Publishing and ethics: Retractions

Chris Graf, COPE (Committee on Publication Ethics), and Wiley

Disclosures: CG works for Wiley and benefits from the company’s commercial success. Wiley paid CG’s travel expenses. CG receives no form of compensation from COPE for his voluntary role as COPE Councillor and Vice Chair (Elect).

There is reasonable evidence that scientific misconduct is both common and under-reported.

Why Has the Number of Scientific Retractions Increased?
Retractions in 2014

437

Papers published

2,500,000

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0068397
Errors: Inadequate record keeping

We have been using the same database… When our new results were implausible… I found we had failed to load 8 files into the dataset.

Fabrication
Hwang Woo-suk

Picture from http://s1.lemde.fr/image/2005/11/18/600x315/711878_3_0fe1_hwang-woo-suk-star-mondiale-du-clonage-humain.jpg
82 records at Wiley from 2014

- 10 dual publication
- 7 multiple problems
- 40 “serious error”
- 21 plagiarism, authorship
- 4 “other”

>25% identified by 6 months

>60% acted on in 6 months

>50% resolved 3 years after publication

6 cases were >10 years old (the oldest: 14 years)

It’s hard to generalise
Retraction Watch

"Truly extraordinary," "simply not credible," "suspiciously sharp:" A STAP stem cell peer review report revealed

with 26 comments

Retraction Watch readers are of course familiar with the STAP stem cell saga, which was punctuated by tragedy last month when one of the authors of the two now-retracted papers in Nature committed suicide.

In June, Science's open version reported:

"Sources in the scientific community confirm that early versions of the STAP work were rejected by Science, Cell, and Nature."

Parts of those reviews have surfaced, notably in a RIKEN report. Science's open version reported:

"For the CoI submission, there were concerns about methodology and the lack of supporting evidence for the extraordinary claims, says stem cell scientist Hans Clevers, who reviewed the paper and, as standard practice at Cell, saw the comments of other reviewers for the journal. At Science, according to the 8 May RIKEN investigative committee's report, one reviewer spotted the problem with lanes being improperly spliced into gel images. "This figure has been reconstructed," the RIKEN report states from the feedback provided by a Science reviewer. The committee writes that the "lane 3" mentioned by the Science reviewer is probably the lane 3 shown in Figure 1 in the Nature article. The investigative committee report says (co-author Haruko Obokata) told the committee that she did not carefully consider the comments of the Science reviewers."

The entire reports, however, have not been made available. Retraction Watch has obtained the full text of the editor's cover letter and reviews of the rejected Science paper. The reviews are full of significant questions and doubts about the work, as would be expected in a rejection. We present them here, to fill in some of the gaps and help readers consider how the research eventually made it through peer review:

21 August 2012

Dr. Haruko Obokata

Anesthesiology

[ROOM NUMBER REDACTED]

Retraction Watch

JAMA issues mega-correction for data breach letter due to "wording and data errors"

with 2 comments

A JAMA letter published in April on data breaches accidentally included some data that shouldn't have been published, either — specifically, "wording and data errors" that affected five sentences and more than 10 entries in a table. One result — a reported increase in breaches over time — also went from statistically significant to "nonsignificant," according to the first author. So yes, this post earns our "Mega-correction" category.

According to an author, an "older version" of a table made it into the letter, "Data Breach of Protected Health Information in the United States," which was corrected in the journal's June 25, 2013 issue.

The letter and table in question detail 940 breaches of "unencrypted protected health information." The letter says the number of breaches has increased from 2010 to 2013, the original article claimed that the P value on that increase was <.001, but the correction says it's really 0.3. The original says 20.1 million personal records were affected in these breaches, the real number is 29,200. And so on.

For a full comparison with the now-corrected table, here's an archived version of the original, from April 15, 2013. The correction note details the differences between the two, and a few changes to sentences in the results and discussion sections of the paper.

First author Vincent Liu of Kaiser Permanente Division of Research, Oakland, California, briefly explained to us how they handled the mistake:

"The corrections resulted from the inclusion of an older version of the Table (from a prior revision in the final Letter. Once we became aware that the older version was published, we corrected the Table with the editorial staff. The overall study findings remained consistent."

