

## Description

Publishing research plays a critical role in a scientists' career. Publishing research outcomes helps researchers gain visibility in the scientific community as well as receive acknowledgment for their work. However, there is a lot of confusion and limited awareness among researchers about the guidelines that are required to be followed while listing authors and contributors. Currently, for researchers, the number and nature of studies that they publish is critical towards assessment of their work and has a significant impact on their career growth. The type and number of publications is a factor that is used to assess their suitability for tenured positions in universities. Often, a grant application is rejected/accepted based on the profile of the researcher who is submitting it. The mounting pressure of obtaining research funding, securing grants as well as securing tenure leads to a race to publish research outcomes.

## Authorship Conflict

A research project generally includes multiple contributors. In a typical scenario, a principal investigator (PI), graduate or undergraduate students, as well as technical staff are involved in a research project. While translating the research findings into a manuscript, all the authors and contributors must be duly listed. Some researchers often try to reduce the number of authors in order to increase the effective contribution of each author. Sometimes, researchers include the names of their colleagues or PIs in the list of authors for one of the manuscripts in order to return a 'favor', even though they may not have contributed to the corresponding study.

An important part of assigning authorship is the order in which authors are listed. In the author list, the first and last positions are the most sought-after ones. The first author is the primary author, i.e. the one who contributed significantly to the study design, conducting the study, and/or collecting critical data. The last author is usually the PI of the study who along with the first author has conceptualized the research and helps in acquiring the funding. Nevertheless, the order in which should be listed is often a source of confusion, which may lead to ethical issues at the time of submission.

## Assigning Authorship

The International Committee of Medical Journal Editors ([ICMJE](#)) has set [guidelines in place to define authorship](#). Most journals, as members of the ICMJE, expect authors to follow the ICMJE criteria for authorship. Individuals who meet all the following criteria can be listed as authors:

- *Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work;*
- *Drafting the work or revising it critically for important intellectual content;*
- *Final approval of the version to be published;*
- *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.*

These recommendations thus establish both different types of contributions and levels of responsibilities. Any breach of these guidelines can be considered unethical and the authors would be subject to misconduct investigations at the university. In fact, there have been incidents in which published papers have been retracted because of non-adherence to the authorship guidelines.

## Contributorship

Contributing to research can broadly be classified into the following categories:

- Intellectual (ideas, writing)
- Practical (conducting research, data analysis)
- Financial (funds, experimental material)

Any researcher, who does not meet all four ICMJE criteria for authorship discussed above should be listed as a contributor. A technician or student who has only prepared some stock solutions for chemical or biological reactions, for example, should not be listed as an author. Instead, their contributions should be listed in the 'Acknowledgements' section of the article.

According to ICMJE, those who do not qualify to be authors but made a contribution to the study should be acknowledged.

[Acknowledgment should also be provided](#) for **writing assistance, technical editing, language editing, and proofreading**. Therefore, editing companies need to be duly acknowledged in professionally edited manuscripts as per the **ICMJE guidelines**.

## Resolving Authorship Issues

When researchers do not agree with the author list or have been excluded from a manuscript which they significantly contributed to, they should consult with their respective institutions for assistance.

In case there is confusion around authorship, contributorship, and to know more about who would qualify to be the lead author, researchers may approach the journal editorial team. The journal would then suggest the best approach. Also, if issues related to authorship are reported to a journal, then the Editor-in-Chief may be involved in resolving the issue. For investigating issues related to ethics, many journals and publishers followed the guidelines defined by [COPE](#).

### Category

1. Publishing Research
2. Understanding Ethics

### Date Created

2017/02/28

**Author**

daveishan