

## WRITING TIPS SERIES

# Effective writing and publishing scientific papers, part IX: authorship

### 1. What you should know

Being an author of a scientific paper—and having a key role as an author (first, second, last, corresponding, or guarantor)—can help your career. It is therefore unsurprising that authorship is a highly debated issue in meeting rooms and around coffee machines at academic departments. Authors must be distinguished from contributors based on *all* three criteria (see checklist) of the International Committee of Medical Journal Editors (ICMJE, [www.icmje.org](http://www.icmje.org)). Contributors who do not qualify for authorship can be listed in the acknowledgements (with permission), preferably accompanied by a statement of their contribution. Likewise, authors are usually asked to complete and sign both authorship and conflict-of-interest forms. In large multicenter studies, group authorship may be chosen, where the key researchers are listed as the leading authors, followed by “on behalf of the xyz group.” The members of that group are listed in the acknowledgments but mostly identified as authors in search engines such as PubMed.

For biomedical journals in most countries, the first author is the most important position, followed by the last author (supervisor) and the second author. Some journals allow joint first authorship; this is usually indicated by a note in the author affiliation section. Many journals will also ask for one author to be identified as a guarantor and another as the corresponding author. The guarantor “takes responsibility for the integrity of the work as a whole, from inception to published article.” The corresponding author is the primary contact person for questions related to the underlying work, during the editorial process and after publication. Often, both the corresponding author and/or the guarantor will be either the (junior) first author who ran the project or the (senior) last author who supervised it.

### 2. What you should do

Discuss contributions and authorship at the outset of a project and evaluate this from time to time. Most projects will produce multiple papers, and author roles can be different for each paper. The author team should preferably be unambiguous about who will act as the lead author for specific papers before the manuscript is initially drafted (see item on “how to get started”). Remember that people may shift careers, move to different places, or lose interest. It helps to

have a core team of at most 2–3 people who typically make the day-to-day decisions in a project and who discuss authorship order as well. Consider preparing a written document describing the authors’ roles, circulating it, and making sure it is clear that these agreements may be subject to change and renegotiation throughout the project. Preparing a written agreement forces a team to discuss what constitutes authorship and also explicitly sets out what the team thinks about factors that would change authorship or the order of authors throughout the project. Authorship gives credit where credit is due but also assigns responsibility to coauthors.

As a lead author, be aware that working with multiple coauthors requires planning. Prepare the primary draft with one other author. (S)he can also act as a backup when it comes to deciding on conflicting suggestions from other coauthors. Make this explicit when circulating the draft for critical review by all coauthors and preferably state what you expect from them: for example, general feedback on the draft or more specific comments on subsections. Be explicit in your communication as these expectations may differ between coauthors. Provide your coauthors with a deadline to respond and ask them to notify you when this is not feasible. Once a paper is off your desk, you cannot work on it. Hence, the planning of your project as a whole, and individual papers in particular, may be heavily affected by a nonresponding coauthor. On the final draft, ask the coauthors to meticulously check their names, including initials, titles, and affiliations. Misspelled names will appear in search engines such as PubMed.

#### Checklist for authorship

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- Discuss authorship and develop a written authorship document (including lead authorship) at an early stage during a project.
  - Check and follow ICMJE criteria on contributorship and authorship. Authors should have
    - (1) contributed substantially to the conception and design, acquisition of data, or analysis and interpretation of data;
    - (2) contributed to writing the paper or revising it critically for important intellectual content; and
    - (3) given final approval of the version to be published.
  - Ask coauthors to critically review and provide feedback with targeted questions and set them deadlines to respond.
  - Ask coauthors to meticulously check their names, initials, and affiliations before submitting.
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Conflict of interest: None.