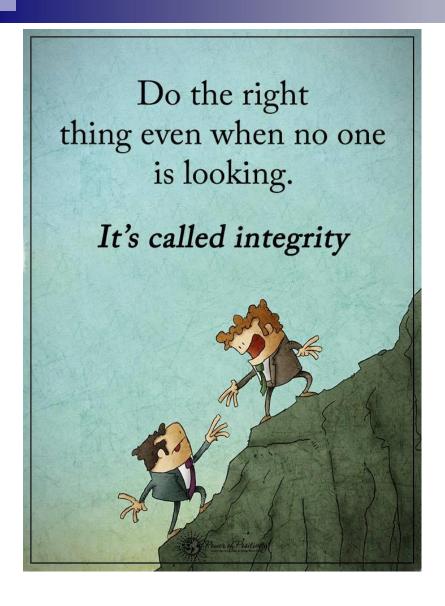
Retraction: Definition, Types & Avoidances

Payam Kabiri, MD, Ph.D. Clinical Epidemiologist



What is integrity?

Todays Outline

- In this session, we will talk about:
- What's the retraction meanings?
- 2. Different types of retraction
- 3. The cycle of retraction
- 4. Frequent reasons for retraction
- 5. How to avoid papers retraction

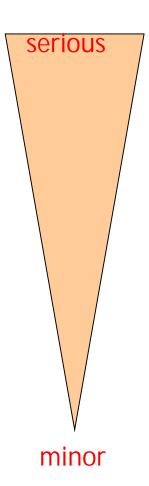
Research Misconduct

Definition of Research Misconduct

"Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results."

Research Misconduct

- Fabrication of Data or Cases
- Wilful Distortion of Data
- Plagiarism
- No Ethics Approval
- Not Admitting Missing Data
- Ignoring Outliers
- No Data on Side Effects
- Gift & Ghost Authorship
- Redundant Publication
- Failure to do Adequate Literature Search



What is Retraction?



What is Retraction?

Retraction is the act of taking back a statement or admitting that it was false. It can be used in various contexts:

- 1) Academic Research
- 2) Journalism
- 3) Legal
- 4) Personal

Retraction in Academic Research

When a published research paper is found to contain errors or inaccuracies, the author or publisher may issue a retraction to remove the paper from the scientific record.

Retraction in Journalism

If an article contains false or misleading information, the journal or news outlet may publish a retraction to withdraw the news or paper & correct the error.

Retraction in Legal Issues

In legal proceedings, a retraction may be used to withdraw a statement or testimony that was previously made.

Retraction in Personal Affairs

In personal interactions, a retraction can be used to apologize for something that was said or done.

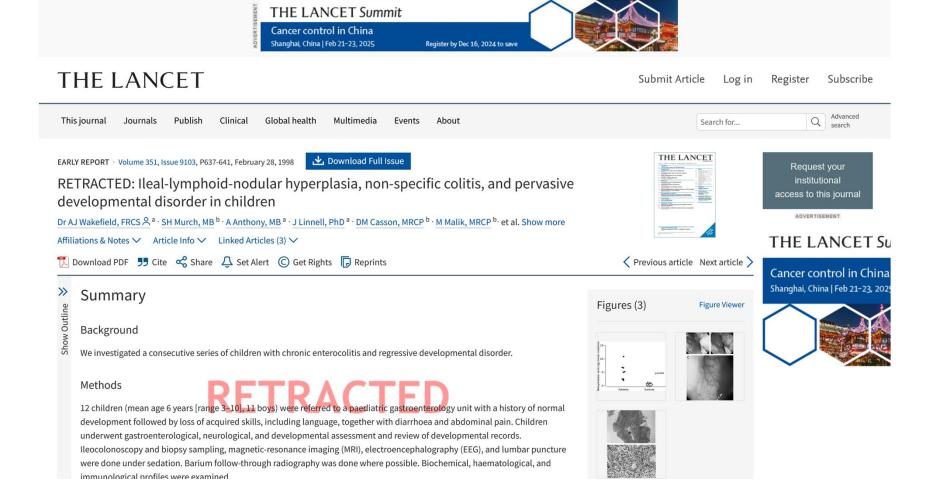
Importance of Retraction

Retractions are important for maintaining accuracy and integrity in various fields. They help to ensure that information is reliable and that mistakes are corrected.

