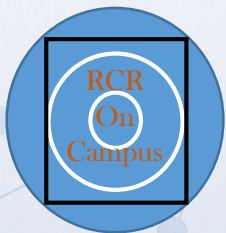


RCR Summer Seminar Series

Ethics of Authorship

Michelle Leonard





Agenda

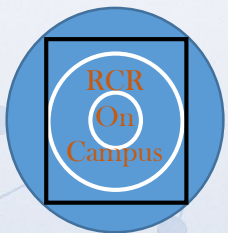
Welcome!

Review of the RCR Seminar Series

Authorship: 6 questions you need to ask (adapted from Kalichman, Macrina)

Case Study

Resources



Responsible Conduct of Research Series

Mentor/Mentee Relationships – Finding the Right Balance

Collaborative Research

Conflicts of Interest

Data Management-Overview

Research Misconduct: Regulation Overview & Introduction to Fabrication and Falsification

Research Misconduct: Plagiarism

Research Misconduct: ORI: The Lab

Ethics of Authorship

Rigors of Peer Review

Reproducibility & Replicability

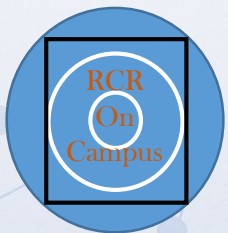
IRB & Informed Consent

Export Control Overview Including Dual Use Technology

Putting it All Together



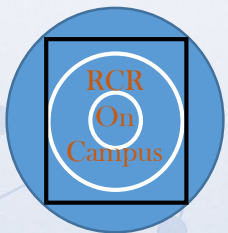
Ethics of Authorship: 6 questions you need to ask



Question 1:

Why is authorship important to academics?

- Intellectual merit: new knowledge is being gained
- Broader impact: affects society as a whole, field of study
- Write about what you do. You report on it.




Question 2: What are the criteria for authorship?

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; **AND**
- Drafting the work or revising it critically for important intellectual content; **AND**
- Final approval of the version to be published; **AND**
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

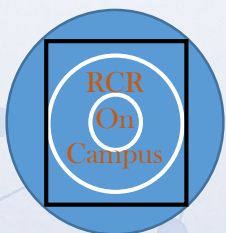
(International Committee of Medical Journal Editors)





Authorship criteria, con't

- Proceedings of the National Academy of Sciences (PNAS):
 - Designed research
 - Performed research
 - Contributed new reagents or analytical tools
 - Analyzed data; **or**
 - Wrote the paper



Question 3: Are there written guidelines or rules for authorship?

- Every lab or research group should have authorship guidelines
- Every journal has authorship guidelines
- Every conference call for participation has authorship guidelines
- Associations list authorship guidelines

ICMJE INTERNATIONAL COMMITTEE of MEDICAL JOURNAL EDITORS



- ACS
- Elsevier
- IEEE
- Nature
- Springer
- Wiley author services
- Wiley copyright
- Wiley publication ethics



Exceptions!

NATURE | NEWS

Physics paper sets record with more than 5,000 authors

Detector teams at the Large Hadron Collider collaborated for a more precise estimate of the size of the Higgs boson.

Daide Castelvechi

15 May 2015



CERN

Thousands of scientists and engineers have worked on the Large Hadron Collider at CERN.



Exceptions!

NATURE | RESEARCH HIGHLIGHTS: SOCIAL SELECTION

Fruit-fly paper has 1,000 authors

Genomics paper with an unusually high number of authors sets researchers buzzing on social media.

Chris Woolston

13 May 2015

1,014 authors, with more than 900 undergrads

<http://www.nature.com/news/fruit-fly-paper-has-1-000-authors-1.17555>



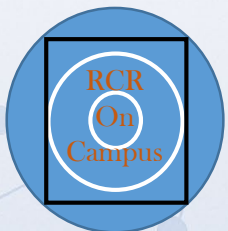
W. Leung et al. Genes Genome Genet. 5, 719–740 (2015)

These authors were among 1,000 who were involved in a fruit-fly genomics paper.



Question 4: If there is more than one author, what is the significance of the order of authorship?

