

Academic Publishing

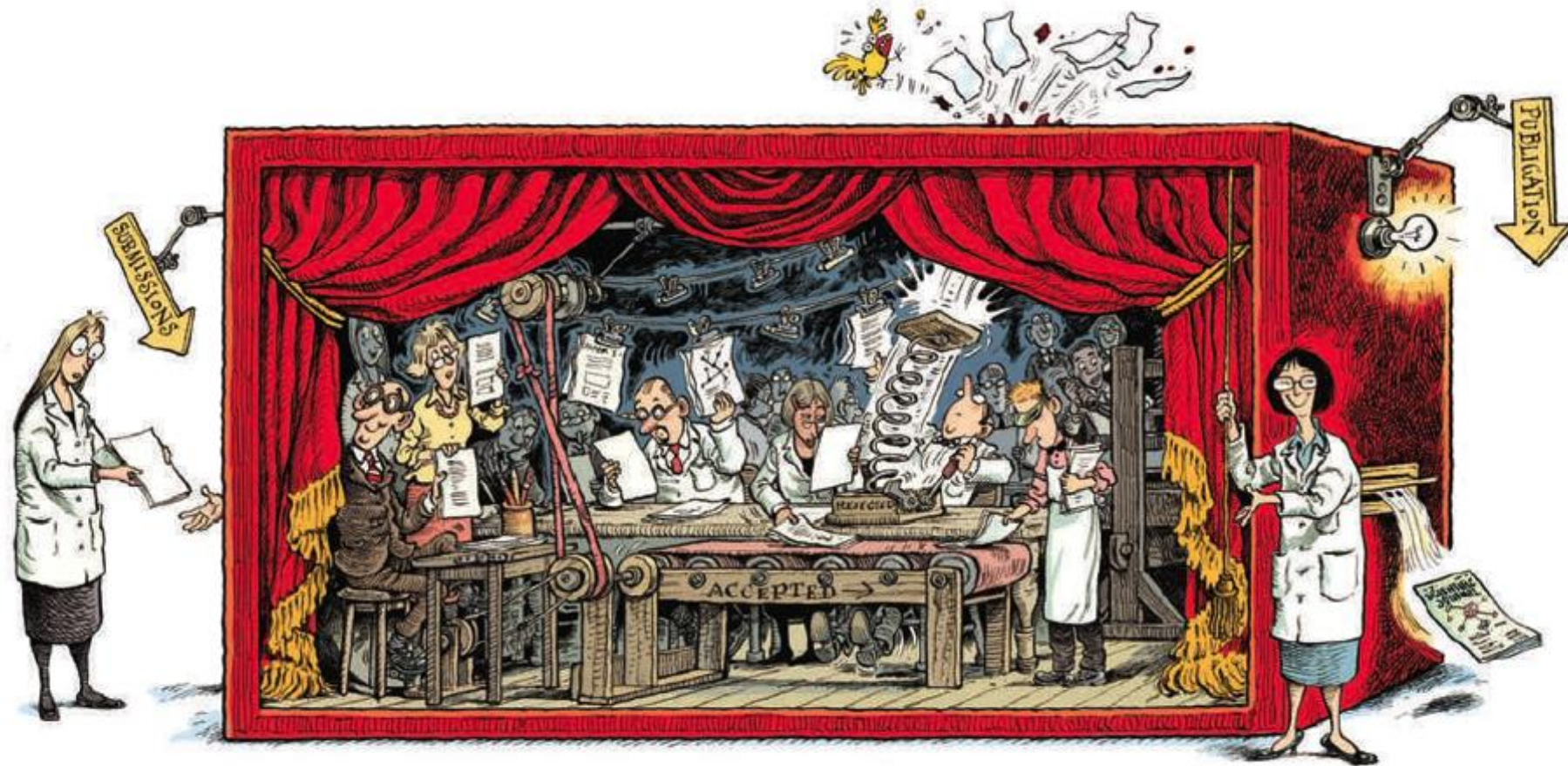
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THE UNIVERSITY
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The Publication Process



Nature 2010;468: 29-31

History of Peer-Reviewed Journals

- Many began as private enterprises or Society publications
- Journal of Pathology
 - Found 1892 by German Sims-Woodhead
 - Acquired by Pathological Society in 1920
 - Several publishers over the years – Wiley (now Wiley-Blackwell) since 1984

The Online Revolution

- Introduction of online manuscript handling systems (2002 for The Journal of Pathology)
- Wide availability of online databases
- Reader behaviour – journal usage at the individual article level
- Open access publishing

How can Journal Quality be Assessed?

- Subjectively
 - Peer opinion
 - Perceived hierarchy of journals
 - To some extent self-fulfilling
- (More) Objectively
 - Impact factor
 - Other bibliometric indices
 - But post hoc
 - And does citation = 'quality'?