Reasons for Retraction

- In academic publishing, a retraction is a formal process where a published article is flagged for being seriously flawed to the extent that its results and conclusions can no longer be relied upon.
- This means the article is not removed from the published literature but is marked as retracted.

Retraction Famous Case



- In 1998, a *Lancet* paper described 12 cases of children with autism, and having been vaccinated (MMR) in the United Kingdom; medias presented the information to the lay public, stating that a link was possible.
- In 2004, The *Lancet* published letters responding to allegations against the paper.

- Later, it was established that no link existed between MMR and autism; few years and many publications were necessary to conclude to the absence of evidence.
- In 2010, the General Medical Council published a report against Dr Wakefield, first author of the 1998 paper, and showing that the children hospital records did not contain the evidence; hospital records differed from the published paper; the Lancet retracted the 1998 paper.

- In 2011, Brian Deer, a journalist, published the complete story in the *BMJ*: in 1996, Wakefield was approached by lawyers representing an anti-vaccine lobby, and they supported the Wakefield research.
- Dr Wakefield left England; in 2012 he works in Texas, USA, for anti-vaccine lobbies.



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10.1016/S0140-6736(97)11096-0

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⟨Back to results ⟨Previous 39 of 62 Next⟩ 业 Download 日 Print Bare to PDF ☆ Save to list ☐ Create bibliography Lancet • Volume 351, Issue 9103, Pages 637 - 641 • 28 February 1998 Document type Article Source type 1ournal

Retracted: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

Wakefield A.J.a; Murch S.H.b; Anthony A.a; Linnell J.a; Casson D.M.b; Malik M.b; Berelowitz M.c; Dhillon A.P.a; Thomson M.A.b; Harvey P.d; Valentine A.e; Davies S.E.a Show additional authors \vee 🖳 Save all to author list

^a Inflammatory Bowel Dis. Study Group, Univ. Depts. of Med. and H., Roy. Free Hosp. and Sch. of Med., London NW3 2QG, United Kingdom

^b Univ. Dept. of Paediatr. G., Roy. Free Hosp. and Sch. of Med., London NW3 2QG, United Kingdom

^c Univ. Dept. of Child and Adol. P., Roy. Free Hosp. and Sch. of Med., London NW3 2QG, United

^d Univ. Dept. of Neurology, Roy. Free Hosp. and Sch. of Med., London NW3 2QG, United Kingdom View additional affiliations >

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Zhang, H., Maillo, A., Khan, S.A. (2024) Computational and Structural Biotechnology Journal

Effects of Simulation on Nursing students' Knowledge and Learning Related to Measles Vaccine and Vaccine Hesitancy: A Mixed Method Study

Yılmaz, H., Stephen, T., Gundermann,

(2024) Nursing and Health Sciences

Hidden: A Baker's Dozen Ways in Which Research Reporting is Less Transparent than it Could be and Suggestions for Implementing Einstein's Dictum

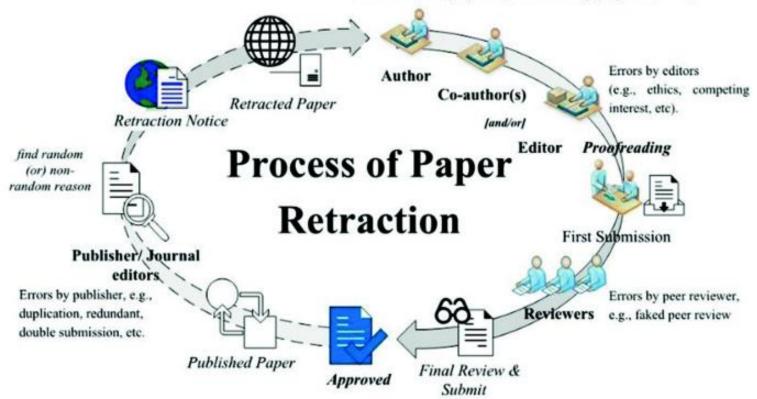
Siddique, A.B., Shaw, B., Dwyer, J. (2024) Science and Engineering Ethics

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- The retraction process usually involves the following steps:
- Identification of the issue: The issue with the article may be identified by the authors themselves, by reviewers, editors, or by other researchers.
- Investigation: The journal's editors or an ethics committee may investigate the issue to determine if a retraction is warranted.

