Rethinking preprints

Jessica Polka
2020-10-15
Executive Director, ASAPbio
@jessicapolka, @ASAPbio_

Disclosures

- PhD: UCSF, Biochemistry/Cell Biology
- Postdoc: Harvard Medical School, Synthetic biology
- ASAPbio Director: UCSF
- Executive Director: ASAPbio

Other affiliations:

- Current: cOAlition S Ambassador, Knowledge Futures Group (MIT), Rescuing Biomedical Research, PREreview advisory board
- Past: Whitehead Institute, Future of Research, *Publications* (MDPI), NASEM NGRI, ASCB public policy committee

ASAPbio

a 501(c)(3) promoting transparency & innovation in life sciences publishing

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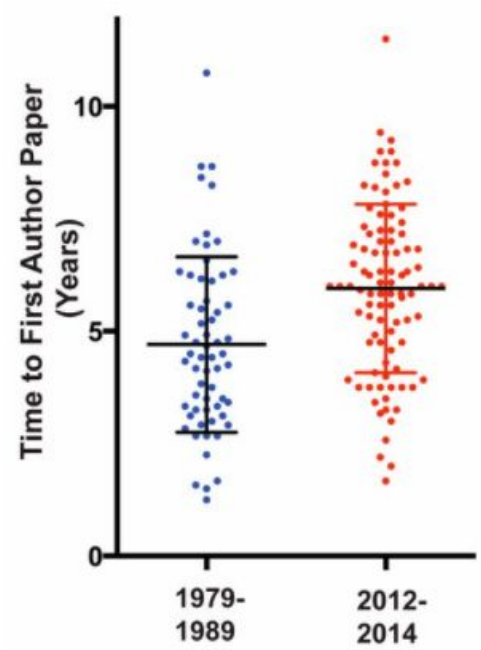
Support provided by the Open Society Foundations