Impact Factor

Number of citations during the census year to
articles published in the preceding 2 years

divided by

Number of articles published in those 2 years

Calculation

2021 Impact Factor (published 2022)

- Cites in 2021 to articles published in:
 - 2020 = 800
 - 2019 = 1200
 - Sum: 2000
- Number of articles published in:
 - 2020 = 200
 - 2019 = 200
 - Sum: 400
- Impact factor = $2000 / 400 = 5.0$

Definition of 'Articles Published'

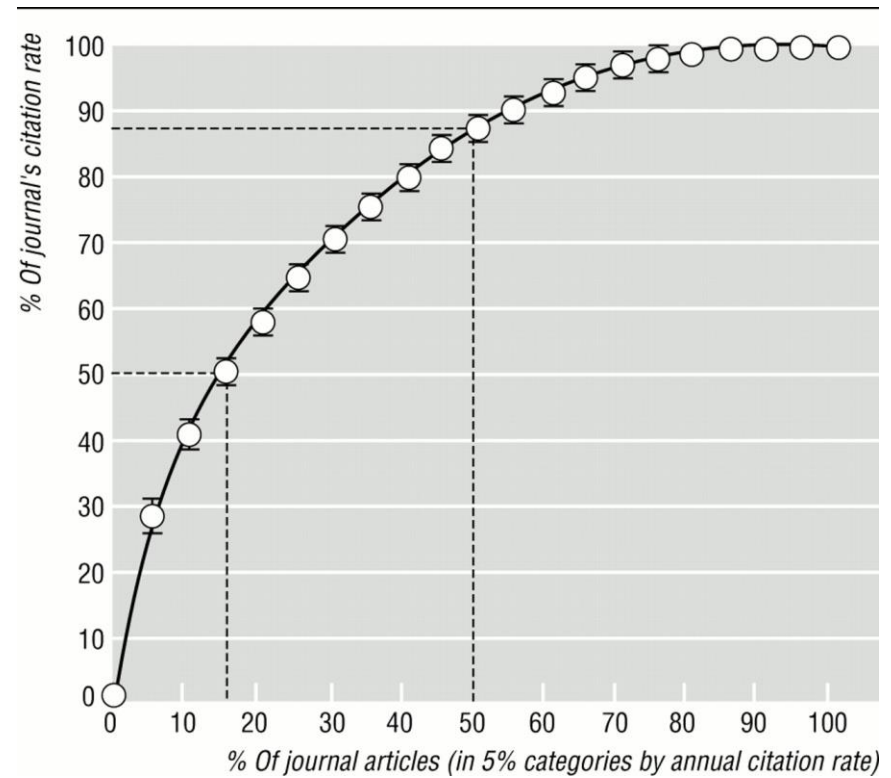
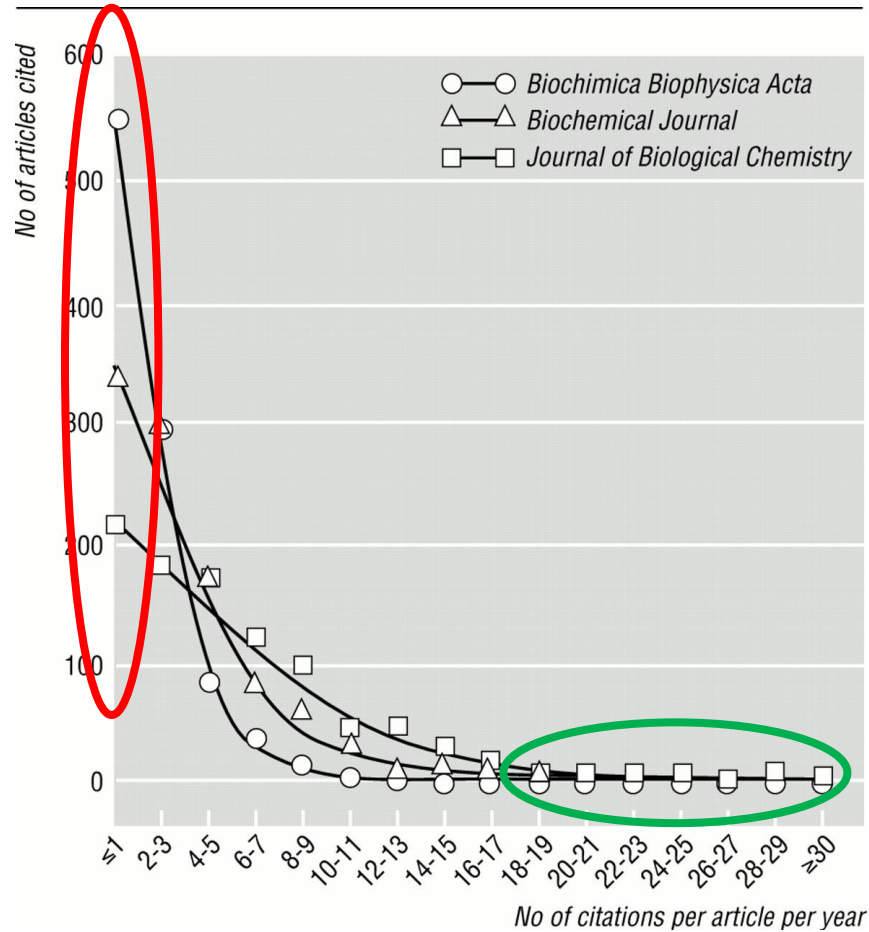
- Changed for 2020 impact factor
- Was – date of publication in an issue
- Now – date of publication online (Early View, Online Early etc)
- Effects
 - Temporary impact factor inflation
 - Accelerates move to online publication
 - No need for volumes and issues – continuous publication?

