

Basic Guidance on Responsible Authorship

Why is responsible authorship important? Consider the fundamental principle of respect. Collaboration with colleagues builds on a foundation of trust. Failing to employ fairness and integrity in authorship credit breaches this trust and shows a lack of respect to those who are working towards the same goal as you.

Respect for your colleagues means you attribute credit in a fair way, don't "gift" credit to those who contributed nothing, or fail to give appropriate credit for someone's contributions. Respect for the reader equates to not deceiving with false authorship attribution—the reader assumes the expertise and ownership of the work rests with those who are listed. And finally, respect for your science or discipline—authors have a responsibility for the quality, integrity and accuracy of what is being published under your name.

How to Avoid Conflicts or Disputes with Authorship


STEP 1: First, agree on roles and how they will be defined. We recommend starting with an agreed- to list of who will do what, before assigning specific roles. The Contributor Roles Taxonomy (CRediT)¹ below offers a standard set of definitions of activities.

#	ROLE	DEFINITION
1	Conceptualization	Ideas; formulation or evolution of overarching research goals and aims.
2	Data curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.
3	Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data.
4	Funding acquisition	Acquisition of the financial support for the project leading to this publication.
5	Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.
6	Methodology	Development or design of methodology; creation of models.
7	Project administration	Management and coordination responsibility for the research activity planning and execution.
8	Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.
9	Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.
10	Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.
11	Validation	Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.
12	Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.
13	Writing – original draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).
14	Writing – review & editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.




¹ You can find more information about CRediT at <https://casrai.org/credit/>


STEP 2: Once roles are defined, determine appropriate level of authorship credit for each role—author, contributor, acknowledgement, no credit. Determine whether student contributors will receive the same levels for roles shared by faculty or staff. While Appalachian State has no specific policy on student roles in authorship, section 3.5.2 of the Faculty Handbook outlines professional and ethical conduct with students, including acknowledgement of contributions.



STEP 3: Consult with the professional association affiliated with your discipline to confirm roles. If more than one discipline is represented on the team, make sure everyone is in agreement of how roles will be assigned to accommodate differing criteria.



STEP 4: Assign roles and document. We recommend completing an authorship agreement before work begins which documents the agreed-to roles and level of credit. We have a draft agreement template available at <https://researchprotections.appstate.edu/conduct-rcr/rcr-resources>. All parties listed on the agreement should sign.



STEP 5: Revisit and revise your agreement as new contributors join the project or roles change. Again, everyone listed should have a chance to review the changes.

If you find yourself in dispute over authorship credit, most journals expect the institution(s) to manage the conflict. If you cannot resolve it within the team, start with the lead Department Chair (or the Chair of the principal investigator).

For more information, please visit:

The Office of Research Integrity

<https://ori.hhs.gov/Chapter-9-Authorship-and-Publication-authorship>

The International Committee of Medical Journal Editors (ICJME) (a widely cited source of authorship/contribution definitions)

<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

Appalachian State's Office of Research

<https://research.appstate.edu/>