#### **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





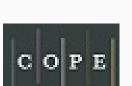


## Question 3: Are there written guidelines or rules for authorship?

- 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







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





### **Exceptions!**

NATURE | NEWS



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

#### Davide Castelvecchi

15 May 2015



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-flv-paper-has-1-000-authors-1.17555



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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

2|

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 <u>helped to obtain the funding</u>. (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)



#### Unethical authorship

http://retractiondatabase.org/RetractionSearch.aspx?



Former Texas postdoc earns 10year 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









## 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://www.apa.org/science/leadership/st udents/authorship-determinationscorecard.pdf



#### 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.

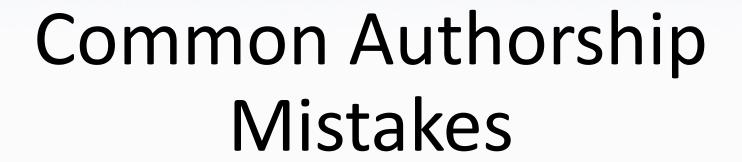
		Contributor Score	
	Total	Initials	$\Box$
Activity Category	Points		
Conceptualizing a research idea	90		
Refining/ crystalizing a research idea	60		
Literature search: Summarizing literary pieces (e.g.,	[		П
articles, book chapters, etc.)	20		
Creating a research design (e.g., counterbalancing,	[		٦
randomization to conditions, survey design etc.)	80		
Selecting an Instrument/ a measure: Instrument	[		٦
construction	30		
Selection of statistical tests/analyses	40		٦
Performing statistical analyses and computations	[		٦
(including computer work)	40		
Interpretation of statistical analyses	80		٦
Manuscript	[		٦
Writing an introduction section	90		
Writing a methods section	80		٦
Writing results section	80		٦
Writing discussion section	100		٦
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Writing limitations of the study	60		٦
Writing future directions of the study	60		٦
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NOTE: This table is adopted from that found at http://www.ana.org/science			ᆜ

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.









### 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











#### 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 tokomak 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?











#### 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 <u>partnership agreement</u>
  - Develop authorship guidelines for your <u>lab/dept</u>
- 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.