- Decision to retract: If the investigation confirms serious flaws, the journal will issue a formal retraction notice.
- Publication of the retraction notice: The retraction notice is typically published in the same journal where the original article appeared. It clearly states the reasons for the retraction and may include a statement from the authors.

Errors by author, e.g., improper data in result, data fabrication, falsification, self-plagiarism, saLami slicing, plagiarism, ...etc.,



Al-Hidabi, M.D.A., Teh, P.L. (2019). Multiple Publications: The Main Reason for the Retraction of Papers in Computer Science. In: Arai, K., Kapoor, S., Bhatia, R. (eds) Advances in Information and Communication Networks. FICC 2018. Advances in Intelligent Systems and Computing, vol 886. Springer, Cham. https://doi.org/10.1007/978-3-030-03402-3_35

Retraction Labeling & Process

- Adding the word "Retracted" in front of paper title in the journal & also its record in databases like ISI, Scopus, PubMed.
- Publishing "Retraction Announcement" or "Retraction Statement" & explain the retraction reasons by journal, linking to the original paper.
- Putting a note on the original paper page that this paper has an Update or related Announcement.
- Adding the "Retracted Paper" watermark to the paper PDF.

Retraction Labeling in Publication Type



Oxidative Medicine and **Cellular Longevity**











[Retracted] Mitochondrial Dysfunction and Cardiovascular Disease: Pathophysiology and Emerging Therapies

Retraction(s) for this article ^

Retracted: Mitochondrial Dysfunction and Cardiovascular Disease: Pathophysiology and **Emerging Therapies**

Oxidative Medicine and Cellular Longevity

Volume 2024, Issue 1, Oxidative Medicine and Cellular Longevity | First Published online: January 9, 2024

1 of 1





The Lancet • Open Access • 2020

Document type

Retracted • Hybrid Gold Open Access

Source type

Journal

ISSN

01406736

DOI

10.1016/S0140-6736(20)31180-6

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RETRACTED: Hydroxychloroguine or chloroguine with or without a macrolide for treatment of COVID-19: a multinational registry analysis



Update notice

Retraction—"Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis" (The Lancet, (\$0140673620311806), (10.1016/\$0140-6736(20)31180-6))

The Lancet, Volume 395, Issue 10240, Pages 1820, 13 - 19 June 2020

Mehra, Mandeep R^a ; Desai, Sapan S^b; Ruschitzka, Frank^c; Patel, Amit N^{d, e}



^a Brigham and Women's Hospital Heart and Vascular Center and Harvard Medical School, Boston, MA, United States

Cited by 634 documents

A Glimpse for the subsistence from pandemic SARS-CoV-2 infection

Rath, S.K., Dash, A.K., Sarkar, N. (2025) Bioorganic Chemistry

The impact of COVID-19 on the debate on open science: a qualitative analysis of published materials from the period of the pandemic

Benson Marshall, M., Pinfield, S., Abbott, P.

(2024) Humanities and Social Sciences Communications

Exploring the linkage between health technology assessment and decision making during COVID-19 public health emergency in a developing country: Analysis of processes and results

Hasdeu, S., Beliera, A., Alvarez, J. (2024) International Journal of Technology Assessment in Health Care

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^b Surgisphere Corporation, Chicago, IL, United States

Retraction Statement

Statement of Retraction: The impact of letrozole on oocyte quality in assisted reproductive technology (ART); a randomized double-blind clinical trial

Article: 2419765 | Published online: 02 Nov 2024





The PDF view of a Retracted Paper

Consider the watermark located in the background of the published paper.

Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis



Mandeep R Mehra, Sapan S Desai, Frank Ruschitzka, Amit N Patel

Summary

Background Hydroxychloroquine or chloroquine, often in combination with a second-generation my saide, are be widely used for treatment of COVID-19, despite no conclusive evidence of their benefit. Although the dealth of the conclusive evidence of their benefit is despited indications such as autoimmune disease or malaria, the safety and benefit of the creatment regimens are poorly evaluated in COVID-19.

Methods We did a multinational registry analysis of the use of hydroxychloroquine thout a quine wit macrolide for treatment of COVID-19. The registry comprised data from 671 hosp ntinents. We included patients hospitalised between Dec 20, 2019, and April 14, 2020, with a positive laboratory g for SARS-CoV-2. Patients who received one of the treatments of interest within 48 h of diagno included in f four treatment groups (chloroquine alone, chloroquine with a macrolide, hydroxychlor ne alone, or hydroxychloroquine with a macrolide), and patients who received none of these treatments formed control gr Patients for whom one of the treatments of interest was initiated more than 48 h after diagnosis of on mechanical ventilation, ile they we as well as patients who received remdesivir, were excluded. The main outc t were in-hospital mortality and the occurrence of de-novo ventricular arrhythmias tained or ed ventricular tachycardia or ventricular fibrillation).

OVID-19 were hospitalised during the study Findings 96 032 patients (mean age 53 · 8 years, 46 · 39 period and met the inclusion criteria. Of the patie were in the treatment groups (1868 received chloroquine, 3783 received chloroquine with eived hydroxychloroquine, and 6221 received hydroxychloroquine with a macrolide) and e control group. 10698 (11.1%) patients died in hospital. After controlling for multiple sex, race or ethnicity, body-mass index, underlying cardiovascular disease and its risk fact diabete erlying lung disease, smoking, immunosuppressed condition, and baseline disease severity), w ortality in the control group (9.3%), hydroxychloroquine mpared wi (18.0%; hazard ratio 1.335, 95% 457), hydro ychloroguine with a macrolide (23 · 8%; 1 · 447, 1 · 368-1 · 531), chloroquine with a macrolide (22.2%; 1.368, 1.273-1.469) were each chloroquine (16 · 4%; 1 · 365, n an increased f in-hospital mortality. Compared with the control group (0.3%), independently associated 935-2.900, hydroxychloroquine with a macrolide (8.1%; 5.106, 4.106-5.983), hydroxychloroquine (chloroquine (4.3%; 0-4.596), and chloroquine with a macrolide (6.5%; 4.011, 3.344-4.812) were independently associate ed risk of de-novo ventricular arrhythmia during hospitalisation.

Interpretation we will unable a married on in spital outcomes for COVID-19. Each of these drug regimens was associated with decreased in-hospital vision in the spital outcomes for COVID-19. Each of these drug regimens was associated with decreased in-hospital vision in the spital outcomes for COVID-19.

Funding William vey Distinguished Chair in Advanced Cardiovascular Medicine at Brigham and Women's Hospital.

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P ed Online ,22, 2020 nttps://doi.org/10.1016/ S0140-6736(20)31180-6

> This online publication has been corrected. The corrected version first appeared at thelancet.com on May 29, 2020

See Online/Comment https://doi.org/10.1016/ 50140-6736(20)31174-0

Brigham and Women's Hospita Heart and Vascular Center and Harvard Medical School Roston MA IISA (Prof M R Mehra MD): Surgisphere Corporation Chicago, IL, USA (S S Desai MD); University Heart Center. University Hospital Zurich Zurich, Switzerland (Prof F Ruschitzka MD); Department of Biomedica **Engineering, University** of Utah, Salt Lake City, UT, USA (A N Patel MD): and HCA Research Institute, Nashvi TN, USA (A N Patel)