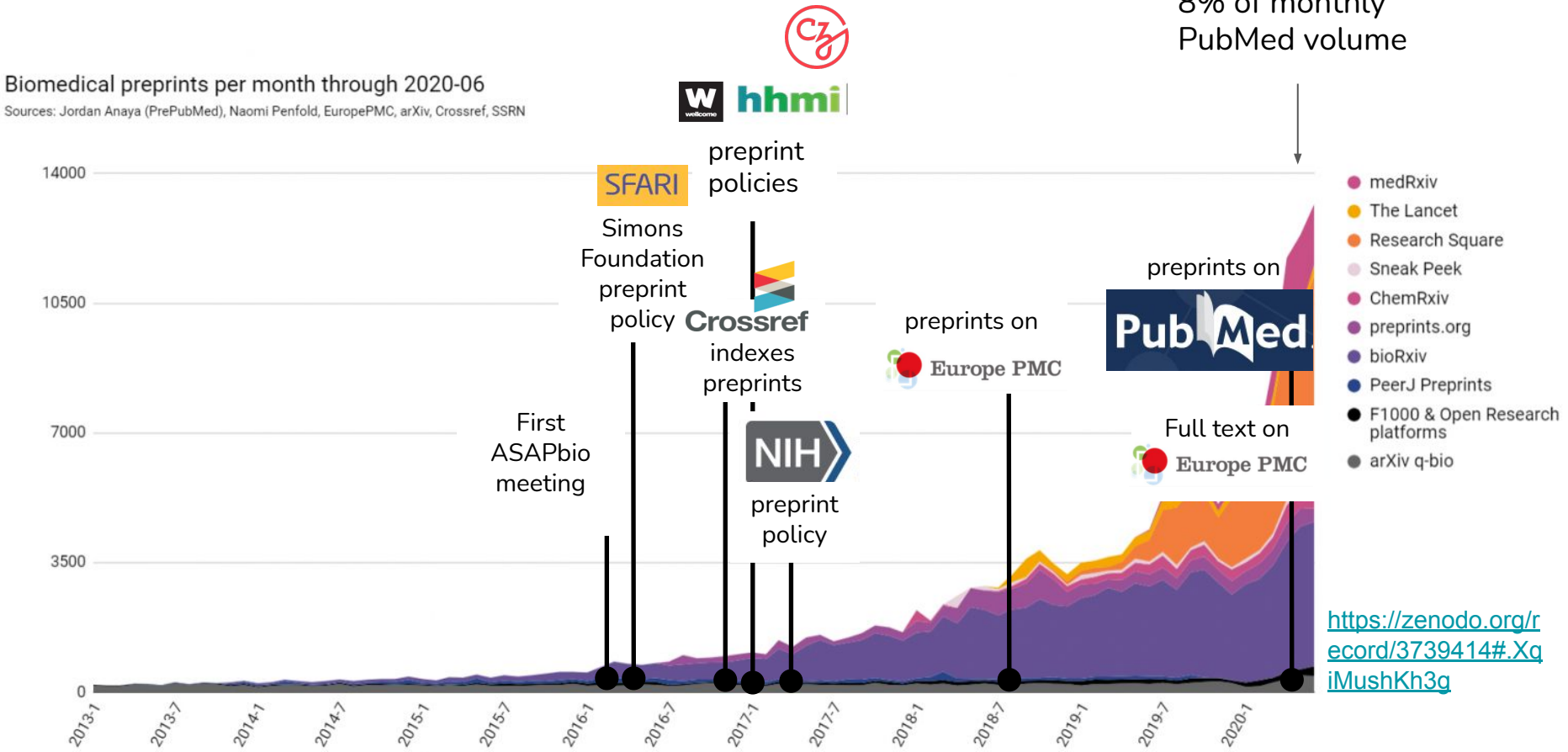
MRC Medical Research Council

CIHR IRSC

Creating a publishable unit is slower than ever

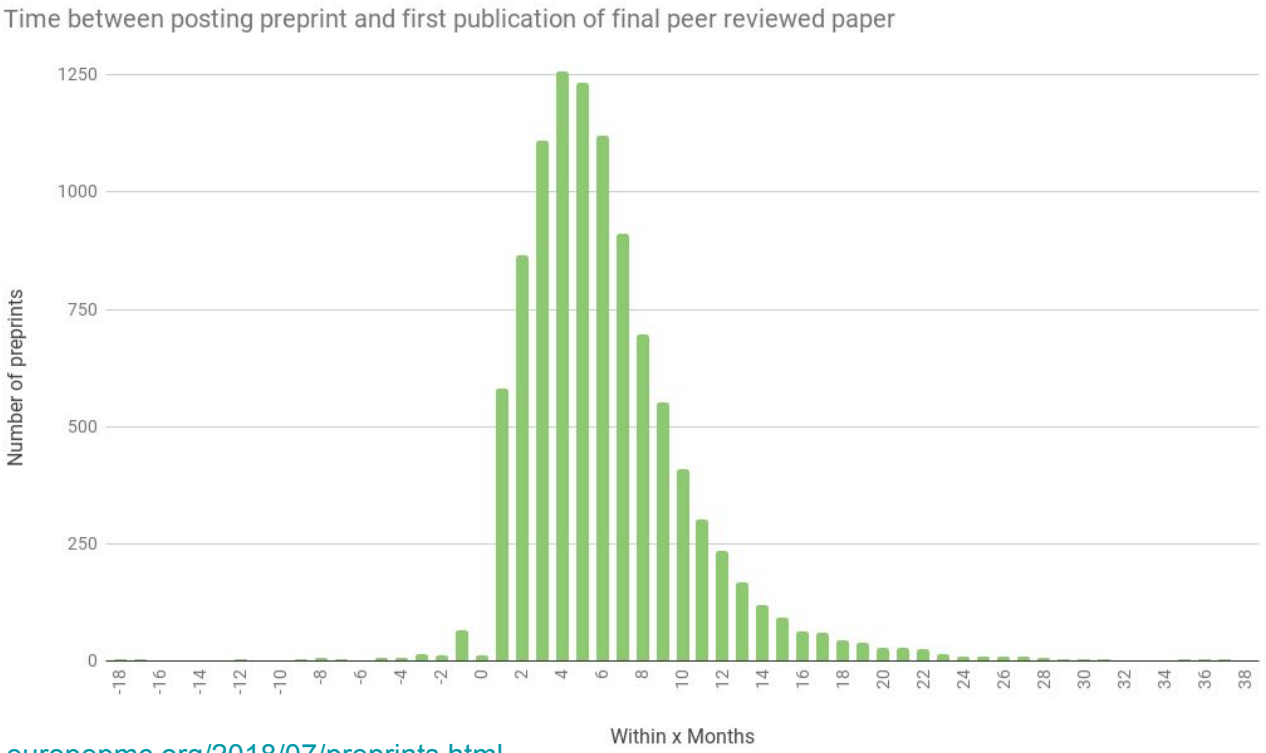


Accelerating scientific publication in biology
Ronald D. Vale
Proceedings of the National Academy of Sciences Nov 2015, 112 (44) 13439-13446; DOI: 10.1073/pnas.1511912112



