

論文撤回、発表後の論文批判と不正：
Retraction Watch (RW)を通じて、われわれは何を学んだか

Retractions, Post-Publication Peer Review, and Fraud: What We've Learned At Retraction Watch

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なぜ、Retraction Watch (RW)を創設したのか

Why We Launched Retraction Watch

Why write a blog about retractions?



Post by Ivan Oransky and Adam Marcus

The unfolding drama of Anil Potti — a Duke researcher who posed as a Rhodes Scholar and appears to have invented key statistical analyses in a study of how breast cancer responds to chemotherapy — has sent rin-



Retraction Watch (RW)の情報源

How Retraction Watch Works

- Tips
- Search alerts
- Interviews
- Public records requests



人的・経済的資源

Current Resources

- Two co-founders, me and Adam Marcus
- Four staff members: An editor, two reporters, and a full-time researcher (PhD)
- Current or past funding from the MacArthur and Arnold Foundations, and Helmsley Trust



どのような基準で事例を選択しているか

How We Decide What To Write About

- What's new?
- What does the story reveal about the publication process?
- Is the paper highly cited?
- Are high-profile researchers, institutions, or fields involved?



Retraction Watch はエコ・システムとも言える複数のサイトの一つです

Part of An Ecosystem



Retraction Watch はどのような反響・影響を及ぼしているか

Are We Having An Effect?

- Cited >100 times in the scientific literature, including in retraction notices
- Cited at least weekly, on average, in the mainstream media
- New journal policies, improved retraction notices



Retraction Watchのデータベースです

Our Database

Title/Link(s)/Journal	Reason(s)	Author(s)	Original Paper Date/PubMed/DOI	Retraction or Other Notice Date/PubMed/DOI
A significant causal association between C-reactive protein levels and schizophrenia	*Error in Data	Masahiko Inoshita Shunkei Yamata Shunkei Dajima Makoto Kinoshita Hisahiro Uemura Masahiko Nakahiki Masahiko Inada	05/19/2016 27193311 10.1038/srep26105	02/21/2018 29445083 10.1038/srep46947

retractiondatabase.org
Nearly 17,000 retractions



近年の論文撤回頻度と率を数字で表すと

Retractions By The Numbers

Year	# of Retractions	# of Papers Published	%
2000	36	1MM	.004
2008	360	1.2MM	.030
2010	4822	1.4MM	.344*
2014	802	1.6MM	.050
2016	1359	1.8MM	.068

retractiondatabase.org



データベースとしての使い方

Use Cases For Database

- Scholars
- Publishers
- Institutions



論文撤回の理由の主なものは

Common Reasons for Retractions

- Duplication (“self-plagiarism”)
- Plagiarism
- Image Manipulation
- Faked Data
- Fake Peer Reviews
- Publisher Error
- Authorship Issues
- Legal Reasons
- Not Reproducible



そこまでやるか。

Fake It ‘Till You Make It

Retraction Watch Tracking retractions a

A new record: Major publisher retracting more than 100 studies from cancer journal over fake peer reviews

with 16 comments


Springer is [retracting 107 papers](#) from one journal after discovering they had been accepted with fake peer reviews. Yes, 107.

To submit a fake review, someone (often the author of a paper) either makes up an outside expert to review the paper, or suggests a real researcher — and in both cases, provides a fake email address that comes back to someone who will invariably give the paper a glowing review. In this case, Springer, the publisher of *Tumor Biology* through 2016, told us that an investigation produced “clear evidence” the reviews were submitted under the names of real researchers with faked emails. Some of the authors may have used a third-party editing service, which may have supplied the reviews. [The journal is now published by SAGE.](#)



論文撤回の殆どが不正を背景としている

Most Retractions Due to Misconduct



Misconduct accounts for the majority of retracted scientific publications

Ferric C. Fang^{ab,1}, R. Grant Steen^{c,1}, and Arturo Casadevall^{a,b,1,2}

Departments of ^aLaboratory Medicine and ^bMicrobiology, University of Washington School of Medicine, Seattle, WA 98195; ^cMediCCI Medical Communications Consultants, Chapel Hill, NC 27517; and ^dDepartment of Microbiology and Immunology, Albert Einstein College of Medicine, Bronx, NY 10461

Edited by Thomas Shenk, Princeton University, Princeton, NJ, and approved September 6, 2012 (received for review July 18, 2012)

