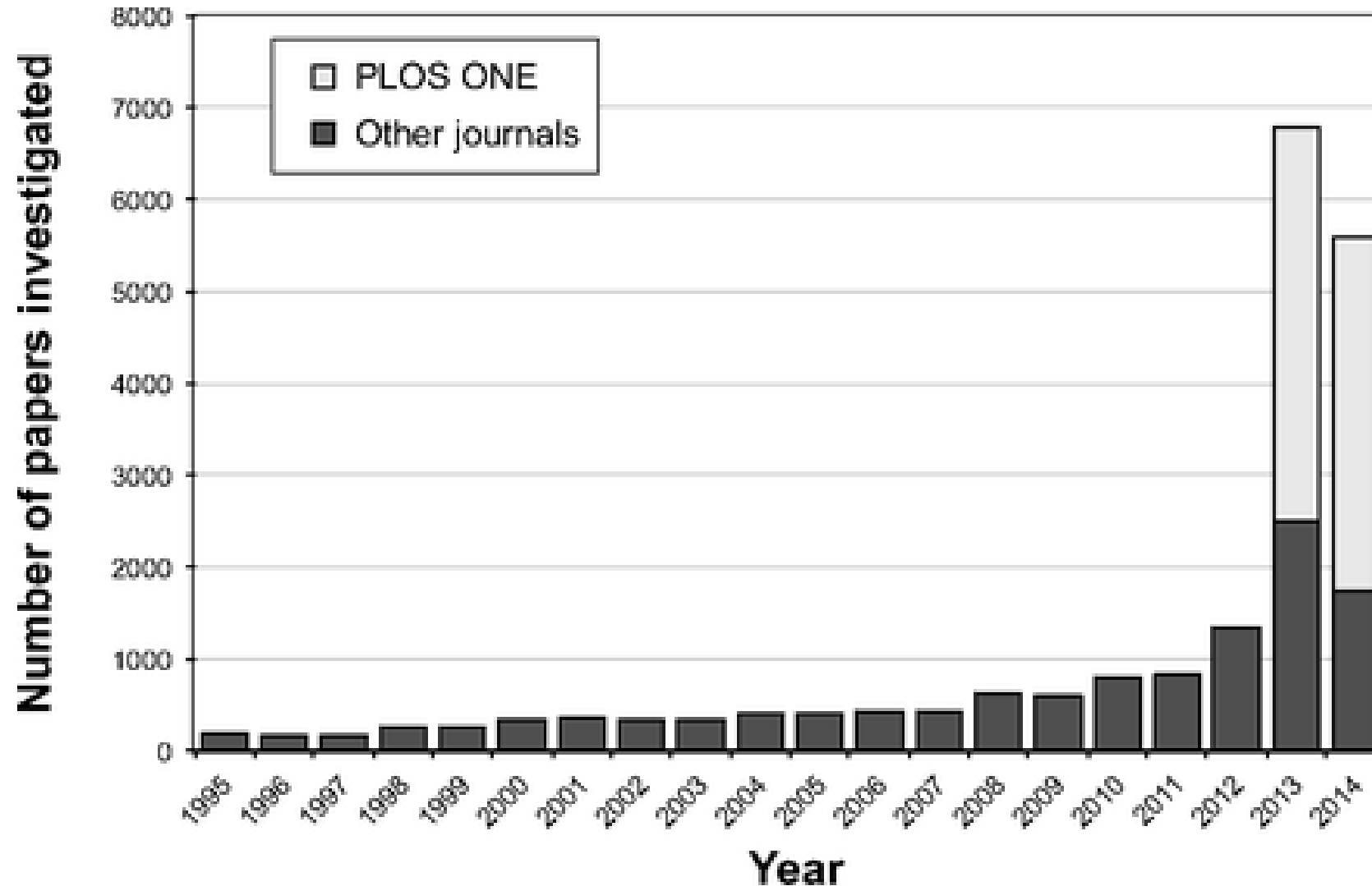


FALSIFICATION EXAMPLES

- Removing an outlier from a series of measurements
- Changing a measurement to make it look higher or lower
- Adding error bars to single measurements to suggest multiple measurements were performed
- Modifying the brightness and/or contrast of an image and presenting as a second image
- Duplicating some cells on a photo to make it look like a treatment caused a significant change (e.g., higher cell density)



WHY DISCUSS RESEARCH MISCONDUCT?



