



# LINKING RESEARCH INFORMATION ACROSS DATA SPACES

15th International Conference on Current Research Information  
Systems (CRIS2022)  
Dubrovnik, Croatia  
May 12-14, 2022

## Responsible Research and Innovation (RRI) and Research Information Systems

Prof. Ana Marušić, MD, PhD

# Declaration of activities and relationships

University of Split School of Medicine, Split, Croatia:  
Chair, Department of Research in Biomedicine and Health  
Head, Center for Evidence-based Medicine



International Society of Global Health:  
Co-editor in Chief, *Journal of Global Health*



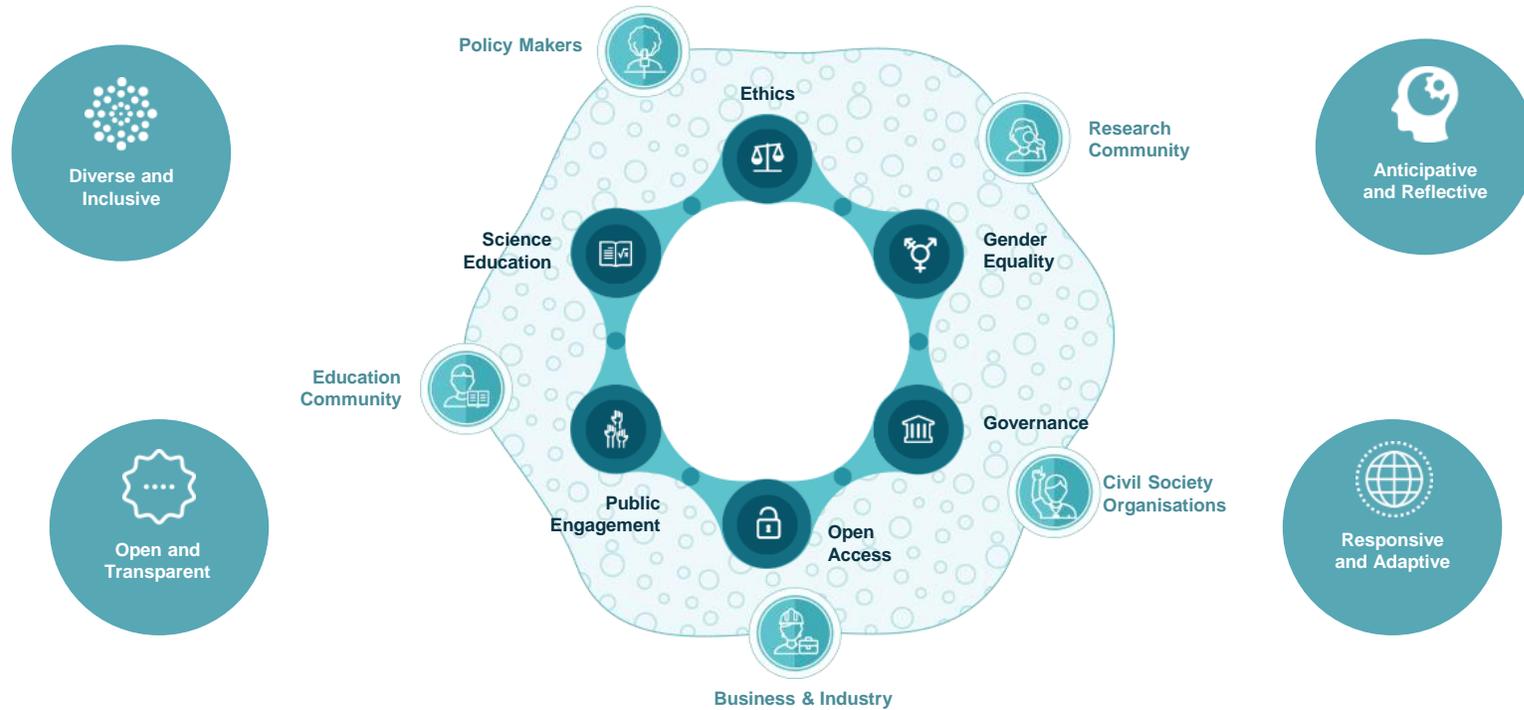
Co-chair, Scientific Cochrane Committee  
Council member, Committee on Publication Ethics (COPE)  
President, The Embassy of Good Science Foundation



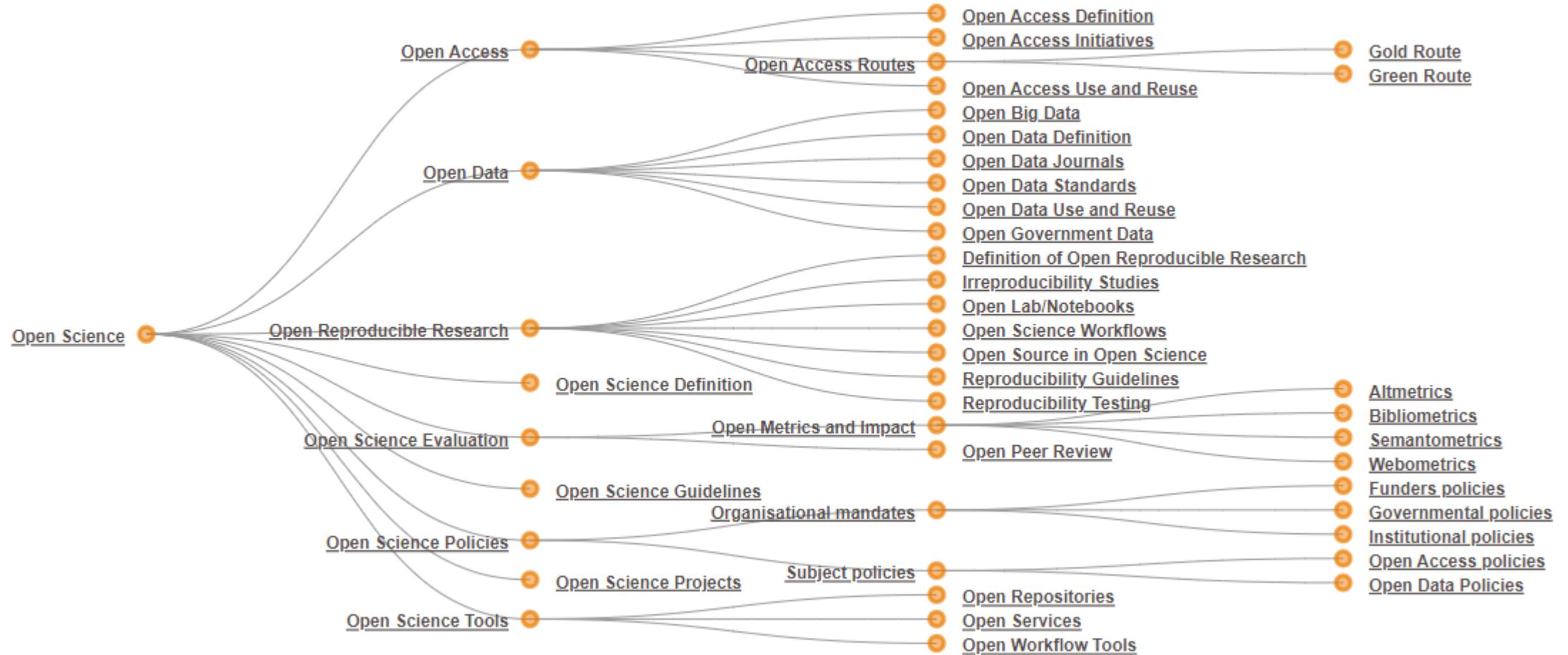
Funding:

Croatian Research Foundation  
Horizon 2020 and Horizon Europe grants (EnTIRE, VIRT2UE, SOPs4RI, iRECS)

# Responsible Research and Innovation



# Open and Responsible Research and Innovation



# Research integrity and Research ethics

- **Research ethics** addresses the application of ethical principles or values to the various issues and fields of research. This includes ethical aspects of the design and conduct of research, the way human participants or animals within research projects are treated, whether research results may be misused for criminal purposes and it refers also on aspects of scientific misconduct
- **Research integrity** is recognized as the attitude and habit of the researchers to conduct research according to appropriate ethical, legal and professional frameworks, obligations and standards.

