

Cooperation & Liaison between Universities & Editors (CLUE): Recommendations on Best Practice

Preprint for Consultation

CLUE Working Group

Elizabeth Wager, Sideview, Princes Risborough, UK
<https://orcid.org/0000-0002-4202-7813>
liz@sideview.demon.co.uk

Sabine Kleinert, *The Lancet*, London, UK
<https://orcid.org/0000-0001-7826-1188>

Michele Garfinkel, EMBO, Heidelberg, Germany
<https://orcid.org/0000-0001-8946-7907>

Volker Bahr, Charite*, Berlin, Germany (until 2016, now retired)

Ksenija Bazdaric, University of Rijeka, Croatia
<https://orcid.org/0000-0002-2977-3686>

Michael Farthing, University of Sussex* (until 2016, now at University College London), UK

Chris Graf, Wiley / Committee on Publication Ethics, UK
<https://orcid.org/0000-0002-4699-4333>

Zoë Hammatt, Office of Research Integrity*, Rockville, MD (until 2016, now at Z Consulting), USA
<https://orcid.org/0000-0003-1960-785X>

Lyn Horn, Stellenbosch University* (now at University of Cape Town), South Africa
<https://orcid.org/0000-0001-7572-6832>

Susan King, Rockefeller University Press, New York, USA
<https://orcid.org/0000-0002-9093-0361>

Debra Parrish, Parrish Law Offices, Pittsburgh, USA

Bernd Pulverer, EMBO Journal, Heidelberg, Germany
<https://orcid.org/0000-0003-2219-5841>

Paul Taylor, RMIT University, Melbourne, Australia
<https://orcid.org/0000-0002-8900-2912>

Gerrit van Meer, Utrecht University, Netherlands
<https://orcid.org/0000-0002-5976-6436>

* Indicates participant affiliation at the time of the meeting (July 2016)

1 **Summary**

2 Journals and research institutions have common interests regarding the trustworthiness of
3 research publications but their specific roles and responsibilities differ. These draft
4 recommendations aim to address issues surrounding cooperation and liaison between journals
5 and institutions about possible and actual problems with reported research. The proposals
6 will be discussed at various meetings including the World Conference on Research Integrity
7 in May 2017. We will also consider comments and suggestions posted on this preprint.

8

9 The main recommendations are that:

- 10 • National registers of individuals or departments responsible for research integrity at
11 institutions should be created.
- 12 • Institutions should develop mechanisms for assessing the validity of research reports
13 that are independent from processes to determine whether individual researchers have
14 committed misconduct.
- 15 • Essential research data and peer review records should be retained for at least 10
16 years.
- 17 • While journals should normally raise concerns with authors in the first instance, they
18 also need criteria to determine when to contact the institution before, or at the same
19 time as, alerting the authors in cases of suspected data fabrication or falsification to
20 prevent the destruction of evidence.
- 21 • Anonymous or pseudonymous allegations made to journals or institutions should be
22 judged on their merit and not dismissed automatically.
- 23 • Institutions should release relevant sections of reports of research trustworthiness or
24 misconduct investigations to all journals that have published research that was the
25 subject of the investigation.

26

27 **Background**

28 Journals and research institutions (e.g. universities) share common interests when concerns
29 arise over the trustworthiness of research reports that are submitted for publication or
30 published. This shared interest means that cooperation, in the form of sharing information, is
31 often necessary. Concerns about the reliability of reported research may arise during editorial
32 assessment or peer review or from pre-publication screening (e.g. for plagiarism or image
33 manipulation) therefore journals may be the first to suspect problems. However, journals
34 usually do not have all the evidence, or a specific mandate, to conduct a formal investigation.
35 Therefore it is important for them to alert the relevant institution(s) and funder(s). Liaison
36 between institutions and journals is also important after an institutional investigation,
37 especially if the investigation indicates that published work may not be reliable (for whatever
38 reason), so that the research record can be corrected. However, cooperation between journals
39 and research institutions is not always straightforward and both report difficulties and
40 frustrations.

41

42 In 2012, the Committee on Publication Ethics (COPE) published guidelines on cooperation
43 between research institutions and journals on research integrity cases [1]. These guidelines
44 were discussed at the World Conference on Research Integrity in Montreal in 2013 and a
45 series of questions was formulated on which further guidance was desired [2]. This document
46 is largely based on those questions.

