

1 **Guidance on authorship**

2 Background

3 Authorship confers credit and has important academic, social, and financial
4 implications. Authorship also implies responsibility and accountability for published
5 work.¹ Correct authorship of research publications matters because authorship
6 confers credit, carries responsibility, and readers should know who has done the
7 research.² Listing the authors tells readers who did the work and should ensure that
8 the right people get the credit - and take responsibility - for the research.

9 *Key authorship considerations for creating a healthy research culture*

10 The University of Liverpool is committed to fostering a healthy research culture, and
11 places ethical authorship practices central to this ambition. In order to achieve this,
12 the University encourages all researchers to adhere to five main principles of
13 practice:

14 1) We are inclusive – anyone who meets the criteria for authorship should be an
15 author, irrespective of job title (i.e. tech or admin staff are included if appropriate).

16 2) We are fair – there will be times where two or more people have made major
17 contributions to papers. We will recognise this by e.g. using position in authorship
18 list, joint first authorship, joint corresponding author, joint senior author etc and
19 combinations thereof.

20 3) We should promote timely transition of junior authors to senior authorship
21 positions on the papers where this will benefit their careers.

¹ International Committee of Medical Journal Editors: [Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals](#) (2017)

² UK Research Integrity Office: [Good practice in research – authorship](#) (2017)

- 22 4) We should openly discuss authorship throughout the project to promote 'team
23 science', collegiality and understanding.
- 24 5) Authorship should not automatically be granted because of job role (head of
25 research group, minor level of PhD supervision etc) where there has been little input
26 into the project and/or paper preparation.

27 Authorship criteria

28 In line with the guidance the [International Committee of Medical Journal Editors](#)
29 [\(ICMJE\)](#), authorship credit will normally be based on substantial contribution in the
30 areas listed below:

- 31 1) substantial contributions to conception and design, or acquisition of data, or
32 analysis and interpretation of data;
- 33 2) drafting the article or revising it critically for important intellectual content;
- 34 3) final approval of the version to be published.
- 35 4) Agreement to be accountable for all aspects of the work in ensuring that
36 questions related to the accuracy or integrity of any part of the work are
37 appropriately investigated and resolved.

38 It is accepted that there may be nuances in approaches between different
39 disciplines, but these criteria should form the basis of any assessment of authorship.
40 The criteria should also not be used in order to omit an individual from receiving
41 authorship credit. For example, it would not be appropriate to exclude an individual
42 from the drafting process, and then deny them authorship based on their lack of
43 contribution to the writing.

44 It is also important that researchers do not simply following local customs and
45 practice, but instead strive to meet the principles of good authorship practice.

46 Sources of guidance on authorship

- 47 ▪ [Committee on Publication Ethics: authorship guidance](#)
- 48 ▪ [Contributor Roles Taxonomy \[CRediT\] guidelines](#)
- 49 ▪ [International Committee of Medical Journal Editors: authorship criteria](#)

- 50 ▪ [Method Reporting with Initials for Transparency \(MeRIT\)](#)

- 51 ▪ [UK Research Integrity Office Good research in practice: authorship](#)

52 Principles of good authorship practice

53 **Quick tips on good authorship practice**

- 54 ▪ Discuss and agree authorship at the beginning of a project, in accordance with
55 good authorship practice guidance.
- 56 ▪ If ideas for papers emerge from a project and not all potential contributors are co-
57 located make sure you consider whether they are invited to collaborate on
58 the paper - if they are invited, allow them time to respond.
- 59 ▪ Review authorship throughout the evolution of a project, and be collegiate and
60 transparent in communications.
- 61 ▪ Keep versions of a paper reflecting contribution and document discussions on
62 authorship at all points.

63 *Start discussing authorship when you plan your research*

64 Raise the subject of authorship right at the start of planning your research, ensuring
65 that you gather the views of all team members.

66 *Decide authorship before you start each article*

67 Many authorship difficulties arise because of misplaced expectations and poor
68 communication. So, it is important that, before you start to write up your project, you
69 confirm in writing who will be doing what - and by when. Every team should have a
70 written authorship agreement before the article is written, as this will reduce the
71 chances of disputes arising at a late stage.