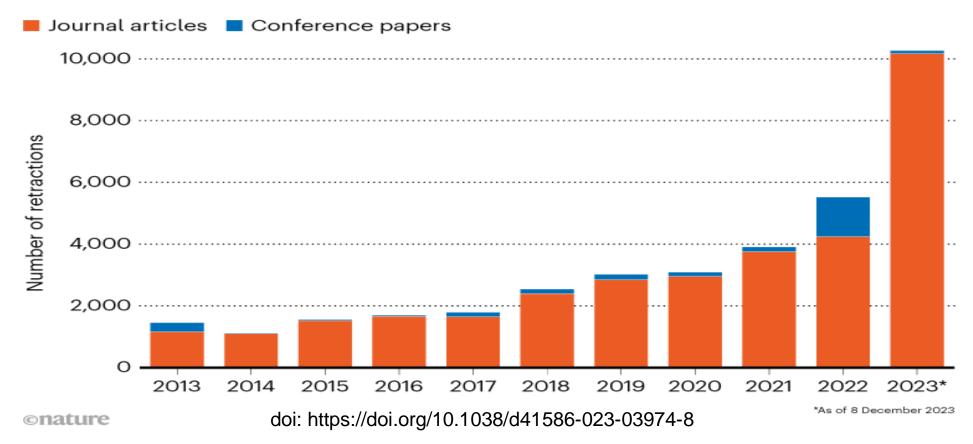
Correspondence to: Prof Mandeep R Mehra, Brigham and Women's Hospital Heart and Vascular Center and Harvard Medical School, Boston, MA 02115, USA

Statistics for Retraction

Trend of Retracted Papers

A BUMPER YEAR FOR RETRACTIONS

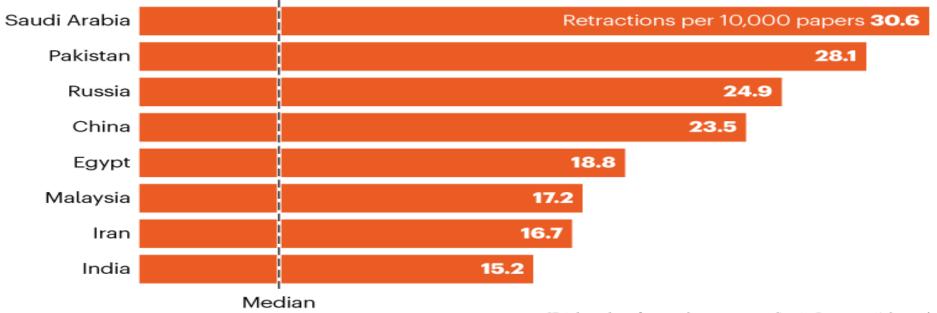
Retraction notices in 2023 have passed 10,000, largely because of more than 8,000 retractions by Hindawi.



Countries with the most Rate of Retracted Papers

COUNTRIES WITH HIGHEST RETRACTION RATES

Saudi Arabia, Pakistan, Russia and China have the highest retraction rates among countries with >100,000 papers* published over the past two decades.

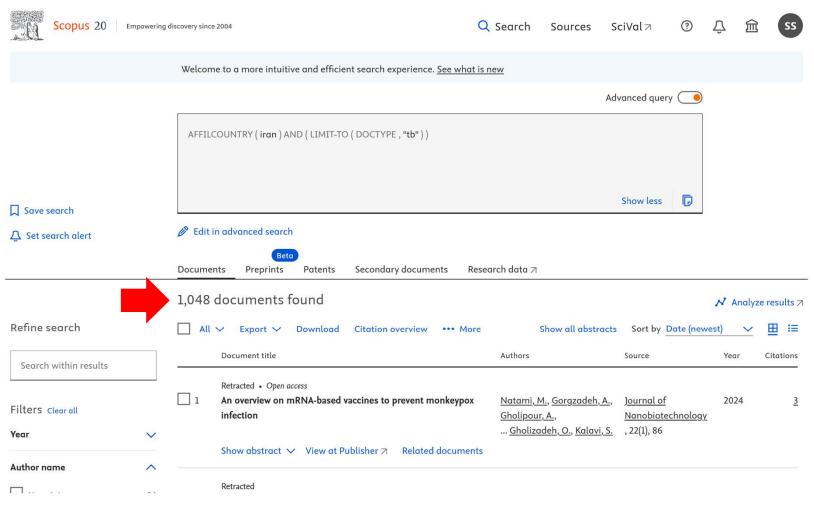


*Total number of research papers according to Scopus: articles and reviews. Analysis excludes conference papers (and their retractions)

onature

doi: https://doi.org/10.1038/d41586-023-03974-8

Iran Retracted Papers based on Scopus



Reasons for Retraction

Reasons for Retraction

- Scientific Misconduct
- Ethical Violations
- Errors
- Duplicate or Redundant Publication
- Publisher Errors
- Fraudulent Peer Review
- Violations of Journal Policies
- Post-Publication Discovery of Flaws

