

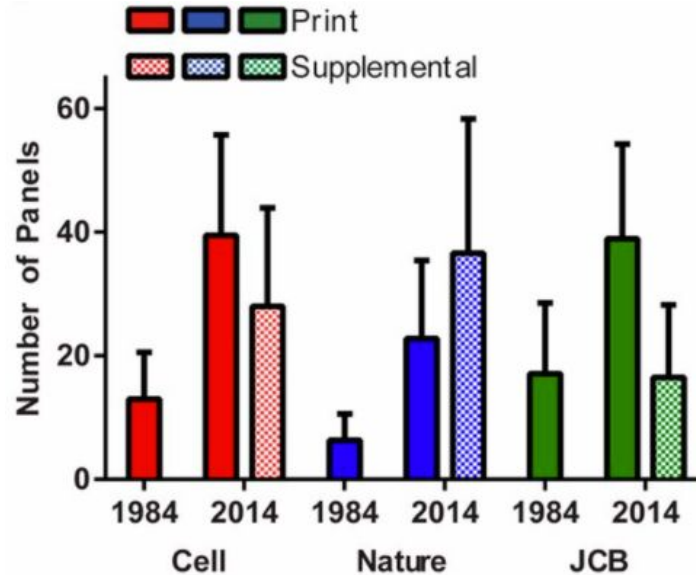
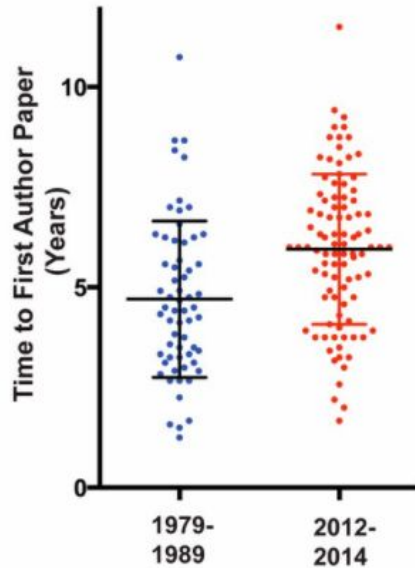
Shaping the Future of Scholarly Communication: The Role of Preprint Peer Review

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Associate Director ASAPbio
27th July 2023



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Despite technological advances, journal publication is taking longer than ever



\$6 billion, globally per year on peer review alone

Accelerating scientific publication in biology, Ronald D. Vale
Proceedings of the National Academy of Sciences Nov 2015, 112 (44)
13439-13446; DOI: 10.1073/pnas.1511912112

See also
[Life Science's Average Publishable Unit \(APU\) Has Increased over the Past Two Decades](#)
Cordero RJB et al 2016

[Scientific sinkhole: estimating the cost of peer review based on survey data with snowball sampling](#) LeBlanc et al, 2023

Preprints enable rapid, low cost, dissemination

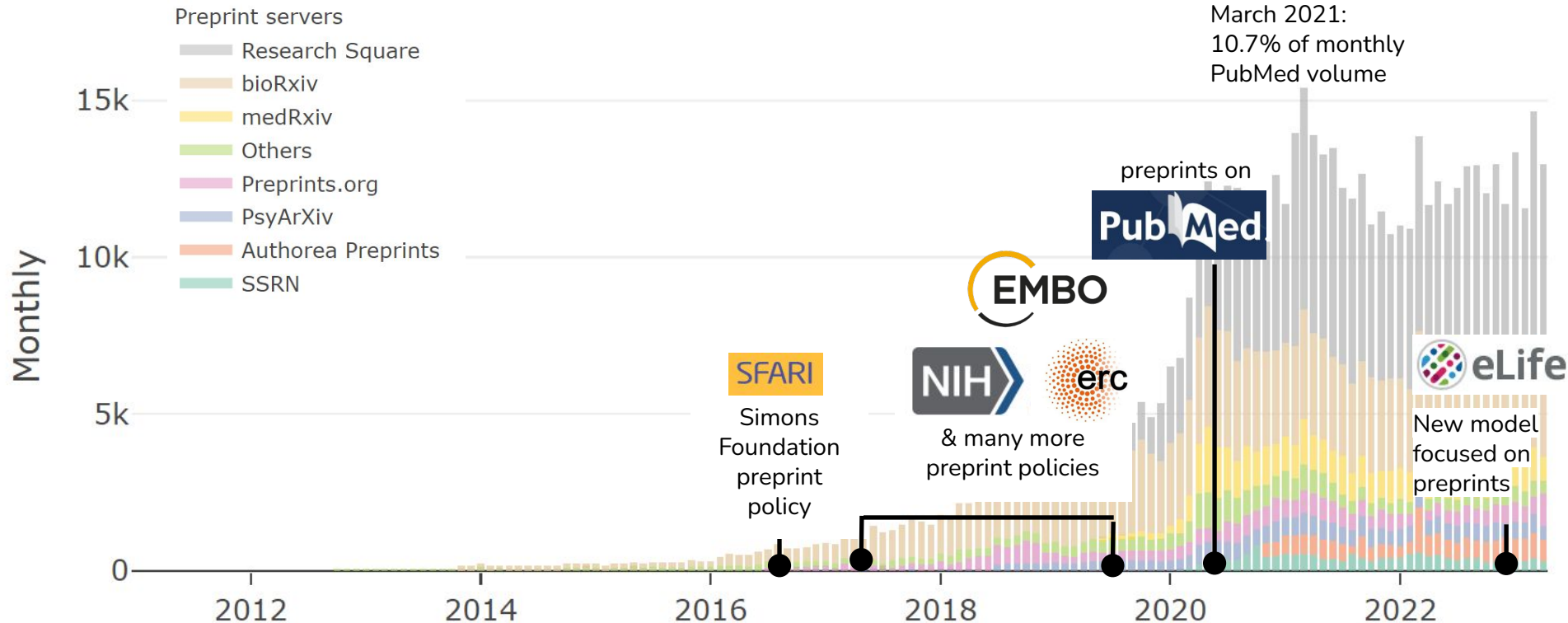


Preprints are...