# Journals and open and responsible research

*“Most of the allegations and findings center upon publication issues, because scientific publication documents the actions of the researcher.”*

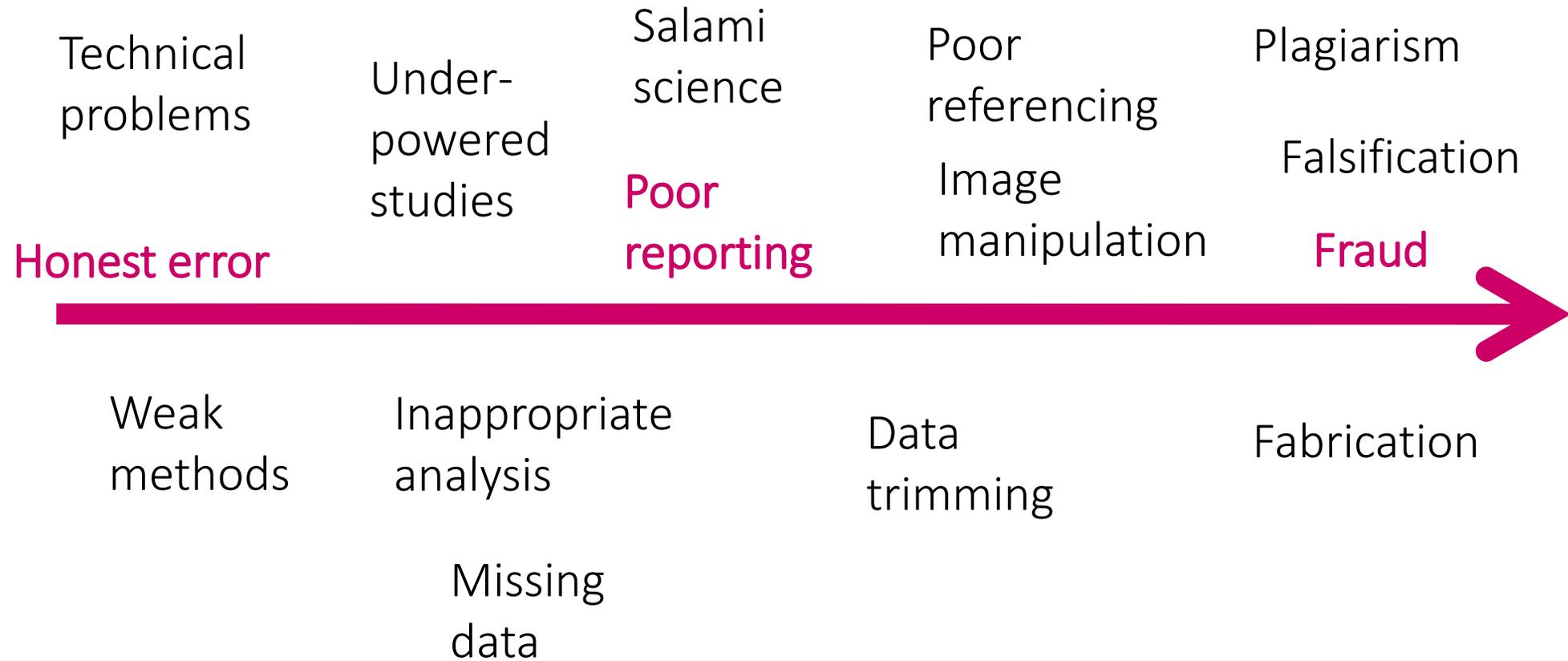
Claxton LD. Scientific authorship.

*Mutat Res 2001*

If journals and their editors are placed well to detect scientific misconduct, they are also well placed to prevent misconduct and promote responsible conduct of research.



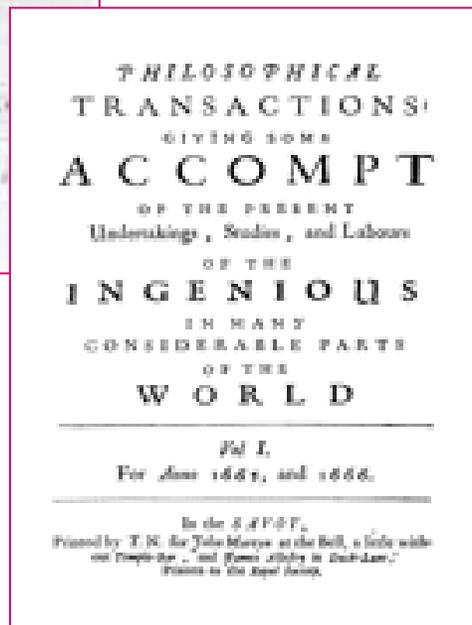
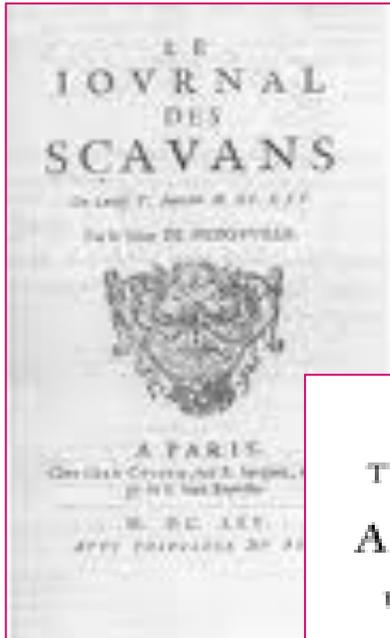
# Good conduct and misconduct are a spectrum



# Ethical responsibility of editors and journals?

To ensure the integrity of the published record.