Scientific Misconduct

- Fabrication: Making up data or results that were never collected or observed.
- Falsification: Manipulating data, research materials, or processes to misrepresent findings.
- Plagiarism: Using another researcher's work or ideas without proper attribution.
- Image Manipulation: Altering images (e.g., gels, micrographs) in ways that mislead or distort findings.

Example of Data Integrity Concerns

Since publication, significant concerns have been raised about the integrity of the data and reported results in the article. When approached for an explanation, the authors have not adequately addressed the concerns raised, and they have not provided their original data to verify that the research and published article comply with the journal's Editorial Policies. As verifying the validity of published work is core to the integrity of the scholarly record, we are therefore retracting the article. The authors have been informed, and they do not agree with the retraction.

We have been informed in our decision-making by our editorial policies and COPE guidelines.

The retracted article will remain online to maintain the scholarly record, but it will be digitally watermarked on each page as 'Retracted.'

Example of Image Manipulations

Retraction Note: BMC Med 17, 223 (2019)

https://doi.org/10.1186/s12916-019-1457-8

The Editor has retracted this article. After publication, concerns were raised regarding the images presented in Fig. 7. Specifically:

The left PHA image in Fig. 7a appears highly similar to the middle PHA image in Fig. 7b (rotated);

All the Medium images in Fig. 7a and b appear highly similar; the left and right images in Fig. 7b appear to be missing some features compared with the other images.

The authors have been able to provide the quantified data, but stated that the original images are no longer available. The Editor therefore no longer has confidence in the presented data.

None of the authors agrees to this retraction.

Image Manipulation

■ Image manipulation in academic publications refers to the unethical alteration, fabrication, or misrepresentation of images in research to distort or enhance findings. It is a serious form of scientific misconduct and, if detected, can lead to retractions, loss of credibility, and damage to the scientific record.

Image Manipulation

- 1) Duplication of Images
- 2) Image Fabrication
- 3) Image Falsification
- 4) Inappropriate Cropping
- 5) Misuse of Image Processing
- 6) Splicing
- 7) Improper Reuse Without Citation
- 8) Mislabeling

Duplication of Images

- Reusing the same image in multiple parts of the manuscript while labeling it as representing different experiments or conditions.
- Example: Using the same microscopy image to show different cell treatments.

Image Fabrication

- Creating or falsifying images that did not originate from actual experiments.
- Example: Generating graphs or figures without conducting the reported analysis.

Image Falsification

Altering images to exaggerate, hide, or misrepresent results.

Example: Enhancing bands in a Western blot or adding/removing features in microscopy images.

Inappropriate Cropping

Cutting parts of an image to mislead or change its context.

Example: Cropping out data points that don't support a hypothesis.

Misuse of Image Processing

- Using software (e.g., Photoshop) to enhance, modify, or obscure elements in a way that changes the interpretation of the data.
- Example: Adjusting brightness/contrast to amplify features that are not naturally visible.

Image Splicing

- Combining sections of different images into one without disclosing it in the methods or figure legends.
- Example: Splicing together parts of gels or blots to fabricate desired results.

Image Improper Reuse Without Citation

Using images from another study without permission or proper attribution, even if unaltered.

Image Mislabeling

Intentionally or unintentionally assigning incorrect labels to images, misrepresenting the data.

Tools to Detect Image Manipulation

- Proofig https://www.proofig.com
- ImageTwin https://imagetwin.ai
- ORI Forensic Tools https://ori.hhs.gov/forensic-tools
- Adobe Photoshop Forensic Features

Ethical Violations

- Failure to Obtain Ethical Approval: Not adhering to ethical standards, particularly in studies involving human or animal subjects.
- Authorship Disputes: Disagreements over who should be credited as authors.
- Conflicts of Interest: Undisclosed relationships or biases that may have influenced the research.

