Recommendations for authorship in publications
Medical Faculty of RWTH Aachen University
- adopted by the Faculty Council on 26.05.2014, updated 28.05.2021 -

The following recommendations are addressed to the members of the Medical Faculty of the RWTH Aachen University and serve as orientation aids

- in the determination of authorships and
- in the concrete determination of author sequences 1.

In addition, they deal with the following topics

- shared authorships,
- obstructive refusal to consent,
- overlapping publications and copyright issues,
- documentation obligations and
- Affiliations.

They are largely based on the recommendations of the DFG (Codex „Guidelines for Ensuring Good Scientific Practice“ of August 1, 2019 2, and Memorandum „Securing Good Scientific Practice“ of July 3, 2013 3) and of the “International Committee of Medical Journal Editors (ICMJE)” in the 2013 version 4.

1. Basic inclusion and exclusion criteria of authorship

The authorship of an original scientific work requires a substantial contribution. Contributions are considered substantial if they come from persons who have contributed substantially

- to the conception or design of the final study or experiment resp. the elaboration, analysis and interpretation of the data and/or
- to the conception, formulation and critical revision of the manuscript.

They must also have agreed

- to the publication of the final version of the manuscript

and accept

- joint responsibility for the final version 5.

Conversely, insufficient for an authorship are contributions such as

- purely technical editing of a work 6
- pure translation activity 7
- merely organisational responsibility for the acquisition of funding
- provision of standard examination materials
- instruction of employees in standard methods
- only technical participation in data collection
- only technical support, e.g. mere provision of equipment, experimental animals,
- [. . .] mere allocation of data records
- just reading the manuscript without substantially shaping the content,
- management of an institution or organisational unit 8 in which the publication originated 9.

1 For reasons of better readability only the masculine form is used in this recommendation; however, both sexes are always meant.
5 DFG Memorandum, S. 82f.; ICMJE-Recommendations (Defining the Role of Authors and Contributors, cf. 2. Who Is an Author?).
6 ICMJE-Recommendations (Defining the Role of Authors and Contributors, cf. 3. Non-Author Contributions).
7 Ibidem.
8 The DFG explicitly points out that the position or function as (current or former) facility manager and supervisor alone does not constitute co-authorship: cf. DFG Memorandum, p. 83.
9 DFG Memorandum, p. 82f.
The aforementioned contributions are not considered to be substantial and therefore do not qualify for authorship; nevertheless, they can and should be adequately acknowledged in footnotes or in the foreword. Authorships that are not based on a substantial contribution are to be classified as „honorary authorships“; the latter are in direct contradiction to good scientific practice 10. Conversely, any person who has made a substantial contribution to a publication should appear as an author thereon. At the same time, we would like to point out that when evaluating the scientific performance of an institute or clinic director, all publications from his or her area should be taken into account — also those for which the concerned person does not act as author. By doing so, we would like to explicitly acknowledge the central role of an institution manager as a „facilitator“ and promoter.

2. Author order: Criteria for a first or last authorship („first author“ or „senior author“) as well as for a corresponding authorship

The accentuated position of a first or a last author has to fulfill special requirements: First or last authorships should be reserved for persons who, in accordance with the above criteria, have contributed
(1) to the conception or design of the study or experiment concerned or to the development, analysis and interpretation of the data
and
(2) to the conception, formulation and critical revision of the manuscript.

And, like all authors, they must
(3) have agreed to the publication of the final version of the manuscript and
(4) take responsibility for it.

First and last authors should be able to declare and assign bindingly which co-author is responsible for which specific parts of the work; furthermore, they should have full confidence in the correctness and integrity of their co-authors and in their respective contributions 11. In connection with the latter passage, not only the advantages resulting from (co-)authorship should be emphasized, but also the responsibility for the integrity of the entire work in the name of all its authors.

With regard to the question of what differences exist between a first and last author, we recommend as a guideline that the first authors might be those who collected and evaluated the data (usually doctoral students or postdocs) and the last authors might be those who made a significant contribution to the conception of the study (usually working group leaders, project leaders or supervisors).

Corresponding authors should also fulfill the requirements mentioned under (1) to (4); the function of the corresponding author often but not inevitably coincides with the first or last authorship. Corresponding authors, unlike their co-authors, are responsible for communication with the journal within the frame of submission, the peer review and the publication process. They must ensure — personally and on behalf of their co-authors — that all administrative requirements of the journal are fulfilled and that all requests and demands of the editors can be answered promptly before, during and after publication 12. Corresponding authors should therefore ideally have the power to make decisions about the data and content presented in the publication, such as access to the original data or contact with the people who have such access.

With regard to the order of further co-authors, the weighting of the contributions of any co-author should be taken into account for the main messages of the publication.

In order to avoid conflicts when determining the author order it is advisable „to reach clear agreements at an early stage (if possible before the publication is produced) which will provide orientation in the event of dissent“. 13 This also applies in the event that several publications of varying detail (e.g. conference contribution and later full publication) are planned or will be published for a study. In the case of conference papers (abstracts) with identical content 14 and full publications, the order of the authors should be essentially identical, whereby additional work steps must be taken into account when preparing the respective papers.