Acquisition of Impact Factor

- Controlled by Clarivate, who own Web of Science
- Requirements
 - ‘Reputable journal’ i.e. not predatory
 - Consistent publication
 - Evidence of value i.e. citation (downloads?)
- Pathway for J Pathol Clin Res
 - First published, 2015
 - Listed in Pubmed Central, 2016
 - Listed in Pubmed, 2018
 - Listed in Emerging Sources Citation Index (ESCI)/Web of Science, 2018
 - Listed in Scopus, 2019
 - Acquired impact factor, 2020 (2019 data)

Impact factor

Mean of a skewed distribution



ARTICLE CITATION MEDIAN

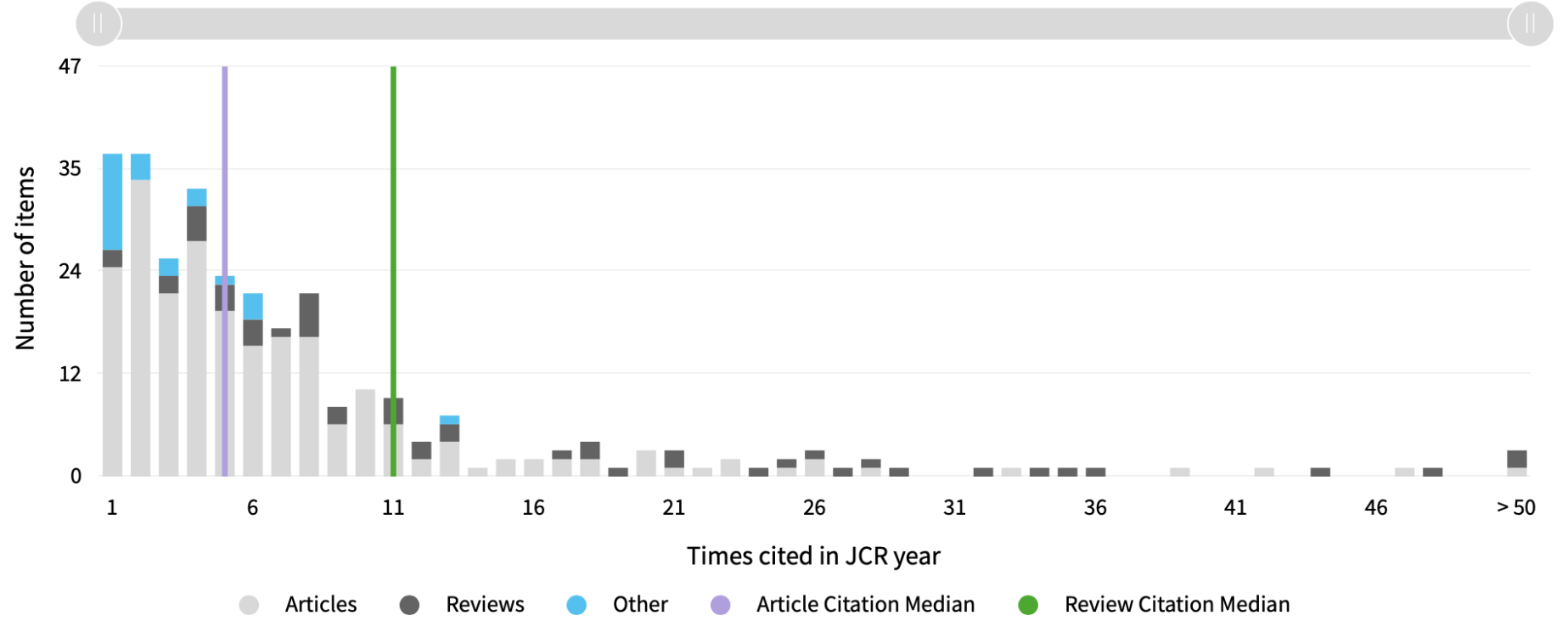
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REVIEW CITATION MEDIAN

