How to Prevent Research Misconduct in Your Research Project

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What is Research Misconduct?

Means the *Fabrication*, *Falsification*, or *Plagiarism* in proposing, performing or reviewing Research; submitting proposals for Research; or in reporting Research results.

It *does not include* honest error or honest differences in interpretations or judgments of data.

(42 CFR part 93, 2 CFR part 910, 45 CFR part 689)

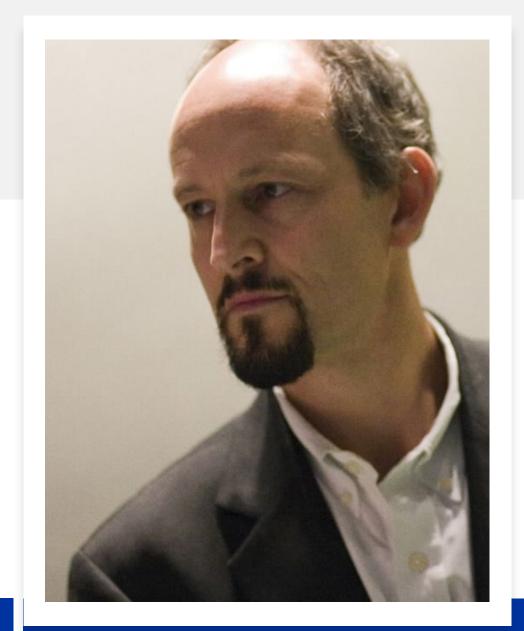


What is Research Misconduct?

Falsification- Means manipulating Research materials, equipment, or processes, or changing or omitting data or results such that the Research is not accurately represented in the Research Records.







What is research misconduct?

Illustrative case: Marc Hauser

- As the only person in the world working with tamarins, his research made replication impossible
- Comparing monkeys to human infants
- When others in lab analyzed the data, they found opposite results
- Dr. Hauser has voluntarily agreed for a period of three (3) years, beginning on August 9, 2012

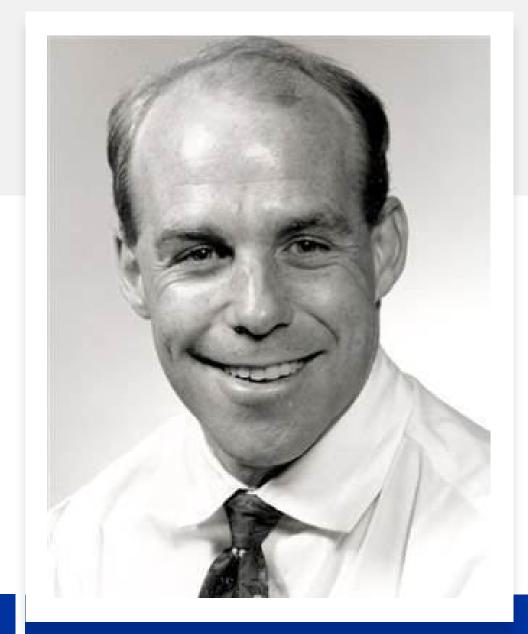


What is Research Misconduct?

Fabrication- Means making up of Research data or results and recording or reporting them.







What is research misconduct?

- Illustrative case: Eric Poehlman
- Pleaded guilty of lying on grant applications
- Fabricated a decade's worth of data about obesity, menopause, and aging
- Served time in prison for this crime



What is Research Misconduct?

Plagiarism- Means the appropriation of another person's ideas, processes, results or words without giving appropriate credit. Plagiarism does not include authorship or credit disputes





What is research misconduct?

Illustrative case: Yibin Lin, Ph.D

- Falsified, fabricated, and plagiarized the whole content of six (6) papers and eight (8) manuscripts,
- Falsely created fictitious author names and affiliations without listing himself as an author to disguise himself from being the offender, and submitted them for publication in bioRxiv and medRxiv, open access preprint repositories, by falsely assembling random paragraphs of text, tables, and figures from previous publications and manuscripts to improve his citation metrics.





