

Guidelines for Preventing Illegitimate Authorship

< NRF & KUCRI , '19.10.01. >

An academic paper is the most basic and important output of research activities. Thus, it is crucial to foster the best practices in research enterprises by ensuring that contributors who have made substantive intellectual contributions to papers receive credit as authors.

To that end, the National Research Foundation of Korea (hereafter, NRF) and the Korea University Council of Heads of University Research & Industry Cooperation (hereafter, KUCRI) provide the following guidelines on authorship that research institutes, universities and researchers should comply with.

※ The NRF and the KUCRI jointly produced these guidelines based on an MOU agreed upon on Aug. 29, 2019 to improve the transparency of research management.

1. The Goal of the Guidelines

- The goal of this guide is to direct researchers who publish their works to journals to designate authorship appropriately. Authorship is based on criteria that are recognized and widely accepted within the academic communities they serve.
- This guide is intended to prevent illegitimate authorship and to confer credit as an author on those who authentically contribute to research results. Eliminating illegitimate authorship and assuring researchers receive the proper credit they are due cultivates a healthy research environment.

2. Who is an Author?

- An author refers to an individual who contributes substantive intellectual contributions to a published work.
- It is notable that rigid criteria and practices for the level of the intellectual contributions which qualify an individual to be an author may differ depending on the academic field.

※ See Appendix B for the definition of an author in major fields

3. What is illegitimate authorship?

- Illegitimate authorship means to list someone as an author who does not make any substantive intellectual contributions to a published paper.
- Illegitimate authorship also includes the omission of an individual who has made significant intellectual contributions to a paper.

<Guidelines for Upholding Research Ethics (Article 12 Paragraph 1, No, 4)

[Instructions of the Ministry of Education No. 263]>

“Illegitimate Authorship” refers to listing the names of people who did not contribute as an expression of gratitude or privilege and to leave out the names of those who took part without justification as the following items indicate:

- A. List an individual who did not make any contributions or provide assistance.
- B. Omit the name of an individual who made contributions to research results or the research product.
- C. Publish or present contents of students’ dissertations as their advisor’s sole individual work to a journal or conference.

※ See Appendix D on the types of illegitimate authorship

4. Best practices for Research Institutes (universities and so on)

- Research institutes should draft guidelines for appropriate

authorship, then encourage and guide their researchers to comply with the agreed upon guidelines.

- ※ If research institutes would like to make a guideline on authorship of academic papers, please refer to Appendix A.

5. Best Practices for Researchers

- When researchers publish or present their research, they should distribute authorship fairly by conferring authorship in accordance with the degree of each individual's intellectual contributions.
- The best way to do this is to determine the level of authorship (first author, corresponding author, coauthor, contributors to be acknowledged, etc.) based on the criteria of the fields or disciplines they serve. Through discussion, participants should come to a consensus and then put it on record. All authors and contributors should agree on the final manuscript of the paper. Every step of the writing of the research paper should be documented and recorded.

- ※ See Appendix C for a checklist of the definitions of authors and contributors.

Website Address	Main features
http://www.icmje.org/icmje-recommendations.pdf	Guidelines of the ICMJE (International Committee of Medical Journal Editors)
https://publicationethics.org/authorship	Guidelines from Cope's website that explain authorship, contributorship, and disputes of authorship
https://ease.org.uk/publications/author-guidelines-authors-and-translators/	Guidelines of the EASE (The European Association of Science Editors) on authorship
https://ori.hhs.gov/publicationsauthorship	The U.S' ORI on authorship and publications
https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/guidelines-authorship_contributions.pdf	Guidelines of the NIH on authorship in accordance with contributions
https://www.councilscienceeditors.org/wp-content/uploads/CSE-White-Paper_2018-update-050618.pdf	Guidelines of the CSE (Council of Science Editors)
https://www.britisoc.co.uk/publications/guidelines-reports/authorship-guidelines/	Guidelines of the BSA (The British Sociological Association) on authorship
https://www.pnas.org/content/115/11/2557	PNAS's website on authors' contributions and responsibility to foster research integrity
https://www.springer.com/gp/authors-editors/editors/authorship-issues/4228	Requirement of authorship suggested by Springer
<Precautions> ○ The criteria of authorship seem to be easy in theory, but there are many factors to consider in practice. Authorship plays a role in informing who is an author to readers and in taking responsibility for what is published by being credited as an author. There is no definitive consensus on the criteria that determine authorship; however, the recommendations of the ICMJE (International Committee of Medical Journal Editors) are among the most acceptable guidelines for journal editors. ※ Source :The COPE Report 2003, How to handle authorship disputes: a guide for new researchers. ○ Although the recommendations of ICMJE on authorship are widely accepted and utilized, the criteria and practices of authorship can be varied. For instance, ICMJE defines authors as those who meet all four of their criteria for authorship. In some research fields that require complicated research work and generate large volumes of data, no one qualifies as an author according to the ICMJE criteria. This simply means that documentation of authors' contributions which may be considered abusive in some fields may be considered acceptable practice in others. ※ Source: NASEM (National Academies of Sciences, Engineering, and Medicine), 「Fostering Integrity in Research」 Washington, DC: The National Academt Press, 2017	