- Not peer reviewed by the server before posting
 - Posted rapidly
- Versioned
 - Easily updated or corrected
- Compatible with journals
 - Check SHERPA/ROMEO & journal website
- Citable
 - Receive a DOI
 - Some search tools pool citations to preprints & its journal article (eg Google Scholar)
 - Many funders consider preprints evidence of productivity in grant apps & reports

Nearly 600,000 life sciences preprints

+ millions more in other disciplines & other repositories



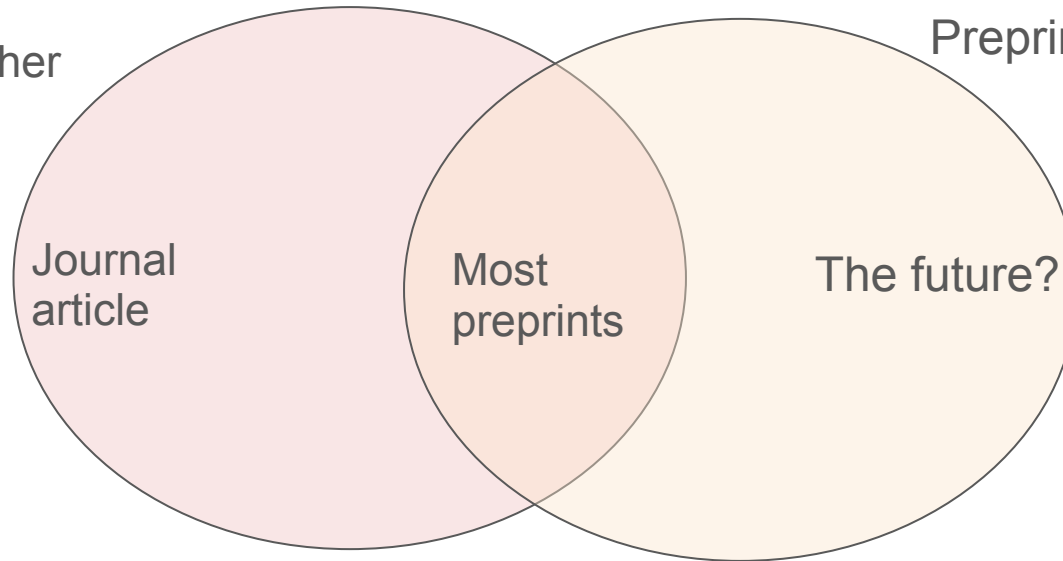
Preprints provide flexibility for experimentation

