

“Research Ethics”

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Ethical behavior in the work place:

- When using communal facilities (labs, libraries, etc.), leave the area in better, cleaner condition than when you found it
- Do not use campus internet to make searches that colleagues may find objectionable or that violate internet access policy.
- Do not let scientific debate become a heated argument
 - Respect others' opinions

**Treat employees as professionals and equals – neither masters, nor slaves*

Harassment:

- Unwelcome conduct that is based on race, gender, religion, age, sexuality, disability, etc.
- Conduct becomes unlawful when it is severe, pervasive, and continued; however, it is unacceptable long before it is illegal
- ALWAYS REPORT HARASSMENT
 - Not reporting is implicit support of unethical behavior
 - Reporting hierarchy:
 - 1. Person at fault
 - 2. Supervisor
 - 3. Postdoc association representative
 - 4. Department HR representative (Jan Dunlap)
 - 4. Department director (Rick Carlson)
 - 5. Institution HR representative (Loronda Lee)
 - 6. Institution president (Matt Scott)

Scientific misconduct:

- Fabricating data
 - Falsification of data: manipulation of research, equipment, process of omitting/changing data/results
- ***KEEP DETAILED NOTES: if suspected of falsification, you will have a record of your work and process to defend you
- Plagiarism: appropriation of another's ideas, processes, results, or words/figures without proper credit

A finding of scientific misconduct requires that there is a significant departure from accepted practices of the relevant research community

Unethical behavior in scientific publications and reviews:

1. Plagiarism
2. Shingling papers
3. Authorship
4. Proper attribution
5. Reviewing and conflict of interests

1. Plagiarism

- What does it constitute?
 - Including sentences/paragraphs copied from someone else's work
 - Using reviewer comments verbatim in paper
 - Self-plagiarism is a gray area, but consider copyright infringement:
 - Once you publish, the copyright goes to the journal, so you must cite your own previously published materials
 - You must also consider co-authors

***RESOURCE: Avoiding Plagiarism, Self-Plagiarism, and Other Questionable Writing Practices: A Guide to Ethical Writing – Miguel Roig*

2. Authorship

- 1st author did most of the work
 - Can be debated that the first author is always the one who wrote it:
 - They have the most knowledge of the analysis and interpretation due to formulating the paper
- There are many gray areas to authorship that must take various aspects into account:
 - Analysis, writing, funding, providing samples, providing labs, installing equipment, etc.
- A good guide to deciding authorship: If you cannot provide a good explanation for the role someone played in producing the paper, then they should not be included as an author

***Every co-author should be given the opportunity to read and comment on the paper before submittal!*

***If worried: the safe bet is to ask and constructively discuss authorship with all contributors*

- This can be more important in a junior position, as you may find collaborators for future projects and you avoid omitting a key author.

3. Proper attribution

- In a talk: all figures borrowed from other papers (or a previous one of your own) must be cited properly on the slide
 - Be careful of copyrighted images
- In a paper:
 - When repeating ideas, conclusions, discussing data presented previously, always cite paper that originally presented it

- When citations are limited, use the most relevant papers and the discovery paper
- When citing from a database, cite the original data source NOT the database if possible
- Cite the funding source (required for NSF)
- Do not cite all your papers in each new paper
 - Choose most appropriate OR use supplemental citations
- When reviewing a paper, comment on inadequate citations, but do not ask them to cite all of their previous work

4. Reviewing and conflict of interest:

****When in doubt ASK THE EDITOR*

- CONFLICT OF INTEREST: a situation in which financial or personal consideration or gain have the potential to compromise or bias professional judgment
- APPARENT CONFLICT OF INTEREST: a situation in which a reasonable person would think that the professional judgment is likely to be compromised.
- OTHER CONFLICT OF INTEREST: strong personal beliefs in emotionally charged areas such as stem cell research, abortion, etc.
- CONFLICT OF INTEREST IN REVIEWING PAPERS: if the study is too close to your work or future work or contain similar experiments, DECLINE THE REVIEW --- inform editor immediately
- Should you sign your review?
 - In an open review: reviewer and author known
 - Single-blind – authors known, reviewers anonymous
 - Double-blind – author and reviewer anonymous
 - REASONS TO SIGN: get credit, to be open about opinions, author may appreciate viewpoint, which may pave the way to future collaborations
 - REASONS NOT TO SIGN: you may expose yourself to retribution or compromise your ability to make critical comments

****Recognize the implications of your review both positive and negative*

(Notes by Casey Leffue)