47

48 **Development of this document**

49 In July 2016, a meeting was held in Heidelberg, hosted by the European Molecular Biology
50 Organization (EMBO) with financial support from COPE. The aim of the meeting was to
51 address the questions raised in Montreal, to understand the reasons why communication and
52 cooperation between journals and institutions is sometimes challenging, and to identify
53 practical solutions to problems. The meeting brought together editors and publishers of
54 scholarly journals, people working at universities and national research integrity
55 organizations (including research integrity officers, a university vice-chancellor and a dean),
56 a lawyer with experience of representing researchers, journals and universities in research
57 misconduct cases, and policy experts. The participants came from Australia, Croatia,
58 Germany, the Netherlands, South Africa, UK, and USA.

59

60 **Scope**

61 These recommendations cover interactions between representatives of scholarly, peer-
62 reviewed journals and research institutions about cases in which there are concerns about the
63 trustworthiness, honesty, integrity or attribution of reported research that has been submitted
64 for publication to the journal whether or not it has been (or will be) published.

65

66 **Terminology**

67 The term “journal” refers to editors and publishing staff who handle cases or develop policy
68 on research and publication integrity. The acronym CLUE (standing for Cooperation and
69 Liaison between Universities and Editors) uses the term “universities” to include all types of
70 research institution (mainly focusing on academic institutions) and “editors” to refer to all
71 journal representatives.

72

73 This document does not attempt to define or limit types of research or publication
74 misconduct. During discussion, it was agreed that focusing on narrow definitions of
75 misconduct contributes to the difficulties that sometimes hamper communication between
76 journals and research institutions. As noted in the COPE guidelines, journals have

77 responsibility for the trustworthiness (or soundness) of what they publish and this does not
78 always align with institutions' definitions of research misconduct [1]. In other words, it is
79 possible for research reports to be misleading or untrustworthy and therefore to require
80 correction or retraction even when the authors/researchers are not considered to have
81 committed research misconduct by their institution.

82

83 In this document, therefore, the term “misconduct” is used to describe any actions of
84 researchers that result in research that cannot be trusted, is not reliable, is not presented
85 honestly, and, for whatever reason, should not become part of, or remain on, the research
86 record. It is not based on any particular definition of research misconduct.

87

88 The terms “inquiry” and “investigation” refer to formal processes conducted by research
89 institutions to determine whether a researcher/employee has committed misconduct. One of
90 the issues discussed at the CLUE meeting was the extent to which journals should assess
91 evidence of misconduct. While it was agreed that it is not usually the role of journals to
92 conduct formal research misconduct investigations, we recognise that, in some cases, it may
93 be appropriate for journals to consider evidence relating to the integrity of a publication or
94 submission. Institutional investigations tend to focus on the guilt or otherwise of the
95 researcher(s) concerned and seek to determine whether their behaviour amounts to research
96 misconduct however that is defined. However journals are more concerned with whether the
97 research can be trusted and is properly reported and reliable. These are different questions
98 that are answered in different ways and carry different obligations. Journals may conduct
99 their own assessments of the integrity of the research reported in a manuscript or article, but
100 such assessments are often limited by the access that the journal has to all of the necessary
101 information. Institutional consideration may centre more on the behaviour or motivations of
102 the researcher(s) but may not fully address the questions of trustworthiness or reliability that
103 the journal needs to be answered.

104

105

106

107 **Recommendations on best practice**

108

109 **Issue: Journals often have difficulty identifying somebody responsible for research** 110 **integrity at an institution**

111

112 Journals often report difficulties in identifying the appropriate person to contact at an
113 institution to raise concerns about research integrity. The situation varies by country, but in
114 many areas, universities either do not have a research integrity office or officer (RIO), or the
115 person or department with responsibility for research integrity (and their contact details) are
116 not clearly identified on the institution's website. Identifying the right contact person is also
117 difficult because different titles are used for this function.

118

119 *Recommendations*

120 Institutions should have a research integrity officer (or office) and publish their contact
121 details. National research integrity bodies (or other appropriate organizations, e.g. major
122 funders) should keep a register of people responsible for research integrity at their country's
123 institutions, to enable journal editors (and others) to contact them.

124

125 Where such lists are not available, journals should request corresponding authors to provide
126 the name and email address (or telephone number) of their institution's RIO (or of an
127 individual with responsibility for handling research integrity cases).

128

129 Note: If the corresponding author's institution does not have a RIO, the authors may identify
130 a suitable person at any of their institutions. If no such person can be identified at any of the
131 institutions involved with the research, the authors should be asked to nominate a senior
132 faculty member (e.g. dean or pro-vice chancellor with responsibility for research, or the chair
133 of the research ethics committee or institutional review board) who was not directly involved
134 with the research (and is not an author) who could be contacted if the journal has any
135 concerns about research integrity.

