**Authorship on scientific publications**

**Criteria for authorship**

Authorship on scientific publications confers credit and has academic, social and financial implications. It is therefore important that persons who have given substantial contributions to a paper are given credit as authors, but also that authors understand that they are taking responsibility and are accountable for what is published.

There are quite few rules and regulations concerning authorship. The Vancouver recommendations are among the few guidelines available (http://www.icmje.org/recommendations/). They describe the role of the author and his/her responsibilities. These recommendations define 4 criteria which shall all be fulfilled for qualifying as author:

1. ***The author must have made a significant contribution to the conception/design of the work or to the acquisition, analysis or interpretation of the data.***
2. ***The author must have been involved in writing up the work or in the revision of it for important intellectual content.***
3. ***The author must have approved the version of the work which is going to be published.***
4. ***The author must agree to be accountable for all aspects of the work. Additionally to being accountable for the parts of the work he/she has done, the author should be able to identify which author who is responsible for each specific other parts of the work.***

All these 4 criteria shall be fulfilled by someone to qualify as author. Also, the other way around, a person who fulfills all 4 criteria shall be author of the work. If a person only fulfills some of the criteria this person shall be acknowledged for the contribution, but shall not be an author. All individuals who meet the first criterion should, however, have the opportunity to participate in the review, drafting and final approval of the manuscript. All authors must agree on the content of the manuscript before it is submitted, both at the first submission and at submission after revision.

It is not a responsibility of the journal to make sure that the authors fulfill these criteria. This is a responsibility of the authors themselves. Further it is recommended that the putative authors agree on their contribution to the work at an early timepoint, preferably before the work starts, also that an agreement is reached who shall be an author and who will be acknowledged. It is also recommended to agree on a way of dealing with possible disagreements with regard to authorship. This is a good way to avoid conflicts with writing up the work. Certain journals might have their own rules for authorship. Many journals also request and publish information about the contributions of each person named as contributor to the publication. This removes much of the ambiguity surrounding contributions.

If agreement cannot be reached about who qualifies for authorship, the institution(s) where the work was performed should be asked to investigate the situation. If authors request removal or addition of an author after manuscript submission or publication, journal editors should seek an explanation and signed statement of agreement for the requested change from all listed authors and from the author to be removed or added.

Some large multi-author groups designate authorship by a group name, with or without the names of individuals. When submitting a manuscript authored by a group, the corresponding author should specify the group name if one exists, and clearly identify the group members who can take credit and responsibility for the work as authors.

**The order of authors**

There are very few written rules on order of authors on a paper. Mostly it is agreed that the author who has made the largest contribution to the paper shall be listed first. It is also common that the author who has made the second largest contribution is listed as last author. Often it is a tradition that the last author is a more experienced person – for example a research group leader – and the first author a younger colleague, for example a PhD student (but this is not a rule).

**The corresponding author**

If there are several authors on a publication one of these shall be corresponding author. The corresponding author is the one who takes primary responsibility for communication with the journal during the manuscript submission, peer-review, and publication process. The corresponding author typically ensures that all the journal’s administrative requirements, such as providing details of authorship, ethics committee approval, clinical trial registration documentation, and disclosures of relationships and activities are properly completed and reported, although these duties may be delegated to one or more co-authors. The corresponding author should be available throughout the submission and peer-review process to respond to editorial queries in a timely way, and should be available after publication to respond to critiques of the work and cooperate with any requests from the journal for data or additional information should questions about the paper arise after publication. Sometimes there are two corresponding authors, one who is responsible before publication and one after publication. The first one is then responsible for submitting the paper, for correspondence with the journal and the reviewers. The second corresponding author, who is listed as corresponding author on the publication, will be responsible for answering any questions and requests after publication. The later person should be reachable for questions also long time after publication. The Vancouver recommendations do not declare who shall be last author or corresponding author, this has to be agreed on among the authors. The last author can also be corresponding author but this is not a rule.