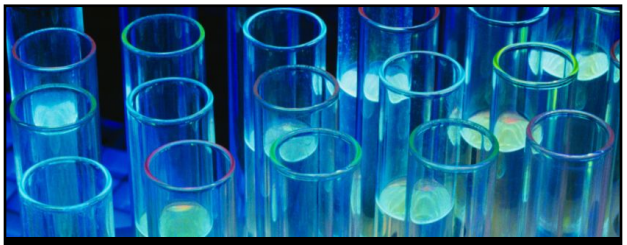

Researchers Behaving Badly

Preventing, Recognizing and Responding to Research Misconduct

So, what is Research Misconduct, exactly, and why should I care?

FFP: Fabrication, Falsification, and Plagiarism

- Fabrication: Making up data or results and recording or reporting those data or results.
- 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.
- Plagiarism: The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
  - In proposing, performing, reviewing, or reporting results of research or scholarship

What about honest errors or scientific disagreements?

Conduct must constitute "significant departure from accepted practices of the relevant research community"

Misconduct must be committed:

- Intentionally
- Knowingly, or
- Recklessly

Negligence, Honest Error, and Scientific Disagreements ≠ Research Misconduct

Must be established by Preponderance of the Evidence

Research Misconduct Enforcement

- NIH, Office of Research Integrity
- NSF, Office of Inspector General
- UNC Charlotte Research Misconduct Policy and Supplemental Procedures
  - Range of Sanctions:
    - Withdrawal or correction of relevant publications
    - Removal from applicable project/s
    - Letter of reprimand
    - Monitoring
    - Restitution of funds
    - Probation, Suspension, Salary Reduction, Dismissal, Student Disciplinary Proceedings, as applicable
    - Debarment: Individual, Program, Institution

Scenario #1: Whose byline is it anyway???

- You have collaborated for years with a colleague in your department on cell research, resulting in several peer-reviewed publications. After months of collaborative work on an upcoming publication regarding the same research, you hit a stumbling block and no longer agree on the direction of the research. The disagreement becomes so stark that you decide you can no longer collaborate. Your colleague moves on to another institution and, you later learn, continues the research you had begun before her departure and submits it for publication as the sole author.

Authorship Disputes

- Not within scope of Research Misconduct Policy at UNC Charlotte, unless exclusion conflicts with regulations enforced by a relevant sponsor (such as NSF)
- Denial of earned authorship is nevertheless an ethical breach, which may be addressed outside the RM procedures as a personnel matter
- Practice Tip: Discuss and agree on a documented plan about authorship and order of authorship early, so that collaboration is undertaken with a common understanding.

Processing Research Misconduct Cases at UNC Charlotte

Scenario #2

- Professor Murky asks her postdoc to run some experiments related to research first published when Professor Murky worked at another university. Although the postdoc runs the same experiments described in the former publications, she is unable to replicate the results. She shares her results with Professor Murky who becomes agitated and accuses the postdoc of incompetence. Professor Murky, with publication deadlines looming, takes over the postdoc's assignment and ultimately reports results that are consistent with the prior publications. The postdoc discusses her concerns with several colleagues in the department, accusing Professor Murky of data falsification. Rumors begin to swirl, and, as a result, Professor Murky is not considered for a number of collaborations with colleagues in the department.

Introducing the Research Integrity Officer!

The **UNC Charlotte Research Integrity Officer** is responsible for investigating allegations of research misconduct including plagiarism, falsification, and fabrication of research materials.