136

137 Requiring researchers to provide contact details of a person with responsibility for research
138 integrity at their institution should not only enable journals to contact this person if concerns
139 arise, but may also encourage institutions to make such an appointment, raise awareness of
140 RIOs among researchers, and publish their contact details prominently on institutional
141 websites. Details of the contact person for research integrity enquiries should not be
142 published by the journal, but should be retained, should the need arise to contact them.

143

144 **Issue: Journals do not know the best way to contact an institution and whether an** 145 **informal "off the record" discussion is possible**

146

147 Since journals are typically not in a position (either legally or practically) to conduct formal
148 investigations into misconduct it is not always possible for journals to obtain clear evidence
149 or to judge whether an allegation is well-founded on the basis of submitted or published
150 work. While journals may request source data from authors, they do not have legal powers to
151 obtain this, nor do they have access to laboratory notebooks or equipment logs, or the
152 possibility to interview staff. Therefore, since journals do not normally have access to all the
153 relevant information, their peer reviewers and editors may only be able to indicate they
154 suspect that something is wrong, without being able to define the problem precisely.

155

156 Therefore, journals sometimes want to contact institutions informally, to discuss their
157 suspicions or concerns, or raise non-specific allegations, without necessarily invoking a full
158 investigation. Journals may also wish to know whether a researcher is currently being, or has
159 recently been, investigated for suspected misconduct.

160
161 Journals need to understand that in some jurisdictions (for example, the United States) such
162 an “off the record” discussion is not always possible, as institutional research integrity
163 officers and all those involved with investigations have to maintain the maximum
164 confidentiality possible until an inquiry has concluded and such conversations must be
165 documented as part of the institutional record. Institutions risk being sued if they breach this
166 confidentiality, e.g. by revealing that a researcher is under investigation.

167
168 However, in other regions, the situation is different and it may be possible to discuss concerns
169 informally and for universities to disclose whether an individual is currently under
170 investigation.

171
172 **Issue: Should journals always contact authors about research integrity concerns?**

173
174 In most cases, when journals have concerns about the reliability or integrity of submitted or
175 published work, they should first raise them with the authors (usually starting with the
176 corresponding author). This allows researchers to provide clarification, explanation or further
177 information. Contacting authors is considered to reflect “due process” or procedural fairness,
178 and avoids wasting institutional and editorial time and resources over issues that arise from
179 honest error and that can be handled in a straightforward way by the journal. When
180 approaching authors, journals are advised to describe concerns using neutral rather than
181 accusatory language, for example highlighting the amount of text similarity rather than
182 accusing an author of plagiarism. The presumption, at this stage, is that the authors are
183 “innocent until proven guilty”.

184
185 However, journals should be aware that in cases of suspected data fabrication or falsification,
186 raising concerns with the authors first could enable researchers to destroy or alter evidence
187 that might be important for an institutional investigation [3,4]. Therefore, when journals have
188 well-founded suspicions or evidence of falsification or fabrication they should consider
189 informing the institution at the same time as, or before, they contact the author(s).

190
191 Such cases are likely to be rare, since the circumstances in which journals have access to raw
192 data are currently limited (but may include western blots and other images). This situation
193 may change as publication of research data becomes more widespread [5].

194
195 If a journal discovers evidence of falsification (e.g. inappropriate manipulation of images) or
196 major plagiarism (e.g. reports from text-matching software verified by an editor) the journal
197 should retain the evidence and should offer to share it with the institution. However, care
198 should be taken to avoid revealing the identity of peer reviewers, or other people raising
199 concerns, to an institution against their wishes or without their permission. Ensuring the
200 anonymity of internal whistleblowers (i.e. members of a research group or department who
201 raise concerns about colleagues or collaborators) may be difficult since, even if their name is
202 not revealed, the source may be obvious to the authors if only a few people would know
203 about certain details of the research.

204
205

206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254

Recommendation
Journals should develop criteria to determine when the authors' institution(s) should be contacted immediately without (or at the same time as) alerting the author(s). (See, for example the EMBO Press classification for image aberrations [6].) This would normally occur only in exceptional cases when journals have strong suspicions or clear evidence of substantive or significant falsification or fabrication of data.

Issue: What should journals do when reviewers say findings look “too good to be true” in the absence of specific evidence?