Fixed, rigid

Flexible, adaptable

Traditional publisher

Preprint server



Authors want feedback

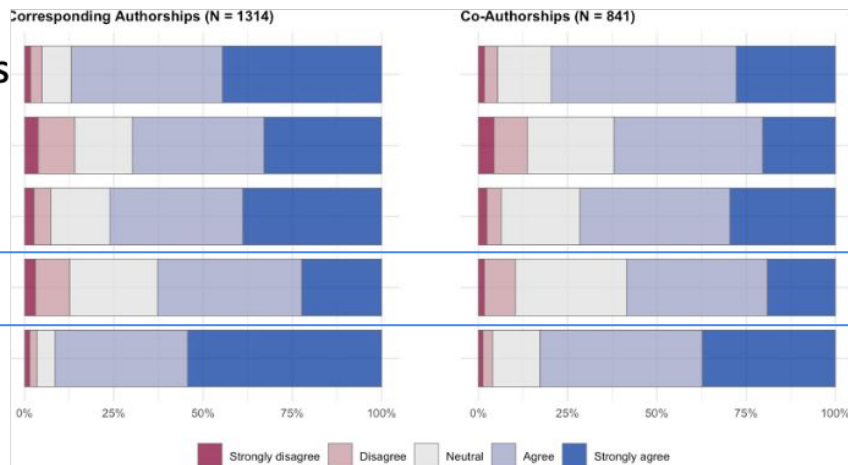
Increase awareness

Stake priority

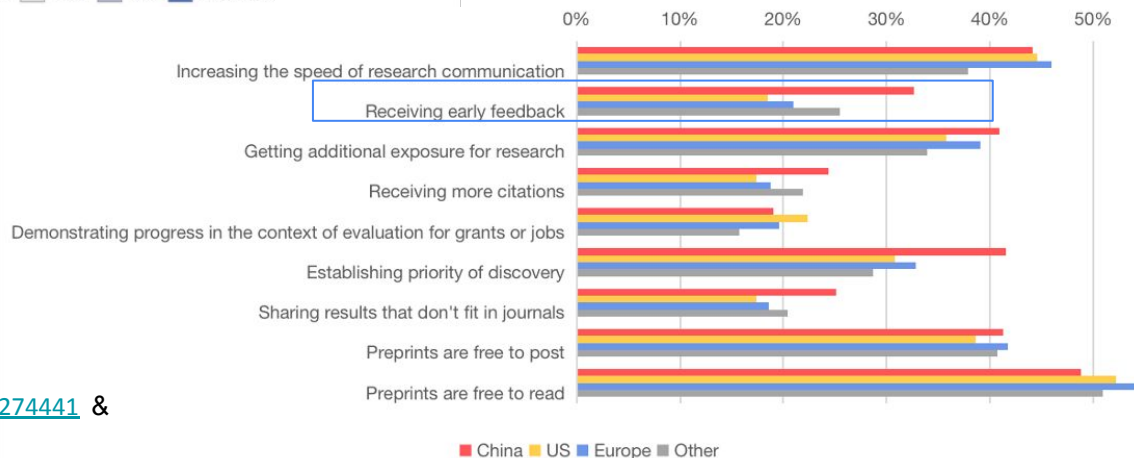
Benefit science

Receive feedback

Speed up sharing

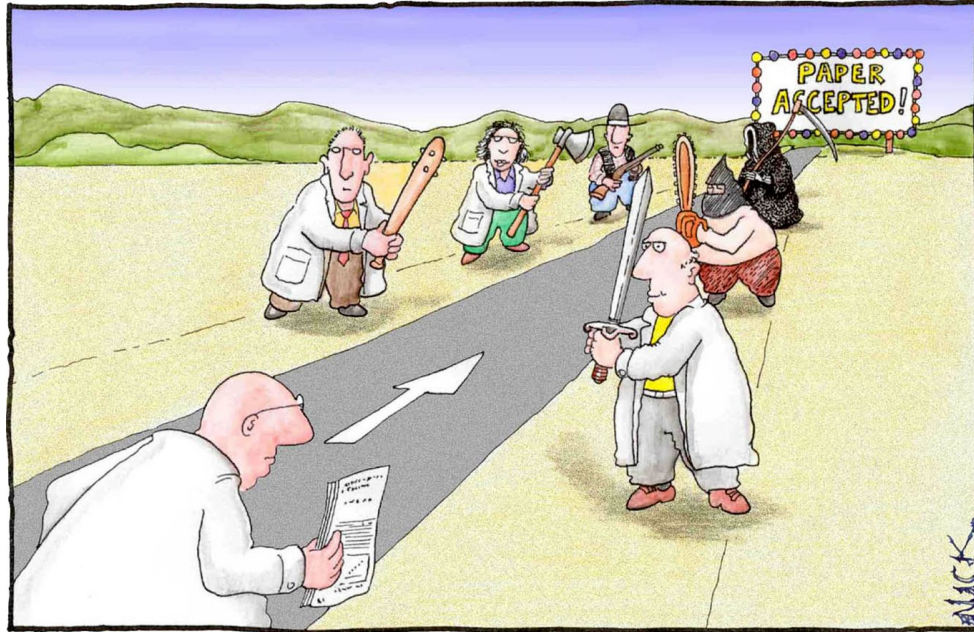


Benefits of preprinting



<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0274441> &
<https://dapp.orvium.io/deposits/6442f782b2b5580ba561406b/view>

Peer reviewers can act as gatekeepers...



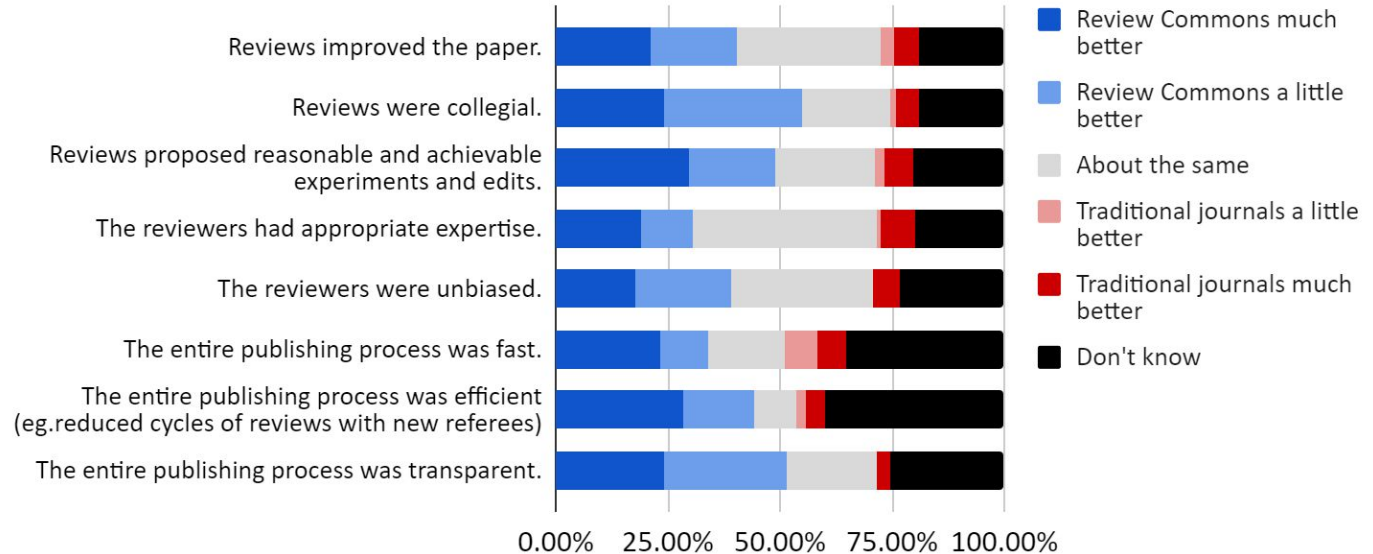
Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

