Session 6: Publication Ethics

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Research Misconduct

As defined by Office of Research Integrity, US Dept. of Health and Human Services

Research misconduct means fabrication, falsification and plagiarism in proposing, performing, or reviewing or reporting research results

Honest error or difference in opinion is not included in this definition

Known as FFP



Research Misconduct

Fabrication:

making up data/results which does not exist and recording them

Falsification:

Manipulating research material, processes, result to achieve pre-planned outcomes
Omitting data such that the results are not accurately represented.

Plagiarism:

Using other person(s) material, ideas, sentences, paragraph, pictures etc. without appropriately acknowledging them.



Data Fabrication/Falsification

* "Trimming": altering data

*"Cooking": selective reporting of data

*"Forging": making up the data



Consequences

- Manipulate data with intention to that deceive others (cheating)
- Failure to honestly fulfil scientific obligations.
- Mislead their colleagues
- Potentially impede progress in their field or research.
- Undermine their own authority and trustworthiness as researchers (lose credibility).



In Research and Publication, FFP is a CRIME!



High profile case

Disgraced South Korean scientist guilty of fraud over faked stem cell research

A South Korean scientist who falsely claimed to have achieved major breakthroughs in stem cell research has been found guilty of fraud.



The Telegraph 26 Oct 2009

Prof Hwang Woo-suk

6:27AM GMT 26 Oct 2009

Hwang Woo-suk, 56, once a scientist with rock-star like status for bringing South Korea to the forefront of stem cell studies, had also been on trial on charges of misusing state funds and violating bioethics laws.

"He was guilty of fabrication," the Seoul court said in a verdict in the trial that stretched more than three years and included painstaking details about the scientific work Hwang and his team had performed at Seoul National University.



Plagiarism and Self-Plagiarism

DEFINITION

 Plagiarism: using the ideas or words of another person without giving appropriate credit

 Self-Plagiarism: The copying or reuse of one's own research



Plagiarism

♦All sources should be disclosed through appropriate citation or quotation conventions.

♦If a large amount of other people's written or illustrative material is to be used, permission must be sought.



To Avoid Self Plagiarism

- Journals not interested to reproduce published material (self plagiarism) as it consumes valuable space.
- Sentences need to be "paraphrased"
- Use quotation mark for short quotes, and cite the original version
- Permission must be obtained to reproduce large objects, e.g. pictures, tables etc.



How Journals Detect Plagiarism

- Similarity check by Journal Admin before review process using software, for example turnitin and crosscheck.
- ➤ Information from reviewers or other editors
- ➤ Withdrawal of a paper from publication or review process (by authors)



Consequences

> Papers are retracted from journal

Authors banned from publication in the journal (and possibly other journals too).

Authors are placed on a "watch list". Future submissions will be subjected to careful examination



Examples of retracted papers

RETRACTED: Fluorescence lifetime increase by introduction of F⁻ ions in ytterbium-doped TeO₂-based glasses

Journal of Alloys and Compounds, Volume 393, Issues 1-2, 3 May 2005, Page . 179-282
Guonian Wang, Shiyir, Dai, Junjie Zhang, Shiqing Xu and Zhonghong Jiang

RETRACTED: Effect of F— ions on spectroscopic properties of Yb³+-doped zinc-tellurite glasses • Journal of Physics and Chemistry of Solids, Volume 66, Issue 6, June 2005, Pages 1107-1111 Guonian Wang, Junjie Zhang, Shixun Dai, Jianhu Yang and Zhonghong Jiang

From Science@Direct (Elsevier)



High profile case



ScienceInsider



July 28, 2009



The paper, published online by *Stem Cells and Development* on 8 July with Karim Nayernia of Newcastle University in the United Kingdom as the corresponding author, had already received some criticism from other experts; Dr Allan Pacey of the University of Sheffield in the United Kingdom, for example, was quoted by *The Independent* as saying: "As a sperm biologist of 20 years' experience, I am unconvinced from the data presented in this paper that the cells produced ... can be accurately called 'Spermatozoa.' "

The paper's problems soon got much worse. Graham Parker, editor-in-chief of *Stem Cells and Development*, told *Science*Insider that he received an email on 10 July from the editors of another journal, *Biology of Reproduction*, claiming that **two paragraphs from Nayernia paper's introduction were copied without attribution from a 2007 review** article by Makoto Nagano of McGill University in Montreal, Canada, that was published in their journal.

Parker says Nayernia told him the offending text was inserted by a postdoctoral fellow. But Parker says the explanation he received was not consistent with an innocent mistake. "Once I had established that the suggested reason for the text's inclusion was not being substantiated I decided to retract the paper" on 21 July, Parker says.



Other Ethical Issues

- Authorships
- Multiple submissions
- Human/Animal violations
- Conflict of Interest



Authorships



Physics paper sets record with more than 5,000 authors

A physics paper with 5,154 authors has — as far as anyone knows — broken the record for the largest number of contributors to a single research article.

Only the first nine pages in the 33-page article, published on 14 May in *Physical Review Letters* ¹, describe the research itself — including references. The other 24 pages list the authors and their institutions.







Sequence of Authorship

IEEE TRANSACTIONS ON POWER ELECTRONICS, VOL. 27, NO. 8, AUGUST 2012

3627

An Improved Particle Swarm Optimization (PSO)–Based MPPT for PV With Reduced Steady-State Oscillation

Kashif Ishaque, Zainal Salam, Member, IEEE, Muhammad Amjad, and Saad Mekhilef, Member, IEEE

First Author:
Doing most of the writing/work

Second Author: Supervisor/Second most contributor Manuscript received September 14, 2011; revised September 21, 2011; accepted January 8, 2012. Date of current version April 20, 2012. Recommended for publication by Associate Editor M. Liserre.

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Color versions of one or more of the figures in this paper are available online at http://ieeexplore.ieee.org.

Digital Object Identifier 10.1109/TPEL.2012.2185713



Who qualify as Authors?

- "Authorship credit should be based only on
- 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content; and
- 3) final approval of the version to be published.
 - Conditions 1, 2, and 3 must all be met. "



Duplicate Submissions

- Most journals consider simultaneously submitted manuscripts is not acceptable
 - May cause disagreement over rights to publish (among publishers)
 - Unnecessary duplication of peer review and editing
- However, it is acceptable if
 - The paper has been rejected by another journal
 - The paper is withdrawn



WISH YOU THE BEST IN YOUR NEXT WRITING PROJECT!



21

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