# From 1665 to digital publishing

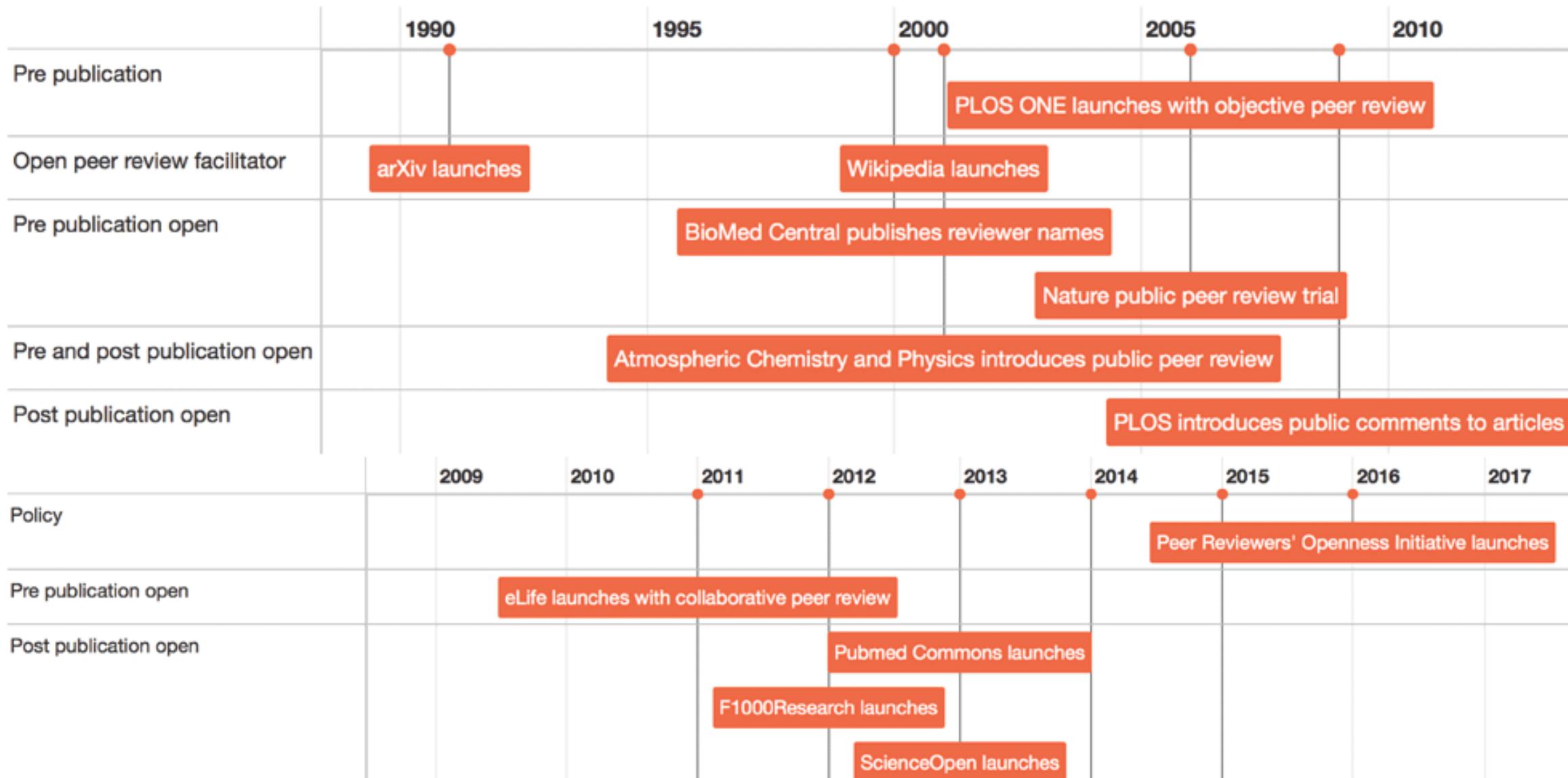


Enhanced publication

# Changes in peer review



# Changes in peer review



# Development of peer review

Single blind



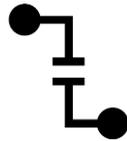
Double blind



Consultative



Results free review



Open peer review



Post-publication



# Development of peer review

Single blind



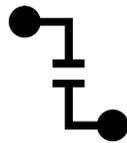
Double blind



Consultative



Results free review



Open peer review



Post-publication



Dear Sir,

We (Mr. Rosen and I) had sent you our manuscript for publication and had not authorized you to show it to specialists before it is printed. I see no reason to address the—in any case erroneous—comments of your anonymous expert. On the basis of this incident I prefer to publish the paper elsewhere.

*Respectfully,*

*Albert Einstein*

*Physical Review, 1936*

# Responsible conduct of research – editor’s role

## 2.7 Publication and Dissemination

- Responsibility of authors for content
- Authorship
- Openness
- Acknowledging others
- Declaring interests
- Correcting published record
- Publishing negative results
- Same criteria for all publications

## 2.8 Reviewing, Evaluating and Editing

- Responsible refereeing, reviewing and evaluation
- Transparent and justifiable review and evaluation
- Managing conflicts of interest
- Maintaining confidentiality
- Respecting rights of authors and applicants



# Responsible conduct of research – editor’s role



ICMJE, today

ICMJE, 1979

## Uniform requirements for manuscripts submitted to biomedical journals

International Steering Committee of Medical Editors\*

*British Medical Journal*, 1979, 1, 532-535

On 5 February 1979 the second meeting of the International Steering Committee of Medical Editors was held in Montreal. The committee approved the proposals for a uniform style for submitted manuscripts contained in the original Vancouver document<sup>1</sup> with some minor amendments. The revised version is published here, and many journals will begin to introduce the system later this year.

The editors of several journals (including the founder journals listed in Appendix 1) have agreed to receive manuscripts prepared and submitted in accordance with the requirements described here. Authors must also consult the instructions printed in the journal to which they plan to submit their manuscripts for information as to what clinical or scientific material is suitable for that particular journal and the types of papers that may be submitted—for example, original articles, review articles, case reports, and brief reports. In addition, the journal's own instructions contain important information concerning acceptable languages, length of articles, approved abbreviations besides those listed in this document, number of copies of manuscripts to be submitted, and requirements for transfer of copyright.

The material in this document will be revised at intervals. Inquiries and comments originating in North America should be sent to Edward J Huth, MD, *Annals of Internal Medicine*, 4200 Pine Street, Philadelphia, PA 19104; those originating in other regions should be sent to Stephen Lock, MA, MB, *British Medical Journal*, British Medical Association, Tavistock Square, London WC1H 9JR, United Kingdom.

\*Members of the International Steering Committee are: John F Murray, MD (chairman); William R Barclay, MD; Susan Crawford, PhD; Edward J Huth, MD; Stephen Lock, MB; Robert W Mayo; Harriet R Meiss; Ian Munro, MB; Frances H Porcher, MA; Arnold S Relman, MD; David A E Shephard, MD; Therese Southgate, MD.

Reprints of these instructions will be available to editors of biomedical journals free of charge and to authors at a cost of 50p (including postage) from the Editor, *BMJ*. A full list of all participating journals will be published later this year.

### Summary of requirements

Type manuscript double-spaced, including title page, abstract, text, acknowledgments, references, tables, and legends.

Each manuscript component should begin on a new page, in this sequence: title page; abstract and key words; text; acknowledgments; references; tables: each table, complete with title and footnotes, on a separate page; legends for illustrations.

Illustrations must be good quality, unmounted glossy prints usually 12.7 × 17.3 cm (5 × 7 in) but no larger than 20.3 × 25.4 cm (8 × 10 in).

Submit the required number of copies of manuscript and figures (see journal's instructions) in heavy-paper envelope. Submitted manuscript should be accompanied by covering letter, as described under "Submission of manuscripts," and permissions to reproduce previously published materials or to use illustrations that may identify subjects.

Follow journal's instructions for transfer of copyright. Authors should keep copies of everything submitted.

### Preparation of manuscript

Type manuscript on white bond paper, 20.3 × 26.7 cm or 21.6 × 27.9 cm (8 × 10½ in or 8½ × 11 in) or ISO A4 (212 × 297 mm) with margins of at least 2.5 cm (1 in). Use double spacing throughout, including title page, abstract, text, acknowledgments, references, tables, and legends for illustrations. Begin each of the following sections on separate pages: title page, abstract and key words, text, acknowledgments, references, individual tables, and legends. Number pages consecutively, beginning with the title page. Type the page number in the upper right-hand corner of each page.

Manuscripts will be reviewed for possible publication with the

## About the Recommendations

Purpose of the Recommendations

Who Should Use the Recommendations?

History of the Recommendations

## Roles & Responsibilities

Defining the Role of Authors and Contributors

Disclosure of Financial and Non-Financial Relationships and Activities, and Conflicts of Interest

Responsibilities in the Submission and Peer-Review Process

Journal Owners and Editorial Freedom

Protection of Research Participants

## Publishing & Editorial Issues

Corrections, Retractions, Republications and Version Control

Scientific Misconduct, Expressions of Concern, and Retraction

Copyright

Overlapping Publications

Correspondence

Fees

Supplements, Theme Issues, and Special Series

Sponsorship or Partnership

Electronic Publishing

Advertising

Journals and the Media

Clinical Trials

## Manuscript Preparation and Submission

Preparing a Manuscript for Submission to a Medical Journal

Sending the Manuscript to the Journal

# Editorial ethics standards

- Implementing international editorial standards
- Peer review process
- Correcting the published record
- Authorship
- Competing interest
- Financial support
- Ethics of research on humans and animals
- Ethics committee approvals
- Trial registration
- Privacy protection
- Image manipulation
- Competing interests of editors in their own journals

# Journal editors: Role in responsible publishing



# Editorial policies



**CSE**'s White Paper on Promoting Integrity in Scientific Journal Publications

**ease**

**EASE** Science Editors' Handbook – Ethical issues



**ICMJE** Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals



**WAME** Policy Statement on the Responsibilities of Medical Editors

**COPE** Code of Conduct, Ethics Flowcharts, Guidelines on Article Retraction



# Committee on Publication Ethics



## Core practices

Core practices are the policies and practices journals and publishers need, to reach the highest standards in publication ethics, including cases, guidance and events, to support journals and publishers

[View Core Practices](#)



## Cases

All of the cases COPE has discussed since its inception in 1997 have been entered into a searchable database. This database now contains over 500 cases together with the advice given by COPE.

[View Cases](#)



## Flowcharts

Flowcharts are designed to help editors follow COPE's Code of Conduct and implement its advice when faced with cases of suspected misconduct.

[View Flowcharts](#)



## Guidelines

Access COPE's official guidance, including the Retraction Guidelines.

[View Guidelines](#)



## Discussion Documents

Discussion documents aim to stimulate discussion and debate within the academic publishing community. Comments on the documents will be used to inform future guidelines and policies.

[View Documents](#)



## International standards for editors and authors

Position statements setting out international standards for responsible research publication for editors and authors.