A detailed review of all 2,047 biomedical and life-science research articles indexed by PubMed as retracted on May 3, 2012 revealed that only 21.3% of retractions were attributable to error. In contrast, 67.4% of retractions were attributable to misconduct, including fraud or suspected fraud (43.4%), duplicate publication (14.2%), and plagiarism (9.8%). Incomplete, uninformative or misleading retraction announcements have led to a previous underestimation of the role of fraud in the ongoing retraction epidemic. The percentage of scientific articles retracted because of fraud has increased ~10-fold since 1975. Retractions exhibit distinctive temporal and geographic patterns that may reveal underlying causes.

bibliometric analysis | biomedical publishing | ethics | research misconduct

The number and frequency of retracted publications are important indicators of the health of the scientific enterprise, because retracted articles represent unequivocal evidence of project failure, irrespective of the cause. Hence, retractions are worthy of rigorous and systematic study. The retraction of flawed publications corrects the scientific literature and also provides insights into the scientific process. However, the rising frequency of retractions has recently elicited concern (1, 2). Studies of selected retracted articles have suggested that error is more common than fraud as a cause of retraction (3–5) and that rates of retraction correlate with journal impact factor (6). We undertook

published by the authors of a manuscript in the *Journal of Cell Biology* stated that “In follow-up experiments . . . we have shown that the lack of FOXO1a expression reported in figure 1 is not correct” (11). A subsequent report from the Office of Research Integrity states that the first author committed “research misconduct by knowingly and intentionally falsely reporting . . . that FOXO1a was not expressed . . . by selecting a specific FOXO1a immunoblot to show the desired result” (12). In contrast to earlier studies, we found that the majority of retracted articles were retracted because of some form of misconduct, with only 21.3% retracted because of error. The most common reason for retraction was fraud or suspected fraud (43.4%), with additional articles retracted because of duplicate publication (14.2%) or plagiarism (9.8%). Miscellaneous reasons or unknown causes accounted for the remainder. Thus, for articles in which the reason for retraction is known, three-quarters were retracted because of misconduct or suspected misconduct, and only one-quarter was retracted for error.

Temporal Trends. A marked recent rise in the frequency of retraction was confirmed (2, 13), but was not uniform among the various causes of retraction (Fig. 1A). A discernible rise in retractions because of fraud or error was first evident in the 1990s, with a subsequent dramatic rise in retractions attributable to fraud occurring during the last decade. A more modest increase

Retraction Watch

PNAS online October 1, 2012

What Happens to Retracted Papers' Citations?

Retracted Publications in Biomedicine: Cause for Concern

John M. Budd, Zach C. Coble and Katherine M. Anderson

Abstract
Retractions of articles and citations to retracted work continue to be a cause for concern. In 1999, Budd et al. found 235 retracted publications in the biomedical literature for a 30-year period. Nearly 40% were retracted because of misconduct. The current study found 1,164 retracted articles in the 12-year period between 1997 and 2009. Of the 1,112 articles included for analysis, 55% were retracted for some type of misconduct. While this number represents a small minority of the total number of publications in biomedicine, it is still substantial, and the impact of the retracted works can be significant. In PubMed, notifications of retractions error and (especially) misconduct, the current study is intended to alert information professions and information users about the challenges inherent in the literatures of many fields, particularly biomedicine.

Introduction
At times and for a variety of reasons, it can be necessary for a published article to be retracted. While retracted articles represent a small minority of all published articles, there is continued concern about the phenomenon of retraction. In a recent report in the *Times Higher Education*, Corbyn notes that the rate at which scientific articles are retracted has increased

Retraction Watch

-Assn of College & Research Libraries 2011

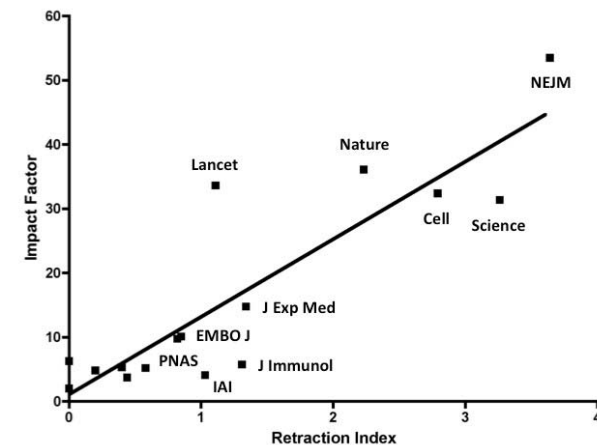
What Happens to Retracted Papers' Citations?