If a peer reviewer raises a concern about the trustworthiness of findings, especially if s/he suggests that the results are “too good to be true”, the journal should ask them for more details (e.g. to explain why they gave this opinion) and should usually alert the institution to these concerns if they consider they are well founded. Journals therefore need to determine whether to contact an institution and, if so, what information they should share.

Peer reviewer reports and comments to the editor should generally only be shared with authors' institutions with the reviewers' express permission. Similarly, the identity of the peer reviewer should not normally be revealed to the authors' institutions in cases of suspected problems with a submitted or published work

It is helpful for journals to share suspicions about the reported research with institutions (as well as more specific concerns or clear evidence) because institutions are able, and have a duty, to assess concerns about data fabrication or falsification by researchers. Another reason why journals should raise non-specific concerns about reported research is that the institution should have a more complete picture of the researcher's behaviour than the journal (which usually has information only from one article), and such evidence may be important to trigger or inform an investigation. Sophisticated data fabrication or falsification may only become obvious when several publications are assessed, or when raw data or other forensic evidence are available [7]. Therefore, in such cases, while individual journals may have some suspicions, the full picture is available only to the institution. Furthermore, alerting the institution may prevent the research from being submitted to other journals (which would be unaware of the first journal's concerns) before it has been properly assessed.

Recommendations
Journals should develop criteria for determining whether, and what type of, information should be passed on to institutions.

Journals should share evidence relating to possible misconduct with institutions but should not reveal the identity of peer reviewers or other people raising concerns (unless this is already published or the individuals have given permission for this disclosure).

In addition to sharing any direct evidence of plagiarism, fabrication or falsification with institutions, journals should share reviewer or editor suspicions that work is “too good to be true” or a strong suspicion of something being “not right”.

255 **Issue: Investigating the reliability of reported research usually requires access to**
256 **original (raw) data but these may not be available for research done several years ago**

257

258 It is often impossible to investigate the validity and integrity of a piece of research and its
259 reporting without access to the raw data. This can be problematic if data are not retained,
260 since suspicions sometimes emerge several years after publication. Also, if data are kept only
261 by individual researchers, files may be lost unintentionally or deliberately destroyed or
262 altered.

263

264 Permanent, public deposition of data is the ideal, since it allows immediate scrutiny by
265 anybody interested, which may reveal errors or misconduct. However public posting of
266 individuals' personal or clinical data may not be possible due to the need for confidentiality
267 (e.g. of medical records).

268

269 We encourage institutions and funders to review current data retention standards which may
270 prevent effective investigation of historical data (e.g. we suggest that the 6-year period
271 required for the retention of personal health data in the US under the Health Insurance
272 Portability and Accountability Act (HIPAA) [8,9] is too short). We also encourage debate on
273 the risks and benefits of conventions in certain disciplines of destroying sensitive data, such
274 as interview transcripts, to protect the confidentiality of research participants and to develop
275 alternative systems (e.g. locked, secure deposition) to permit later investigation, if required.

276

277 Similarly, investigation of peer review manipulation requires access to journals' editorial
278 records [10, 11]. Publishers should therefore retain records for a similar period.

279

280 *Recommendations*

281 Research institutions and major funders should have systems to ensure that essential research
282 data are retained for at least 10 years, and ideally permanently. Responsibility for data storage
283 (e.g. for multicentre studies) should be defined in funding agreements.

284

285 Journals and publishers should retain peer review records for similar periods to enable the
286 investigation of peer review manipulation or other inappropriate behaviour by authors or
287 reviewers.

288

289 **Issue: Institutional focus on strict definitions of research misconduct may hamper**
290 **communication about broader issues of research integrity and reliability**

291

292 Journals have a responsibility to correct or retract any publications that give misleading
293 accounts of research methods, findings, analyses or authorship, regardless of whether this is
294 determined to have been due (or related) to misconduct or to error. However, many
295 institutions and research integrity bodies focus solely on determining narrowly defined
296 misconduct and establishing the burden of proof for each particular case. Furthermore,
297 definitions of misconduct vary between jurisdictions. For example, the US Office of Research
298 Integrity considers only cases of fabrication, falsification or plagiarism (FFP) in research
299 funded by the US Public Health Service [12] while the draft Australian code for the
300 responsible conduct of research takes a more inclusive approach [13].

301

302 Because of the possible serious consequences of a misconduct finding for individuals and
303 institutions and the importance of conducting rigorous and fair proceedings (and the costs
304 associated with these), thresholds for launching a full inquiry or investigation may be high.

305 This may give journals the impression that institutions are reluctant to cooperate or respond
306 to their enquiries.