Errors

- Data Errors: Honest mistakes in data analysis, calculations, or reporting.
- Experimental Errors: Flawed experimental design or methods leading to invalid conclusions.
- Reproducibility Issues: Inability to replicate results, raising questions about reliability.

Duplicate or Redundant Publication

Publishing the same study or substantial parts of it in multiple journals, often referred to as "self-plagiarism".

Publisher Errors

- Editorial Mistakes: Errors in the publication process, such as publishing a paper that failed peer review.
- Technical Issues: Problems like incorrect file uploads or misinterpretation of the manuscript.

Fraudulent Peer Review

Submission of fake peer reviews to expedite publication, often using manipulated reviewer identities or email addresses.

Example: Fraudulent Peer Review

Abstract

The following article, published online on {First published: 27 January 2023} in Wiley Online Library {https://onlinelibrary.wiley.com/doi/full/10.1002/hsr2.1080} has been retracted by agreement between the journal's Editor-in-Chief, Charles Young and John Wiley & Sons Ltd. The retraction has been agreed given the journal has received evidence confirming that the peer review process of this paper was manipulated. As a result, the conclusions reported in the article are not considered reliable.

Violations of Journal Policies

Failure to disclose key details, such as funding sources, conflicts of interest, or methodology.

Post-Publication Discovery of Flaws

Identification of flaws in the study after publication, often through critiques by other researchers or whistleblowers.

Post-Publication Peer Review https://pubpeer.com/ LOGIN CREATE ACCOUNT

Home / Selected The PubPeer database contains all articles. Search for DOI, PMID, arXiv ID, keyword, author, etc. Q advanced search To leave the first comment on a specific article, paste a unique identifier such as a DOI, PubMed ID, or arXiv ID into the search bar. 平 2 days **Einstein Foundation Award** ago PubPeer (2024) 29 comments Ŧ 1 day \$1,000 awards for selected PubPeer comments! ago PubPeer (2024) Q1 comments

How to Find Retracted Papers?

Retraction Watch Database http://retractiondatabase.org

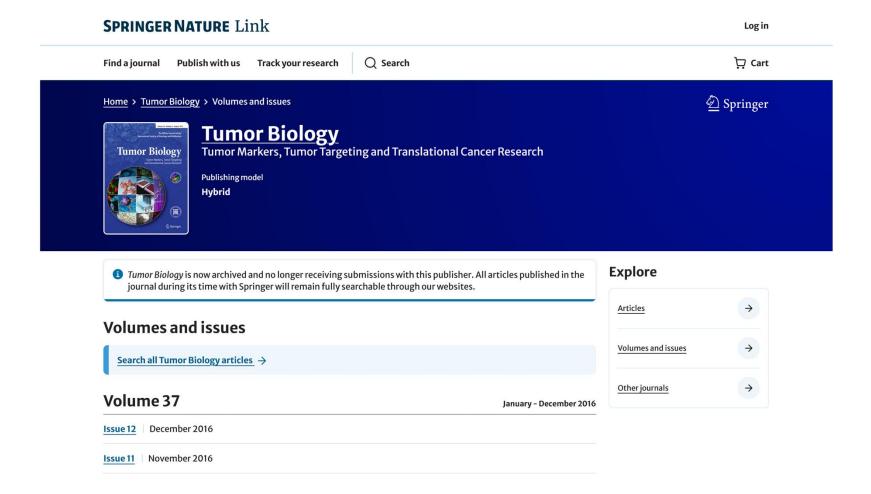
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Journal:			▼		Retraction or Other Notice
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Impact of Retraction

Impact of Retraction

- Retractions can have significant consequences for the authors, the journal, and the broader scientific community.
- They can damage the reputation of the authors and the journal, and can lead to loss of funding or job opportunities.
- Additionally, retractions can mislead other researchers who may have relied on the flawed findings.