11

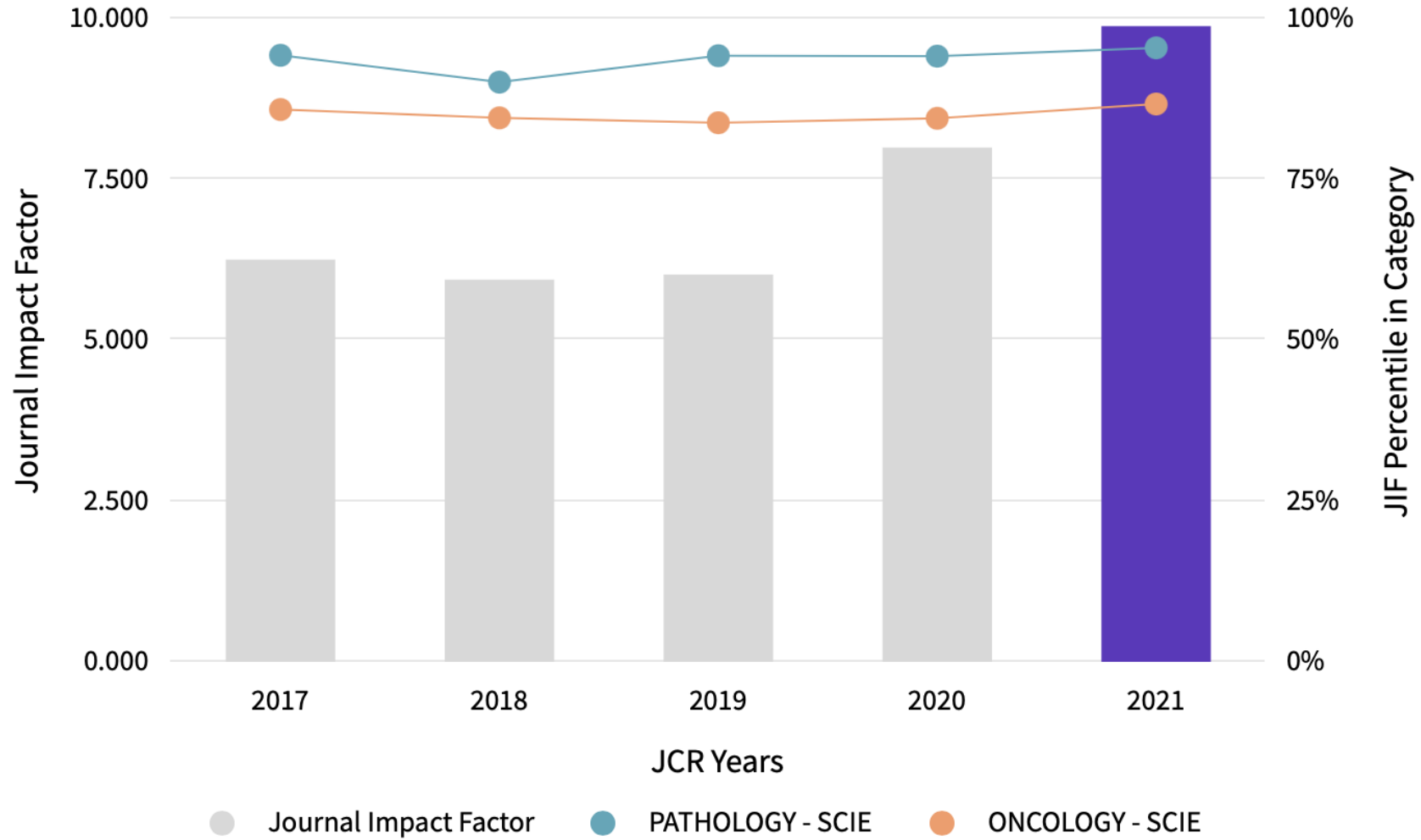
UNLINKED CITATIONS

95



Journal Impact Factor Trend 2021

[↓ Export](#)

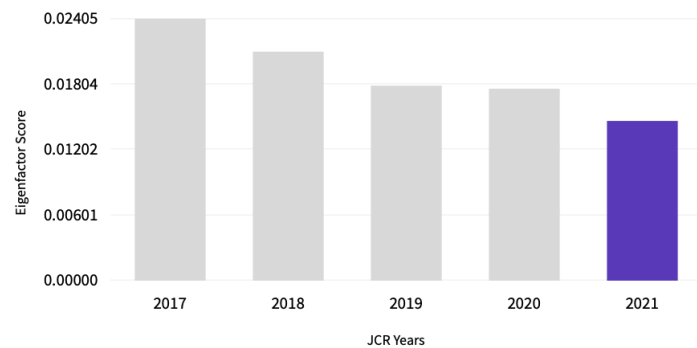


Eigenfactor Score



0.01467

The Eigenfactor Score is a reflection of the density of the network of citations around the journal using 5 years of cited content as cited by the Current Year. It considers both the number of citations and the source of those citations, so that highly cited sources will influence the network more than less cited sources. The Eigenfactor calculation does not include journal self-citations. [Learn more](#)

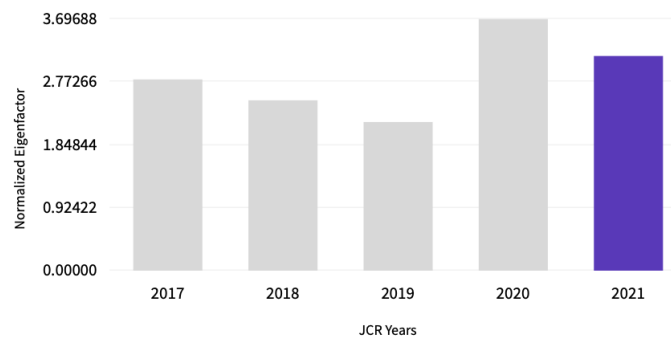


Normalized Eigenfactor



3.15443

The Normalized Eigenfactor Score is the Eigenfactor score normalized, by rescaling the total number of journals in the JCR each year, so that the average journal has a score of 1. Journals can then be compared and influence measured by their score relative to 1. [Learn more](#)

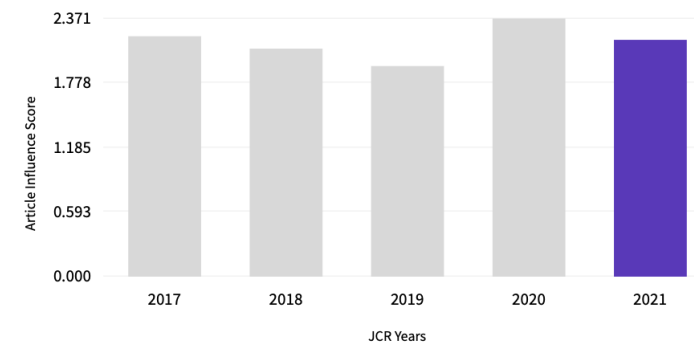


Article influence score



2.175

The Article Influence Score normalizes the Eigenfactor Score according to the cumulative size of the cited journal across the prior five years. The mean Article Influence Score for each article is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. [Learn more](#)



