



Preprints in biology and medicine

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CHORUS Forum, February 25, 2022



Preprints transform research communication

- Traditional publication = distribution after peer review
 - Slow – months or years
 - Controlled by editors and reviewers
 - Content often paywalled
 - Authors can't update or correct

Preprint posting = distribution before peer review

- Fast – days
- Controlled by authors
- Free to all
- Rapid feedback possible
- Versioning supported



bioRxiv

THE PREPRINT SERVER FOR BIOLOGY

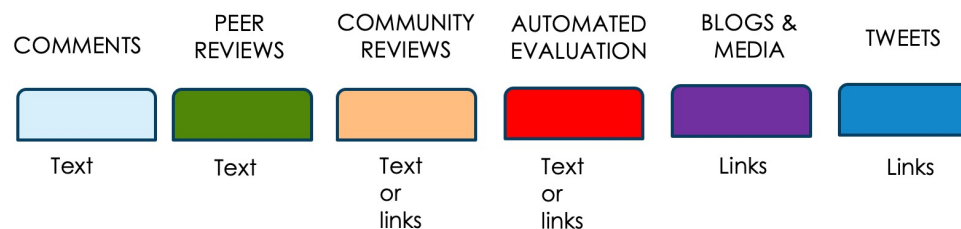
medRxiv

THE PREPRINT SERVER FOR HEALTH SCIENCES

- Community-based, not-for-profit, rooted in academia
- Funded by Cold Spring Harbor Laboratory and CZI Science
- Discipline-specific
- Publisher and journal-independent
- An author service, not a product, publication, or a component of journal submission
- 4500 new submissions per month (both servers), 85-90% pass screening

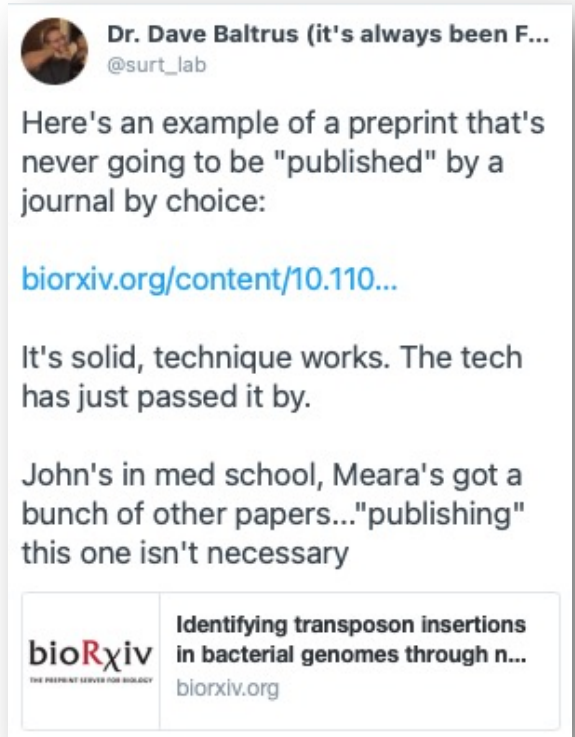
Manuscript screening and independent assessment

- Screening done by in-house content team and independent PI's
- Each submission is checked to determine
 - It's science and within scope for the server
 - It reports research, not opinion or unsupported hypothesis
 - It passes a plagiarism test
 - It doesn't promote conspiracy theories
 - The research isn't potentially dual-use of concern
 - Ethics approval is appropriate and patient consent declared
 - Clinical trials are registered
 - Patient data aren't identifying
 - The conclusions will not cause harm
- Authors can post new versions at any time up to manuscript acceptance by a journal
 - Same DOI, versions distinguished by different URLs
- Reviews/evaluations/comments/attention are aggregated in a dashboard



Preprint publication

- Link is made to the version published by a journal (with different DOI)
- Over 70% of bioRxiv preprints are published within 2 years
- Some authors consider the preprint enough



Information sources to treat with caution

Preprints



- Preprints are new to biology and medicine
- They are screened, not peer-reviewed
- Their conclusions are preliminary and should be reported that way
- What's appealing in a preprint may not survive community scrutiny or peer review
- Preprints may be updated or withdrawn
- Independent experts can help reporters decide what's newsworthy and how to frame it

Information sources to treat with caution

Op-Eds

WSJ | OPINION

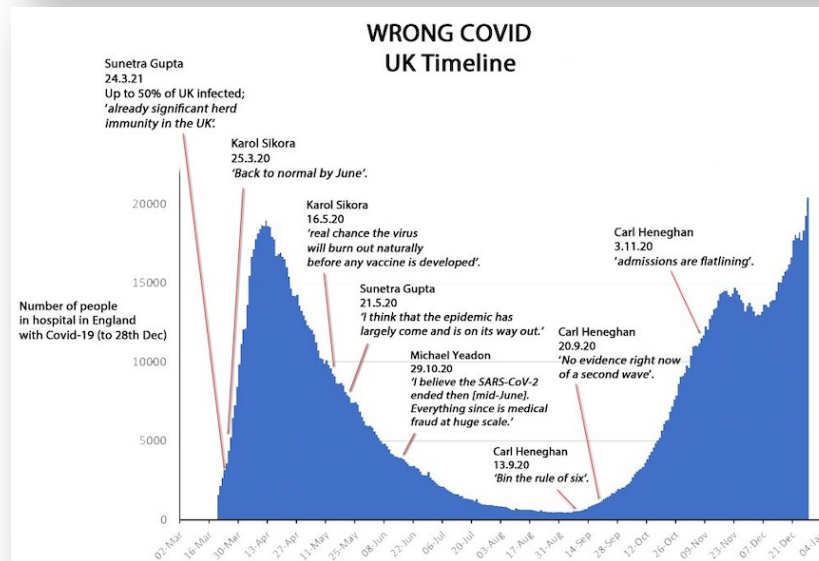
OPINION | COMMENTARY

Masks for Children, Muzzles for Covid-19 News

In the guise of combating 'misinformation,' YouTube again censors scientific debate over pandemic policy.

By Jay Bhattacharya
April 13, 2021 12:06 pm ET

Experts venturing
outside
their field



Peer-reviewed
papers

Editor's Note: This article was published on May 1, 2020, at NEJM.org.

This article has been retracted.

ORIGINAL ARTICLE

Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19

Mandeep R. Mehra, M.D., Sapan S. Desai, M.D., Ph.D., SreyRam Kuy, M.D., M.H.S., Timothy D. Henry, M.D., and Amit N. Patel, M.D.