...Or collaborators



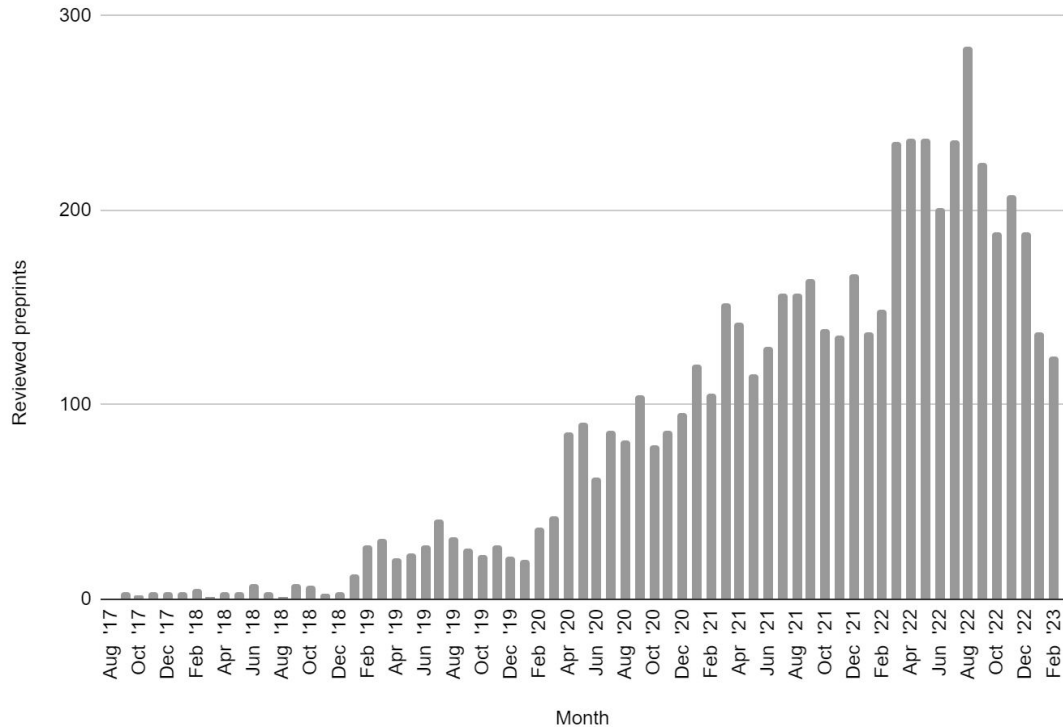
**Review Commons
provides
high-quality peer
review of preprints
before journal
submission.**

Compare your Review Commons experience to your experience as an author at traditional journals over the last year. (n = 95)



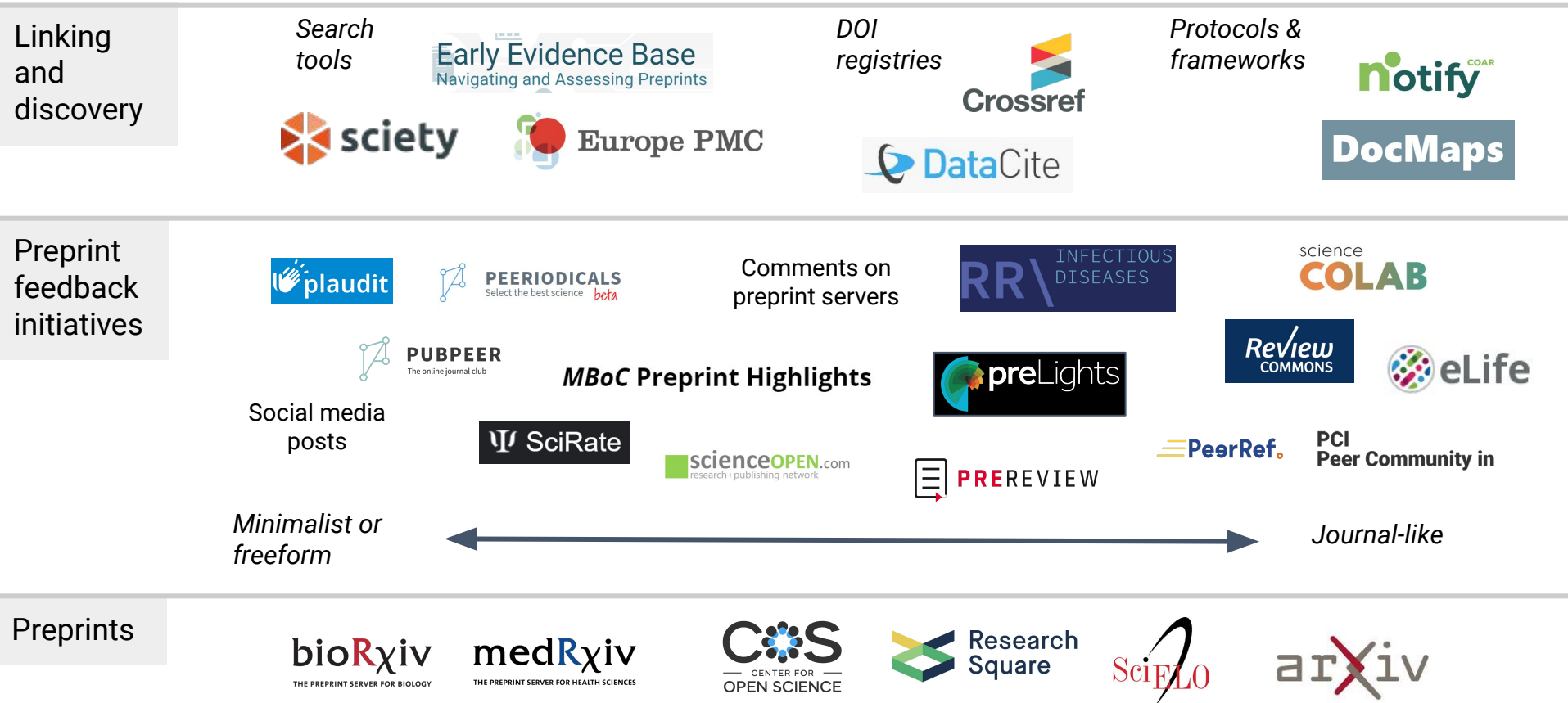
<https://asapbio.org/review-commons-9-months>