https://zenodo.org/record/3739414#.XqiMushKh3g

Preprints separate dissemination and evaluation



Median 4-5 months between preprint and journal article

http://blog.europepmc.org/2018/07/preprints.html

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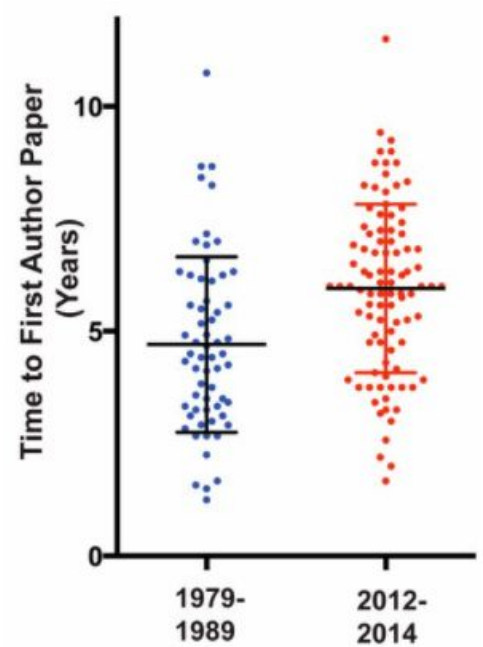