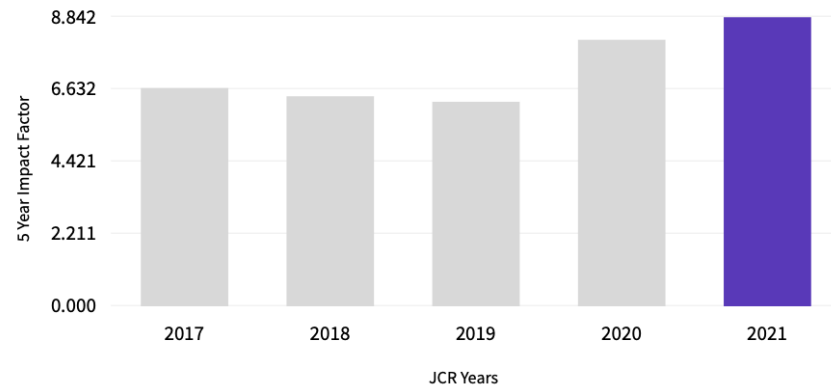
5 Year Impact Factor



8.842

[View Calculation](#)

The 5-year Impact Factor is the average number of times articles from the journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years.



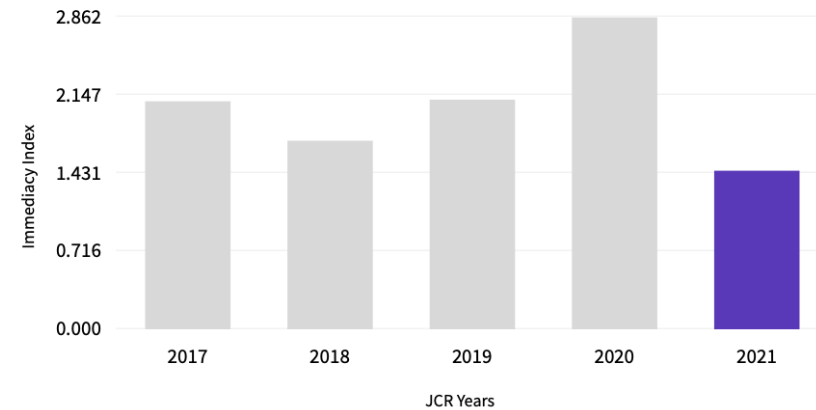
Immediacy Index



1.455

[View Calculation](#)

The Immediacy Index is the count of citations in the current year to the journal that reference content in this same year. Journals that have a consistently high Immediacy Index attract citations rapidly. [Learn more](#)



Open Access

- A double-edged sword
- ‘Author pays’ rather than ‘Reader pays’
- Pros
 - Free availability of research publication to readers
- Cons
 - Author needs to have funds
 - Income is dependent on number of papers published
 - Drives increase in publication volume with less focus on quality
 - Overall loss of income to publishers and Societies

PATHOLOGY ×SCIE ×JCR Year: 2021 ×

Journal name ▼	ISSN	eISSN	Category	Total Citations ▼	2021 JIF ▼	JIF Quartile	2021 JCI ▼	% of OA Gold ▼
<input type="checkbox"/> Annual Review of Pathology-Mechanisms of Disease	1553-4006	1553-4014	PATHOLOGY - SCIE	8,084	32.375	Q1	5.60	0.00 %
<input type="checkbox"/> ACTA NEUROPATHOLOGICA	0001-6322	1432-0533	PATHOLOGY - SCIE	30,046	15.887	Q1	3.64	57.18 %
<input type="checkbox"/> Seminars in Immunopathology	1863-2297	1863-2300	PATHOLOGY - SCIE	6,468	11.759	Q1	1.49	40.70 %
<input type="checkbox"/> JOURNAL OF PATHOLOGY	0022-3417	1096-9896	PATHOLOGY - SCIE	23,414	9.883	Q1	1.96	35.06 %
<input type="checkbox"/> HLA	2059-2302	2059-2310	PATHOLOGY - SCIE	1,819	9.200	Q1	0.65	19.05 %
<input type="checkbox"/> MODERN PATHOLOGY	0893-3952	1530-0285	PATHOLOGY - SCIE	20,113	8.209	Q1	2.53	10.75 %
<input type="checkbox"/> HISTOPATHOLOGY	0309-0167	1365-2559	PATHOLOGY - SCIE	14,098	7.778	Q1	1.22	14.74 %
<input type="checkbox"/> BRAIN PATHOLOGY	1015-6305	1750-3639	PATHOLOGY - SCIE	7,083	7.611	Q1	1.82	49.56 %
<input type="checkbox"/> CELLULAR ONCOLOGY	2211-3428	2211-3436	PATHOLOGY - SCIE	3,031	7.051	Q1	1.27	23.28 %
<input type="checkbox"/> AMERICAN JOURNAL OF SURGICAL PATHOLOGY	0147-5185	1532-0979	PATHOLOGY - SCIE	26,409	6.298	Q1	2.24	4.25 %

Preprint Servers

- Examples included bioRxiv.org and medRxiv.org
- Not peer reviewed
- Papers have a digital object identifier (DOI) so when published in a peer reviewed journal will have TWO DOIs
- Most link preprint to final published version
- Adoption of preprints for grant applications, publications, promotions processes presents significant challenges

