

GUIDELINES ON AUTHORSHIP

This URC set of Guidelines replaces S04/512.

This Guideline must be read in conjunction with the Policy on Research Integrity.

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1. Objectives of the guidelines

- 1.1 To provide staff and students of the University with an understanding of the qualifications for, and responsibilities of, authorship of a manuscript submitted for publication, or a presentation at a conference.
- 1.2 To ensure that the contributions of staff and students who participate in research activities leading to publications are properly and fairly acknowledged.
- 1.3 To advise on order of authorship, in multi-author publications.
- 1.4 To help support research students in their endeavour to publish scholarly work, and to identify the University's position concerning their rights and obligations, in relation to scholarly publications.
- 1.5 To develop a framework which is university-wide but nevertheless flexible enough to accommodate variations inherent in publication patterns across different fields of research.

- 1.6 To advise on management of issues of authorship of multi-author publications where not all potential authors are members of our University.

2. Policy Context

These guidelines are to be read and applied within the context provided by the Research Integrity policy of 2019 which encompasses both the legal framework for ethical research and fully embraces the 2010 Singapore Statement on Research Integrity. Thus although this document consists of guidelines, deviation from their guidance must not breach the letter or spirit of the policy.

3. Qualification for authorship

- 3.1 The University subscribes to the international formulation of the requirements for qualification for authorship incorporated in the 'Vancouver Protocol', as set out in the fifth edition of the Uniform requirements for manuscripts submitted to biomedical journals. Qualification for authorship requires substantial participation in a research project, and that all of the following conditions are met:
- Conception and design, or execution, or analysis and interpretation, of at least part of a research output in the author's field of competence;
 - Drafting at least part of the article or revising it critically for important intellectual content;
 - Participation in the approval of the version to be published.
- 3.2 An author's role in a research output must be sufficient for that person to take scholarly responsibility, both inside and outside the University, for at least that part of the output in the person's area of competence.
- 3.3 Important contributors to a research output who do not qualify for authorship should be recognized in the "acknowledgement" section, or elsewhere, in the output. These contributions may include supportive functions such as designing and maintaining apparatus, statistical advice, data collection, administrative support and data entry, as well as scholarly advice.

Guidelines on Authorship

- 3.4 No-one may be included as an author of an output, or acknowledged for a contribution, against his or her wishes.
- 3.5 Authorship of a research output is a matter that should be discussed between researchers at an early stage in a research project, and reviewed whenever there are changes in involvement.
- 3.6 Although everyone appearing as an author of an output should have met the criteria listed in 3.1 and 3.2 above, not all authors necessarily will have contributed equally to a research output. Sometimes there will be agreement that a researcher (and sometimes more than one researcher) has a particular claim to 'ownership' of a project and its outputs, and normally would be considered the 'primary author' of the output. Some journals (e.g. *Nature*) allow the 'primary authors' of a multi-author publication to be identified specifically on a manuscript. A 'primary author' normally will compose the first full draft of an output.
- 3.7 In multi-author outputs where there is no apparent primary author, one co-author (by agreement amongst the authors) may be designated as co-ordinating author for the whole research output and should take responsibility for record-keeping regarding the research output. The co-ordinating author will not necessarily be the first author of the output.
- 3.8 No-one who feels entitled to authorship of an output should be excluded from authorship without consultation with that candidate author, and the agreement of the remaining authors of a multi-author publication, that the candidate author fails to meet the criteria of 3.1 and 3.2 above. If there are conflicts arising through disputes about authorship, which involve, or cannot be resolved by, the Head of School, these disputes should be brought to the attention of the senior member(s) of academic staff responsible for research in the Faculty or Faculties concerned (e.g. Assistant Dean (Research) or Chair of the Research Committee), who will arbitrate or mediate on the matter.
- Appeals against the outcome of such arbitration or mediation may be made to the Deputy Vice-Chancellor (Research), whose decision will be final.
- 3.9 Examples of contributions to a research output which do not entitle the contributor to authorship of an output include:

- Participation only in data collection, conducting interviews, translation and transcription;
 - Provision of funding, or physical resources, only;
 - Leadership, or membership, of a research entity under the auspices of which the research which led to the output was carried out, without fulfilment of the criteria of 3.1 and 3.2 above in respect of that particular output;
 - Conceptualization of the original idea upon which an output was based, without subsequent fulfilment of the criteria of 3.1 and 3.2 above.
- 3.10 Decisions about qualification for authorship of contributors who are paid consultants to a research team usually are left to the discretion of the other authors. According to common practice, however, consultants who contribute substantially to the intellectual content of the publication normally are included as authors. Those consultants who contribute in a less substantial manner, or whose contribution adds to the data collection or analysis, but not substantially to the intellectual content of the publication (e.g. statistical analysis) normally are not included as authors, but are acknowledged in the work.