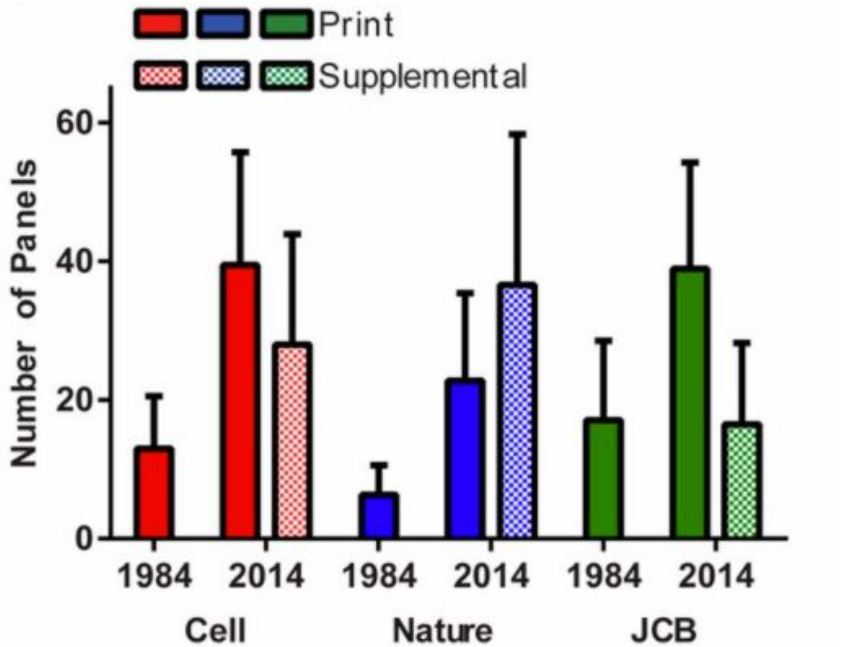

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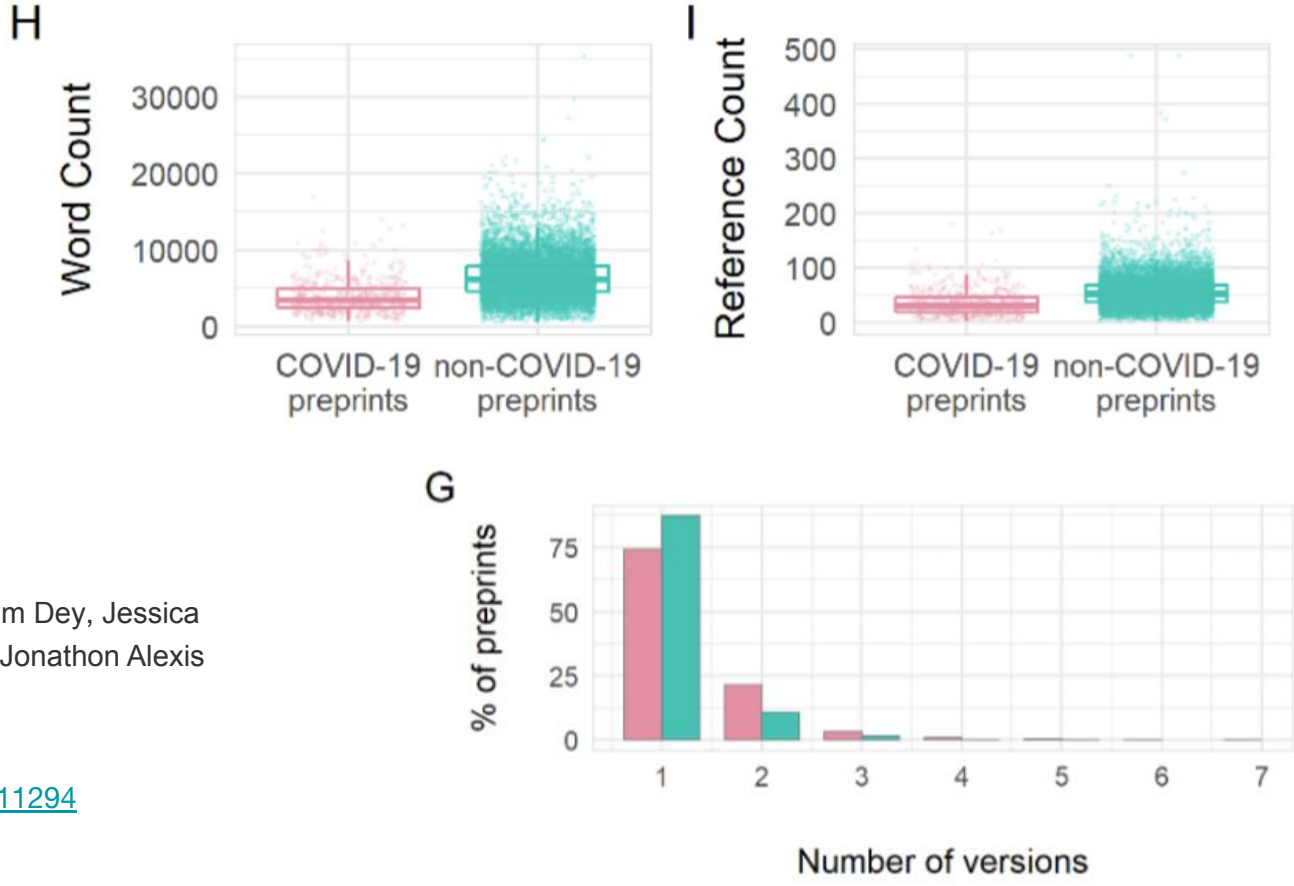
COVID-19 is changing preprints



Preprinting the COVID-19 pandemic

Nicholas Fraser, Liam Brierley, Gautam Dey, Jessica K Polka, Máté Pálfy, Federico Nanni, Jonathon Alexis Coates

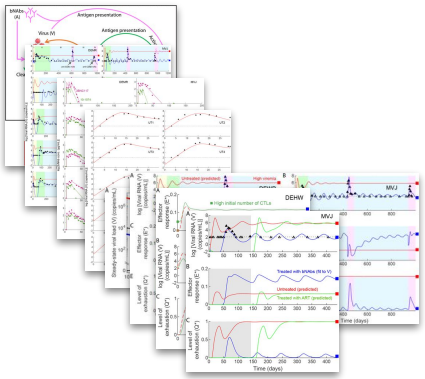
bioRxiv 2020.05.22.111294; doi: https://doi.org/10.1101/2020.05.22.111294

(Reviewed by RR:C19)

A potential use case for preprints

Journal submission

Journal publication



January 2020

August 2020

Early exposure to broadly neutralizing antibodies may trigger a dynamical switch from progressive disease to lasting control of SHIV infection

Rajat Desikan, Rubesh Raja, Narendra M. Dixit

bioRxiv 548727; doi: https://doi.org/10.1101/548727 Now published in PLOS Computational Biology doi: 10.1371/journal.pcbi.1008064