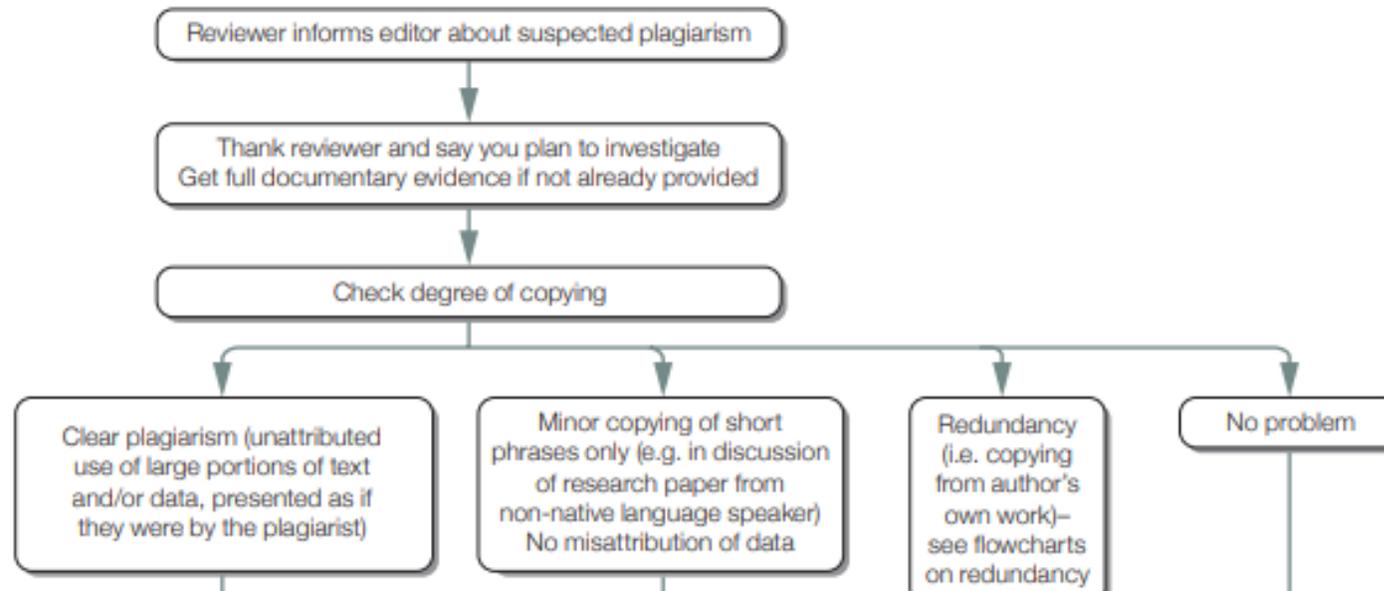
[View more](#)

# COPE Flowcharts



## What to do if you suspect plagiarism

### (a) Suspected plagiarism in a submitted manuscript



**Note**  
The instructions to authors should include a definition of plagiarism and state the journal's policy on it

# Challenges to journals in the digital world

Challenge: Image manipulation

# Image manipulation policies

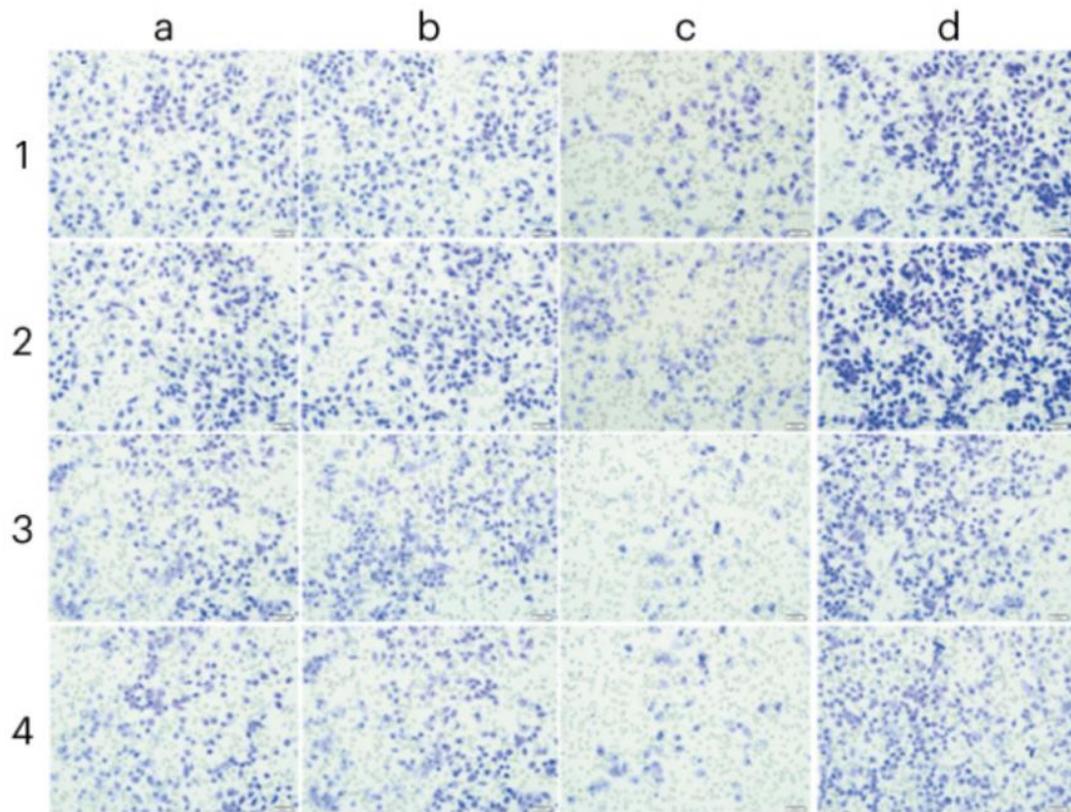
Rossner M, Yamada KM. What's in a picture? The temptation of image manipulation.

