

Retractions of Publications: Past, Present, and Future

MiRoR
Split, Croatia
October 2, 2018

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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-

The Retraction Watch Database

Search interface for the Retraction Watch Database. The interface includes search filters for Author(s), Country(s), Title, Reason(s) for Retraction, Subject(s), Journal, Publisher, Affiliation(s), Notes, and URL. It also features date and PubMed ID filters for Original Paper and Retraction or Other Notices, along with a dropdown for the Nature of Notice (Retracted, Paywalled).

Search Results Table:

Retraction or Other Notices Date/PubMedID/DOI	Reason(s)	Author(s)	Original Paper Date/PubMedID/DOI	Retraction or Other Notices Date/PubMedID/DOI	Ar Ty Nati Ne
37 Item(s) Found					
Munro tonalite intrusion (Chubut Province, Argentina): A explosive volcanism?	+Error by Journal/Publisher	Carmen Rodriguez Eugenio Aragon	06/10/2017 00000000	08/12/2017 00000000	Resea Artic
<i>American Earth Sciences</i> --- Elsevier	+Withdrawal	Antonio Castro Rocio Pedreira A Sanchez-Navas Juan Diaz-Alvarado Fernando Javier d'Eramo Lucio Pinotti Yolanda E Aguilera Claudia E Cavarozzi Manuel Demartis Irene Raquel Hernando	10.1016/j.jsames.2017.06.002	10.1016/j.jsames.2017.08.001	Retra
encias de la Tierra, Universidad de Huelva, Campus El Carmen,					
Naturales y Museo (UNLP), 122 y 60, s/n. (1900), La Plata, tina					
ences appliquees, Unite d'enseignement en sciences de la Terre, Iniversite (G7H 2B1), Chicoutimi, Québec, Canada					
neralogia y Petrologia, Universidad de Granada, Spain					

retractiondatabase.org



Retractions By The Numbers

Year	# of Retractions	# of Papers Published	%
2000	39	1MM	.004
2008	367	1.2MM	.031
2010	4862	1.4MM	.347*
2014	868	1.6MM	.054
2016	1418	1.8MM	.078

retractiondatabase.org

as of October 2, 2018

Common Reasons for Retractions

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

Most Retractions Due to Misconduct

Misconduct accounts for the majority of retracted scientific publications

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

Departments of ^aLaboratory Medicine and ^bMicrobiology, University of Washington School of Medicine, Seattle, WA 98195; ^cMedICC! 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

PNAS PNAS PNAS

MEDICAL SCIENCES

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.

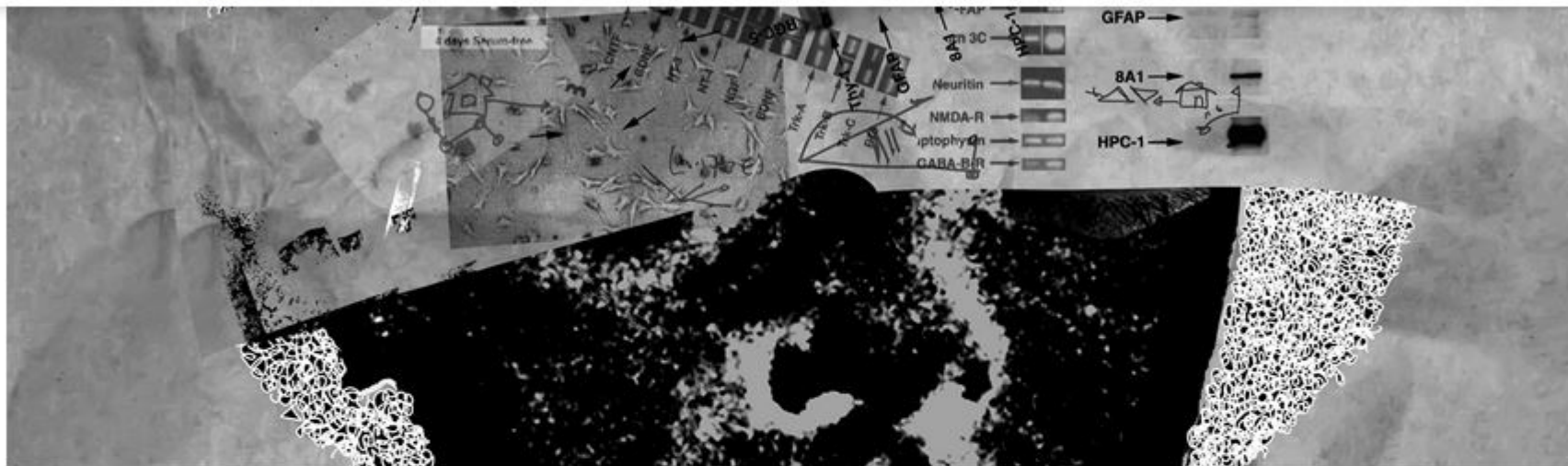
Allison et al Nature 2016 <http://www.nature.com/news/reproducibility-a-tragedy-of-errors-1.19264>

Who Retracts Most?