10 DFG Memorandum, p. 82f.
11 ICMJE-Recommendations (Defining the Role of Authors and Contributors, cf. 2. Who Is an Author?).
12 Ibidem.
13 DFG Memorandum, p. 83.
14 Conference contributions (abstracts) that are based on only part of the data set of a full publication and/or only (first or temporary) address partial aspects of the same are not affected by this provision.
3. Shared first or last authorships or co-corresponding authorships („equal contributors“ and „co-corresponding authors“)

Shared first or last authorships as well as co-corresponding authorships are possible under certain conditions. They come into consideration especially for publications of (often also internationally) collaborating working groups in which contributions of several institutes are equally weighted and thus rewarded. They also come into consideration when two scientists (e.g. doctoral student and supervising post-doc) have worked together very closely and (experimentally/editorially) equally on a project. Shared authorship requires a specific justification referring to the respective contribution as well as to its equivalence. This justification must be given to relevant committees when needed, e.g. to the Habilitation Committee, when applying for a habilitation.

4. Dealing with „obstructive refusal to give agreement“ of a designated co-author

Scientists who terminate their collaboration without a plausible reason or who prevent the publication of the results as co-authors by refusing to release them for publication without providing a plausible „criticism of data, methods or results“ violate the standards of good scientific practice. In such cases of „obstructive refusal to consent“ it is advised that the affected co-authors contact the currently responsible ombudsperson or commission of the university with a request for mediation. The contact details of the ombudsperson or commission are stored in the dean’s office. If the ombudsperson detects an obstruction, he or she may allow the co-authors „to publish by ombudsperson’s verdict“. In these cases, the relevant facts „must be disclosed in the publication, including the publication permission, by the ombudsperson or commission“.

5. Dealing with overlapping publications, self-plagiarism and copyright issues

The authoring of publications with identical or substantially overlapping content („overlapping publications“) should always be viewed critically. A distinction must be made between „duplicate publications“ and „secondary publications“. The term „duplicate publication“ refers to a publication that has a far-reaching intersection with an already published publication and is directed at the same circle of addressees - usually the scientific community - without explicitly referring to the previous publication. „Secondary publications“ is mainly used when a second print is made for a different audience (e.g. a popular science magazine) or in a different language.

It is advisable to write such overlapping publications primarily
• in justifiable cases (e.g. as an updated reprint of a groundbreaking publication [so-called „historic or landmark paper“], for the targeted addressing of a wider readership or in the context of the further use of data records that have already been presented as conference contributions [so-called „conference proceedings“ with ISBN/DOI number]) and
• with explicit reference to the existence of an initial version (1) in the context of the publication (e.g. in a footnote or as a short quotation in the text) as well as (2) in the submission letter.

In addition
• publications with the same content should always bear the same authors’ names.

If, on the other hand, data and text parts are reused on a large scale without explicit reference to an earlier publication, the publication in question must be classified as „self-plagiarism“. The point of contention here often is the question of whether one can plagiarize one’s own thoughts at all. Legal experts affirm this and also see a self-plagiarism as a violation of the principles of good scientific practice - namely because it pretends to be an original work and in this respect „considerably violates confidence in the quality of scientific work as well as in academic degrees“. A further problem occurs when the list of authors of previously published works, from which substantial parts of the text are resued, differs from the list of authors of current works, so that a „self-plagiarism“ can easily become a foreign plagiarism. In addition, readers of scientific publications should in principle be able to see if a scientific project is based on an earlier original publication, also if it involves preliminary work from the lead author’s own working group.

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15 DFG Memorandum, p. 83f.
16 Ibidem.
18 Ibidem.
A special case are dissertations when parts of it with the same or similar content are either
• published before the publication of the thesis and merged as a cumulative dissertation, or
• the content of the doctoral thesis is also made accessible to the public in specialist journals after it has been submitted.
This procedure can lead to problems regarding authorship (e.g. different author groups or orders) and/or copyright. Prior to publi-
cation, a written agreement should be made concerning the own contribution to the published work. The dissertation should then
state this explicitly. In the first case it is advisable to obtain permission from the respective publisher to republish the work within the
scope a dissertation. In the second case, when submitting the manuscript, the editor/publisher should explicitly be informed that it
is data from a dissertation.
A similar problem arises when a scientist makes data, documents or the like available (e.g. on public servers) that have not been peer
reviewed. 20 Here, individual (copyright) guidelines of professional journals must be observed if such data sets are to be published. In
general, it is advisable to publish corresponding datasets only in consultation with all concerned parties involved in their collection,
publication or utilization (including publishers), and to record clear agreements in writing in advance.

6. Documentation duties
Inadequate documentation also constitutes scientific misconduct. Primary data must be accessible for 10 years. After publication, the
underlying data should therefore be kept for at least 10 years.
The documentation should be done:
• according to the standards of the subject,
• promptly and directly,
• truthfully,
• complete and legible,
• forgery-proof,
• including the metadata.

7. Naming and ranking of affiliations
Affiliation (in contrast to authorship based exclusively on content) is the formal belonging to one or more institutions. The affiliation
of the authors should first be the institution at which the major part of the scientific work was carried out. All further affiliations of
participating authors should then be mentioned.
The following standard wording for institutes or clinics of the Medical Faculty of RWTH Aachen University is advised:
„[Name of the Institute/Clinic], Faculty of Medicine, RWTH Aachen University, [Street], 52074 Aachen, Germany“
As a rule, two affiliations are to be used for JARA publications. The first affiliation contains JARA with the abbreviated name of the
JARA structure (e.g. JARA Section or JARA Centre) as well as the postcode and location of the „home institute“. The second affiliation
contains the „home institute“ incl. address.

Note: Faculty members may contact the Dean’s Office in case of uncertainties or ambiguities in the interpretation of this recommendation;
the contact details of advisors are also stored there.

20 As example: www.nature.com/press_releases/scientificdata.html [25.03.2014].