72 Continue to discuss ideas about authorship as the research evolves, especially if
73 new people become involved. Keep a written record of your decisions.

74 *Acknowledgements*

75 All others who contribute to the work - but who do not qualify for authorship - should
76 be named in the 'Acknowledgments' section; and what they did should be described.

77 Because acknowledgment may imply endorsement by the acknowledged individuals
78 of a study's data and conclusions, it is best practice to for the Corresponding Author
79 to obtain written permission to be acknowledged from all acknowledged individuals.

80 The difference between who may be worthy of an acknowledgement and who may
81 be a contributing author can often be a difficult situation to navigate. ICMJE suggest
82 examples of work that may be appropriate for an acknowledgement include (but are
83 not limited to): 'acquisition of funding; general supervision of a research group or
84 general administrative support; and writing assistance, technical editing, language
85 editing, and proofreading'.

86 Acknowledgements may also be useful to avoid the practice of *hyperauthorship*,
87 whereby a paper is published with large numbers of authors which results in diluting
88 the significance of the role.

89 *Contributionship*

90 Authors should state their contribution to the project by providing a description of
91 what each author contributed.

92 *Role of the Corresponding Author*

93 The Corresponding Author is the individual who takes primary responsibility for
94 communication with the journal during the manuscript submission, peer review, and
95 publication process; and typically ensures that all the journal's administrative
96 requirements, such as providing details of authorship, ethics committee approval,
97 clinical trial registration documentation, and gathering conflict of interest forms and
98 statements, are properly completed.

99 Research teams should take the views of all authors at an early stage, and decide in
100 advance who will be the Corresponding Author. Ideally, choosing somebody whose
101 contact details are not likely to change in the near future.

102 *Ghost authorship or denial of authorship*

103 Ghost authorship is when somebody who has made a substantial contribution to a
104 research project or publication, and who therefore meets accepted authorship criteria
105 for the discipline, is omitted from an author list or is denied the opportunity to
106 contribute to a publication.

107 All persons designated as authors should qualify for authorship, and all those who
108 qualify should be listed.

109 *Guest, gift or honorary authorship*

110 Gift authorship is when somebody who has not contributed substantially to a
111 research project or publication, and does not meet accepted authorship criteria for
112 the discipline, is listed as an author.

113 This could occur in situations where a senior member who has not contributed is
114 added to boost the impact; or in situations where colleagues agree to add each other
115 on all articles to boost publication rates.

116 All persons designated as authors should qualify for authorship, and all those who
117 qualify should be listed.

118 *Accountability*

119 Whilst parties are often keen to ensure their contribution is listed as an Author,
120 consideration should be given to the level of accountability that comes with being a
121 listed author on a paper. Authors are ultimately accountable for the integrity of a
122 project, including any allegations of research misconduct. It is therefore important
123 that authors have an understanding of not just their own input into a paper, but that
124 of any co-authors, as well as any individuals acknowledged for their work.

125 *Order of the authors*

126 Although conventions vary between disciplines (e.g. some use alphabetical listing),
127 and there is considerable variation in conventions about last authors, the credit or
128 reward attached to different positions in the author list often vary.

129 The order of authorship, should be a joint decision of the co-authors. Authors should
130 prepare a note to explain the order in which authors are listed.

131 *Conflicts of interest*

132 A conflict of interest exists when professional judgment concerning a primary interest
133 (such as patients' welfare or the validity of research) may be influenced by a
134 secondary interest (such as financial gain). Perceptions of conflict of interest are as
135 important as actual conflicts of interest.

136 Articles should be published with statements or supporting documents stating:

- 137 ▪ Authors' conflicts of interest; and
- 138 ▪ Sources of support for the work

139 *Interdisciplinary collaborations*

140 Difficulties may arise in interdisciplinary projects when it is unclear which
141 conventions should apply. In such circumstances, researchers should follow the
142 requirements of the target journal or publisher. It is therefore highly desirable to
143 include an agreement about the publication strategy in the initial planning stages of
144 such projects.