Budd et al, 1999:

- Retracted articles received more than 2,000 post-retraction citations; less than 8% of citations acknowledged the retraction
- Preliminary study of the present data shows that continued citation remains a problem
- Of 391 citations analyzed, only 6% acknowledge the retraction

Retraction Watch

Which Journals Retract?



Retraction Watch

-Infection and Immunity 2011

論文撤回数の多い個人ランキングもデータから

Who Retracts Most?

The Retraction Watch Leaderboard

with 21 comments

Who has the most retractions? Here's our unofficial list (see notes on methodology), which we'll update as more information comes to light:

1. [Yoshitaka Fujii](#) (total retractions: 183) Sources: [Final report of investigating committee](#), [our reporting](#)
2. [Joachim Boldt](#) (96) Sources: [Editors in chief statement](#), [additional coverage](#)
3. [Diederik Stapel](#) (58) Source: [Our cataloging](#)
4. Adrian Maxim (48) Source: [IEEE database](#)
5. [Peter Chen](#) (Chen-Yuan Chen) (43) Source: [SAGE](#), [our cataloging](#)
6. Hua Zhong (41) Source: [Journal](#)
7. [Shigeaki Kato](#) (39) Source: [Our cataloging](#)
8. [James Hunton](#) (37) Source: [Our cataloging](#)
9. [Hendrik Schön](#) (36) Sources: PubMed and Thomson Scientific
10. [Hyung-In Moon](#) (35) Source: [Our cataloging](#)



どのようにして、最悪の研究不正が摘発されたか



<http://nautil.us>

ジャーナルは撤回論文の広報に熱心か

Do Journals Get the Word Out?

ISSN 2162-3309

10.7710/2162-3309.2199

RESEARCH

Retracted Publications in Mental Health Literature: Discovery across Bibliographic Platforms

Caitlin Bakker

Biomedical/Research Services Liaison, University of Minnesota

Amy Riegelman

Social Sciences Librarian, University of Minnesota

Journal of Librarianship and Scholarly Communication, January 8, 2018



ジャーナルは撤回論文の広報に熱心か

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RESEARCH

Of the 812 records for retracted publications, 40.0% (n=325) did not indicate that the paper had been retracted.

Amy Riegelman

Social Sciences Librarian, University of Minnesota

Journal of Librarianship and Scholarly Communication, January 8, 2018



われわれはすべての不正を把握しているのか
Are We Catching Them All?



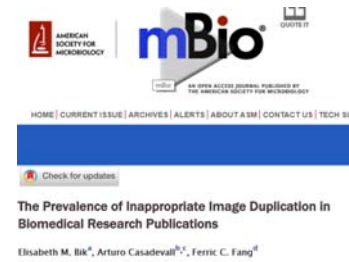
A tragedy of errors

Mistakes in peer-reviewed papers are easy to find but hard to fix, report David B. Allison and colleagues.

Allison et al Nature 2016 <http://www.nature.com/news/reproducibility-a-tragedy-of-errors-1.19264>



われわれはすべての不正を把握しているのか
Are We Catching Them All?



“Overall, 3.8% of published papers contained problematic figures, with at least half exhibiting features suggestive of deliberate manipulation. The prevalence of papers with problematic images has risen markedly during the past decade.”



不正は、やるだけの価値があるのか
Does Crime Pay?

“A total of 39 science researchers from 7 countries were identified as having been subject to criminal sanctions for actions related to research misconduct between 1979 and 2015, along with 4 researchers still on trial or awaiting sentencing. Criminal sanctions ranged from suspended sentences to 15 years in prison, with an outlier case involving 1st degree murder resulting in a life sentence.”

<https://www.eventure-online.com/eventure/public/publicAbstractView.form?id=310802&congressId=10578&from=sessionId&fromId=377128>



正しい行動は、それなりに良い結果を生む
Doing The Right Thing Does

Retraction Watch Tracking retraction process

Doing the right thing: Scientists reward authors who report their own errors, says study

with 7 comments

We've always like to [highlight cases](#) in which scientists [do the right thing](#) and retract problematic papers themselves, rather than being forced to by editors and publishers. Apparently, according to a new paper by economists and management scholars, scientists reward that sort of behavior, too.

The study by [Benjamin Jones](#) of the Kellogg School of Management at Northwestern University and the National Bureau of Economic Research and colleagues, "The Retraction Penalty: Evidence from the Web of Science," was published yesterday in *Scientific Reports*, a Nature Publishing Group title.

The authors lay out what they do:

In this paper, we draw on all retraction notices in the Web of Science (WOS) database. We focus on the



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