Is this Research Misconduct?



A student is working on his images for his study. His images are a little blurry, and he has access to an image altering software. He softens the angles and lightens the image to look crisper. Then he takes the image and makes it smaller, but by doing that alters the image by 10%. Is this research misconduct?

- **Option 1-** Yes, this is an example of fabrication of data
- **Option 2-** No, this is not research misconduct, because the image is the same, just improved
- Option 3- Not sure



Outcomes of Research Misconduct Investigations

- In all these cases, there was a determination that the plagiarism was done knowingly, recklessly, or intentionally. Also, the committee/ORI ruled out that the plagiarism was an honest error
- We do not know more about the reasons behind these cases, but even if someone claims they did not know a practice was not common, that will not exempt them from being found in research misconduct
- Common Consequences:
 - ✓ Certifications
 - ✓ Assurances
 - \checkmark Prohibited from serving
 - ✓ Debarment



Red Flags for You!

TIME

- Usable data is only created with a deadline
- Research procedures are completed faster than usual

RESULTS

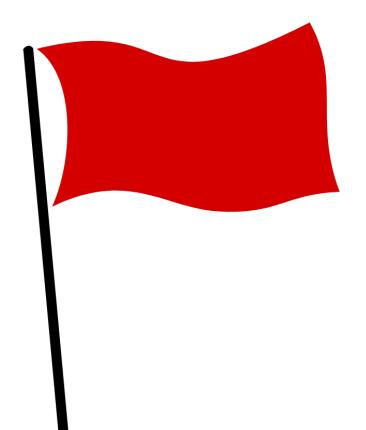
- If data is too good to be true
- Data cannot be replicated

LACK OF TRANSPARENCY

- Raw data does not exist or cannot be accessed
- Materials and protocols are hidden
- Research is completed with no one around

From: <u>https://www.research.psu.edu/researchmisconduct/teachinglearningtools</u>







Tips to Prevent Research Misconduct Allegations

Presenting a graphic? Ensure that you are following the publisher's requirements

If you do any enhancements, ensure they are not such that would change the meaning of the graphic or results. Always document any change in the image text and present it to the publisher

If you are adding one or more images in a graphic for publications, ensure you divide those graphics by a line and explain in the text

Be transparent with your images to prevent accusations!

ORIs Tips to Avoid Plagiarism

- ✓ Whether paraphrasing or summarizing always identify the source of our information.
- ✓ When paraphrasing and/or summarizing others' work it should be ensured that the exact meaning of the other author's ideas or facts is reproduced and that own words and sentence structure is used.
- ✓ Authors who submit a manuscript for publication containing previously disseminated data, reviews, conclusions, etc., must clearly indicate to the editors and readers the nature of the previous dissemination. The provenance of data must never be in doubt.

✓ When in doubt, provide a citation





ORIs Tips to Avoid Plagiarism

✓ Always acknowledge the contributions of others to his/her work.

- ✓ Verbatim text taken from another source must be enclosed in quotation marks and be accompanied by a citation to indicate its origin.
- ✓ When summarizing others' work, use your own words to condense and convey others' contributions in a shorter version of the original.
- ✓ When paraphrasing others' work, use your own words, and your own syntactical structure







Culture of Integrity

IIIII

Create	Ве	Review	Communicate	Provide	Know
Create an ethical lab/clinic culture and promote communication •Ethics is important to you	Be available and approachable (as a Pl or mentor) •Your staff should learn from you •Support and coach inexperienced grant writers	Review raw data •You are responsible for the integrity of the data •Plagiarism detection software	Communicate expectations •Emphasize consequences of plagiarism •Prevent misunderstandings	Provide training and guidance •Training is required, per the federal regulations and NIH/NSF expectations	Know your Research Misconduct Policy & Research Integrity Officers! •RM 7.8 •Research Integrity Officer (RIO) /Deputy Research Integrity Officer (RIO)



Questions?