Growth of preprint review over time



Preprints reviewed per month on Sciety, excluding reviews conducted by automated tools (ScreenIT) and reviews by journals posted after publication of the journal version. (Source: 10.31219/osf.io/cht8p)

The preprint feedback ecosystem



Formal recognition for preprint peer review

18 doctoral schools have stated that preprints recommended by a [PCI](#) are considered the same value as articles of good quality published in journals

via Thomas Guillemaud & Denis Bourguet

FEATURES

Refereed preprints recognized as eligibility criterion for EMBO Postdoctoral Fellowships

EMBO will accept first author refereed preprints in applications for postdoctoral fellowships in a four-month trial

[Read more](#) ►



Papers subjects to a 'journal-independent standard peer review process [...] are considered by most cOAlition S organisations to be of equivalent merit and status as peer-reviewed publications that are published in a recognised journal or on a platform."

[Statement](#) on July 6, 2022



● Council of the EU Press release 23 May 2023 10:27

Council calls for transparent, equitable, and open access to scholarly publications

“In its conclusions, the Council calls on the Commission and the member states to support policies towards a scholarly publishing model that is not-for-profit, open access and multi-format, with no costs for authors or readers.”

A publish-review-curate system based on preprints and directly supported by institutions & funders, can achieve this



Sara Monaco (EMBO)



Thomas Guillemaud (Peer Community In)



Stefano Bertozzi (Rapid Reviews)



Daniela Saderi (PREreview)



Lesley Anson (Science Colab)



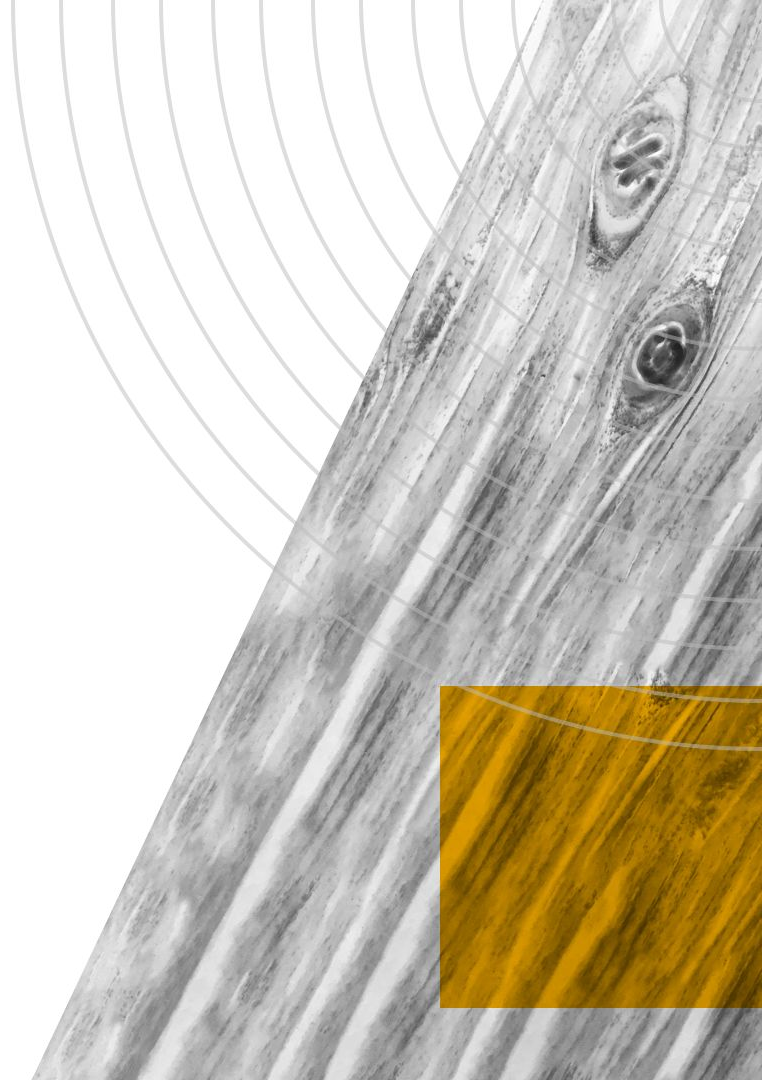
Review COMMONS

Preprint peer review

Sara Monaco, EMBO
Managing Editor

Supported by

hhmi | Howard Hughes
Medical Institute



Why?