145 *What should the correct author affiliation be for a researcher when they move* 146 *institutions before a paper is accepted for publication by a journal?*

147 Unless the journal in question gives specific guidance on this, the affiliation that
148 should be given is where the work was done, irrelevant of the current institution. The
149 new institution is noted (often in a footnote; but see the requirements of the journal in
150 question) as the address / contact details of the author will have changed, but no
151 further changes are made after the paper has been accepted.

152 Responsibilities

153 Researchers should:

- 154 ▪ Discuss authorship at the earliest possible stage of the research
- 155 ▪ Obtain agreement from the co-authors for any authorship matters
- 156 ▪ Include all individuals who contributed to the research and who meet recognised
157 criteria for authorship
- 158 ▪ List individual contributions to the research, acknowledging those who
159 contributed but don't meet authorship criteria
- 160 ▪ Omit any individuals who did not contribute to the research and who do not meet
161 recognised criteria for authorship

- 162
- Regularly review the authorship agreements as the research progresses
- 163
- Document the decisions made about authorship. In many cases, informal written
- 164
- documentation – for example, in an email - is sufficient

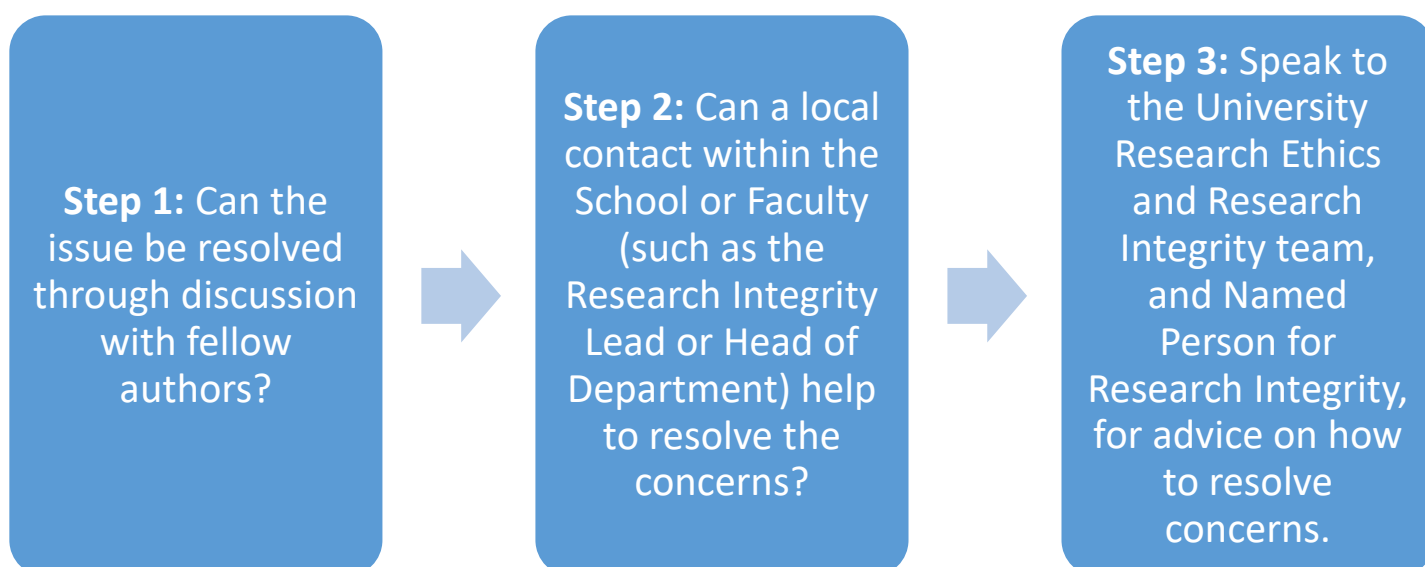
165

166 Procedure

167 Disputes concerning authorship may come to light through a variety of means:
168 informal channels, formal complaints to Supervisors or Managers, or allegations of
169 research misconduct. It is recognised that disputes can occur, and these are often
170 questions of interpretation, such as whether someone's contribution was 'substantial'
171 or not.