The definitions of Authorship in Major fields

Fields	The definitions of Authorship
International Committee of Medical Journal Editors (ICMJE)	All those designated as authors should meet all four criteria for authorship ① Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work ② Drafting the work or revising it critically for important intellectual content ③ Final approval of the version to be published ④ 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.
Council of Science Editors (CSE)	Authors are individuals identified by the research group to have made substantial contributions to the reported work and agree to be accountable for these contributions. In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which of their co-authors are responsible for specific other parts of the work. In addition, an author should have confidence in the integrity of the contributions of their co-authors. All authors should review and approve the final manuscript.
American Physical Society	Authorship should be limited to those who have made a significant contribution to the concept, design, execution or interpretation of the research study. All those who have made significant contributions should be offered the opportunity to be listed as authors. Other individuals who have contributed to the study should be acknowledged, but not identified as authors.
American Sociological Association	The American Sociological Association includes the following in its Code of Ethics ① Sociologists take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have contributed. ② Sociologists ensure that principal authorship and other publication credits are based on the relative scientific or professional contributions of the individuals involved, regardless of their status. In claiming or determining the ordering of authorship, sociologists seek to reflect accurately the contributions of main participants in the research and writing process ③ A student is usually listed as principal author on any multiple-authored publication that substantially derives from the student's dissertation or thesis
Humanities and Other disciplines	Authorship within the humanities, law, and theology is still very much a product of the writing process and usually by a single individual. Any other form of contribution such as generation of ideas, commenting on a draft, or technical assistance is listed in the Acknowledgments. Traditions in the humanities also differ from some disciplines in the social and natural sciences in terms of the relationship between supervisors and students in authorship with respect to graduate work. Frequently, students are sole authors of graduate-related research and supervisors and committee members are acknowledged for the supervision and mentorship that they have provided to the student authors.

※ Source : COPE Council (9 June 2014), What constitutes authorship? COPE Discussion Document

[Jung, Junho · Okju Kim, International guidelines for research publication ethics, Korea Research Foundation(2019), recitation].

Appendix C General Guidelines for Authorship Contributions

1. NIH Checklist

Contributions		Authorship?
Design & interpretation of results	Original idea, planning & input	Yes, recognized as an author (but an unoriginal or unremarkable idea does not warrant authorship)
	Other intellectual contribution	Yes, if assuming active involvement
Supervisory role	Supervision of the project	Yes, if assuming active involvement
	Training, education	No, cannot be an author
	Mentioning of the first author	No, as long as active involvement as an author
administrative & technical support	Solicit research funds	No, authorship, but yes acknowledgement
	Provide research resources (animals or reagents)	Yes, if novel; No if already published
	Provide patients	Depending on circumstances
Data acquisition	Acquires data through original experimental work	Yes, recognized as an author
	Acquire data through technical experimental work	No, if routine; yes if novel methods added or a specific role, e.g. statistic, imaging, etc.
	Analyze data through assays	Yes, authorship; No if it is only very basic
	Analyze data through statistics	Yes, authorship; No if it is only very basic such as T-test
Writing & other	Draft manuscript	Warrants first authorship
	Read and comment on manuscript	No, cannot be an author (substantial feedback can be acknowledged)
	Others (Lab Chief, etc)	No, cannot be an author

※ Source : http://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/guide_lines-authorship_contributions.pdf