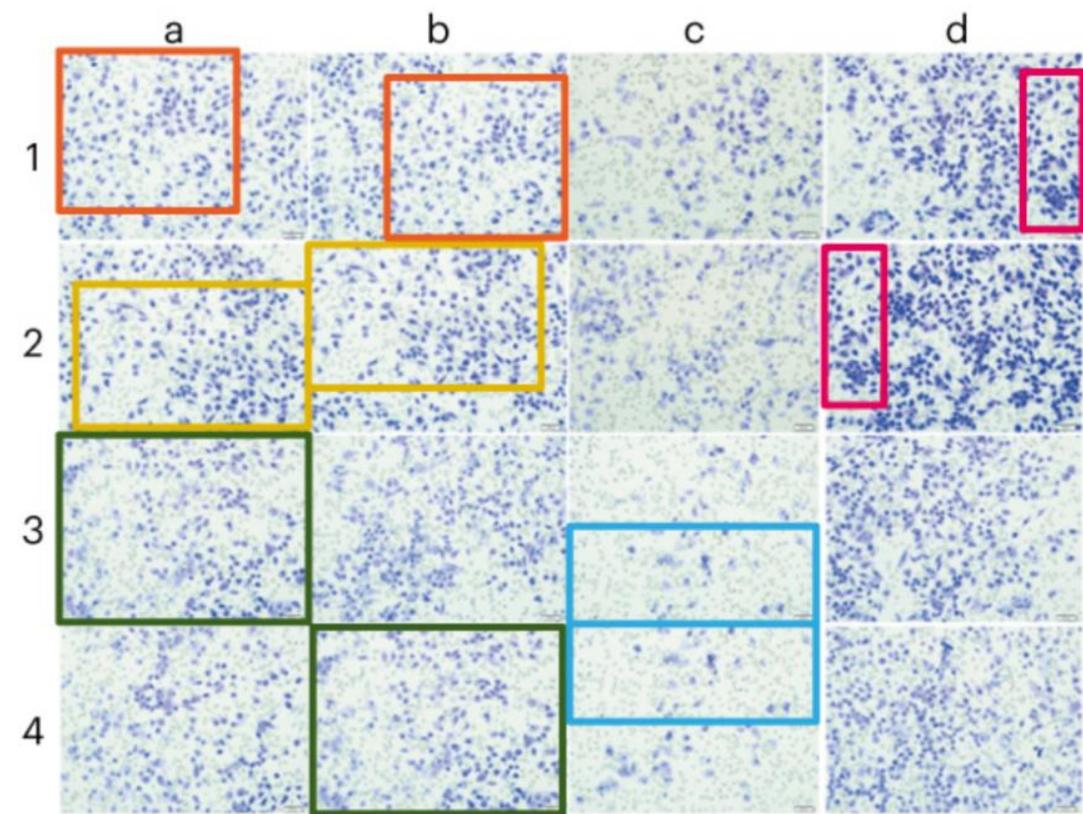
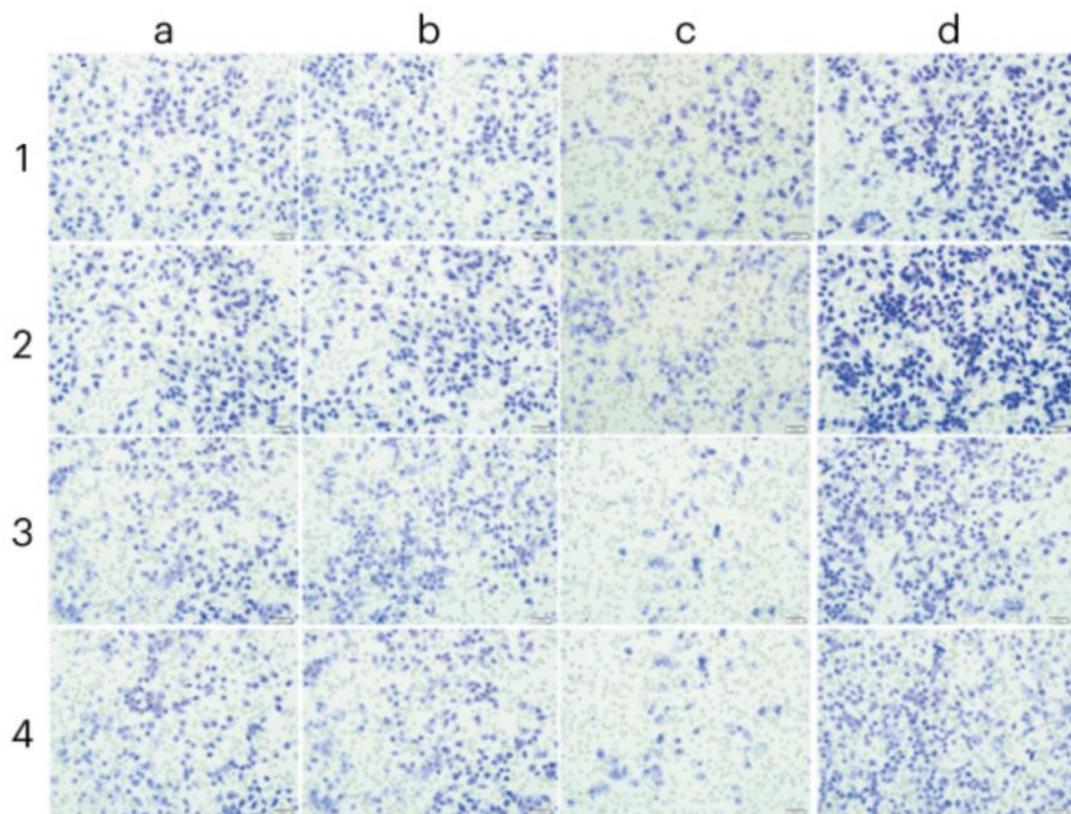
*Journal of Cell Biology* 2004;166:11-15

Journal policy:

- No specific feature within an image may be enhanced, obscured, moved, removed, or introduced.
- Adjustments of brightness, contrast, or color balance are acceptable if they are applied to the whole image and as long as they do not obscure or eliminate any information present in the original. Nonlinear adjustments must be disclosed in the figure legend.



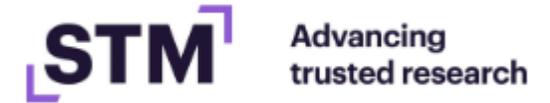




# Image manipulation policies

STM Working Group, 2021

*Recommendations for handling image integrity issues*

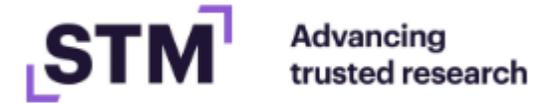


- Image handling principles for editors:
    - Scope of journal integrity assessment
    - Editor responsibilities and transparency
    - Source data
    - Replicate data
    - Interactions between journals and institutions
    - Interactions between journals
    - Considering comments from third parties (readers, whistleblower)
    - Legal considerations
  - Classification of image aberrations
    - 3 levels (from unintentional mistakes to intentional manipulation)
    - Examples
    - Action Pre-publication
    - Action Post-publication
- [https://www.stm-assoc.org/2021\\_12\\_07\\_Recommendations\\_for\\_handling\\_image\\_integrity\\_issues\\_V10.pdf](https://www.stm-assoc.org/2021_12_07_Recommendations_for_handling_image_integrity_issues_V10.pdf)

# Image manipulation policies

STM Working Group, 2021

*Recommendations for handling image integrity issues*



## Level 1

Image irregularities can in principle be due to inadvertent mistakes in data processing or cosmetic image processing ('beautification') that nonetheless potentially affects the proper interpretation of the data by the reader. **There is no evidence for intent to mislead.** Source data is readily available and explains the aberrations or possible aberrations.

## Level 2

Significant data "beautification" or undeclared image/data manipulations, which undermine objective data presentation, which are at odds with accepted scholarly practice, and which change the scientific conclusions for key data in a research paper. **Intent to mislead cannot be excluded without formal further investigation**

<https://osf.io/8j3az/>

Challenge: Correcting articles for honest errors

# What is a corrected/retracted and republished article?



“Retraction with republication (also referred to as “replacement”) can be considered in cases where honest error leads to a **major change in** the direction or significance of the **results, interpretations, and conclusions**. ...

retraction with republication of the changed paper, with an **explanation**, allows full correction of the scientific literature.

...it is helpful to **show the extent of the changes** in supplementary material or in an appendix, for complete transparency.”

# Indexing changes to a an article



**Fact Sheet: Errata, Retractions, and Other Linked Citations in PubMed, 2017;**  
<https://www.nlm.nih.gov/bsd/policy/errata.html>

**Errata** – “... errors that originate in the publication process and those that result from errors of scientific logic or methodology ...”

**Expression of Concern** – “... about the integrity of a published article ... typically written by an editor using that phrase in the item title ...”

**Author Responses to Comments** – “... a published letter that NLM considers a comment will be immediately followed by a response written by the author(s) of the original article ...”

**Duplicate Publications** – „When NLM identifies an article that duplicates another article without acknowledgement, the citations for both articles are assigned the Publication Type of Duplicate Publication [PT].”

**Updated Articles** – „... article that updates a previous article must ... state that it is an updated version ... or must appear in a journal that routinely publishes such updates as its primary content.”

**Republished (Reprinted) articles** – „... republish (i.e., reprint) a significant article that was recently published in another journal.”

# Indexing changes to a an article



## Fact Sheet: Errata, Retractions, and Other Linked Citations in PubMed

2017

### Corrected and Republished Articles

„... correct a previously published article by republishing the article in its entirety, often to rectify an editorial or printing error in the original article. The citation for the republished article is indexed with the additional Publication Type of Corrected and Republished Article [PT] and is linked to the citation for the original article. Citations for a republished article include the phrase “[Corrected and republished](#) from: [article title],” and citations for the original article include the phrase “Corrected and republished in: [article title].”

Added in 2018

„... Journals also may correct a previously published article that was retracted due to errors in science. The citation for the republished article is indexed with the Publication Type of Corrected and Republished Article [PT] and is linked to the citation for the retracted article. Citations for a republished article include the phrase “[Retracted and republished](#) from: [article title],” and citations for the retracted article include the phrase “Retracted and republished in: [article title].”

# NLM example: corrected and republished

Randomized Controlled Trial > Diabetes Res Clin Pract. 2015 Apr;108(1):179-86.

doi: 10.1016/j.diabres.2014.12.020. Epub 2015 Jan 21.

## How well do glucose variability measures predict patient glycaemic outcomes during treatment intensification in type 2 diabetes?