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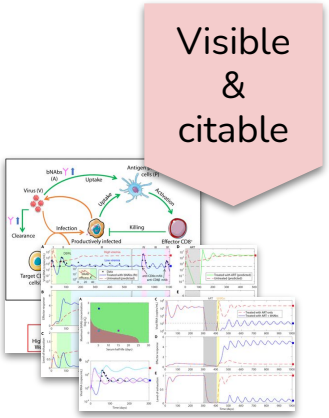
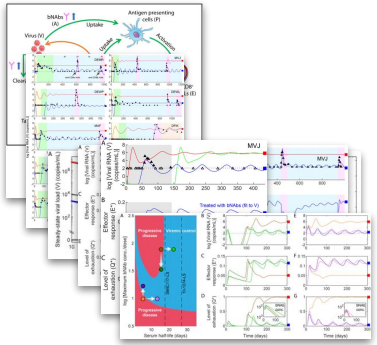
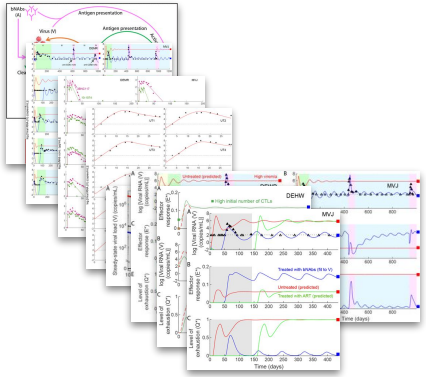




Journal submission



Journal publication

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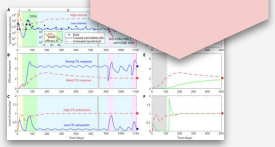
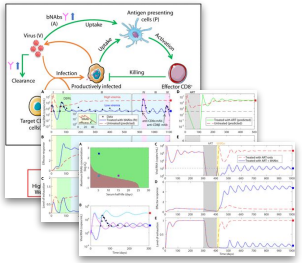
A potential use case for preprints

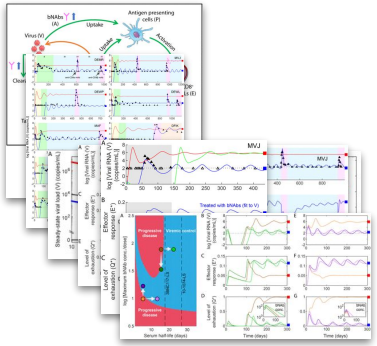
Journal submission

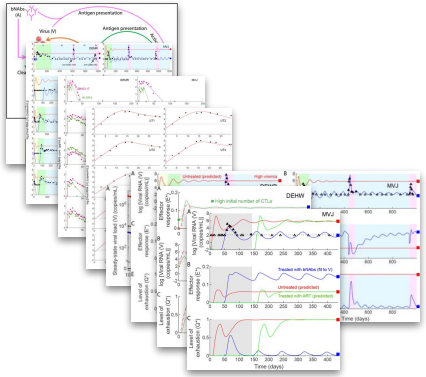
Journal publication

Visible & citable









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Posted January 18, 2020.

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REVISION SUMMARY

- ↵† Shared first authorship.
- The underlying mechanisms are established more robustly by considering additional model variants. The key conclusions remain unaltered.

PLOS COMPUTATIONAL BIOLOGY

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RESEARCH ARTICLE

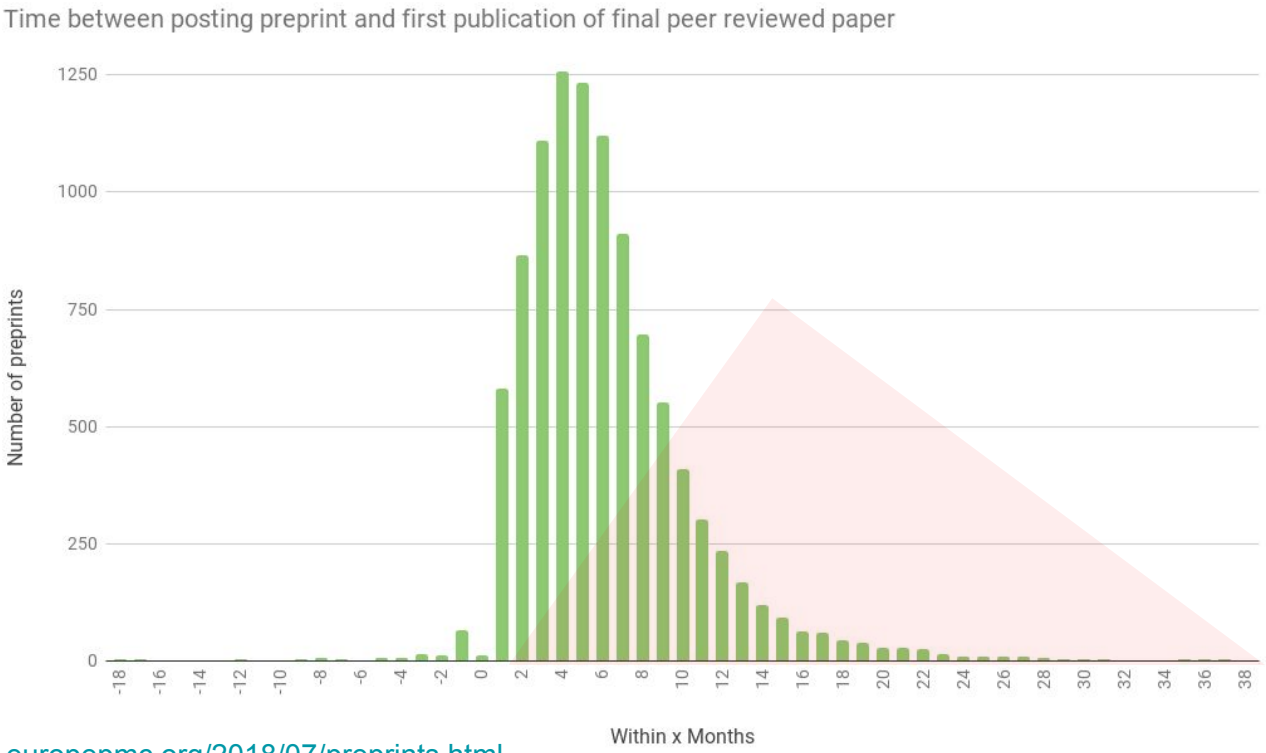
Early exposure to broadly neutralizing antibodies may trigger a dynamical switch from progressive disease to lasting control of SHIV infection