The Retraction Watch Leaderboard

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) See also: [Final report of investigating committee](#), [our reporting](#), [additional coverage](#)
2. [Joachim Boldt](#) (96) See also: [Editors-in-chief statement](#), [our coverage](#)
3. [Diederik Stapel](#) (58) See also: [our coverage](#)
4. [Adrian Maxim](#) (48) See also: [our coverage](#)
5. [Chen-Yuan \(Peter\) Chen](#) (43) See also: [SAGE](#), [our coverage](#)
6. [Yoshihiro Sato](#) (43) See also: [our coverage](#)
7. [Hua Zhong](#) (41) See also: [journal notice](#)
8. [Shigeaki Kato](#) (39) See also: [our coverage](#)
9. [Jun Iwamoto](#) (39) See also: [our coverage](#)
10. [Yuhji Saitoh](#) (39) See also: [our coverage](#)



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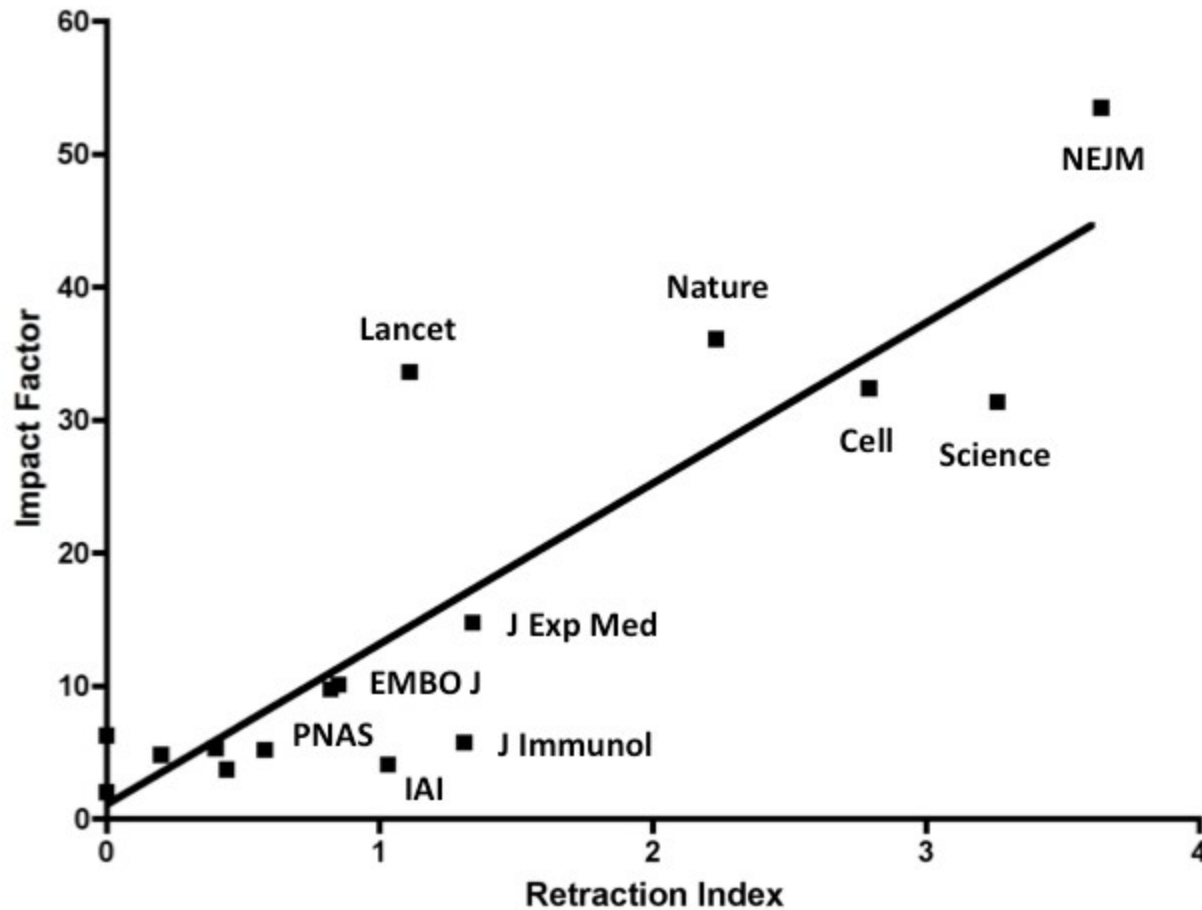
IDEAS | SCIENTIFIC FRAUD

How the Biggest Fabricator in Science Got Caught

Yoshitaka Fujii falsified 183 papers before statistics exposed him.

BY ADAM MARCUS & IVAN ORANSKY
ILLUSTRATION BY LOUISA BERTMAN
MAY 21, 2015

Which Journals Retract?



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

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

Do Journals Get the Word Out?