Accelerate access to peer reviewed research



reviewed preprint



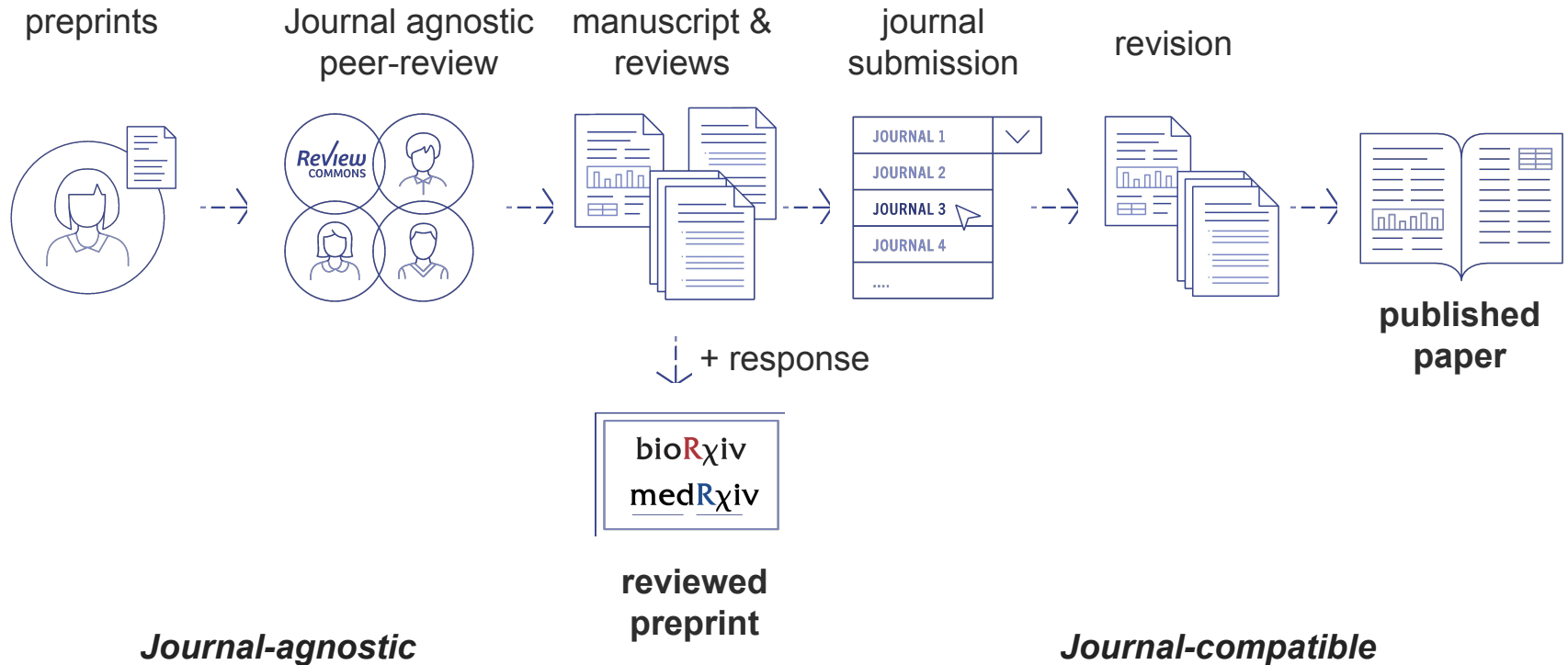
Eliminate redundant peer review at journals



published paper



How does it work?



Creating synergies between open science and journal publishing

Fast dissemination of scientific findings



Efficient publishing



Peer Community In

Communities of researchers handling the **evaluation** of (through peer review) and **recommending preprints** in their scientific field

bioRxiv

arXiv.org

OSF PREPRINTS

etc ...

PCI Ecology
PCI Evolutionary Biology
PCI Genomics
PCI Microbiology
etc..