Silvio E Inzucchi <sup>1</sup>, Guillermo Umpierrez <sup>2</sup>, Andres DiGenio <sup>3</sup>, Rong Zhou <sup>4</sup>, Boris Kovatchev <sup>5</sup>

Affiliations + expand

PMID: 25661664 DOI: 10.1016/j.diabres.2014.12.020

### Corrected and republished in

How well do glucose variability measures predict patient glycaemic outcomes during treatment intensification in type 2 diabetes?

Inzucchi SE, Umpierrez G, DiGenio A, Zhou R, Kovatchev B.

Diabetes Res Clin Pract. 2015 Nov;110(2):234-40. doi: 10.1016/j.diabres.2015.09.002.

PMID: 27049155

### Corrected and republished from

How well do glucose variability measures predict patient glycaemic outcomes during treatment intensification in type 2 diabetes?

Inzucchi SE, Umpierrez G, DiGenio A, Zhou R, Kovatchev B.

Diabetes Res Clin Pract. 2015 Apr;108(1):179-86. doi: 10.1016/j.diabres.2014.12.020. Epub 2015 Jan 21.

PMID: 25661664 **Corrected and republished.** Clinical Trial.

# NLM example: retracted and republished

## Retracted article

See the [retraction notice](#)

Randomized Controlled Trial > N Engl J Med. 2013 Apr 4;368(14):1279-90.

doi: 10.1056/NEJMoa1200303. Epub 2013 Feb 25.

## Primary prevention of cardiovascular disease with a Mediterranean diet

Ramón Estruch <sup>1</sup>, Emilio Ros, Jordi Salas-Salvadó, Maria-Isabel Covas, Dolores Corella, Fernando Arós, Enrique Gómez-Gracia, Valentina Ruiz-Gutiérrez, Miquel Fiol, José Lapetra, Rosa Maria Lamuela-Raventos, Lluís Serra-Majem, Xavier Pintó, Josep Basora, Miguel Angel Muñoz, José V Sorlí, José Alfredo Martínez, Miguel Angel Martínez-González, PREDIMED Study Investigators

Collaborators, Affiliations [+ expand](#)

PMID: 23432189 DOI: [10.1056/NEJMoa1200303](https://doi.org/10.1056/NEJMoa1200303)

[Free article](#)

## Erratum in

N Engl J Med. 2014 Feb 27;370(9):886

## Retraction in

Retraction and Republication: Primary Prevention of Cardiovascular Disease with a Mediterranean Diet. N Engl J Med 2013;368:1279-90.

Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, Arós F, Gómez-Gracia E, Ruiz-Gutiérrez V, Fiol M, Lapetra J, Lamuela-Raventos RM, Serra-Majem L, Pintó X, Basora J, Muñoz MA, Sorlí JV, Martínez JA, Martínez-González MA.

N Engl J Med. 2018 Jun 21;378(25):2441-2442. doi: 10.1056/NEJMc1806491. Epub 2018 Jun 13.

PMID: 29897867 **Corrected and republished.** No abstract available.

## Corrected and republished in

Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts.

Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, Arós F, Gómez-Gracia E, Ruiz-Gutiérrez V, Fiol M, Lapetra J, Lamuela-Raventos RM, Serra-Majem L, Pintó X, Basora J, Muñoz MA, Sorlí JV, Martínez JA, Fitó M, Gea A, Hernán MA, Martínez-González MA; PREDIMED Study Investigators.

N Engl J Med. 2018 Jun 21;378(25):e34. doi: 10.1056/NEJMoa1800389. Epub 2018 Jun 13.

PMID: 29897866

# NLM example: retracted and republished

## Corrected and republished from

Primary prevention of cardiovascular disease with a Mediterranean diet.

Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, Arós F, Gómez-Gracia E, Ruiz-Gutiérrez V, Fiol M, Lapetra J, Lamuela-Raventos RM, Serra-Majem L, Pintó X, Basora J, Muñoz MA, Sorlí JV, Martínez JA, Martínez-González MA; PREDIMED Study Investigators.

N Engl J Med. 2013 Apr 4;368(14):1279-90. doi: 10.1056/NEJMoa1200303. Epub 2013 Feb 25.

PMID: 23432189    **Corrected and republished. Retracted.**    Clinical Trial.

Retraction and Republication: Primary Prevention of Cardiovascular Disease with a Mediterranean Diet. N Engl J Med 2013;368:1279-90.

Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, Arós F, Gómez-Gracia E, Ruiz-Gutiérrez V, Fiol M, Lapetra J, Lamuela-Raventos RM, Serra-Majem L, Pintó X, Basora J, Muñoz MA, Sorlí JV, Martínez JA, Martínez-González MA.

N Engl J Med. 2018 Jun 21;378(25):2441-2442. doi: 10.1056/NEJMc1806491. Epub 2018 Jun 13.

PMID: 29897867    **Corrected and republished.**    No abstract available.

# Another example: JAMA 2017

## ! RETRACTED ARTICLE

See: [Retraction Notice](#)

JAMA Intern Med. 2014 Oct;174(10):1687-9. doi: [10.1001/jamainternmed.2014.3441](#).

### Cardiac rehabilitation use among veterans with ischemic heart disease.

Schopfer DW<sup>1</sup>, Takemoto S<sup>1</sup>, Allsup K<sup>2</sup>, Helfrich CD<sup>3</sup>, Ho PM<sup>4</sup>, Forman DE<sup>5</sup>, Whooley MA<sup>6</sup>.

#### ⊕ Author information

#### Retraction in

Notice of Retraction and Replacement. Schopfer DW, et al. Cardiac Rehabilitation Use Among Veterans With Ischemic Heart Disease. JAMA Intern Med. 2014;174(10):1687-1689. [JAMA Intern Med. 2016]

PMID: 25133868 DOI: [10.1001/jamainternmed.2014.3441](#)

[Indexed for MEDLINE]



#### Publication types, MeSH terms

##### Publication types

[Research Support, U.S. Gov't, Non-P.H.S.](#)

[Retracted Publication](#)

JAMA Intern Med. 2016 Nov 1;176(11):1726-1727. doi: [10.1001/jamainternmed.2016.5831](#).

### Notice of Retraction and Replacement. Schopfer DW, et al. Cardiac Rehabilitation Use Among Veterans With Ischemic Heart Disease. JAMA Intern Med. 2014;174(10):1687-1689.

Schopfer DW<sup>1</sup>, Takemoto S<sup>2</sup>, Allsup K<sup>3</sup>, Helfrich CD<sup>4</sup>, Ho PM<sup>5</sup>, Forman DE<sup>6</sup>, Whooley MA<sup>7</sup>.

#### ⊕ Author information

#### Retraction of

Cardiac rehabilitation use among veterans with ischemic heart disease. [JAMA Intern Med. 2014]

PMID: 27723859 DOI: [10.1001/jamainternmed.2016.5831](#)



#### Publication type

##### Publication type

[Retraction of Publication](#)

# Another example: JAMA 2018

## Retracted and republished article

See the [retraction notice](#)

> JAMA Intern Med. 2014 Oct;174(10):1687-9. doi: 10.1001/jamainternmed.2014.3441.

## Cardiac rehabilitation use among veterans with ischemic heart disease

David W Schopfer<sup>1</sup>, Steven Takemoto<sup>1</sup>, Kelly Allsup<sup>2</sup>, Christian D Helfrich<sup>3</sup>, P Michael Ho<sup>4</sup>, Daniel E Forman<sup>5</sup>, Mary A Whooley<sup>6</sup>

Affiliations + expand

PMID: 25133868 DOI: 10.1001/jamainternmed.2014.3441

## Retracted and republished in

Notice of Retraction and Replacement. Schopfer DW, et al. Cardiac Rehabilitation Among Veterans With Ischemic Heart Disease. JAMA Intern Med. 2014;174

Schopfer DW, Takemoto S, Allsup K, Helfrich CD, Ho PM, Forman DE, Whooley MA.

JAMA Intern Med. 2016 Nov 1;176(11):1726-1727. doi: 10.1001/jamainternmed.2016.5831.

PMID: 27723859 No abstract available.

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Cardiac rehabilitation use among veterans with ischemic heart disease.

Schopfer DW, Takemoto S, Allsup K, Helfrich CD, Ho PM, Forman DE, Whooley MA.

JAMA Intern Med. 2014 Oct;174(10):1687-9. doi: 10.1001/jamainternmed.2014.3441.

PMID: 25133868 **Retracted and republished.** No abstract available.