Predatory Journals – A Significant Problem

- Beall's list (now withdrawn)
 - 18 predatory publishers in 2011, 923 in 2016
- Shen and Bjork BMC Med 2015; 13: 230
 - 2010 – 53000 articles in predatory journals
 - 2014 – 420000 articles in 8000 active predatory journals from 966 publishers
- Market value?
 - Annual subscription journals - \$10 billion
 - Global annual OA journals - \$244 million
 - Predatory journal market - \$75 million (2014)

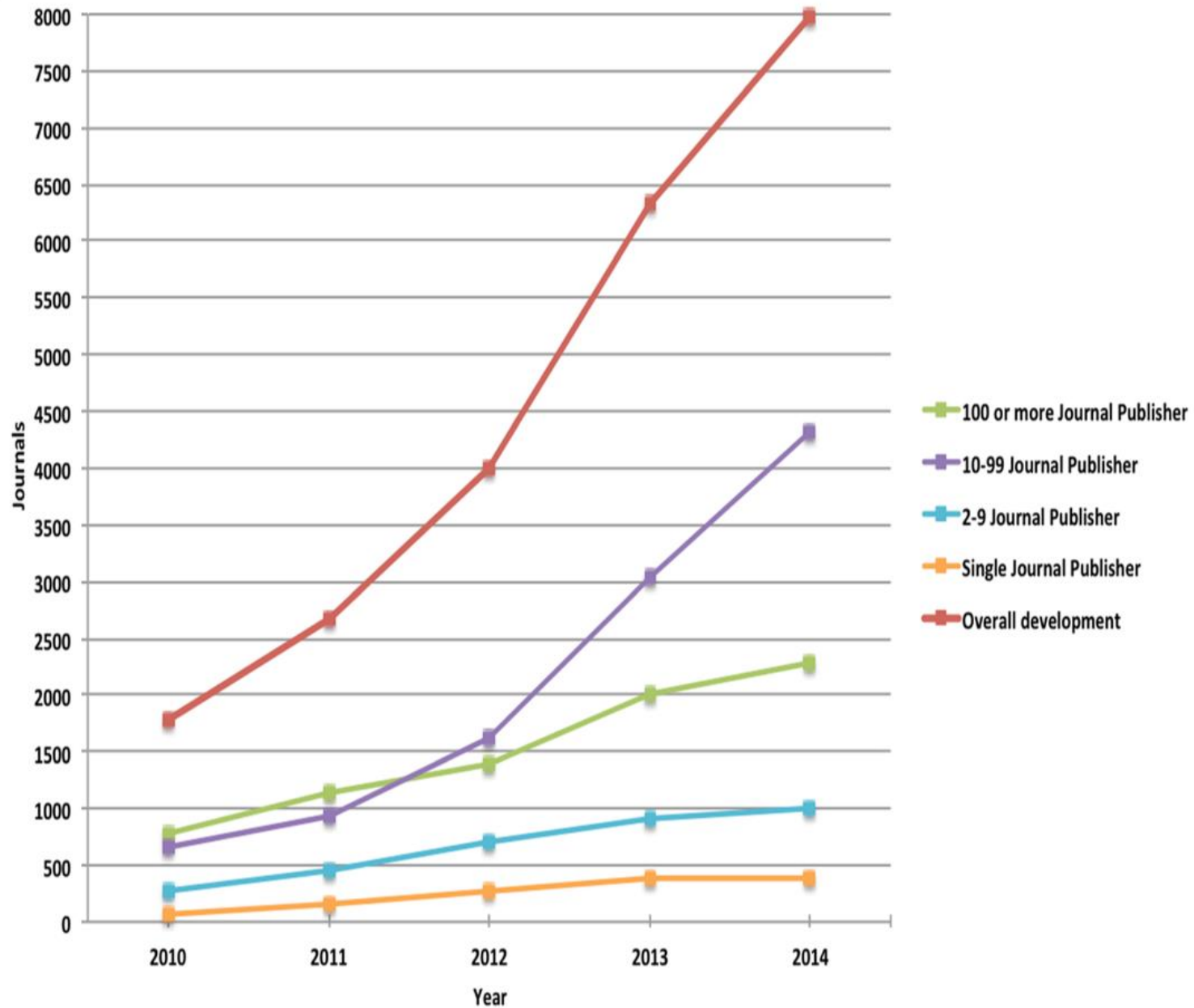


Fig. 2 The development of active predatory open access journals from 2010 to 2014

Predatory Journals

- Scope of interest includes non-biomedical in addition to biomedical subjects
- English spelling and grammar errors
- Distorted/fuzzy images
- Language targets authors
- Promotion of the Index Copernicus Value
- No description of the manuscript handling process
- Manuscript submission by email
- Promises rapid publication
- Absence of a retractions policy
- No information on digital preservation
- Very low article processing/publication charge
- Claim to be open access but retain copyright or fail to mention it
- Non-professional/non-journal email address

