Pediatric Epilepsy
RESEARCH CONSORTIUM

AUTHORSHIP POLICIES AND RECOMMENDATIONS

Authorship on an academic product is a social agreement. PERC expects investigators to talk to one another about authorship early in the process of a planned manuscript.

An author of an academic product, such as an abstract, poster, or manuscript, is a person who has contributed substantially to the work. It includes four components: thought, labor, writing, and ownership. Every author is expected to contribute in all four domains, though the details will depend on the work. PERC authorship guidelines are consistent with those articulated by the International Committee of Medical Journal Editors (ICMJE) and echoed by flagship journals in our field, such as Neurology and Epilepsia (see reference material).

1) **Thought**. Conception (e.g., identify and frame the problem), design (e.g., operationalize a study to test a hypothesis), and/or analysis (e.g., plan and interpret). Intellectual input can also include substantive critique, identifying potential problems and solutions, solving operational challenges, and ongoing feedback about data collection.

2) **Labor.** Perform part of the work including data collection, interpretation (e.g., reinterpreting EEGs or genetic testing results), and analysis (e.g., hands-on analysis. review of interim results, or directing further analyses). Labor may also include directing the construction, implementation, and maintenance of critical technical aspects of the network, particularly when these are essential to a project.

3) **Writing.** Draft portions of the manuscript relevant to the individual's contributions (e.g., methods for reinterpreting a VUS, parameters of an EEG recording). Read the full manuscript for content (including introduction, methods, results, and discussion/ conclusions) and contribute more than small editing changes to spelling, grammar, or punctuation. This can include correcting substantive errors, reframing an argument, rewriting the presentation of data, etc. It may also include critique of the cited literature, suggestions for additional references with text suggested to accompany those references.

4) **Ownership.** Take responsibility for the work. This includes providing timely responses to requests to contribute, edit, or in other ways move the work forward. It also includes timely response to request for author's affiliation, conflicts, and any other information required by a journal prior to or during the submission process.

In general, the first author drafts the bulk of the manuscript and prepares the tables and figures; the last author designed the study or supervised the work. Long lists of authors are common, as our work is fundamentally multi-institutional and collaborative. When appropriate, joint ("starred") first authorship and last authorship are good ways to acknowledge multiple people.

Network Authorship. All PERC publications should include an acknowledgment of the Pediatric Epilepsy Research Consortium in the acknowledgment section. Network authorship rarely is the work of the whole consortium or even the entire SIG and should only rarely be acknowledged as such. Consortium authorship is sometimes indexed, so the individuals making up the listed consortium may need to be defined and identified.

Contributors. Individuals who meet less than the four criteria for authorship should be acknowledged as Contributors. In some cases, all contributors who qualify as authors cannot be listed due to journal restraint on total author numbers. In these cases, we also have to list the SIG and include the remaining authors in the appendix which also allows for indexing on those authors. The methods to determine who gets listed as author and who falls in the group designation need to be considered in advance of writing a manuscript. Per ICMJE criteria "Examples of activities that alone (without other contributions) do not qualify a contributor for authorship are general supervision of a research group or general administrative support; and writing assistance, technical editing, language editing, and proofreading." Those whose contributions do not justify authorship may be acknowledged individually or together as a group under a single heading (e.g. "Clinical Investigators" or "Participating Investigators"), and their contributions should be specified (e.g., "served as scientific advisors," "critically reviewed the study proposal," "collected data," "provided and cared for study patients", "participated in writing or technical editing of the manuscript").

Additional PERC Guidance

- Please inform the PERC Executive Director about any academic products born from work within PERC and/or a PERC SIG no later than one month after acceptance, publication, and/or presentation -- including abstracts, posters, presentations, planned manuscripts, or submitted manuscripts. Please provide copies or links to published/presented material to be shared on our public platforms if allowable. This information will help us track how the data are used, and help with future funding.
- The principles of data sharing are that each center may request its own data unconditionally, and then can apply for data throughout the PERC network (Please note that data sharing may vary by project and DUAs signed between organizations)
- We strongly encourage multi-institutional, multi-stakeholder authorship teams.
- We encourage each project to have a concept proposal to help organize people and make decisions that the proposed guidelines address (e.g., early selection of authorship and order, designating roles and responsibilities for each author from the beginning)

Implementing a productive authorship team

The following recommendations come from other successful consortia and are intended to support productive collaboration.