**Recommendation of preprints
and open-access publication for free**

Harvard
Library



Iowa State University



université
PARIS-SACLAY



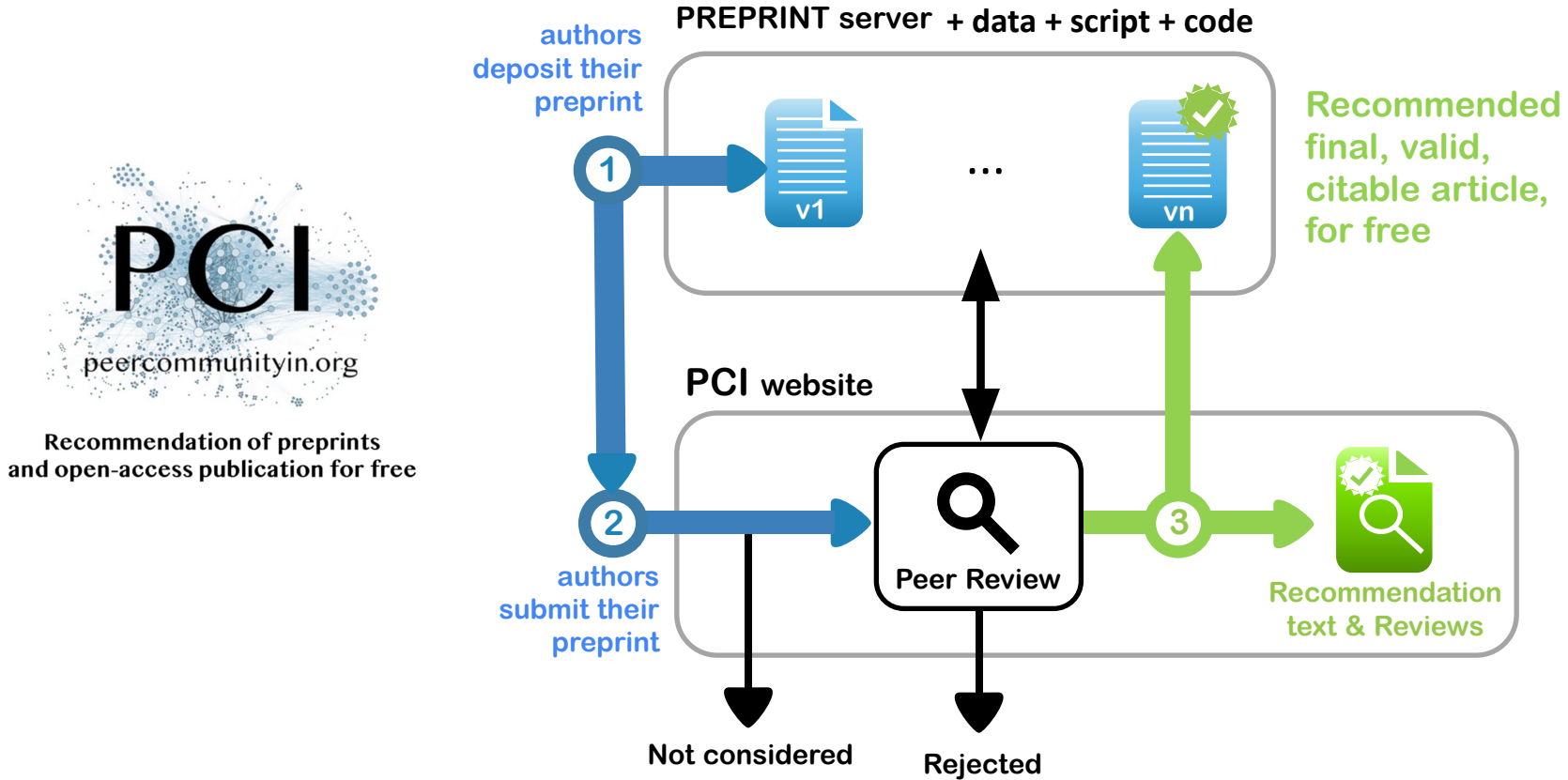
uOttawa
Faculté des sciences de la santé
Faculty of Health Sciences