And, because it
impacts you!



RESEARCH IN ACTION — PSYCHIATRY

DECEMBER 30, 2019 — MEDSCAPE MEDICAL NEWS

- A former New York University School of Medicine, Langone Medical Center psychiatry researcher, faked clinical data according to the US Office of Research Integrity (ORI).
- In studies of anorexia, depression, and posttraumatic stress disorder (PTSD), "misrepresented the characteristics of the subjects entered in the research" using tactics such as "combining data from multiple subjects to represent single subjects to justify financial payments" and "changing and/or instructing his staff to change, omit, or ignore clinical and psychiatric assessment data
- Neumeister, who agreed to a 2-year ban on federal funding and to correct or retract four papers — two of which appeared in JAMA Psychiatry —



RESEARCH IN ACTION – SOCIAL PSYCHOLOGY

- Ever wonder whether there's any truth in the saying "no pain, no gain" or whether failure can be better for you than success?
 - Diederik Stapel - Dean of Social & Behavioral Sciences at Tilburg University, 150+ publications
 - Failure sometimes feels better than success
 - Beauty ads make women feel ugly
 - Power increases infidelity among men and women
 - Meat eaters are more selfish and less social than vegetarians



RESEARCH IN ACTION — SOCIAL PSYCHOLOGY

- The Problem - Diederik Stapel fabricated his data
- Repercussions
 - Retracted at least 55 articles
 - Work of co-authors discredited
 - Forced to resign, PhD taken away
 - Criminal Proceedings, settled for community service
- The value and quality of our research is based on previous research (Review of the literature)



RESEARCH ON RESEARCH MISCONDUCT

Accountability in Research, 21:9–25, 2014
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DOI: 10.1080/08989621.2013.822264



Evaluating U.S. Medical Schools' Efforts to Educate Faculty Researchers on Research Integrity and Research Misconduct Policies and Procedures

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EVALUATING U.S. MEDICAL SCHOOLS

- Examines how well U.S. medical school institutions are doing to promote research integrity
- Focuses on 115 medical schools and 16,336 PIs' knowledge of what constitutes research misconduct
- Participants reviewed scenarios that depicted situations likely to be of misconduct or unlikely to be research misconduct
- Selected 1 of 3 options:
 - Likely Research Misconduct
 - Not Likely Research Misconduct
 - Don't Know If Research Misconduct



SCENARIO 1

You are responsible for tracking the radioactive materials received in the labs. It is normal procedure for your colleagues to circulate all manuscripts to lab staff for review and comments. In your review of a colleague's manuscript, you notice that there are more subjects involved in experiments using radioactive iodine than were discussed in the lab meeting. You also know that no radioactive stocks have come into the laboratory during the proceeding weeks. You calculate the quantity of radioactive iodine that would have had to be used with the subjects in the experiments and conclude that this was not possible.

- Likely Research Misconduct
- Not Likely Research Misconduct
- Don't Know If Research Misconduct



RESULTS — SCENARIO 1

▪ Likely Research Misconduct	6, 657	50.7%
▪ Not Likely Research Misconduct	879	6.7%
▪ Don't Know If Research Misconduct	5, 590	42.6%



SCENARIO 2

You head a central data storage and analysis center serving a number of departments. You notice that the statistical tables for two different experiments included in a colleague's manuscript look identical. You point that out to him. He says it was the result of a file error and that he will fix it. Several months later you happen to see the actual publication and the tables for the two experiments have been substantially changed. Curious, you look to see what data files for this work your colleague has sent recently to the data storage facility. There are none that look like those in the publication, and the files you previously found problematic have been deleted.