Liu acknowledged that the first data point presented in the table — a supposed increase in the number of data breaches from 2010-2013 — is now no longer statistically significant:

"Most of the changes in the Table were minor, for example, related to the confidence intervals; these values then cascaded through the text and required text revision when updated. The original data were significantly different and the corresponding test was revised accordingly."
Retraction Watch

Can’t spell Novartis without VART: Drug study retracted for conflict of interest, data issues

A major scandal in Japan over the Novartis hypertension drug valsartan has resulted in a retraction from the Journal of Human Hypertension.

Frequent Retraction Watch subject Hiroshi Matsubara resigned his post at Kyushu Prefectural University in 2013, after his work on valsartan was shown to be riddled with data errors and undisclosed conflicts of interest.

Also that year, suspicions about Chiba University hypertension researcher Issi Kenmo’s work were first raised by an anonymous blog, which detailed numerous image manipulations in the researcher’s published works. Kenmo, who frequently collaborated with Matsubara, has been a senior author on a number of valsartan papers, including the now-retracted one, which reported the results of a Novartis-sponsored valsartan Amiodipine Randomized Trial in 2011 without reporting the Novartis funding.

The paper, which has been cited three times, according to Thomson Scientific’s Web of Knowledge, has already been subject to a correction in 2013.

The authors would like to correct the affiliation of Nobuo Shirahashi, who was included in the acknowledgements.

Therefore, the last sentence of the acknowledgements:

"Statistical analysis organization: Nobuo Shirahashi (Clinical Epidemiology, Osaka City University School of Medicine)."

Should read: "Statistical analysis organization: Nobuo Shirahashi (Novartis Pharma KK)."

Forbes reported in September 2014.

The Chiba University investigation obtained testimony from VART investigators and found multiple problems with the paper, including the surreptitious involvement of a Novartis employee. (A similar problem occurred in the Matsubara trials.) The investigation concludes that the VART paper in Hypertension Research should be retracted.

Retraction Watch

Ethics dispute forces retraction of paper on Hep C in Japanese leper colony

Here’s a case of retraction being a hammer when a scalpel might have been better.

The authors of a 2011 paper in the Journal of Clinical Microbiology looking at transmission of hepatitis C in a former leper colony in Japan have retracted the article because an ethics panel in that country objected to the scientists’ use of fetal tissue.

The article involves a controversial aspect of modern Japanese history — the country’s efforts to eradicate leprosy, or Hansen’s disease, by isolating patients in a string of state-run sanatoriums. The policy was eventually realized to be unnecessary and ruled unconstitutional in 2003, triggering a wave of apologies to patients and their families.

The paper, “Molecular Epidemiology of a Hepatitis C Virus Outbreak in a Leper Colony in Japan,” reported on an outbreak of Hep C at National Sanatorium Oka-Kampo-En, one of 13 such facilities. According to the researchers, the sanatorium, on a small island, was plagued by a surge in Hep C infections that lasted from 1940 to 1999. Hep C causes cirrhosis and liver cancer, and rates of those two diseases also spiked during that period.

The Japanese researchers wanted to see how patients in the colony were contracting Hep C, which generally passes from person to person by sexual contact, or the sharing of contaminated needles and other items. Their theory was that the route of transmission was nosocomial — in other words, health care workers on the island were infecting patients through cross-contamination.

And they appeared to be correct. As the authors note:

“Most of the patients in the sanatorium had received regular intravenous drugs for treatment of pain and subcutaneous injection of chloramphenicol for the treatment of leprosy using nondisposable syringes and needles. Furthermore, leprosy is a dermatological disease, and patients’ skin was cared for with reusable sharps and bandages. Thus, there were many chances for staff and patients to come into contact with blood without adequate sterilization.

None of that appears to be in dispute. What is in question, however, is whether the researchers had — as they seem to have believed — ethics approval for their work.

According to the retraction notice.
RETRACTION GUIDELINES

Summary

Journal editors should consider retracting a publication if:

- they have clear evidence that the findings are unreliable, either as a result of misconduct (e.g. data fabrication) or honest error (e.g. miscalculation or experimental error)
- the findings have previously been published elsewhere without proper crossreferencing, permission or justification (i.e. cases of redundant publication)
- it constitutes plagiarism
- it reports unethical research

Journal editors should consider issuing an expression of concern if:

- they receive inconclusive evidence of research or publication misconduct by the author
- there is evidence that the findings are unreliable but the authors/ institution will not investigate the case

Thank you!