Dr. Thomas Reynolds, Associate Provost and Dean
The Graduate School
704 687-7248
tlreynol@uncc.edu

Role of the RIO

- Helpful resource for students and employees who have concerns about potential research misconduct
- Implements the UNCC Research Misconduct Policy and Supplemental Procedures, by evaluating complaints (to determine if they state a claim of research misconduct), establishing inquiry and investigation panels, and facilitating completion of applicable Inquiry and Investigation Reports.
- Oversees sequestration of relevant information if Inquiry is initiated
- Counsels all parties and administrators involved regarding their rights and obligations under applicable Research Misconduct policies and procedures—including confidentiality obligation

Rights and Obligations of Complainants in Research Misconduct Cases

- Complainant Obligations:
  - To make allegations in good faith, following reasonable inquiry into concerns
  - To maintain confidentiality of allegations of misconduct
  - To cooperate with inquiry or investigation without overtaking it or otherwise engaging in independent investigation
- Complainant Rights:
  - To testify before inquiry or investigation panels, as applicable
  - To review relevant portions of any resulting reports
  - To be notified of the results of the inquiry or investigation, as applicable
  - To be protected from retaliation for reports made in good faith

Rights and Obligations of Respondents in Research Misconduct Cases

- Respondent Rights:
  - To be notified of allegations of Research Misconduct that are submitted to Inquiry
  - To be offered opportunity to participate in the process and provide relevant information
  - To review draft inquiry and investigation reports
  - To be advised by personal counsel
  - To fair, objective, and impartial assessment of allegations
  - To restoration of reputation in the event allegations are not substantiated
- Respondent Obligations:
  - To maintain confidentiality
  - To cooperate in the inquiry and investigation, including by assisting in the sequestration of relevant information and ensuring such information is not destroyed, inadvertently or otherwise
  - To refrain from retaliation against complainant or others cooperating in the inquiry or investigation

Inquiry and Investigation Committees

- Initial Assessment by RIO: Whether the allegations state a claim of research misconduct.
- Inquiry Committee: Whether there is sufficient evidence to proceed with more in-depth investigation.
- Investigation Committee: Whether, applying a preponderance of the evidence, there is sufficient evidence to support finding of research misconduct.
- Inquiry and Investigation are Confidential, to the extent possible—information only disclosed to those with a need to know in order to complete the inquiry or investigation.

Practice Pointers for Preventing Research Misconduct

Common Causes of Research Misconduct

- Competition
- Concentrated disciplines
- Decrease in tenured and tenure track faculty
- Ineffective time management skills
- Work overload
- Psychological factors (progression from fear to paralysis to desperate measures)

Practice Pointers: Proposing Research

- Discuss original ideas that one would expect to remain their own before, during, and after collaborative projects;
- Draft a plan that clearly indicates roles and responsibilities and describes applicable authorship and intellectual property policies;
- Document important decisions about the design of the project for easy reference in the event of disputes;
- Verify legitimacy of collaborators' contributions to the proposal—especially when working with new, external collaborators

Practice Pointers: Conducting Research

- Ensure collaborators have immediate access to primary and collateral research data for analysis and review
- Require research records to be sufficiently detailed to allow for easy authentication of recorded results
- Develop a user-friendly filing system for storing research records and implement appropriate back-up and retention protocols
- Ensure data is properly recorded and retained prior to collaborators' departures from UNC Charlotte or from the project
- Conduct regular and frequent meetings with collaborators to discuss the progress of the research, interpretation of the data, and concerns or issues that might arise.
- Meet with the students and technicians on a regular basis to provide review and feedback and address any concerns they have about their areas of responsibility

Practice Pointers: Reporting Research Results

- Review data for accuracy prior to sharing, reporting, or publishing
- Authorship should be limited to those who have made a significant contribution to the conceptualization, design, execution, and/or interpretation of the research study—use acknowledgements to recognize less substantive contributions
- Each co-author should be responsible for the full evaluation of the results reported that fall within her area of expertise—in general, and ideally, all authors should take responsibility for the entire publication.
- Submitting authors should ensure that each author has reviewed the manuscript in advance of submission and obtain each author's assurance about the accuracy of the results reported in her assigned areas.

Office of Research Compliance

The Office of Research Compliance promotes ethical research practices by providing education, training and resources to faculty, staff, researchers and students. For more information about training related to this topic, contact:

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