Recognize, Respond to and Prevent the Publication of Research Misconduct

Role of the Editor

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— Journal Mission

www.mayoclinicproceedings.org
Consequences of Research Misconduct

- Waste/misallocation of intellectual/financial resources
  - Manuscript processing, review, publication
  - Stimulates research bound to fail
- Unfair career advantage
- Results in ineffective/harmful "real life" practices

Opportunities for Addressing Research Misconduct

- Prevention and Recognition
  - Before submission
  - Before publication
    - Before peer review
    - After peer review
- Response (and Reaction)
  - After publication

Journal Policy for Research Misconduct

http://my.aspb.org/?page=E_AuthorMisconduct
Journal Policy for Research Misconduct

Section 5: Ethical and Legal Considerations

- 5.3 – Duplicate Publication (pgs. 148 – 155)
- 5.4 – Scientific Misconduct (pgs. 155 – 168)
  - 5.4.1 – Misrepresentation: Fabrication, Falsification and Omission
  - 5.4.2 – Misappropriation: Plagiarism and Breaches of Confidentiality
  - 5.4.3 – Inappropriate Manipulation of Digital Images

http://www.amamanualofstyle.com/

Journal Policy for Research Misconduct


http://publicationethics.org/resources

Manuscripts Declined Without Peer Review (Triaged) 2010-2012

Triage introduced as a formal journal operation in 2006
Types of Plagiarism (AMA Manual of Style)

- **Direct plagiarism:** Verbatim lifting of passages without giving proper credit to the original publication
- **Mosaic:** Borrowing ideas and opinions from an original source and a few verbatim words/phrases without giving proper credit
- **Paraphrase:** Restating a phrase or passage, providing the same meaning but in a different form without attribution to the original author
- **Insufficient acknowledgement:** Noting the source in only part of what is borrowed or failing to cite the source material in a way that allows the reader to know what is original and what is borrowed

Duplicate Publication

- **Legitimate form (secondary/dual/parallel -- rare)**
  - Material aimed at an audience broader than can be reached by one journal
  - Upfront agreement between journals, editors, and authors
- **Illegitimate forms (covert -- far more common)**
  - One or more of same authors
  - Substantial overlap in 1 or more element

Plagiarism/Duplicate Detection
“Lifetime” Similarity Reports Distribution at Mayo Clinic Proceedings since 2010

Addressing Minor Concerns
Quality Review section of decision letter:

“Pattern-Matching Alert:
Manuscripts are run through pattern-matching software, which highlights material that matches previously published material. Your manuscript shows several verbatim sections from previously published material. When revising your manuscript, please rewrite the highlighted sections noted in the attached file.”
Can Plagiarism Detection be Defeated?

Misrepresentation/Fraud
(AMA Manual of Style)

- **Fabrication**: Making up data or "facts" that do not exist
- **Falsification**: Manipulation of materials/processes, changing data/results, altering graphs or digital images, …
- **Omission**: Deliberately not reporting certain information to achieve a desired outcome

Editor Responsibilities in Research Misconduct

- Journals primary responsibility: integrity of written/published record
- Journal determines credibility of allegation and seriousness of offense
- Journals do not have resources, expertise or power for full investigations
- Primary contact: between author and journal
- Secondary contacts: co-authors, author's institution, editor of other affected journals

http://www.plagarismtoday.com/2012/08/07/5-sneaky-plagiarist-tricks-that-dont-work/
Journal Actions Addressing Misconduct

- Expression of concern
  - Inconclusive evidence
  - Ongoing, lengthy investigation
  - No investigation

- Correction
  - Small portion/honest error
  - Justified authorship changes

Journal Actions Addressing Misconduct

**Retraction**

- Clear evidence for unreliable results
- Duplicate publication
- Plagiarism

- Ideally requested by authors but may be initiated by editor
- Transparency important

"Rise of the Retractions"
Summary

• The editor’s primary responsibility is the integrity of the published record
• Software for automated detection of plagiarism and duplicate publication has been developed
• Editors must take evidence for and allegations of research misconduct seriously
• Most journals do not have resources, expertise or power to conduct investigation
• Various levels of transparent clarification can be used if misconduct is proven/can’t be excluded

Case Study 1

• Internationally renowned expert invited to contribute to an article series on cutting-edge medical technology
• Upon submission, plagiarism detection software indicates >90% overlap with previous publications by same author
  • Most text of abstract and body, and pattern and sequence of references
• What to do?

Thank you very much!

Have questions or comments?

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Case Study 1 (part 2)

- Within 48 hrs: EIC convenes committee (EBMs) to investigate
- Within 2 weeks: Committee reports to EIC
  - Flagrant self-plagiarism
- EIC writes to author
  - 120-day deadline to receive internal investigation report from department chair

Case Study 1 (part 3)

- Personal communication received from author’s department chair before deadline
  - Author misunderstanding, not malfeasance
  - Local reactions to include extensive education
- EIC requests and receives further input from internal committee (2 weeks)
  - Local investigation sufficient
- EIC writes to author (and superiors)
  - Personal reprimand
  - Barred from interaction with Mayo Clin Proc for 3 years

Case Study 2

- Published first case report on successful treatment of acute recurrence of a rare life-threatening condition with a commonly used drug
- Letter received from former trainee
  - during a later admission for same condition, biopsy suggested an underlying cause which is known to respond to the drug in question
  - author was aware of biopsy findings
- What to do?
Case Study 3 (part 2)

• Within 48 hrs: EIC convenes committee (EBMs, expert reviewers) to investigate
• Within 2 weeks: Committee reports to EIC
  • incomplete reporting of complex sequence of events
  • author negligence
  • probability of harm to other patients low
• EIC writes to author
  • 120-day deadline to receive internal investigation report from department chair

Case Study 1 (part 3)

• Official communication received from author’s department chair before deadline
  • Negligence, no malfeasance
  • No further action
• EIC requests and receives further input from internal committee
  • Local investigation sufficient
  • Correction, but not retraction, needed
• Letter-to-Editor requested, received and published 10 months after original publication (linked to original case report)