# Challenges for retracted and republished articles

- Journals are not consistent in presenting article changes
- Linking services do not deliver clear updates
- Indexing databases have discrepancies in differentiating and tagging these articles.

Challenge: Preprints

# Challenge: Preprints

Preprint (NLM definition):

„Preprints are complete and public drafts of scientific documents, not yet certified by peer review. These documents ensure that the findings of the research community are widely disseminated, priorities of discoveries are established and they invite feedback and discussion to help improve the work.”

PubMed.gov

preprint[Publication Type] Search

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MY NCBI FILTERS 3,284 results Page 1 of 329

RESULTS BY YEAR

Persistent post-COVID-19 smell loss is associated with inflammatory infiltration and altered olfactory epithelial gene expression.

1

Cite Finlay JB, Brann DH, Abi-Hachem R, Jang DW, Oliva AD, Ko T, Gupta R, Wellford SA, Moseman EA, Jang SS, Yan CH, Matusnami H, Tsukahara T, Datta SR, Goldstein BJ.

Share bioRxiv. 2022 Apr 18:2022.04.17.488474. doi: 10.1101/2022.04.17.488474. Preprint.

PMID: 35478953 Free PMC article.

Year	Number of Results
2020	~100
2021	~1500
2022	~1000

# Challenge: Indexing preprints



This article is a preprint

Preprints have not been peer reviewed.

Learn more about preprints in the [NIH Preprint Pilot](#).

[> bioRxiv](#). 2020 Jul 10;2020.07.10.197079. doi: 10.1101/2020.07.10.197079. Preprint

## Comprehensive in-vivo secondary structure of the SARS-CoV-2 genome reveals novel regulatory motifs and mechanisms

Nicholas C Huston <sup>1</sup>, Han Wan <sup>2</sup>, Rafael de Cesaris Araujo Tavares <sup>3</sup>, Craig Wilen <sup>4 5</sup>,  
Anna Marie Pyle <sup>2 3 6</sup>

Affiliations + expand

PMID: 32676598 PMID: [PMC7359520](#) DOI: [10.1101/2020.07.10.197079](#)

[Free PMC article](#)

### Update in

[Comprehensive in vivo secondary structure of the SARS-CoV-2 genome reveals novel regulatory motifs and mechanisms.](#)

Huston NC, Wan H, Strine MS, de Cesaris Araujo Tavares R, Wilen CB, Pyle AM.

[Mol Cell](#). 2021 Feb 4;81(3):584-598.e5. doi: [10.1016/j.molcel.2020.12.041](#). Epub 2021 Jan 1.

PMID: 33444546 [Free PMC article](#).

# Challenge: Indexing preprints

> [Mol Cell.](#) 2021 Feb 4;81(3):584-598.e5. doi: 10.1016/j.molcel.2020.12.041. Epub 2021 Jan 1.

## Comprehensive in vivo secondary structure of the SARS-CoV-2 genome reveals novel regulatory motifs and mechanisms

Nicholas C Huston<sup>1</sup>, Han Wan<sup>2</sup>, Madison S Strine<sup>3</sup>, Rafael de Cesaris Araujo Tavares<sup>4</sup>,  
Craig B Wilen<sup>3</sup>, Anna Marie Pyle<sup>5</sup>

Affiliations + expand

PMID: 33444546 PMCID: [PMC7775661](#) DOI: [10.1016/j.molcel.2020.12.041](#)

[Free PMC article](#)

### Abstract

Severe-acute-respiratory-syndrome-related coronavirus 2 (SARS-CoV-2) is a novel coronavirus that causes coronavirus disease 2019 (COVID-19). The genome of SARS-CoV-2 encodes several viral RNAs in its vast potential to form RNA structures, yet as much as

### Update of

Comprehensive in-vivo secondary structure of the SARS-CoV-2 genome reveals novel regulatory motifs and mechanisms.

Huston NC, Wan H, de Cesaris Araujo Tavares R, Wilen C, Pyle AM.

[bioRxiv.](#) 2020 Jul 10:2020.07.10.197079. doi: [10.1101/2020.07.10.197079](#). Preprint.

PMID: 32676598 [Free PMC article.](#) **Updated.**

Challenge: Paper mills

# Paper mills

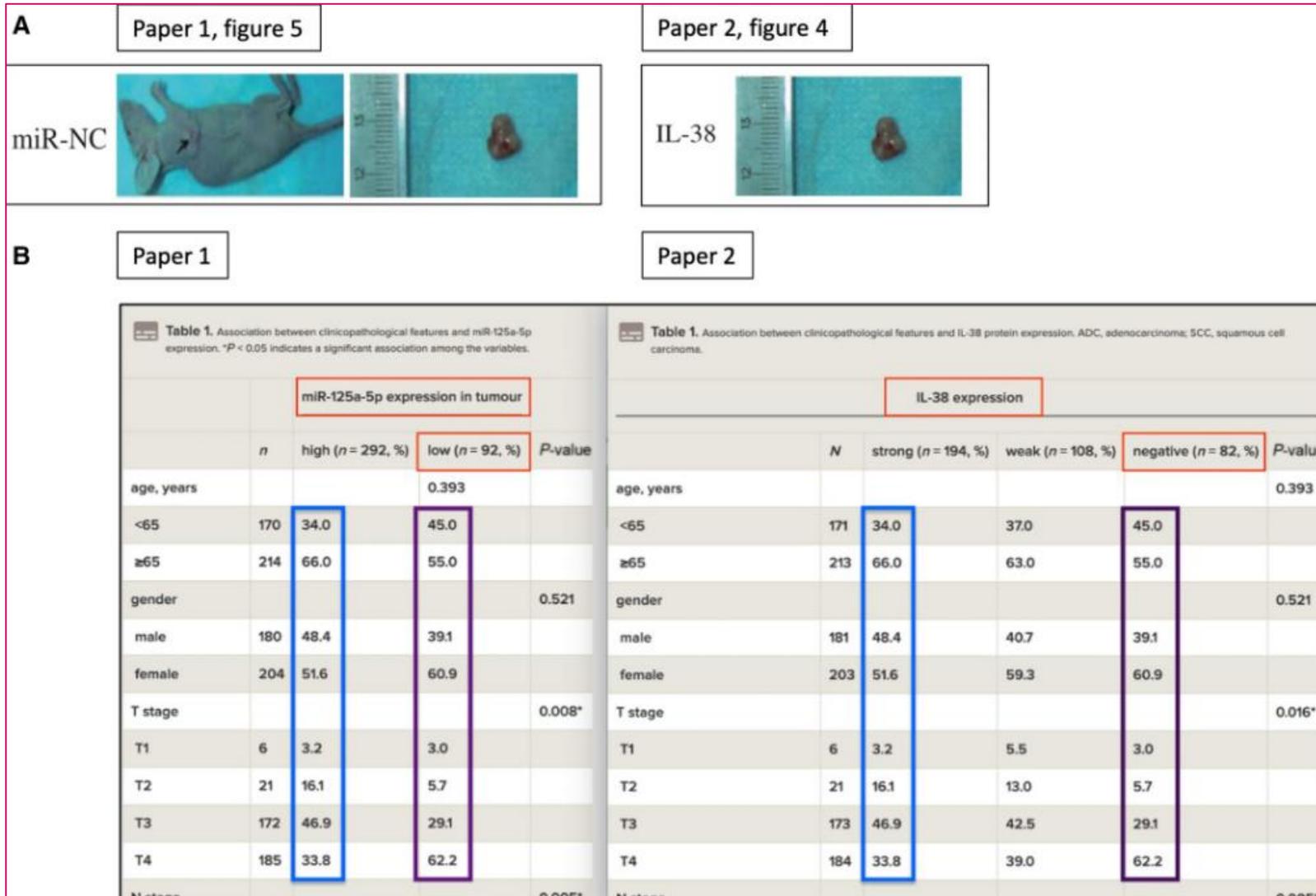
Definition (COPE): “the process by which manufactured manuscripts are submitted to a journal for a fee on behalf of researchers with the purpose of providing an easy publication for them, or to offer authorship for sale”.

Papers from paper mills are not the work of the named author and they contain fraudulent content.

Detection of articles from paper mills is difficult. Current detection tools may not show up problems.

Over 2000 articles from paper mills discovered; 26% retracted or expressions of concern published.

# Paper mills



Christopher J. The raw thruth about paper mills. FEBS Letters.