2. ICMJE Guideline

☐ Criteria to be an author

- All those designated as authors should meet the following four criteria for authorship:
 - ① Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work
 - ② Drafting the work or revising it critically for important intellectual content
 - ③ Final approval of the version to be published
 - ④ 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.
- Authors should not only be accountable for the parts of the work they have done, but also be able to identify which co-authors are responsible for specific other parts of the work.
 - Authors should have confidence in the integrity of the contributions of their co-authors.
- Conversely, all who meet the four criteria should be identified as authors.
 - These authorship criteria are intended to reserve the status of authorship for those who deserve credit and can take responsibility for the work. The criteria are not intended for use as a means to disqualify colleagues from authorship who otherwise meet authorship criteria by denying them the opportunity to meet criterion numbers ② or ③.
 - Therefore, all individuals who meet the first criterion should have the

opportunity to participate in the review, drafting, and final approval of the manuscript.

- Researchers who conduct the work are responsible for identifying who meet these criteria.
- Ideally, they should identify who meet these criteria when planning the work, making modifications as appropriate as the work progresses.
- It is the collective responsibility of all contributors to determine the sequence of the authors.

□ The Criteria of the Corresponding Author

- The corresponding author is the one individual who takes primary responsibility for communication with the journal during the manuscript submission, peer review, and publication process.
- They typically ensure that all the journal's administrative requirements are met(*).

* Examples: providing details of authorship, ethics committee approval, clinical trial registration documentation, and gathering conflict of interest forms and statements, etc.

- The corresponding author should be available throughout the submission and peer-review process to respond to editorial queries in a timely way.
- They should respond to critiques of the work and cooperate with any requests from the journal for the data or additional information after publication.

□ **Non-author Contributors**

- Contributors who meet fewer than all four of the above criteria for authorship should not be listed as authors, but they should be acknowledged.
 - ※ Examples of non-author contributors' activities: acquisition of funding, general supervision of a research group, general administrative support, writing assistance, technical editing, language editing, proofreading, etc.
- Those whose contributions do not justify authorship may be acknowledged under a single heading such as clinical investigators, or participating investigators.
 - ※ Contributors's contributions should be specified such as “served as scientific advisors,” “critically reviewed the study proposal,” “collected data,” “provided and cared for study patients
- Since, acknowledgement may imply endorsement by acknowledged individuals of a study's data and conclusions, editors are advised to require that the corresponding author obtain written permission to be acknowledged from all acknowledged individuals.

※ Source : ICMJE (International Committee of Medical Journal Editors), Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals, *Updated December 2018*.

1. Honorary Authorship

☐ **Definition** : Honorary authorship is the inclusion as an author of an individual who has not contributed adequately to a paper

☐ **Gift Authorship**

- Gift authorship is a form of honorary authorship where the legitimate authors of a paper voluntarily list as an author someone, who has not contributed, usually a main authors' superior or supervisor.
- In some cases, gift authors may not even realize that their names are listed on a paper.

☐ **Guest Authorship**

- Guest authorship refers to the inclusion of a more well-known author with the hope that it will give a greater sense of legitimacy to the paper in question

☐ **Coercive Authorship**

- Coercive authorship is a form of honorary authorship where the impetus to include inappropriate authors is external.
- A senior member of a lab or department may use his or her position to pressure researchers to add his or her name to a paper
- Sometime inappropriate authors anticipate the award of authorship as repayment for their help.
- Besides that, subtle environmental pressures may also encourage adding undeserving authors.

☐ **Mutual Support Authorship**

- Two or more researchers agree to list each other's names on their own papers to give the appearance of higher productivity (to gain an unfair advantage).

☐ **Duplication Authorship**

- Duplication authorship is the publication of the same work in multiple journals for the appearance of higher productivity.

2. Ghost authorship

- ☐ **Definition:** Ghost authorship is the omission of an individual as an author who has made substantial contributions to a paper.

☐ **The Denial of Authorship**

- A particularly serious form of ghost authorship is termed “denial of authorship.”
- The most common example of this involves individuals who participate in generating data for what they presume is a legitimate scientific collaboration. However, the other collaborators publish a paper using these data without giving the researchers coauthorship or accurately acknowledging their contribution.
- It should be stressed that denial of authorship can be considered a form of plagiarism and, therefore, scientific misconduct.

※ Reference : Strange, Kevin. "Authorship: why not just toss a coin?." American Journal of Physiology-Cell Physiology 295.3 (2008): C567-C575.
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