307
308 It would therefore be helpful if institutions had mechanisms for assessing the validity of
309 reported research in response to concerns raised by journals or others. The focus of such
310 assessment should be solely on determining the trustworthiness of the research itself, and its
311 reporting, rather than on the behaviour or intentions of the researchers. Such assessments
312 should permit institutions to respond more rapidly to journal enquiries and without concerns
313 about breaching confidentiality related to institutional policies or employment processes.
314 However, such assessments would not prevent further investigation through the institution's
315 established processes for handling misconduct allegations.

316

317 *Recommendation*

318 Institutions should develop mechanisms for assessing the validity of research reports that are
319 submitted to, or published by, academic journals; these should be independent from processes
320 to determine whether misconduct has occurred.

321

322 **Issue: Institutions may feel legally bound to keep disciplinary hearings confidential and**
323 **may therefore feel unable to communicate or share details of on-going investigations**
324 **with journals**

325

326 Journals have a responsibility to alert readers to published material that may be
327 untrustworthy. Even when misleading research does not cause direct public harm, it may lead
328 to the waste of other researchers' time and resources. The need for journals to alert readers
329 promptly to potentially unreliable articles is especially great in applied research since
330 decisions affecting individuals and public policies may be based on publications. Journals
331 may therefore wish to know if an investigation has been started, and may wish to alert readers
332 before an investigation (and appeal process) has concluded (e.g. by an expression of
333 concern).

334

335 However, in many jurisdictions, research misconduct investigations and disciplinary hearings
336 are considered confidential and institutions/employers may therefore feel unable to share
337 details with journals. This approach may prevent journals from fulfilling their responsibilities
338 to their readers, for example by publishing an expression of concern.

339

340 Various solutions to this problem were discussed at the CLUE meeting. One suggestion was
341 for journals to require authors to disclose any allegations or proceedings and thus waive the
342 confidentiality accorded by law within their contract with the journal. Another suggestion
343 was that researchers' employment contracts should specify that, in cases of suspected or
344 proven misconduct, harm to research participants, or other circumstances affecting the
345 validity of a research report, the employees' usual right to confidentiality in disciplinary
346 proceedings would be waived to allow the institution to communicate relevant details to the
347 journal and other parties. The CLUE meeting participants recognised that such solutions
348 might be hard for journals to enforce, or require changes in employment legislation, and
349 therefore put them forward for discussion rather than as recommendations.

350

351

352

353 **Issue: Institutions sometimes do not share findings of misconduct investigations with**
354 **journals that have published affected research and journals may be reluctant to publish**
355 **informative retraction notices**

356
357 Journals have a duty to avoid misleading their readers and therefore sometimes need to
358 correct or retract published work that is incorrect or unreliable. Since problems can arise
359 either inadvertently, from honest error, or from deliberate misconduct, retraction guidelines
360 [14] recommend that the reason for a retraction should be clearly stated in the retraction
361 notice including details of the affected findings and the type of problem detected.

362
363 This is important to ensure that honest researchers are not discouraged from alerting journals
364 to problems with their work because of fears that a retraction will damage their career or be
365 taken to imply that misconduct has occurred (when, in fact, such honesty and care for the
366 research record should be praised [15]). Journals that have published affected work therefore
367 need to receive details of misconduct investigations including clear information about all of
368 the published articles (and submitted manuscripts) that are affected.

369
370 Being able to quote or cite an official report from an institution should facilitate the
371 publication of clear and informative retractions (or corrections) since it reduces the journal's
372 risk of litigation. If a journal reports that University X has investigated the case and
373 determined that a researcher has fabricated data this is a statement of fact and therefore
374 unlikely to expose the journal to claims that it has published defamatory material.

375
376 Although, after misconduct has been found, institutions often require researchers to contact
377 journals in which their work was published, we encourage institutions also to contact the
378 journals directly. This direct communication between institution and journal allows relevant
379 information to be shared and avoids situations in which researchers fail to contact affected
380 journals, refuse to accept an investigation's findings, or give a misleading account of the
381 investigation to the journal. If an author tells a journal that the investigation was unfair or its
382 finding was incorrect, this places the journal in a difficult position, but this problem may be
383 avoided if the journal is allowed to see the full report of the investigation and can therefore
384 verify whether it was properly conducted. We also recommend that institutions should be
385 transparent about their processes for handling suspected misconduct or, at least be prepared to
386 share information about such processes with journals, if requested.