Rajat Desikan, Rubesh Raja, Narendra M. Dixit

Version 2 Published: August 20, 2020 • https://doi.org/10.1371/journal.pcbi.1008064

• >> See the preprint

Preprints separate dissemination and evaluation



How much time would be saved by earlier dissemination?

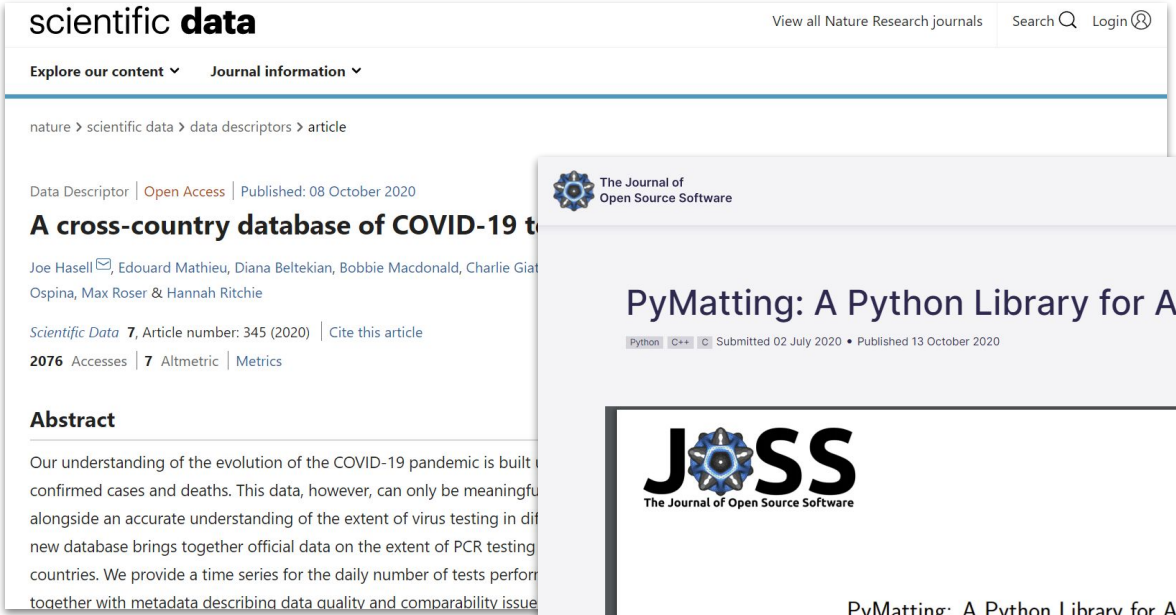
http://blog.europepmc.org/2018/07/preprints.html