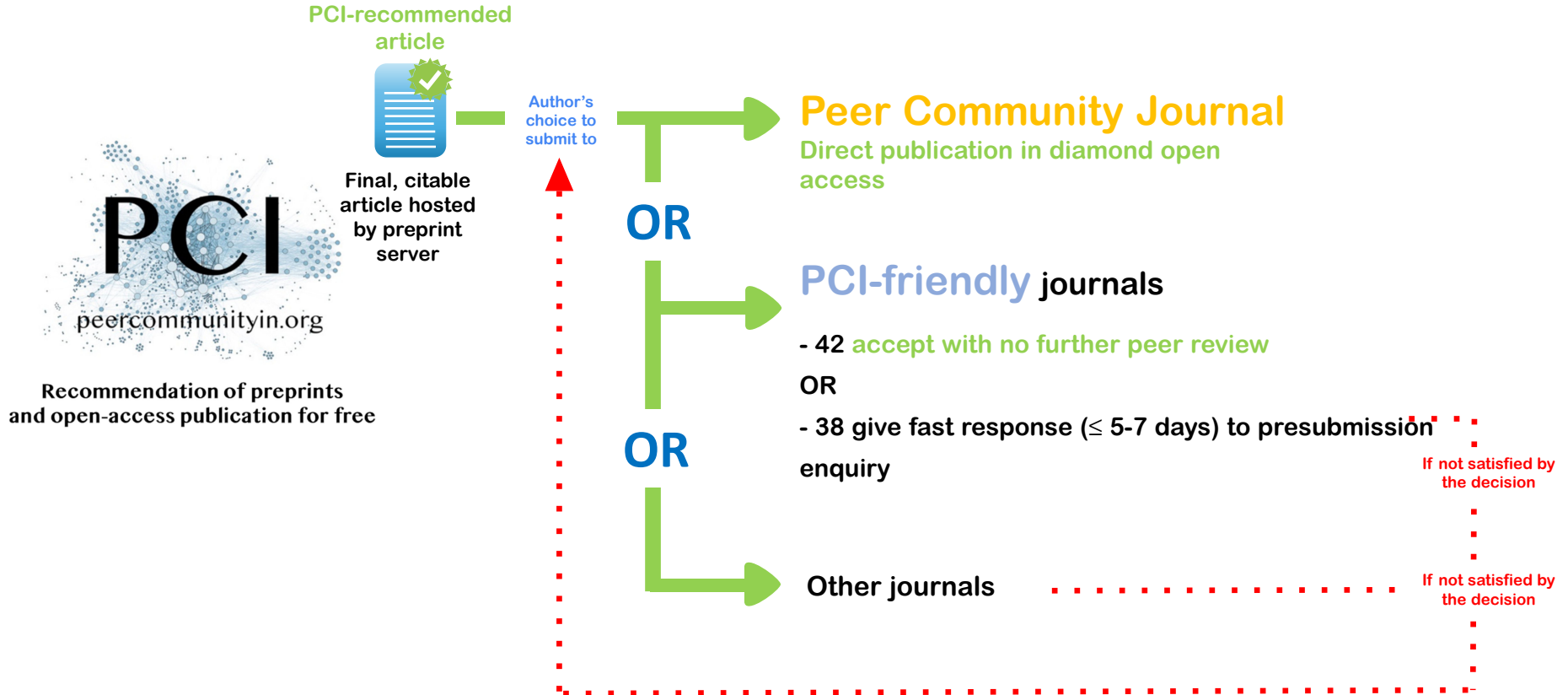
<https://peercommunityin.org>

contact@peercommunityin.org

How does it work?



Fate of PCI recommended preprints



Unique features

- Submissions by authors
- Data, script & codes must be shared
- Editorial decisions (CC BY 4.0)
- Recommendation text (CC BY 4.0)
- A recommended preprint is a final and usable article
... but publication in a journal is possible if necessary
- Evaluations are transferable to any journals (including 80 PCI-friendly journals)
- PCI-recommended preprints can be directly published in Peer Community Journal (Diamond OA)
- PCI is supported by many research institutions (more than 100 univ, libraries, national research institutes) ⇒ a secure budget for the next 10 years



**Recommendation of preprints
and open-access publication for free**



Stefano Bertozzi



PREreview imagines more equitable and broader participation in peer review

We envision a world in which feedback to scholarly outputs is done openly, rapidly, constructively, and by a diverse global community of peers.

We want to **extend the pool of peer reviewers** to traditionally marginalized groups of researchers whose expertise is measured by constructive contributions and community engagement and not by seniority and prestige.

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Peer review mentoring and training programs to train researchers on constructive peer review practices

Open review platform where any researcher with an ORCID account can request or give constructive feedback to preprints

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We support and empower diverse and historically excluded communities of researchers (particularly those at early stages of their career) to find a voice, train, and engage in peer review.

A better way

Making science and scholarship more equitable, transparent, and collaborative.

[Our mission >](#)

[◀ See other reviews](#)[Read the preprint ▶](#)

PREREVIEW of “Behavioral plasticity allows ungulates to balance risk and reward following megafire”

by Gary S McDowell 

Published July 14, 2023 **DOI** 10.5281/zenodo.8148504 **License** [CC BY 4.0](#)

Overall summary:

This work seeks to study the movement behavior of black-tailed deer immediately following a megafire, to understand whether ungulate species are able to adjust to the immediate effects of megafires - specifically how deer alter habitat selection and behavioral decisions adjusting to a novel landscape. The authors use hourly GPS tracking data from doe over the period of a year and fit data from specific time periods to Resource Selection Functions and Hidden Markov Movement models. The authors claim that this work shows evidence of adaptive capacity, with deer initially avoiding severely burned areas but later selecting these areas for enhanced foraging. The authors suggest that this species, and by extension other ungulates, can navigate altered can navigate altered environments, with implications for understanding broader resilience.

Connecting Authors, Editors, and Community Reviewers

1. Author-driven request of community reviews at the time of preprint submission.



<https://bit.ly/COAR-Notify-PR>

Connecting Authors, Editors, and Community Reviewers

2. Journal-driven request of community reviews on a manuscript/preprint submitted to the journal for review and publication.



<https://bit.ly/COAR-Notify-PR>

THANK YOU!



Sign up for our Newsletter



Join our Slack Community

I'm happy to answer any questions you have!

You can reach me at daniela@prereview.org



Science Colab

A community-driven open science
publishing initiative

Lesley Anson

lesley@sciencecolab.org

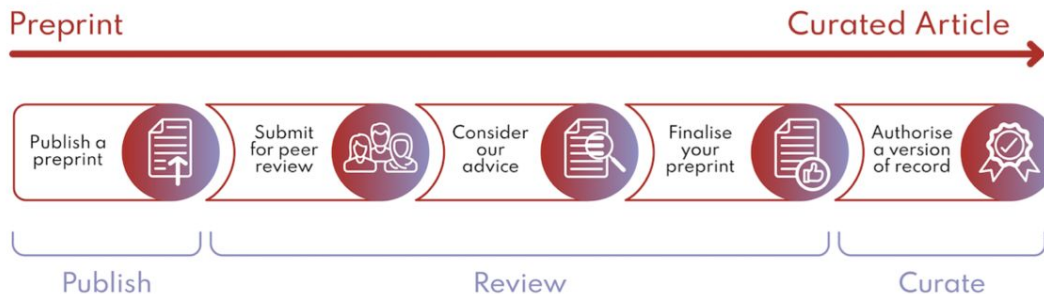
www.sciencecolab.org

science
COLAB

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- The first community endeavour of Science Colab
- Providing a peer review service for biophysical preprints
- Soon to expand to a full 'publish, review, curate' service



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authors choose when, how & where to publish studies
- Delivers the best possible author service:
high-quality, non-judgemental, constructive feedback
- Provides a better foundation for research assessment:
equitable, inclusive, transparent

What next?

- We will continue to innovate
- We will create new collaborations with other communities
- We will work to create a regenerative business model

We envisage an ecosystem in which the significance of research findings are recognised independently of publication venue