2021;595(13):1751-7.

<https://doi.org/10.1002/1873-3468.14143>

# Paper mills

**Exclusive: Russian site says it has brokered authorships for more than 10,000 researchers**



A company in Russia hawks its wares

Retraction  Watch

*We sell publications of finished articles in Scopus and Web of Science magazines (articles written and accepted in journals; sold in parts or in whole).*

# Paper mills



The screenshot shows the top navigation bar of the Science Publisher Company website. The logo is in red, and the tagline is in grey. The navigation menu includes 'Home', 'About', and 'Co-authorship'. Below the navigation is a red banner with the text 'Co-authorship'. The main content area has a white background with a grey border. The title is in bold black text, and the introductory paragraph is in a smaller black font.

**Science Publisher Company**  
Publication Support Services for Academic, Scientific Manuscripts and Papers

Home About ▾ Co-authorship

## Co-authorship

### Co-authorship in Scopus, Web of Science research papers

Co-authorship provides an opportunity to become a co-author of an existing article that has been accepted for publication in **Scopus, Web of Science (SCIE, SSCI, AHCI, ESCI)** indexing journals.

- Latvia

Challenge: Predatory journals

# Predatory journals

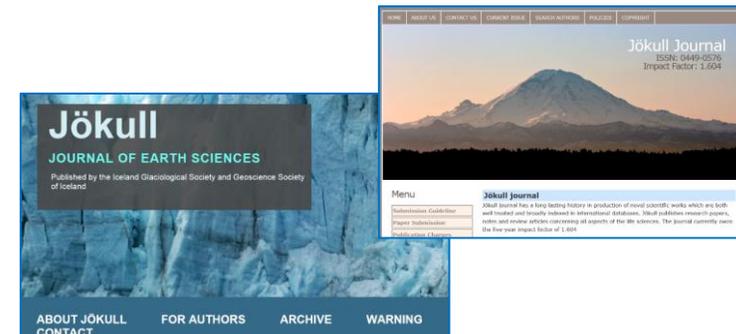
## Definition (WIKI):

Predatory open access publishing is an exploitative open-access publishing business model that involves charging publication fees to authors without providing the editorial and publishing services associated with legitimate journals (open access or not).

## Pseudo-journals

# Predatory journals

- Intention to deceive
- Misuse of Gold OA
- Conflict of interest (more paper – more income)
- Manipulative spamming
- Targeting young researchers and those from smaller academic communities
- Mimicking legitimate publishers
- Fake metrics
- Hijacking legitimate journals



# Predatory journals

<http://thinkchecksubmit.org/>



The screenshot shows the homepage of the Think Check Submit website. At the top, there are three large, rounded buttons: a red button with a white exclamation mark and the word "THINK", an orange button with a white checkmark and the word "CHECK", and a green button with a white right-pointing arrow and the word "SUBMIT". Below these buttons is the text "Choose the right journal for your research". A black navigation bar contains the following links: Home, Think, Check, Submit, About, Arabic, and FAQ. Below the navigation bar is a video player. The video is titled "Think. Check. Submit." and is from the "Think. Check. Submit." channel. The video content shows two cartoon characters, a man and a woman, standing in a gallery. The man is holding a clipboard with a checklist of criteria for evaluating journals. The checklist includes: "RESEARCH THAT YOU WOULD READ YOURSELF?", "MINI-EDITORIAL BOARD PUBLISHES THE JOURNAL'S CONTENT?", "CAN YOU CONTACT THE EDITORIAL BOARD?", "EDITORIAL BOARD IS DIVERSE AND CLEAN IN REPUTATION?", "EDITORIAL BOARD IS CLEAN IN REPUTATION?", "EDITORIAL BOARD IS DIVERSE IN REPUTATION?", and "EDITORIAL BOARD IS DIVERSE IN REPUTATION?". The video player has a play button, a progress bar showing 01:58, and a "vimeo" logo. To the right of the video player, there are social media sharing icons (heart, clock, share) and a "Get in here:" section with "Full" and "Em" buttons.

! THINK ✓ CHECK > SUBMIT

Choose the right journal for your research

Home Think Check Submit About Arabic FAQ

Think. Check. Submit.  
from Think. Check. Submit.

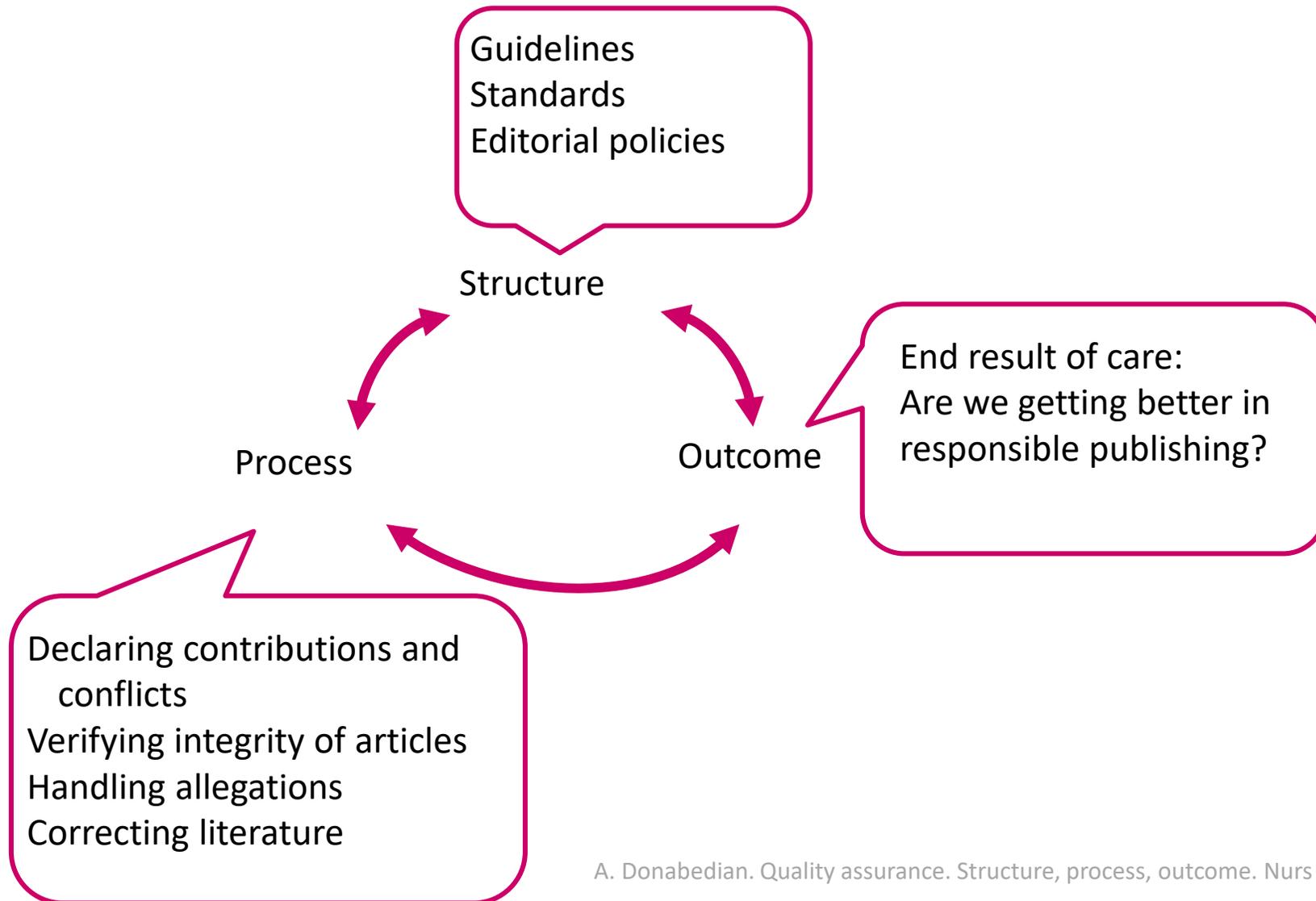
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01:58 HD vimeo

Get in here:  
Full  
Em

Sharing research results with the world is key to the progress of your discipline and career. But with so many publications, how can you be sure you can trust a particular journal? Follow this check list to make sure you choose trusted journals for your research.

# Instead of a conclusion: Quality assurance in editing





# Your platform for research integrity and ethics