4. Order of authorship

- 4.1 Generally, the order of authorship, in a multi-author output, is determined by the intellectual input from each of the authors. The researcher who makes the largest contribution, in terms of intellectual content, is entitled to appear as the first author of the output, or to any other position of his or her choice. If there is a primary author of a research output (see 3.6 above), the primary author normally will exercise that privilege. However, some publishers will insist that authors are listed in alphabetical order (see also 7.3 below).
- 4.2 The order of authorship of other authors of a multi-author output also normally is determined by their relative intellectual contributions, but there are discipline specific variations in how those contributions are recognized. In some disciplines, subsequent authors are listed in order of decreasing contribution. In other disciplines a 'senior author' (e.g. the leader of a research team who meets the criteria of 3.1 and 3.2 for an output, but who does not qualify as first author for that output, or the supervisor of a research student, provided he or she meets the criteria

of 3.1 and 3.2) may be recognized, and conventionally appears as the last author of the output.

- 4.3 The order of authorship of an output should be negotiated by all the authors, but where there is a primary author of an output, he or she will play the principal role in proposing the order of subsequent authors.
- 4.4 The authors of a multi-author output, by consensus, may elect to waive conventions concerning order of authorship and, for example, list authors in alphabetical order (for example, this is the norm for the large ATLAS consortium, which uses the Large Hadron Collider, that writes journal articles with thousands of authors) or honour a particular author.
- 4.5 Disputes about order of authorship should be resolved according to the procedures concerning candidacy for authorship, in 3.8 above.

5. Research students as authors

- 5.1 If an output is based on a substantial part of the research conducted for an doctoral thesis or masters dissertation, the student normally will qualify as the primary author and be entitled to be first author of the output. It would be unusual for a student to fulfil the requirements for the award of the degree without fulfilling the requirements for primary authorship.
- 5.2 In the case of masters degrees by course work and research report, Honours projects and undergraduate projects, the student may or may not be the primary author, depending on his or her relative intellectual contribution to the final output. It would be possible, but unusual, for such a student to fail to meet the criteria of 3.1 and 3.2 above, and therefore to lose entitlement to authorship, for example in the case of an undergraduate student, whose contribution to the final output amounted to collection of data only
- 5.3 Outputs arising from the work of a research student usually should not be submitted for publication or presentation without consultation with that student's supervisor.

If a supervisor fulfils the criteria of 3.1 and 3.2 above, for an output from a student's research programme and the student fails to publish the work within a reasonable

period of time (in default, one year after the award of the degree, unless the student gives his/her prior written consent to a shorter period), then the supervisor will have the right to publish the research findings as the primary author. In a case where no such consent has been given by the student, but the supervisor has documented reason to believe that the student will in fact not publish the work in the foreseeable future and where the work would no longer be novel and/or publishable after a two year delay, the supervisor may proceed to submit the work for publication without further delay, having first made all reasonable attempts to notify the student of his/her intention to do so.

6. Multi-institution outputs

- 6.1 Where a research project has the potential to lead to outputs for which members of institutions other than our University might qualify as co-authors, it is particularly important to give attention to 3.5 above.
- 6.2 Since most, if not all, reputable research institutions will subscribe to the 'Vancouver Protocol' it is unlikely that there will be disagreements at principle concerning qualification for, or order of, authorship, for outputs for which all candidate authors are members of academic staff. If there are variations, the guidelines of the institution of the primary author usually will prevail. If disagreements arise, and cannot be resolved, they should be referred to the Deputy Vice-Chancellor (Research), for discussion with his or her counterpart.
- 6.3 In the case of multi-institutional projects which form a substantial component of a student's research, and especially if co-supervision by a member of another institution is being considered, our University's guidelines concerning research students as authors (section 5 above) should be drawn to the attention of the potential collaborators from the other institution, in advance.

7. Obligations of authors

- 7.1 Each author, on a multi-author output, has an obligation to ensure the accuracy and authenticity of the content of the output, at least in his or her area of competency.

Guidelines on Authorship

- 7.2 Should any output prove to be fraudulent, or bring the University into legitimate disrepute in any other way, the University will consider all authors to be culpable, at least until proven otherwise. Primary authors, including student primary authors, will carry a greater burden of responsibility, though.
- 7.3 Staff and students at our University may choose the medium (in this case journal or conference) to which they wish to submit their outputs, but choice of a particular medium creates obligations with respect to the owner of that medium. If the output is accepted for publication, the owner of the medium normally becomes the copyright holder of the output. Therefore authors must not subsequently contravene such copyright (e.g., by subsequently employing part or all of the output elsewhere, without the permission of the copyright holder). Also, the owner of the medium may have requirements concerning authorship which over-ride our University's guidelines (e.g., by insisting that authors be listed alphabetically).

[This document was first approved by the University Research Committee on 16 March 2004. It was based on formulations developed at the University of Western Australia and the University of Wollongong, Australia, which we gratefully acknowledged. The document has subsequently been updated to reflect trends in the 21st Century and was approved by the University Research Committee on 7 March 2019]

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