Identifying and forming an authorship team:

- Identify candidate team members based on the expertise needed to answer the scientific question, enthusiasm and interest in the topic, and commitment to work on the project.

- If the specific expertise needed for the project is not represented in the self-identified authorship team, then the lead author and the senior-mentor (if there is one) should work to identify such individuals and invite them as soon as the need is recognized. Conferring with the authorship team is strongly recommended.

- There should be no surprises or last minute additions to the authorship team. If there is a senior-mentoring author, any such decision must be made together. Adding an author just because of that individual's interest in the project is strongly discouraged. It is the responsibility of the principal investigator at each site for a multi-center collaboration to ensure all authors at their site are recognized if they meet author requirements noted above.

- Determine who should be an author and authorship order at the project onset to avoid misunderstandings and conflict.

- A plan for scholarly products is to be developed as the study is conceived. That plan must include a proposal for author contributions (e.g. 1st, 2nd, 3rd, and senior author positions should be negotiated before the work commences). For secondary or ancillary analyses, the author order must be determined before a sub-project is approved. Consider using a concept proposal form before starting a project.
- Please note that a center contributing data alone does not guarantee authorship in a paper and participation and qualification based on authorship criteria must be met for an individual at a given center to be included for authorship.

Responsibilities of authorship team members (guiding principles)

- Non-lead, non-senior authors will need to conform to specific expectations, which may vary from project to project. Examples include:

  ☐ Participate in ≥ 50% of conference calls for the authorship group as well as any more focused calls as needed.

  ☐ As needed for the project, reinterpret data, help plan and interpret analyses, perform other tasks essential to the successful completion of the project.

  ☐ Draft at least one or two paragraphs of the manuscript as needed by the lead author. This might involve drafting a focused paragraph within the literature review or in the methods.

  ☐ Read the entire assembled draft and critically review each section –abstract through references as well as any tables and figures.

  ☐ Promptly respond to all requests for COI statement, institutional affiliations, and other information needed of authors prior to submission or during processing of the manuscript.

- Authorship order should reflect contributions. A transparent discussion of authorship order should occur during the scheduled meetings and the final decisions concerning that order should be distributed in writing to the group so that there are no misunderstandings. In some circumstances, it may be appropriate to have co-lead/first authors.
- If a dispute on authorship exists, the SIG leader can involve the PERC Steering Committee to help resolve any dispute.

Lead and senior/mentoring authors

- Lead authors are responsible for leading the authorship group and organizing meetings, disseminating information, and providing clear instructions regarding what is required of each author.

- Lead authors have authority to make changes to the authorship group as needed to ensure successful project completion.

- If there is a senior author/mentor, the lead author is expected to develop a plan with the mentoring author for the timeline of the project and frequency of contacts.

- Mentoring/senior authors are expected to make adequate time to meet with the lead author and to provide guidance and support for all aspects of the work (at least an hour a month). Mentors should also fulfill all of the other criteria for authorship. If a mentor is not fulfilling his/her responsibilities, the lead author may seek assistance from the PERC leadership.

- In general, it is recommended that a lead author be leading only one PERC project at a time.

Reference Material

ICMJE. International Committee of Medical Journal Editors (ICMJE). ICMJE authorship criteria are:

- 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.

Neurology policy defines authorship as a person's having made a substantive intellectual contribution that includes

(1) design or conceptualization of the study, or
(2) analysis or interpretation of the data, or
(3) drafting or revising the manuscript for intellectual content.
(4) For these reasons, the Editorial Board suggested that those making major contributions in multicenter research or other studies be included in the journal's authorship criteria.

Epilepsia follows the guidelines of the International Committee of Medical Journal Editors regarding criteria for authorship (http://www.icmje.org/). The author list should include those who have made substantial intellectual/conceptual contributions to the work. Such contributions should include participation in:
(a) experimental design, data acquisition, and analysis and interpretation of data;
(b) drafting and/or critically revising the article with respect to intellectual content;

(c) final approval of the manuscript version to be published.

We strongly discourage the inclusion of "honorary" authors (individuals who are listed as authors but have not contributed to the work/manuscript - e.g., heads of departments) and "ghost" authorship (individuals who have substantially contributed to the work and/or manuscript but are not listed as authors or contributors).

PERC is grateful to the PELHS (Pediatric Epilepsy Learning Healthcare System) for sharing their authorship policies and recommendations upon which this document was built.