- It varies..... discipline, research team, journal
- Examples: amount of contribution, order of last name, order of seniority
- Have this discussion PRIOR to writing the article



Authorship Classification

Senior

PI

Group leader

First

Contributed heavily

corresponding

Co-author

By order of work done

alphabetical



Inappropriate Authorship

Hyperauthorship

Too many authors

Large collaborations

Ghost

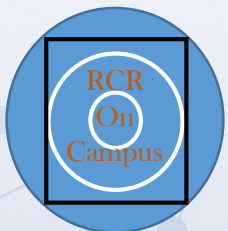
Met authorship criteria but denied

Omitted from paper

Guest/Gift

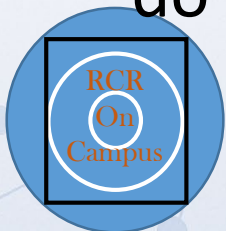
Expectation of inclusion

Raise visibility of the status of the paper



Unethical authorship: reasons

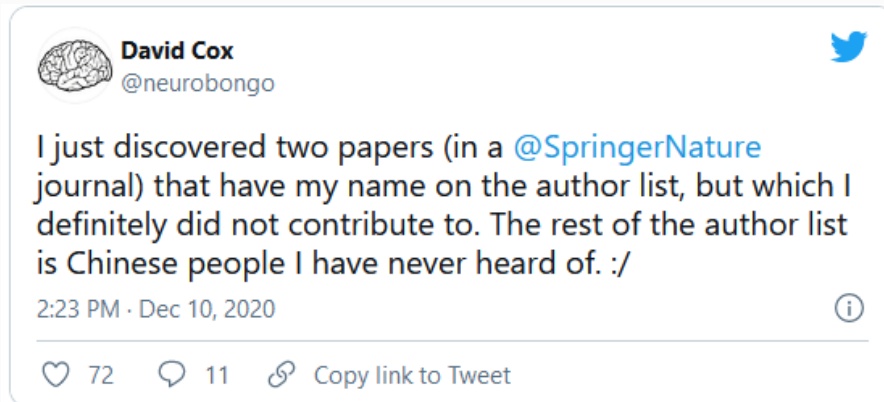
- ‘honorary authorship’, where senior researchers are named as authors because of their stature within the institution where the research took place, or because they [helped to obtain the funding](#). (Harvey)
- when researchers feel they ‘owe’ authorship to a current or previous colleague in return for their help or mentorship.
- a [2017 study of more than 12,000 researchers](#) based in the US and found that roughly one-in-three reported adding honorary authors to their publications. Women and junior faculty were the most likely to do so. (Fong)



Citation: <https://www.natureindex.com/news-blog/gift-ghost-authorship-what-researchers-need-to-know>

Unethical authorship

- <http://retractiondatabase.org/RetractionSearch.aspx?>



Former Texas postdoc earns 10-year federal funding ban for faking authors and papers to boost metrics



Question 5: How can credit be given to someone who has made an important contribution?

Acknowledgement

- advising about the statistical analysis
- collecting or entering the data
- modifying or structuring a computer program
- conducting routine observations or diagnoses for use in studies



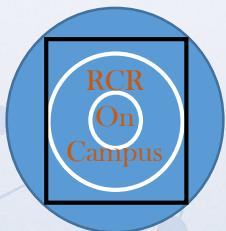
<https://www.flickr.com/photos/nihgov/30861587086>

Acknowledgements

Acknowledgements

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Serpell, Z.N., Wilkerson, T., Evans, S.W. *et al.* Developing a Framework for Curtailing Exclusionary Discipline for African-American Students with Disruptive Behavior Problems: A Mixed-Methods Approach. *School Mental Health* (2020). <https://doi.org/10.1007/s12310-020-09380-z>



Question 6: What can be done to minimize the risk of disputes about authorship?

There is no I in data: Former grad student has paper retracted after mentor objects

**OPEN
BIOLOGY**

royalsocietypublishing.org/journal/rsob

Hedgehog pathway permissive conditions allow generation of immortal cell lines from granule cells derived from cancerous and non-cancerous cerebellum

Unintended consequences: How authorship guidelines destroyed a relationship

It started as a simple email exchange over authorship. But it angered one researcher so much that it ended a 20-year collaboration.



[Retractionwatch.com](https://retractionwatch.com)



Authorship Determination Scorecard

Instructions. This checklist is designed to aid contributors in deciding if they deserve authorship on the research project and to aid authorship-worthy contributors in determining the order of authorship. This checklist should include all contributors of the research project. Contributors have to complete this checklist collaboratively as the project progresses and it should be completed in such a way that all authors' scores equal the total points assigned to each item. For example, for 'Conceptualizing a research idea,' the scores of all contributors should sum to a total of 90 points. Please note that earning any points on this checklist will warrant authorship. When two or more contributors receive an equal score, please use 'Authorship Tie-breaker Scorecard.' This scorecard should be used and revised periodically based on changes in the responsibilities of concerned contributors.