The Future for Peer-Reviewed Journals

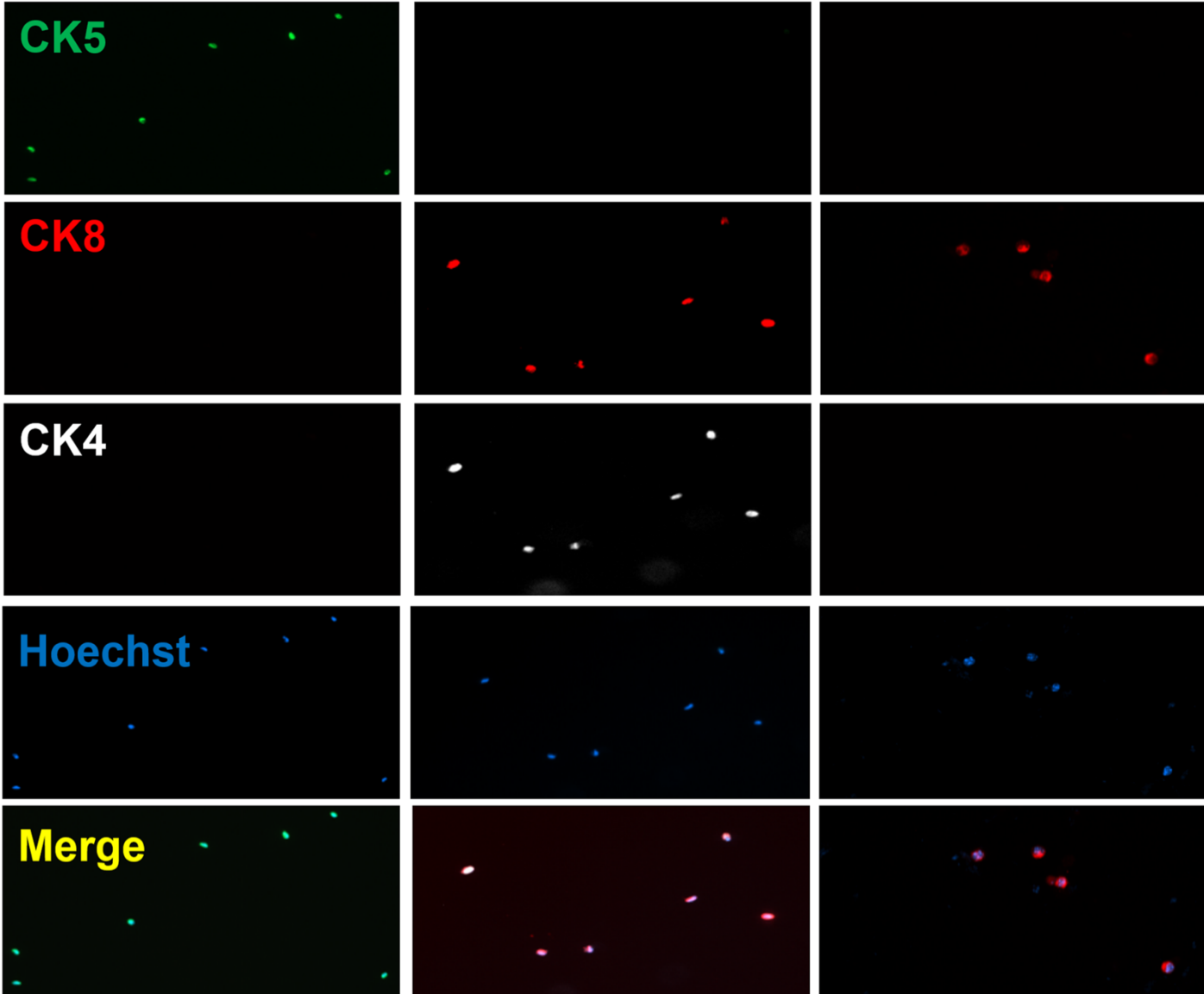
- **Quality control is key**
- Systematic evaluation for evidence of breaches of research integrity (misconduct)
 - Fabrication, falsification, plagiarism (FFP)
- Text analysis
 - Turnitin; iThenticate
 - Useful but requires interpretation
- Image analysis
 - Editorial scrutiny
 - Peer scrutiny e.g. PubPeer

