

Guidelines for authors of scientific publications

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English version for reference only

Content

1. Principles	3
2. Authorship	3
2.1 Criteria	3
2.2 Responsibilities	4
2.3 Author order	5
2.4 Practices to avoid	6
2.5 Acknowledgements	6
3. Authorship disputes	6
4. Further information.....	6
5. References	7

1. Principles

The University of Antwerp encourages its researchers to publish the results of research done at the institution in various ways. One of the outlets for communicating research results to the public are scientific publications (such as journal articles, monographs, abstracts, etc.).

Whenever research results are shared, be it with colleagues, funders or the wider public, it is important that each researcher who has contributed to them is also recognised for their contribution. One explicit way to recognise an intellectual contribution is on the basis of authorship. Apart from recognition, the role of authorship also has certain responsibilities attached to it.

The purpose of these guidelines is to provide a framework for researchers to delineate their own role and that of colleagues, and to take note of the corresponding responsibilities. In doing so, the University of Antwerp is aware that there is currently no comprehensive definition of authorship. There are also discipline-specific differences when it comes to authorship that need to be taken into account, and the chosen journal or publisher may have specific authorship guidelines.

These institutional guidelines apply to all University of Antwerp staff who publish research with our institution's affiliation.

2. Authorship

2.1 Criteria

In a scientific context, any individual who has made a substantial intellectual contribution to a publication is considered an author.¹ Furthermore, the University of Antwerp subscribes to the international guidelines of the International Committee of Medical Journal Editors (ICMJE). These guidelines stipulate that authorship should be based on the following criteria:

- 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.

The ICMJE criteria are intended to monitor that the role of author is only awarded to researchers who deserve this honour and can take responsibility for the work. The criteria are not intended to exclude colleagues who could meet the authorship criteria from authorship by denying them the opportunity to meet the second or third criterion. Therefore, all those who meet the first criterion should be given the opportunity to participate in the review, drafting and final approval of the manuscript.

The ICMJE authorship guidelines are general guidelines. As a researcher, it is therefore best to always inform yourself about discipline-specific guidelines and the expectations in this regard of the chosen publication medium.

¹ This criterion for authorship remains valid at all times, even after the death of a co-author. In the case of this author, the date of death should then be mentioned in a footnote in the final publication.

2.2 Responsibilities

To avoid discussions about authorship, good proactive communication between the researchers involved in the project is crucial. By making proper agreements and including the necessary responsibilities, smooth cooperation can be ensured.

The European Code of Conduct for Research Integrity stipulates regarding authorship that:

- All authors are fully responsible for the content of a publication, unless otherwise specified.
- All authors agree on the sequence of authorship, acknowledging that authorship itself is based on a significant contribution to the design of the research, relevant data collection, or the analysis or interpretation of the results.

Specifically, the University of Antwerp expects researchers to assume the following responsibilities in their role as authors. These responsibilities are obviously not enforceable on co-authors from other universities or institutions, or other countries, but often these institutions have similar codes.

- Within a research group, the principles for assigning authorship are always communicated transparently. Researchers within the group also convey these principles in collaborations with authors from other institutions.
- All researchers involved in a project or study discuss at its start the expectations in terms of collaboration, the contributions each individual will make and their translation into authorship as well as the order of authorship. Where necessary, these agreements are adjusted throughout the project or study. To map out the different contributions of the researchers involved, the [CRediT system](#), which defines fourteen different roles, is preferably used.²
- To ensure smooth authorship discussions, a 'corresponding author' is appointed who acts as a formal point of contact in communication with the chosen publication medium, but is also in contact with all co-authors at all times. It is important that this 'corresponding author' has an overview of both the content of the publication and the individual contributions made by each author.

² The following fourteen roles are defined, each with a brief description: Conceptualization (Ideas, formulation or evolution of overarching research goals and aims); 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); Formal analysis (Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data); Funding acquisition (Acquisition of the financial support for the project leading to this publication); Investigation (Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection); Methodology (Development or design of methodology; creation of models); Project administration (Management and coordination responsibility for the research activity planning and execution); Resources (Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools); Software (Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components); Supervision (Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team); Validation (Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs); Visualization (Preparation, creation and/or presentation of the published work, specifically visualization/data presentation); Writing – original draft (Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)); 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).