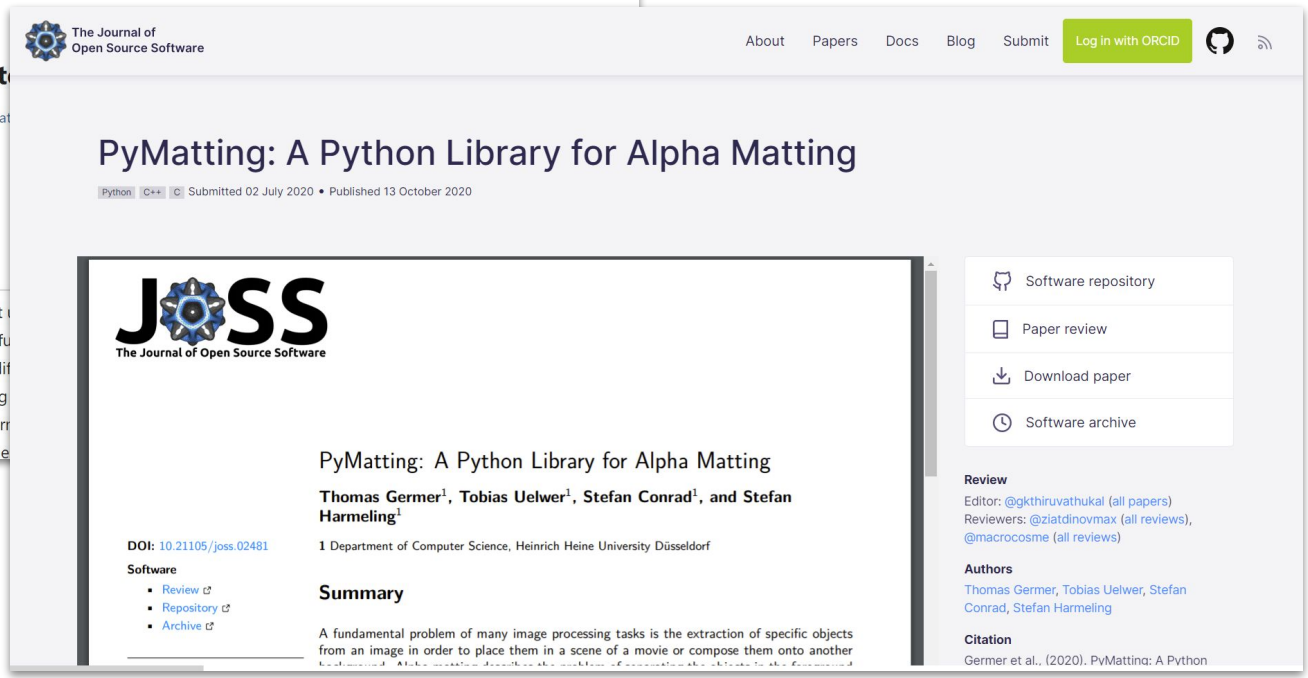
“Science is not article-shaped.”