Impact of Retraction: Journal



Impact of Retraction: Journal

Retractions and delisting [edit]

In April 2017, Springer announced it was retracting 107 papers that had been published in *Tumor Biology* while they were publishing it. According to Retraction Watch, this made *Tumor Biology* the journal with the most retracted articles out of all the journals indexed by the Web of Science at the time.^[8] The cited reason for the retractions was that the papers in question had been accepted on the basis of fake peer reviews.^[9] Specifically, the authors of the now-retracted studies had supplied fraudulent email addresses to external reviewers which purportedly belonged to their "recommended reviewers". This led to these papers receiving fake reviews and eventually being published.^{[7][10]}

In response, the Ministry of Science and Technology of the People's Republic of China announced that it would investigate the retractions, as all 107 papers were co-authored by Chinese researchers. In July, the Ministry announced that, based on the results of its investigation, it would punish the Chinese researchers who co-authored the retracted papers with disciplinary actions, including banning some of them from conducting additional research. [2] In August, Clarivate Analytics announced that articles published in the journal after July 19, 2017, would no longer be included in the Web of Science. [11]

Importance of Retractions

- While retractions may seem negative, they are an essential part of the self-correcting nature of science.
- They help maintain the integrity of the scientific literature and protect the public from misleading information.

Retraction Avoidance

Retraction Avoidance

- To avoid the retraction, you may follow these to ensure the integrity and quality of your research, including:
- 1) Maintain Ethical Standards
- 2) Ensure Data Integrity
- 3) Use Robust Methodology
- 4) Write and Cite Responsibly
- 5) Verify Before Submission
- 6) Adhere to Ethical Guidelines
- 7) Declare Conflicts of Interest
- 8) Give Proper Authorship Credit

Maintain Ethical Standards

- Adhere to Ethical Guidelines: Obtain proper ethical approval for studies involving human or animal subjects.
- Declare Conflicts of Interest: Be transparent about financial or personal relationships that could bias the research.
- Give Proper Authorship Credit: Clearly define and agree on the contributions of all authors to prevent disputes.

Ensure Data Integrity

- Avoid Fabrication or Falsification: Report data honestly without manipulation.
- Keep Detailed Records: Maintain accurate and thorough documentation of research protocols, data collection, and analysis.
- Make Data Accessible: Share data openly when appropriate to enable reproducibility and verification.

Use Robust Methodology

- Design Experiments Carefully: Ensure methods are valid and capable of answering the research questions.
- Perform Peer Review Before Submission: Get feedback from colleagues or experts to identify and address potential flaws.

Write and Cite Responsibly

- Avoid Plagiarism: Use plagiarism detection tools to check for inadvertent overlap with other works.
- Follow Journal Guidelines: Adhere to the submission and citation policies of the target journal.
- Cite All Sources: Give credit for ideas, figures, or data that are not your own.

Verify Before Submission

- Double-Check Data and Calculations: Reanalyze results to confirm their accuracy.
- Proofread the Manuscript: Correct errors in grammar, references, and formatting.
- Use Image Processing Ethically: Avoid inappropriate image manipulation or enhancement.

Engage in Transparent Peer Review

- Respond Constructively to Reviewers: Address concerns raised during the review process thoroughly and respectfully.
- Avoid Fake Peer Reviews: Do not engage in unethical practices like creating false reviewer profiles.

Post-Publication Practices

- Correct Errors Promptly: If errors are found after publication, notify the journal immediately and work towards a correction.
- Stay Updated: Monitor feedback and comments on your work to address concerns proactively.

Train and Collaborate

- Educate Team Members: Ensure all co-authors and collaborators are aware of ethical standards and journal requirements.
- Seek Mentorship: Learn from experienced researchers to understand best practices in your field.

Publication Ethics Codes & Protocols

You can find more guidelines & protocols of publication ethics in COPE (Committee of Publication Ethics) Website.

http://www.publicationethics.org

A tale of two citations!



Errami M. Garner H. A tale of two citations Nature, Volume 451, Issue 7177, 24 January 2008, Pages 397-399

اگر میل داشتید Email بزنید!

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