172 *Diagram on how to raise authorship queries or concerns*

173



174 *Process for raising concerns over authorship practices*

175 It is appreciated that some researchers may feel unable to challenge authorship
176 requests or decisions by more senior colleagues, or may fear the consequences if
177 they do. It is important for researchers to know that they are able to question
178 authorship decisions they regard as unfair or coercive without repercussions. This
179 might be done confidentially through seeking guidance from the Head of Department
180 or Head of School, or through the Research Ethics and Research Integrity team
181 (integrity@liverpool.ac.uk); all of whom could give advice on what systems existed to
182 consider the researcher's concerns and what actions s/he might take.

183 *Pre-publication*

184 Where authorship concerns arise at the pre-publication stage, and where it is
185 appropriate to do so, it is best practice to attempt to address the concerns with the
186 research team before escalating the concerns.

187 When raising concerns amongst the research team, it can be made clear to the
188 Corresponding Author that you are not disputing his or her right to make such a
189 decision, but demonstrate dispassionately why you do not agree with the decision,
190 explaining the fact that the suggested author list contravenes best practice. Support
191 this with evidence, such as laboratory notebooks, manuscripts, the ICMJE
192 statement, instructions to Authors etc.

193 If, following attempts to address the issues through the Corresponding Author,
194 concerns with the authorship practices are unresolved, it would be appropriate to
195 refer the matter to either the Head of Departmental or School; or the Research
196 Ethics and Research Integrity team (integrity@liverpool.ac.uk). Where possible, it
197 should be explained to the Corresponding Author that the concerns with the
198 authorship decisions remain, and that you are intending to escalate the concerns for
199 the purposes of obtaining a resolution.

200 Since authorship disputes often reflect breakdowns in relationships between
201 researchers, or differences in power relations (e.g. between senior and junior team
202 members), the Head of Department or School, or the Research Ethics and Research
203 Integrity team will appoint an independent arbitrator to resolve these concerns. The
204 arbitrator will be somebody who is familiar with the research field but who has had no
205 involvement with the project in question and has no conflicts of interest in relation to
206 the individuals or institutions involved. All parties in the dispute will agree on the
207 suitability of the arbitrator.

208 *When allegations are of a serious nature, or the arbitration process has been proven*
209 *unsuccessful, then the research misconduct process will be initiated. Equally, an*
210 *arbitrator may conclude that the matter cannot be resolved through arbitration and*
211 *that the institution should initiate a misconduct investigation. Role of Editors*

212 Many Journals have their own differing standards and expectations in reference to
213 authorship. This can include varying interpretations of who may qualify as an author,
214 and how author's names are displayed on a paper. It is important to take note of
215 principles laid out by Editors, however care should be taken to ensure a Journal's
216 requirements are not adhered to without firstly ensuring they comply with good
217 practice.

218 There is a responsibility on Editors to ensure what they publish is accurate, and
219 therefore they can occasionally be a useful arbitrator in remedying disputes,
220 particularly if a dispute directly relates to their recommendations. However, Editors
221 can often be reluctant to become involved in Authorship disagreement as they
222 usually will not be in possession of the full facts of the dispute.

223 *Post-publication*

224 Authorship problems sometimes only surface after publication. If you have concerns
225 about the authorship practices on a published paper, you should also contact the
226 Research Ethics and Research Integrity team (integrity@liverpool.ac.uk) to explain
227 the concerns.

228 The Research Ethics and Research Integrity team will contact the Corresponding
229 Author and the journal where the work was published regardless of whether the
230 cause was honest error, a disagreement between researchers, or potential research
231 misconduct.

232 Some changes to a published author list do not necessarily require retraction of a
233 publication but can generally be achieved through a correction. However, if the
234 wrongful authorship constitutes potential research misconduct, or if there are other
235 problems with the publication, then retraction may be necessary.

236 Contacts

237 This procedure will be regularly reviewed in the light of experience and revisions to
238 codes of practice laid down by any relevant professional or learned society. Any
239 comments should be sent to integrity@liverpool.ac.uk.