ISSN 2162-3309

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RESEARCH

Retracted Publications in Mental Health Literature: Discovery across Bibliographic Platforms

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Amy Riegelman

Social Sciences Librarian, University of Minnesota

Journal of Librarianship and Scholarly Communication,
January 8, 2018

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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

The Sleuths



The screenshot shows the top portion of the mBio journal website. On the left is the logo for the American Society for Microbiology, featuring a red square with a white microscope icon and the text "AMERICAN SOCIETY FOR MICROBIOLOGY". To its right is the mBio logo, which consists of a grey triangle pointing right, containing the text "mBio" in blue and black. Further right is a "QUOTE IT" icon. Below these is a navigation bar with links: "HOME | CURRENT ISSUE | ARCHIVES | ALERTS | ABOUT ASM | CONTACT US | TECH SUPP". A blue horizontal bar is positioned below the navigation. Underneath the blue bar is a "Check for updates" button with a circular icon. The main title of the article, "The Prevalence of Inappropriate Image Duplication in Biomedical Research Publications", is displayed in bold black text. Below the title are the authors' names: "Elisabeth M. Bik^a, Arturo Casadevall^{b,c}, Ferric C. Fang^d".

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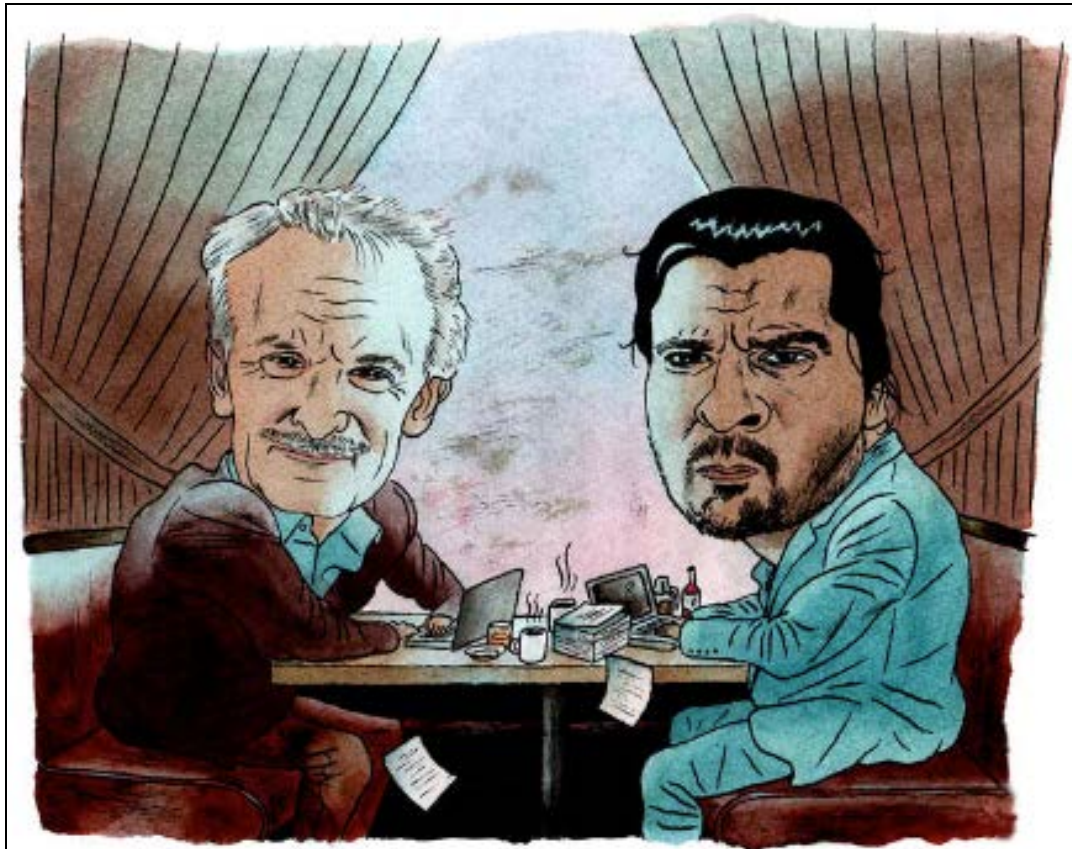
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Check for updates

The Prevalence of Inappropriate Image Duplication in Biomedical Research Publications

Elisabeth M. Bik^a, Arturo Casadevall^{b,c}, Ferric C. Fang^d

“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.”



Nick Brown (left) and James Heathers (right) act as enforcers when they spot anomalies in the literature.
ANDY FRIEDMAN

Meet the 'data thugs' out to expose shoddy and questionable research

By Adam Marcus, Retraction Watch, Ivan Oransky, Retraction Watch | Feb. 14, 2018, 12:45 PM

<http://www.sciencemag.org/news/2018/02/meet-data-thugs-out-expose-shoddy-and-questionable-research>

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<http://retractionwatch.com>

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