Authorship Issues

Authorship issues are relevant to everyone engaged in research because:

1. Authorship entails certain responsibilities and expectations, but also rewards.
2. There are no hard and fast rules about authorship.

In this module you will learn:

1. Why authorship matters
2. What criteria are used to determine authorship
3. How to determine order of authorship
4. How to handle authorship disputes

1. How Does Authorship Help You?

1. Gives you credit for your work.
2. Gets your name publicity and begins to build your reputation as an expert.
3. Establishes credibility for you and your research.
4. Strengthens your professional portfolio.
5. Receive invitations to review panels and/org give talks.
6. As an expert you’re invited to give counsel or consult on requests for proposals (RFP’s).
7. It will affect your H index as an author (see “Selecting Scholarly Journal for information about H index).
8. Demonstrates your ability to make a contribution to the field.
9. Demonstrates teamwork abilities in a research and writing setting.
10. Makes you more marketable to graduate schools and employers.
11. Faculty tenure and promotion depend on authorship.

2. Who Should be an Author?

1. It is important to know which contributions merit authorship on a research project so you can make sure you get the credit you deserve, or understand why you were not granted authorship on a particular article.

2. Authorship varies depending on three primary factors:
   a. Who the collaborators are (faculty, students, practitioners, etc.).
   b. What the field of research is.
   c. The nature of the publication forum.

3. Before or in the early stages of a research project, a research team should discuss what publishing opportunities there will be and how authorship will work.

4. Prepare a plan for which research papers will be written, who will be given authorship on them, and in what order.

5. Core criteria in the sciences are:
   a. Significant intellectual contribution (e.g. conception of research idea, research design, interpretation of results)
   b. Writing and editing the manuscript
   c. approving the final manuscript

6. In the humanities, often students publish their work independently of their faculty mentor. The faculty is usually mentioned in the acknowledgements.

7. UPenn has laid out discipline based guidelines here. Authorship criteria are also laid out by professional organizations such as the American Psychological Association and the International Committee of Medical Journal Editors.
Example 1: Criteria for authorship
Roots Lab at Penn State provides authorship if members of the group significantly contribute to 2 of the following 5 elements: conception, design, execution, analysis, reporting.

3. Order of Authorship

1. Generally, the person with the largest intellectual contribution to a research project is first author. This can still be a gray area though because “intellectual contribution” is subjective.
2. Order of authorship is generally NOT determined by the amount of time each person put into the project.
3. If you are performing independent research under the supervision of a faculty member, you will likely be first author on papers you publish.
4. The principal investigator (PI) will often be the last author. PI’s always receive authorship because they have contributed to the intellectual development of the research, and often provide the research space, funding, and other essential resources.
5. The order of co-authors should be decided as a group.
6. All authors should be given ample time to review drafts and approve the final version.
7. Order of authorship and credit from authorship varies by field
8. Those who have made contributions but don’t warrant authorship should be given an acknowledgement. These contributions can include:
   a. Providing space
   b. Granting funding
   c. Supplying materials
   d. Editing the manuscript for grammatical errors
Example 2: Authorship scenario

You are a junior and work in a microbiology lab at your University. The lab is run by Dr. Spike. Dr. Spike has a graduate research assistant, Jenna, who is attempting to create a bacteria that can digest plastic. Jenna has been developing her lab protocol for two years and has written a manuscript for publication. She's gotten help from Dr. Spike in designing her protocol and uses his lab space. Her friend in the genetics department has also given her tips on manipulating genes for desired traits. You have been her primary lab assistant and stayed up all night on several occasions to finish experiments. You also copyedited her final manuscript. Lastly, Jenna took her manuscript to the Graduate Writing Center for help from a writing tutor.

Q: Who should be lead author, co-authors, and receive acknowledgements on this manuscript?

A: Jenna should be lead author, with Dr. Spike as the last author. You will likely be second author, and Jenna can decide if her friend will be given an acknowledgement or authorship. The Writing Center will receive an acknowledgement.

4. Practices to Keep Authorship Clean

1. Sometimes, when publishing research as a group, discrepancy arises as to who conducts the research and who gets credit for its publication. To the best of your ability, be clear early on who will be responsible for what, who will be listed as authors, and in what order.

2. Sometimes authorship is handed out as a favor, or to gain favor from those who have not contributed to the work—this is called “favor authorship” and is advised against.

3. Academia is competitive, and sometimes researchers try to get their names on as many papers as possible to boost their chances of tenure, or other rewards, even if they are not deserving.
4. Principal investigators, the person who is the lead researcher for a team, is usually listed as the last author. Although it might be counterintuitive, this is a prestigious spot.

5. Since many research positions are contract positions that last a few months to a few years, often researchers switch labs before their previous research is published, and they can lose their chance at authorship. This results in a researcher with a lot of experience but few publications.

6. Authors should have an overarching understanding of the project, even if they mainly contributed to select aspects of it. This helps to reduce gift authorship.

7. If you are conducting senior capstone or thesis research under a faculty member, you should be listed as first author. The faculty should never publish independent work based on your capstone or thesis research.

8. All collaborators need to give consent to be listed as authors.

5. What If’s….

1. What if you were part of a research team but graduated before any publications came out of it, and were then not included as an author?
   a. Did you contribute to the research design and/or analysis in a significant enough way that you think you deserve authorship?
   b. Did your team discuss authorship while you were still there? If so, was it determined that you would be an author?
   c. If you think you were wrongfully left off, and the article is already published or under-review, it will be difficult to change anything at this point. But, if you hear the article in currently being written you can reach out to the team and ask if you may contribute to the article or how the team is going to assign authorship. This will get you back on the authorship radar and give you space for deliberation.

2. What if you have not been assigned authorship, or the author number, you think you deserve and your collaborators refuse to change anything?
a. If you cannot resolve a dispute within your research team, you first can go to an experienced researcher to describe your situation and see what his or her outside perspective reveals. For example, you may feel very invested in a project because you spent months in a lab counting and identifying specimens or entering data into a spreadsheet, but if you have only contributed in this one way and it is not an intellectual contribution, then you do not necessarily deserve authorship. If you have contributed intellectually and still are not given due authorship, you can go to the Penn State Office for Research Protections, or your institution’s corresponding office.

**Sources and Additional Resources:**

1. Penn State–Authorship
2. Penn State Office of Research Protections: Responsible Conduct of Research
3. Co-authorship controversy
4. Unethical practices of authorship in scientific papers
5. Responsible authorship
8. Washington University in St. Louis: Policy for Authorship on Scientific and Scholarly Publications
11. Authorship in faculty-student collaborations. U.S. Department of Health and Human Services, The Office of Research Integrity