387
388 *Recommendations*
389 Institutions should notify journals directly and release relevant sections of reports of
390 misconduct investigations to all journals that have published research that was the subject of
391 the investigation. Names may be redacted to ensure privacy.
392
393 Institutions should allow journals to quote from misconduct investigation reports or cite them
394 in retraction statements and related publications (e.g. explanatory editorials or
395 commentaries).

396
397 **Issue: Journals and institutions may be contacted by whistleblowers who conceal their**
398 **identity, use pseudonyms or request anonymity**

399
400 Institutions should have policies about whistleblower protection and about the handling of
401 cases from anonymous whistleblowers. Such allegations should be considered on their merits
402 rather than being dismissed automatically. Therefore, an individual's refusal to reveal their

403 name, use of a pseudonym, or request to remain anonymous, should not prevent either a
404 journal or an institution from taking allegations seriously. However, both journals and
405 institutions need reassurance that an allegation is well-founded and is not simply a personal
406 vendetta and therefore they may request further details or information from the correspondent
407 and, if this is not forthcoming, it is reasonable for journals not to raise the concern with the
408 university or for an institution to decide not to proceed with an inquiry or full investigation.
409 However, this is a matter of judgement for both journals and universities, so we recommend a
410 flexible approach, depending on the seriousness of the alleged problem or behaviour and the
411 plausibility of the evidence provided. Journals should not feel compelled to respond to
412 vexatious complaints and editors may seek legal intervention for persistent or threatening
413 behaviour.

414
415 *Recommendation*

416 Anonymous or pseudonymous allegations made to journals or institutions should be judged
417 on their merit and not dismissed automatically.

418
419 **Issue: Journals and institutions may be asked about publications relating to research
420 that took place many years ago**

421
422 While investigation of historical research may pose more challenges than inquiries into more
423 recent work, concerns should not be dismissed solely on the grounds that the research was
424 done a long time ago. If plausible evidence of serious problems is raised, it should, ideally, be
425 examined regardless of when the problems occurred. However, contacting authors and
426 accessing original data may be increasingly problematic the more time has elapsed since the
427 research was performed. It is therefore reasonable for journals and institutions to prioritise the
428 investigation of recent over historical work.

429
430 Institutions should take responsibility for research performed under their auspices regardless
431 of whether the researcher still works at that institution. Even if a researcher has moved to
432 another institution, or has retired, the appropriate investigation should take place. This is
433 another reason why institutions should have mechanisms for retaining data for at least 10
434 years and, ideally, permanently.

435
436 Investigations into the work of researchers who have died, are chronically incapacitated or
437 have left research altogether, is especially difficult, however, institutions should make their
438 best efforts to establish whether work is reliable, so that journals can determine whether
439 readers should be alerted to concerns. Although probably a rare occurrence, this is another
440 situation in which public data posting or effective retention of data by institutions would be
441 beneficial and in which assessing the reliability of findings and reports needs to be separated
442 from determining whether misconduct was committed.

443
444 **Issue: Concerns may be raised about research that involved several institutions**

445
446 When research involves several institutions, there is usually one institution that takes a
447 primary or coordinating role in relation to the funding. This primary institution should be the
448 initial point of contact and take the lead in responding to concerns about the reliability of the
449 research. Ideally, research agreements should specify this and also set out responsibilities for
450 data deposition and retention [16].

451

452 The International Committee of Medical Journal Editors (ICMJE) states that authors should
453 be accountable for answering questions about research and identifying which author was
454 responsible for each aspect if questions arise [17]. We suggest extending this guidance so that
455 authors are also expected to identify where each component of a project was done, and
456 therefore which institution should be responsible for investigating any concerns about it.

457

458 **Issue: If a journal rejects an article about which either reviewers or editors have raised**
459 **concerns about reliability, authors may simply submit it to another journal, perhaps**
460 **after concealing problems more effectively**

461

462 The COPE Code of Conduct notes that “Editors should not simply reject papers that raise
463 concerns about possible misconduct. They are ethically obliged to pursue alleged cases.” [18]
464 In other words, journals should seek explanations from authors even if they do not intend to
465 accept their publication and should contact institutions, if required, regardless of publication
466 status.

467

468 All research institutions should establish, promote, and incentivise a culture that encourages
469 integrity of research and publications. This may involve rewarding mentorship and providing
470 training on research integrity, peer review, and publication ethics. Such a commitment to
471 integrity should also involve internal quality checks, but in many cases of research
472 misconduct it is apparent that senior authors have not reviewed the data or thoroughly
473 checked the validity and accuracy of the findings or the manuscript.