A

Basal/stem

LSCmed

Luminal

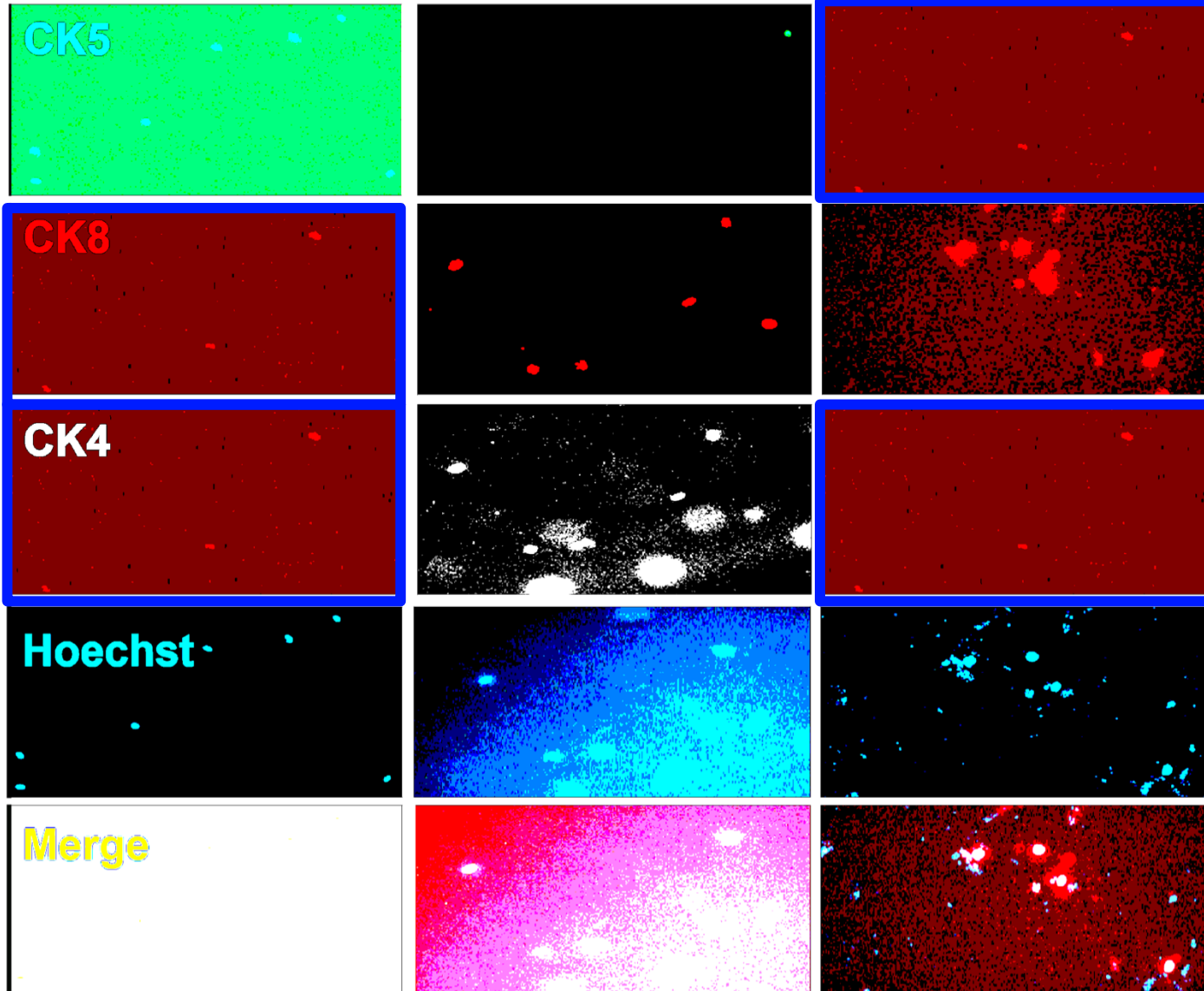


A

Basal/stem

LSCmed

Luminal



Adjusted levels

Same field used
for different
samples and stains

Pubpeer

- Anonymous peer blog - <https://pubpeer.com>
- Invites full discussion of perceived issues with papers
- Not just a 'vigilante' process
- Often leads to self-correction
- Browser plug-in

Retraction Watch

- Website that follows corrections to and retractions of the published literature – <https://retractionwatch.com>
- Run by a medical journalist
- Fully open discussion
- Useful alert system for editors and authors!



PDF



Info



[Explore this journal >](#)

Notice of Retraction

Notice of Retraction: "Comparison of histological grading and large-scale genomic status (DNA ploidy) as prognostic tools in oral dysplasia" (*J Pathol* 2001;194:303–310)

First published: 29 November 2006 [Full publication history](#)

DOI: 10.1002/path.2115 [View/save citation](#)

Cited by (CrossRef): 0 articles [Check for updates](#) [Citation tools](#) ▼



The article to which this notice applies [DOI: [10.1002/1096-9896\(200107\)194:3<303::AID-PATH879>3.0.CO;2-Q](https://doi.org/10.1002/1096-9896(200107)194:3<303::AID-PATH879>3.0.CO;2-Q)], by Sudbø J, Bryne M, Johannessen AC, Kildal W, Danielsen HE and Reith A has been retracted by agreement between the journal Editor-in-Chief, C Simon Herrington, and John Wiley & Sons, Ltd. The retraction has been agreed due to the finding of the Investigation Commission (appointed in January 2006 by Rikshospitalet-Radiumhospitalet MC and the University of Oslo) that Dr Sudbø fabricated and manipulated the data upon which these analyses were based. It should be noted that the Investigation Commission has determined that Dr. Sudbø acted alone in fabricating the data without the knowledge of the co-authors and that the co-authors asked for the retraction.



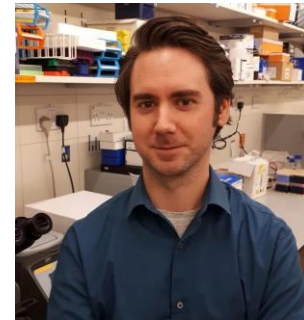
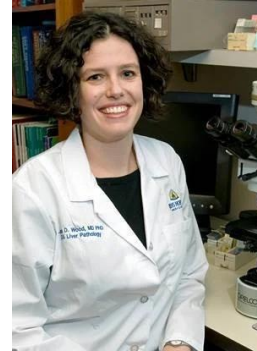
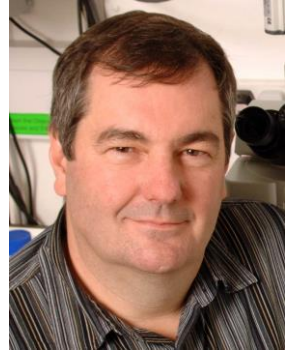
[View issue TOC](#)
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January 2007
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Conclusions

- Online manuscript handling systems have had a significant impact on peer-reviewed publishing
- Wide availability of frequently updated online databases has driven journal usage at the individual article level
- Open access is changing the publishing landscape
- Peer-reviewed journals add significant value to manuscripts
- Quality control of manuscripts is increasingly important
- Text and image assessment are frequently used by journals in initial manuscript assessment as part of internal review

Acknowledgements

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Understanding Disease — Guiding Therapy