Activity Category	Total Points	Contributor Score				
		Initials				
Conceptualizing a research idea	90					
Refining/ crystalizing a research idea	60					
Literature search: Summarizing literary pieces (e.g., articles, book chapters, etc.)	20					
Creating a research design (e.g., counterbalancing, randomization to conditions, survey design etc.)	80					
Selecting an Instrument/ a measure: Instrument construction	30					
Selection of statistical tests/analyses	40					
Performing statistical analyses and computations (including computer work)	40					
Interpretation of statistical analyses	80					
Manuscript						
Writing an introduction section	90					
Writing a methods section	80					
Writing results section	80					
Writing discussion section	100					
Writing conclusive summary	60					
Writing limitations of the study	60					
Writing future directions of the study	60					
Managing Submission Process						
Responding to reviewers' feedback	10					
Making changes based on reviewer feedback	60					
	Total Score					

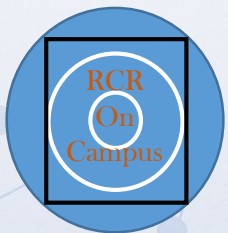
NOTE: This table is adapted from that found at <http://www.apa.org/science/leadership/students/authorship-determination.pdf> which was developed based on Winston, Jr., R. B. (1985). A suggested procedure for determining order of authorship in research publications. *Journal of Counseling and Development*, 63, 515-518. Activity categories and weights developed in 2014 by Bharati Belwalkar, Steven Toaddy, and the other students and faculty of the Industrial and Organizational Psychology PhD Program at Louisiana Tech University.

<https://www.apa.org/science/leadership/students/authorship-determination-scorecard.pdf>



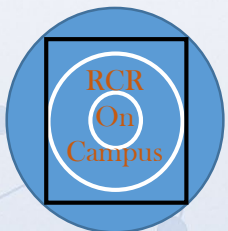
A light blue background with a network diagram of interconnected nodes and lines.

Common Authorship Mistakes



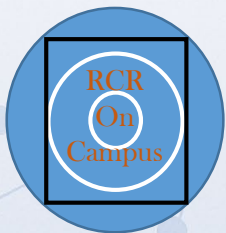
Common authorship mistakes

- References cited
- Accurate citations
- Justification for research
- Interpreting statistics
- Reporting graphical information
- Deciding on the appropriate statistical methodology
- COIs
- Self plagiarism
- Duplicate publication
- Dealing with outliers
- Dealing with missing values
- Level of contribution
- Completeness of literature review





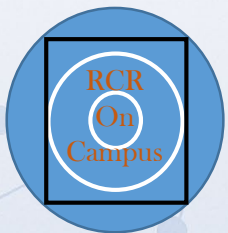
Case Study



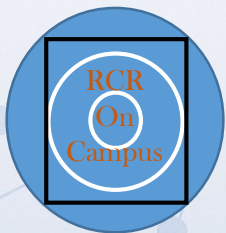
Who Gets Credit?

Robert has been working in a large engineering company for three years following his postdoctoral fellowship. Using computer simulations, he has developed a method to constrain the turbulent mixing that occurs near the walls of a tokamak fusion reactor. He has written a paper for *Physical Review* and has submitted it to the head of his research group for review. The head of the group says that the paper is fine but that, as the supervisor of the research, he needs to be included as an author of the paper. Yet Robert knows that his supervisor did not make any direct intellectual contribution to the paper.

1. How should Robert respond to his supervisor's demand to be an honorary author?
2. What ways might be possible to appeal the decision within the company?
3. What other resources exist that Robert can use in dealing with this issue?



Resources



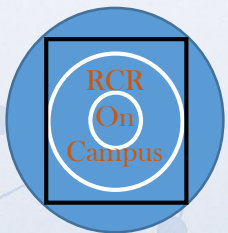
Best practices

- Create a clear policy before the start of a project
 - Establish roles and authorship at the beginning of a project/research
 - Create a [partnership agreement](#)
 - Develop authorship guidelines for your [lab/dept](#)
- Transparency
 - How was the research funded?
- Avoid overlapping publication
- Understand rules for reusing texts or images



An old saying....

*“If you are willing to take the credit,
you have to take the responsibility”*



If You Suspect Research Misconduct...

Research Misconduct is fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.

Questionable Research Practices are reports of careless, irregular, or contentious research practices, as well as authorship disputes. They may not meet the standard for research misconduct, but may be a research integrity violation.

Make a **confidential report** to the UF Research Integrity Officer (RIO)

Cassandra C. Farley

Associate Director, UF Research Integrity
(352) 273-3052 | cfarley@ufl.edu

You may also report anonymously
UF Compliance Hotline: 877-556-5356



Still not sure if it is Misconduct or a QRP? The RIO can help you better understand the situation. You can speak in hypotheticals as you consider making an official allegation.