474

475 One suggestion made at the meeting was for each institution to maintain a repository of
476 submitted manuscripts. Researchers affiliated to an institution would be expected to send a
477 copy of all submissions to this repository. These would not be made public but the database
478 could be used to check the history of a publication and document any changes made by
479 authors (e.g. when submitting to a different journal after a rejection). Such a database of
480 submitted manuscripts would be useful for institutional investigations and would permit
481 assessment of all of a researcher’s work. To be workable this process would need to be
482 straightforward and not excessively burdensome on researchers.

483

484 **Issue: Journals sometimes fail to respond to requests for correction or retraction from**
485 **institutions or authors**

486

487 Communication with a journal should normally be addressed to the editor, but if the editor
488 does not respond, the publisher should be contacted. If a journal is owned by an academic
489 society, the leaders of that society may also be used as a point of contact, or to raise concerns
490 about the behaviour of the editor.

491

492 **Issue: Who should investigate if a peer reviewer is suspected of acting inappropriately?**

493

494 Universities should recognize peer review as a legitimate part of research and academic
495 activity and should encourage accountable and responsible behaviour from their researchers
496 when they act as reviewers or editors [19]. However, even when peer review is viewed as part
497 of general academic duties, the reviewer’s institution may not be equipped to investigate
498 suspicions of reviewer misconduct since most of the relevant information will be held by the
499 journal. In such situations, the journal may therefore have to initiate its own investigation,
500 following the COPE flowchart about how to handle cases of suspected reviewer misconduct
501 [11].

502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528

Evidence of serious misconduct by researchers acting as peer reviewers (e.g. stealing ideas or material from the articles they were invited to review) should be shared with their institution. Therefore journals should explain to reviewers that their identity might be disclosed to their institution in cases of suspected misconduct and that possible serious misconduct will be addressed by the institution.

Issue: If a journal suspects that an author or peer reviewer has failed to disclose a relevant competing interest, should they refer this to the institution?

Readers, authors or reviewers sometimes suggest that relevant competing interests have not been disclosed during the review process or in a publication. If such allegations or concerns cannot be resolved (e.g. by publishing a correction if information has been omitted from a publication, or seeking additional peer review), the journal may consider contacting an institution. However, institutional responses vary. Some institutions maintain lists of researchers' current interests and have policies about disclosure of competing interests. In such cases, it is appropriate for journals to raise concerns with the institution and to ask them for relevant information. However, not all institutions register such information, and, if they do not, they may be unable to respond to the journal's enquiries. While failure to disclose a relevant interest is not always categorised as research misconduct, it is generally recognised to be poor practice and usually requires action by the journal (which will depend on the severity of the case).

Recommendation

Institutions and funders should be responsive to journal requests for information to ensure that peer reviewers' and authors' competing interests are properly disclosed.

529 **Recommendations on best practice**

530

531 (i) Institutions should have a research integrity officer (or office) and publish their contact
532 details. National research integrity bodies (or other appropriate organizations, e.g. major
533 funders) should keep a register of people responsible for research integrity at their country's
534 institutions, to enable journal editors (and others) to contact them. Where such lists are not
535 available, journals should request corresponding authors to provide the name and contact
536 details of their institution's research integrity officer (or of an individual with responsibility
537 for handling research integrity cases).

538

539 (ii) Journals should develop criteria for determining whether, and what type of, information
540 relating to the validity or reliability of research reports should be passed on to institutions. In
541 addition to sharing any direct evidence of plagiarism, fabrication or falsification with
542 institutions, journals should share reviewer or editor suspicions that work is "too good to be
543 true" or of something being "not right". Journals should not reveal the identity of peer
544 reviewers or other people raising concerns (unless this is already published or the individuals
545 have given permission for this disclosure). Anonymous or pseudonymous allegations to
546 journals should be judged on their merit and not dismissed automatically.

547

548 (iii) While journals should normally raise concerns with authors in the first instance, they
549 should also have criteria to determine when the authors' institution(s) should be contacted
550 immediately without (or at the same time as) alerting the author(s). This would normally
551 occur only in exceptional cases when journals have strong suspicions or clear evidence of
552 substantive or significant falsification or fabrication of data.

553

554 (iv) Research institutions and major funders should have systems to ensure that essential
555 research data are retained for at least 10 years, and ideally permanently. Responsibility for
556 data storage (e.g. for multicentre studies) should be defined in funding agreements.

557

558 (v) Journals and publishers should retain peer review records for at least 10 years to enable
559 the investigation of peer review manipulation or other inappropriate behaviour by authors or
560 reviewers.