- Authorship agreements are established as early as possible in the research process and are always communicated in writing to all authors involved, at the latest before the drafting of the publication starts. Where necessary, these agreements can be revised at a later date, with a new version always being circulated among the authors. These agreements also clarify the concept of 'substantial contribution' used to determine authorship. To interpret substantial contributions, researchers preferably make use of an Author Contribution Statement. In this statement, the [CRediT-system](#) can be used to interpret contributions (see above). In the case of collaboration with researchers from another institution, a consensus is sought between the provisions of these guidelines and those of the other partners involved.
- Researchers listed as authors on a publication take responsibility for the integrity of the publication. This includes but is not limited to declaring conflicts of interest, correctly disclosing funding obtained, careful [research data management](#), etc.³ In addition, if researchers are listed as authors, they must have taken note of the full content of the publication, as well as agreeing to the final version.
- Only staff members or students of the University of Antwerp, or those who were or are affiliated to the institution as a volunteer staff member, guest professor or emeritus with (occasional) assignment when the research in question was carried out, may mention on a publication that they are affiliated to our university.
- To guarantee correct assignment of publications to the right researcher, each researcher within the University of Antwerp creates an [ORCID](#), links the ORCID profile to the institutional repository, and keeps the publicly accessible publication list on ORCID complete and up-to-date.
- In situations where a co-author can no longer be contacted or dutifully cooperates, and has not yet made a substantial contribution, the other authors may decide to no longer involve this co-author. If necessary, the person concerned will be appropriately acknowledged by other means (e.g. via a mention in the acknowledgements). All reasonable efforts will be made to inform the person concerned of the decision.

2.3 Author order

The University of Antwerp is aware that in terms of determining the order of authors, differences may occur between disciplines. For example, some disciplines work with an alphabetical order, but there are also disciplines that reserve certain positions for authors who have made larger contributions to the publication. In this regard, the University of Antwerp respects the specific nature of the various disciplines, but believes it is important to reach clear agreements. Each author must also always be able to explain the arguments for the agreed author order.

A specific case here is the use of a shared position. In case authors have contributed equally, this is mentioned as such on the publication. This is then not apparent from the author order. It is important to note that shared author positions cannot or cannot easily be registered in several bibliographic systems, including the institutional repository of the University of Antwerp.

³ To become familiar with the principles of scientific integrity and good research practice concerning, among other things, the declaration of conflicts of interest and research data management, researchers at the University of Antwerp can use the online course Mind the GAP. It is available through [Blackboard](#).

2.4 Practices to avoid

Considering the above and the general standards of good research practice, the University of Antwerp believes that the following practices should be avoided:

- Gift authorship: a colleague is unfairly added to a publication to which they have not contributed, in some cases with the expectation that the colleague will return the favour. A particular form of gift authorship is the granting of authorship without the knowledge of the person in question.
- Ghost authorship: a person who deserves authorship is not included in the authorship list, either because that person was forgotten or ignored, or for strategic reasons, e.g. to avoid mentioning a conflict of interest.
- Ghost writing: the writing of a scientific publication is (partly) outsourced to a commercial or third party without disclosing this.
- Enforced authorship or honorary authorship: this refers to the inclusion of authors for a hierarchical reason, e.g. the head of the department where the research was conducted. Note that having acquired funding is not in itself a sufficient condition to justify authorship.

2.5 Acknowledgements

Persons who contributed to the research, but whose input is not sufficient to be listed as authors based on the previously mentioned criteria, should be mentioned in the publication's acknowledgements. In the acknowledgements, they are then referred to as contributors rather than authors. In doing so, it is important to always indicate what specific contributions were made by each contributor.

3. Authorship disputes

The University of Antwerp believes that provided the above responsibilities are respected, authorship disputes can be minimised. In the event that an authorship dispute does arise, the institution recommends that an open and collegial discussion be held in the first instance. This can include looking back at previous agreements made around authorship. If desired, a neutral party with knowledge of the discipline can be called upon to attend the discussions.

Should it not prove possible to reach a consensus on the basis of a collegial discussion, the first point of contact is the chair of the department or of the discipline.⁴ If this party is involved, the dean of the faculty or the institute chair can be contacted. Doctoral students can also contact the confidential counsellors for doctoral students. If desired, the institution's scientific integrity contact point or the central ombudsperson can also always be contacted.

4. Further information

<https://www.nature.com/nature-portfolio/editorial-policies/authorship>

<https://publicationethics.org/>

[White Paper on Publication Ethics - Council of Science Editors \(councilscienceeditors.org\) Policies and Ethics - AIP Publishing LLC](#)

⁴ In the absence of a relevant structure, the chair of the research group may be contacted.

5. References

The guidelines below were used as inspiration for the layout of this document:

- <https://researchsupport.admin.ox.ac.uk/governance/integrity/publication>
- <https://onderzoektips.ugent.be/en/tips/authorship-10-best-practices-o1656/>
- [Guidelines on Authorship | Research Integrity \(cam.ac.uk\)](#)
- <https://www.kuleuven.be/english/research/integrity/practices/publication-and-authorship/authorship>
- <https://www.bu.edu/researchsupport/forms-policies/guidelines-for-authorship/>
- <https://www.brown.edu/research/Authorship>
- <https://provost.yale.edu/policies/academic-integrity/guidance-authorship-scholarly-or-scientific-publications>
- <https://research.fas.harvard.edu/links/guidelines-authorship-and-acknowledgement>