



Responsible Conduct of Research and data sharing

Dinga Jerome Nyhalah, PhD



Definition

Scientific misconduct or misconduct in research –

Research misconduct is defined as *fabrication, falsification, or plagiarism* in proposing, performing, or reviewing research, or in reporting research results.

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

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.

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

Research misconduct does not include honest error or honest difference of opinion.


Falsification



Examples

- In October 2011, the ORI found that a postdoctoral fellow at the University of Michigan Medical School intentionally falsified data related to 5 Western blot experiments and switched the labels on 4 cell culture dishes.
- He is debarred from contracting with, or serving in an advisory capacity for any Public Health Service agency.

Plagiarism

- 
-
- Appropriating an idea (e.g., an explanation, a theory, a conclusion, a hypothesis, a metaphor) in whole or in part, or with superficial modifications without giving credit to its originator
 - Any verbatim text taken from another author must be enclosed in quotation marks




Self-plagiarism

- The publication of what is essentially the same paper in more than one journal, but without any indication that the paper has been published elsewhere
- The partitioning of a large study which should have been reported in a single paper into smaller published studies
- Copyright infringement



■ Plagiarism

- OSU licenses the software program iThenticate for use by any OSU faculty, staff, or student.
- iThenticate is an anti-plagiarism software that screens your document against a database of over 40 million published articles, webpages and other scholarly content.
- iThenticate does not identify 'Plagiarism' but instead highlights text in your document that matches other published material to allow you to determine if text is appropriately cited.



■ Access Models

- Subscription Journals: Content is behind a paywall
- Open Access (OA) Journals: Content is freely available
- Hybrid Journals: Content is behind a paywall unless you pay an Open Access fee
 - TIP: Don't pay for hybrid OA



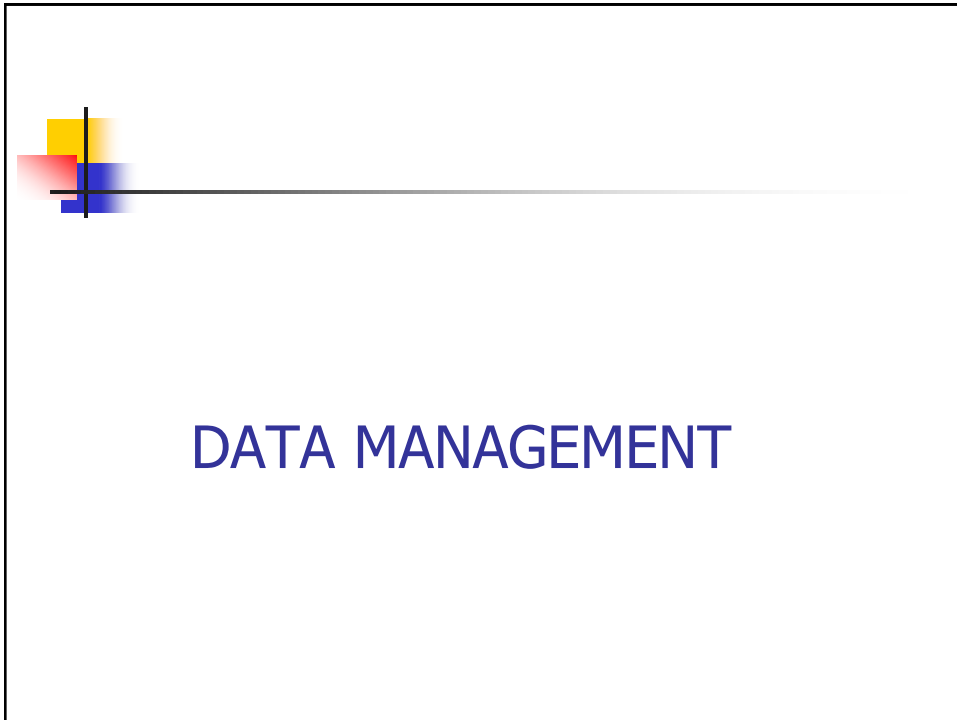
■ Advance-Fee Scams


- Little or no published scholarship
- Lack of a named editor or editorial board
- Promises full peer review with very fast turnaround
- Journal website doesn't make sense
- Search Google, ask around



■ Ask For Advice

- Faculty in your department
- Colleagues at other institutions
- Librarians
- The editor of the journal (“Would you be interested in an article on...”)






■ Data Sharing

- Generally speaking, most funders expects researchers to share data generated using public funds with the public.
- Most of the major sponsors now require that you include a data sharing/management plan in your proposal.
- Data sharing is not an absolute requirement but if you aren't going to share your data you will need to state why you aren't going to share the data.




■ Data Ownership

- Who owns the data generated at the university?
- Who gets to say how it is used?
- Can you take your data with you if you leave?
- What happens if there are disagreements about the use, publication or access to the data?



■ Authorship & Acknowledgement

- Under the University Policy, the Principal Investigator has the right and responsibility for:
 - the assignment of authorship and acknowledgement credit;
 - choosing the time and venue of publication of research data and results;
 - ensuring that all research is accurately reported; and
 - ensuring that all persons listed as authors or in acknowledgements meet the accepted criteria in their field for authorship or acknowledgement.



■ Conflicts of Interest

- What is a conflict of interest?
- What kinds of conflicts exist?
- Conflicts can be real or perceived and both are important.
- A conflict of interest does not by itself mean that there is an unethical situation, it just indicates that there is the potential for a problem that needs to be managed and/or disclosed.



■ Conflicts of Interest

- “***Financial COI***” - A financial conflict of interest exists if financial interests or other opportunities for tangible personal benefit *may* exert a substantial and improper influence on a person’s professional judgment in exercising any
 - duty or responsibility, including designing, conducting, or reporting research.
 - Examples of common financial interests include: any income,, consulting, equity interests, stock ownership, stock options, honoraria, intellectual property/patents/royalties, paid authorship, or paid expert testimony



■ Conflicts of Interest

- Other types of conflicts of interest to be aware of that can impact the peer review/publishing process include:
 - Personal relationships (both good and bad)
 - Professional relationships and academic hierarchies
 - Academic rivalries, Corporate rivalries
 - Philosophical or intellectual differences
- The best course of action is to always be as transparent as possible and disclose to the journal or other interested parties any activity that could be viewed as a potential conflict of interest.



Collaborative Research

- **Roles & Relationships**
 - Define each collaborator's role in the project
 - Ensure common understanding of the research goals
 - Be familiar with each institution's intellectual property and ownership policies
- **Financial Management**
 - Ensure that all collaborators are in compliance with funding agency's financial management rules
- **Training & Supervision**
 - Management plan should address training & supervision of all research team members
 - Be familiar with institutional requirements



Collaborative Research cont'd

- **Formal Agreements**
 - Memorandums of Understanding
 - Material Transfer Agreement
 - Data Transfer Agreement
- **Compliance**
 - Management plan should address how compliance with regulatory and institutional requirements will be ensured



QUESTIONS?

Dinga Jerome Nyhalah, PhD
Biotechnology Unit
Faculty of Science
dinga.jerome@ubuea.cm