- Likely Research Misconduct
- Not Likely Research Misconduct
- Don't Know If Research Misconduct



RESULTS — SCENARIO 2

▪ Likely Research Misconduct	7855	61.1%
▪ Not Likely Research Misconduct	457	3.6%
▪ Don't Know If Research Misconduct	4566	35.5%



SCENARIO 3

You are working on a series of related neurophysiology studies in a research group led by a more senior investigator. At a series of group meetings, the group leader assigned leadership and authorship for each of the studies and the expected resulting manuscripts. The group leader then confirmed the assignments with an e-mail to the group. You were assigned one set of experiments and first authorship on the two manuscripts expected to result from them. You conduct the experiments, draft both manuscripts, and send them to the group leader for review. In return, the group leader tells you that he has decided to be first author on both manuscripts despite being only minimally involved in conducting the experiments and writing the manuscripts

- Likely Research Misconduct
- Not Likely Research Misconduct
- Don't Know If Research Misconduct



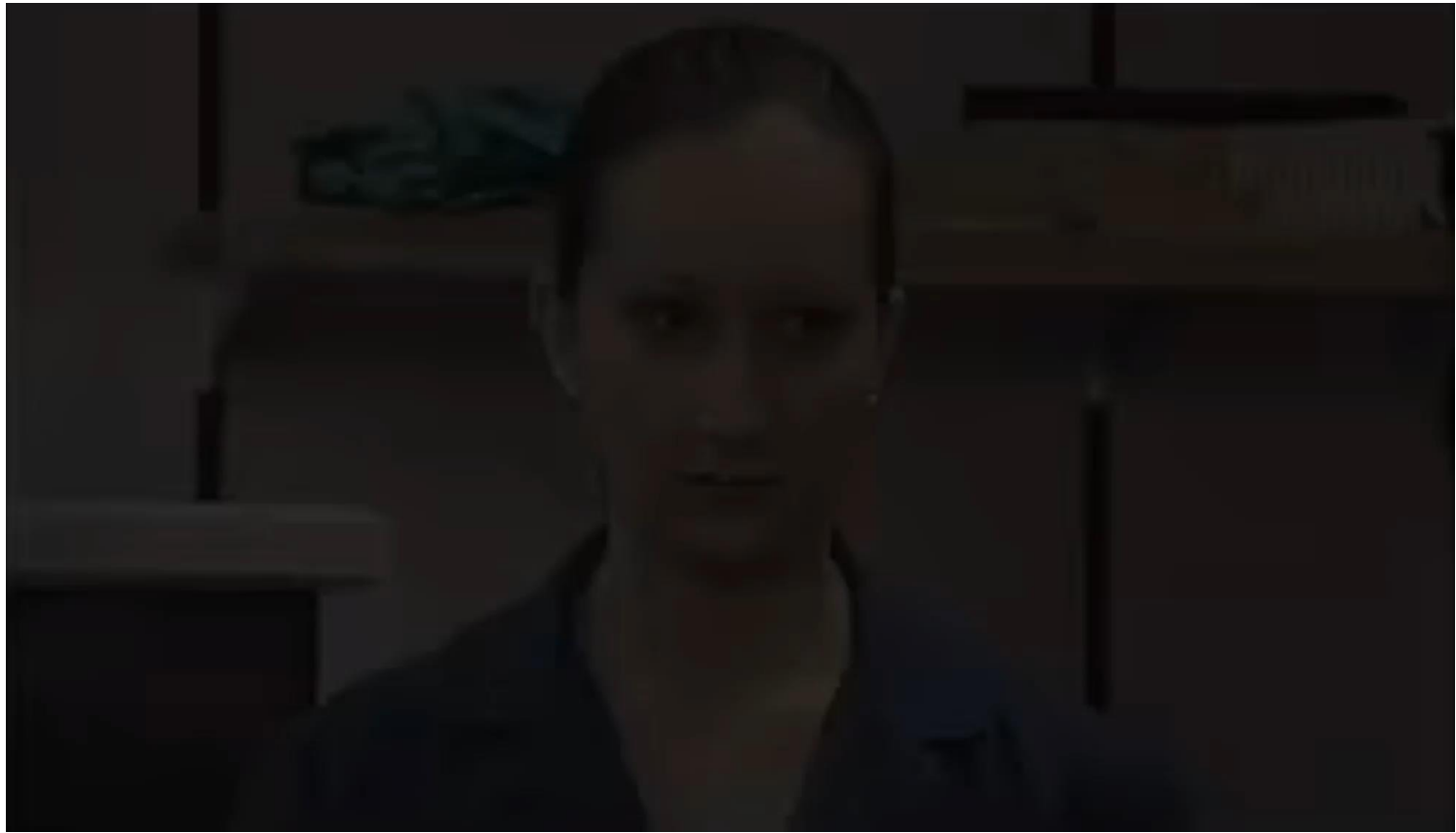
RESULTS — SCENARIO 3

▪ Likely Research Misconduct	5, 592	43.0%
▪ Not Likely Research Misconduct	4, 673	35.9%
▪ Don't Know If Research Misconduct	2, 738	21.1%