561

562 (vi) Institutions should develop mechanisms for assessing the validity of research reports that
563 are submitted to, or published by, academic journals; these processes should be independent
564 from systems to determine whether misconduct has occurred.

565

566 (vii) Institutions should publish their processes for conducting inquiries and investigating
567 misconduct and should share information about such processes with journals, on request.
568 Anonymous or pseudonymous allegations to institutions should be judged on their merit and
569 not dismissed automatically.

570

571 (viii) Institutions should notify journals directly and release relevant sections of reports of
572 misconduct investigations to all journals that have published research that was the subject of
573 the investigation. The report should clearly indicate which articles or manuscripts are
574 affected. Names may be redacted to ensure privacy. Institutions should allow journals to
575 quote from misconduct investigation reports or cite them in retraction statements and related
576 publications (e.g. explanatory editorials or commentaries).

577

578 (ix) Institutions and funders should respond to journal requests for information to ensure that
579 peer reviewers' and authors' competing interests are properly disclosed.

580

581

582

583 **Proposals requiring further discussion**

584

585 ○ Researcher employment contracts should indicate that the researcher's name and relevant
586 details of the affected research may be released to a journal or appropriate authority in
587 cases of misconduct.

588

589 ○ Journals should require authors (as part of their publication contract) to disclose any
590 allegations or proceedings relating to the submitted or published work.

591

592 ○ Institutions should maintain internal repositories of all submitted manuscripts so
593 researchers' work can be reviewed and changes to manuscripts identified, if needed.

594

Conflict of interest disclosures

EW is self-employed and received no funding for this work, she is the former Chair of COPE and an author of the COPE guidelines on cooperation between journals and institutions. She provides consultancy and training for academic institutions, publishers and pharmaceutical companies. CG works at Wiley and volunteers at COPE. ZH is self-employed and received no funding for this work after December 2016. DP works for institutions and journals investigating allegations of misconduct.

References

1. Wager E, Kleinert S on behalf of COPE Council. Cooperation between research institutions and journals on research integrity cases: guidance from the Committee on Publication Ethics (COPE). March 2012.
https://publicationethics.org/files/Research_institutions_guidelines_final_0_0.pdf
2. Wager E & Kleinert S. Cooperation between journals, research institutions and funders over research and publication integrity cases: defining the challenges. In Steneck NH, Anderson MS, Kleinert S & Mayer T (eds) *Integrity in the Global Research Arena*, World Scientific Publishing, Singapore. 2015
3. <http://retractionwatch.com/2014/07/22/accounting-professor-faked-data-for-two-studies-destroyed-evidence-university-report/>
4. https://www.baruch.cuny.edu/rio/research_misconduct_examples.htm
5. <http://aims.fao.org/activity/blog/%E2%80%98-state-open-data%E2%80%99-figshare%E2%80%99s-report-global-trends-around-open-data>
6. Pulverer B. When things go wrong: correcting the scientific record. *The EMBO Journal* 2015; **34**:2483-2485
7. Carlisle JB. The analysis of 169 randomised controlled trials to test data integrity. *Anaesthesia* 2012; **67**:521-37
8. https://ori.hhs.gov/education/products/reradmin/topics/data/tutorial_11.shtml
9. https://www.uwyo.edu/research/_files/docs/investigator%20requirements%20for%20retaining%20research%20data.pdf
10. <http://www.nature.com/news/faked-peer-reviews-prompt-64-retractions-1.18202>
11. COPE Flowchart: What to do if you suspect a reviewer has appropriated an author's ideas or data. <https://publicationethics.org/files/Appropriated.pdf>
12. Office of Research Integrity. <https://ori.hhs.gov/content/frequently-asked-questions#5>
13. Australian Code for the Responsible Conduct of Research. https://consultations.nhmrc.gov.au/public_consultations/australian-code
14. COPE Retraction Guidelines. https://publicationethics.org/files/retraction%20guidelines_0.pdf
15. Cagney H et al. Retraction and republication – a new tool for correcting the scientific record? *European Science Editing* 2016; **42**:3-8
16. Montreal statement on research integrity in cross-boundary research collaborations. 2013. <http://www.researchintegrity.org/Statements/Montreal%20Statement%20English.pdf>
17. International Committee of Medical Journal Editors. Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals. <http://www.icmje.org/recommendations>
18. COPE Code of conduct and best practice guidelines for journal editors. https://publicationethics.org/files/Code%20of%20Conduct_2.pdf
19. https://publicationethics.org/files/u7140/Deborah_Poff_PRESENTATION_final_ENGLISH.pdf