- Louise Page

… but articles are the coin of the realm

Data and code papers

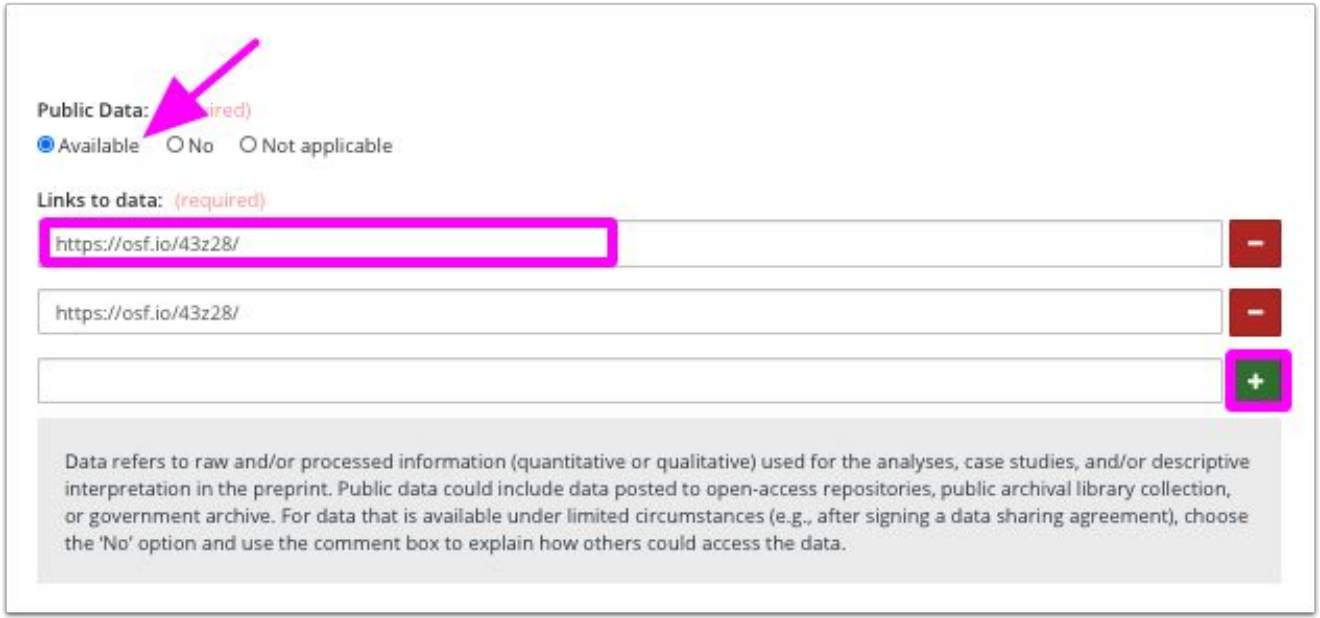




Preprints servers offering clear links to data/code

bioRxiv

OSF



Recommendations for preprint data/materials statements:
Beck, Jeffrey, et al. "Building Trust in Preprints: Recommendations for Servers and Other Stakeholders." OSF Preprints, 21 July 2020. Web. https://osf.io/8dn4w/

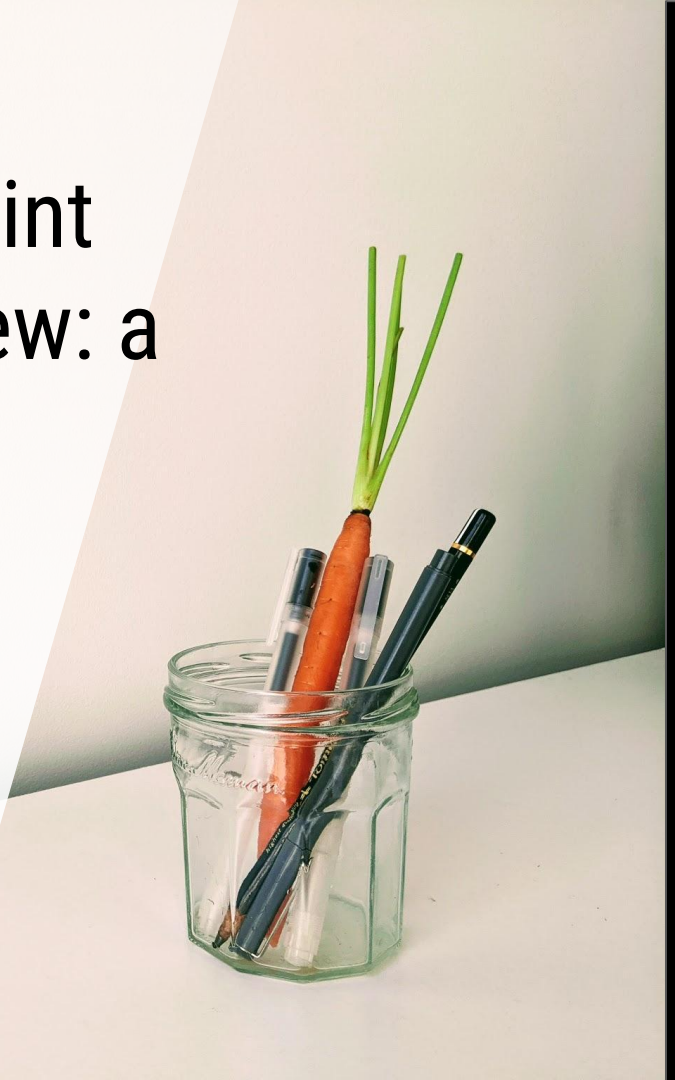
Preprints as adapter

- Code, data
- Micropublications
- Short reports
- Work that will be updated

- Infrastructure
- Visibility
- Credit and funder recognition
- Peer review initiatives

ASAPbio

Encouraging Preprint Curation and Review: a Design Sprint



November 13 & December 3

Hone your ideas for promoting commenting, peer review, and curation of preprints

Register & submit your project at asapbio.org/sprint

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DORA

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PLOS

eLife

Thank you

ASAPbio
Iratxe Puebla
Victoria Yan
Jigisha Patel

Prachee Avasthi
James Fraser
Iain Cheeseman
Jennifer Lin
Phil Bourne
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Heather Joseph

Kristen Ratan
Harold Varmus
Dick Wilder
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