Publication ethics: who is responsible?

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Overview

- Publication ethics
- Problems encountered by editors
- Retractions
- Misconduct
- Who is responsible?
Japanese stem-cell 'breakthrough' findings retracted

By James Gallagher
Health editor, BBC News website

Research into one of the biggest recent stem-cell "breakthroughs" has been withdrawn because of "critical errors".

Scientists in Japan had claimed stem cells could be made cheaply, quickly and ethically just by dipping blood cells into acid.

They have now written a retraction that apologises for "multiple errors" in their report.

Nature, the journal that published the findings, is reviewing how it checks scientific papers.

Stem cells can become any other type of tissue and are already being investigated to heal the damage caused by a heart attack and to restore sight to the blind.
Publication Ethics

• Important to maintain the integrity of the scientific record
• Readers must be able to trust journal content

• Authors
• Reviewers
• Editors
• Publishers
• Institutions

• Publication and research misconduct
What publication ethics problems do editors encounter?

- Authorship issues (disputes, gift and ghost authorship)
- Plagiarism
- Text-recycling (‘self plagiarism’)
- Duplicate submission (and publication)
- Data fabrication/falsification/disputes
- Image manipulation
- Undisclosed conflict of interest
- Lack of ethics approval
- Lack of participant consent
- Pre- or post-publication
How do editors deal with publication ethics issues?

- Committee on Publication Ethics (COPE)
Committee on Publication Ethics

• Code of conduct

• Responsibility to correct the literature
  • Corrections
  • Retractions
  • Expressions of concern

• Resources
• Cases

• Guidance on working with institutions
Retractions

- COPE retraction guidelines:
  
  - “Mechanism for correcting the literature and alerting readers to publications that contain such seriously flawed or erroneous data that their findings and conclusions cannot be relied upon. Unreliable data may result from honest error or from research misconduct.”

- Also used to alert readers to cases of:
  
  - Duplicate publication
  
  - Plagiarism

- Main purpose to correct the literature and ensure its integrity
  
  - Not punish authors

COPE. Guidelines for retracting articles. 2009
Retractions

• Retractions are increasing
  • 1980s – 7 per year (approx. 0.002% of all articles published)
  • 2009 – 297 (approx. 0.03% of all articles published)
• Journals retraction policies are not uniform
• Findings informed COPE retraction guidelines

• 2047 retractions up to May 2012
• 21.3% due to error
• 67.4% due to misconduct
  • 43.4% fraud
  • 14.2% duplicate publication
  • 9.8% plagiarism

Wager and Williams. *J Med Ethics* 2011
Fang et al. *PNAS* 2012
Retractions at BioMed Central 2003-2014 (81 in total)

Reason for retraction (number of cases)
- author disagreement (5)
- compromised peer review (1)
- data fabrication (3)
- data unreliable (16)
- duplicate publication (8)
- image duplication (5)
- no ethical approval (5)
- no permission for data (6)
- plagiarism (22)
- published in error (7)
- undeclared conflict of interest (3)
Retractions at BioMed Central by year

- **Publication ethics: who is responsible?**
- **Retractions at BioMed Central by year**

- Number of retractions

- **Types of retractions**:
  - Undeclared conflict of interest
  - Published in error
  - Plagiarism
  - No permission for data
  - No ethical approval
  - Image duplication
  - Duplicate publication

- **Graph details**:
  - Y-axis: number of retractions
  - X-axis: years 2003 to 2014

- **Legend**:
  - Undeclared conflict of interest
  - Published in error
  - Plagiarism
  - No permission for data
  - No ethical approval
  - Image duplication
  - Duplicate publication
Why are retractions increasing?

- Increasing publications?
- Easier detection?
- Greater scrutiny of published articles?
- Increasing whistle blowers?
- Changes in ‘time to retraction’
- Increased willingness of editors to retract?
- Less stigma associated with retraction?
- Pressure to publish?
Why are retractions increasing?

• Increased publication of flawed articles or increase in rate at which flawed articles are withdrawn?

• Average time to retraction – 32.91 months
  • Articles published before 2002 – average 49.82 months
  • Articles published after 2002 – average 23.82 months

• Average time to retraction longer in cases of fraud

• Most cases of multiple retraction are due to fraud

Steen et al. *PLOS ONE* 2013
How common is misconduct?

• Systematic Review and meta-analysis on fabrication and falsification of results

• 2% admitted to fabrication, falsification or manipulation of results
• 14% reported witnessing this behaviour in a colleague

• 34% admitted other questionable research practices
• 72% reported witnessing these in a colleague

Fanelli PLOS ONE. 2009
Who is responsible?
What can authors do?

- Agree authorship early on
- Be aware of publication ethics issues and editorial policies
- Ensure correct approvals and permissions are obtained
What can peer reviewers do?

• Use COPE Ethical Guidelines for Peer Reviewers

• ‘Basic principles to which peer reviewers should adhere’

• Flag any ethical concerns to editors
What can editors and publishers do?

• COPE membership
• Transparent editorial policies
• Take responsibility for content of journals
• Investigate concerns raised by reviewers and/or readers
• Correct the scientific literature - retract where necessary
• Work with institutions
• Educate and support – authors, peer reviewers, editors
• Use of plagiarism detection software
What can institutions do?

- Education
- Clear policies
- Investigate cases of misconduct
- Evaluate ways of measuring success
Publication ethics at BioMed Central

- All journals are members of COPE

- Research Integrity Group

- Support and training for Editors
Welcome to the BioMed Central Editor Academy

Welcome to the BMC Academy! Learn the ins and outs of being a journal editor, from peer review to research ethics.

Available Courses

- The Editor’s Role
- Dos and Don’ts of Peer Review
- Peer Review: How to Make a Decision
- Post-publication Issues
- Publication and Research Ethics and Misconduct
Final thoughts

• Publication ethics affects us all
• Collective responsibility
• Different roles at different times
• Work together
Thank you