VIDEO CASE SCENARIOS





DISCUSSION QUESTION

- As faculty, what can we do to mitigate this type of dilemma?
 - Focus on the accuracy of the data
 - Discussions with research assistants
 - Data verification (neutral verifiers)
 - Apply appropriate pressure
 - Consider and anticipate delays





Research Integrity: Case Study
You Suspect Research Misconduct.
Now What?



ori.hhs.gov | [@hhs_ori](https://twitter.com/hhs_ori) | askORI@hhs.gov



DISCUSSION QUESTIONS (1 OF 4)

- What should the Graduate Assistant do next?



DISCUSSION QUESTIONS (2 OF 4)

- **What are the possible outcomes?**



DISCUSSION QUESTIONS (3 OF 4)

- Are the possible benefits of remaining silent greater than the potential fallout if someone else figures out that misconduct occurred?
 - Let's apply game theory to this dilemma - *Version of Pascal's Wager, or Prisoners Dilemma (emotional factors not considered)*

	Nobody finds out	Somebody finds out
Remain Silent	Minor Gain (+2)	Big Loss (-5)
Speak Up	Minor loss (-2)	Big Gain (+5)

- Break even on Being silent vs. Speaking up. $P(\text{Nobody finds out}) = .72$



DISCUSSION QUESTIONS (4 OF 4)

- If you were in this situation, who would you talk to for advice or to report your suspicions?





Home / Division of Research / Research Misconduct

- ABOUT DIVISION OF RESEARCH
- OFFICE OF VICE PRESIDENT FOR RESEARCH →
- MISSION
- STAFF DIRECTORY →
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- FAU CORE FACILITIES
- FAU CENTERS
- FAU PILLARS →
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Division of Research

Research Misconduct

Florida Atlantic University requires ethical conduct in all teaching and research. Collegiality, respect, and trust among faculty members, students, and staff are essential to FAU's success. All allegations of research misconduct must be resolved promptly and equitably using procedures that safeguard the rights of all faculty, staff and students concerned. The Research Misconduct policy is adopted by FAU in compliance and consistent with laws, rules and regulations of the United States, the State of Florida, the Florida Board of Governors, the Florida Atlantic University Board of Trustees, and, for those employees included in the bargaining unit, the FAU Board of Trustees/United Faculty of Florida Collective Bargaining Agreement. It will be updated administratively in accordance with changes in those laws, rules, and regulations.

The Research Misconduct policy applies to allegations of research misconduct (fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results) involving: A person who, at the time of the alleged research misconduct, was employed by, was an agent of, or was affiliated by contract or agreement with Florida Atlantic University, including any courtesy (unpaid) appointments, also known as Affiliate or Voluntary appointments and graduate or undergraduate students conducting research at FAU; and any of (1) research, research training or activities related to that research or research training, such as the operation of tissue and data banks and the dissemination of research information, (2) applications or proposals for behavioral research, research training or activities related to that research or research training, or (3) plagiarism of research records produced in the course of research, research training or activities related to that research or research training.

The Research Misconduct policy and the associated procedures do not apply to authorship or collaboration disputes and apply only to allegations of research misconduct that occurred within 6 years of the date FAU received the allegation. Authorship or collaboration disputes involving students should be directed to the dean of undergraduate or graduate studies, as applicable.

For more information please see the [Research Misconduct Policy](#).

Or contact [C. Elisa Gaucher](#), Assistant Vice President for Research Integrity at 561.297.2318 or [Vice President for Research Office](#).

SUMMARY

- **Research Misconduct** - Fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.
- Research Misconduct is a growing concern
- Research Misconduct impacts everyone
- Contact FAU Division of Research



REFERENCES

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- Titus, S. L. (2014). Evaluating US medical schools' efforts to educate faculty researchers on research integrity and research misconduct policies and procedures. *Accountability in research*, 21(1), 9-25.
- Video: Situation 1 – University of Nebraska – Lincoln, Office of Research Responsibility Retrieved from: https://www.youtube.com/watch?v=j_6U-2LG5Q8

