



Open Science Webinar Series

Open Peer Review, Collaborative Preprint Review, and Opportunities to Learn and Teach Others



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Head of Community,
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Head of Product,
PREreview

What we will cover today

- Who we are at PREreview & how we we address some of the current challenges of peer review
- How publishing a review works on the PREreview platform
- Case studies in an African research context
- What's next and how you get involved

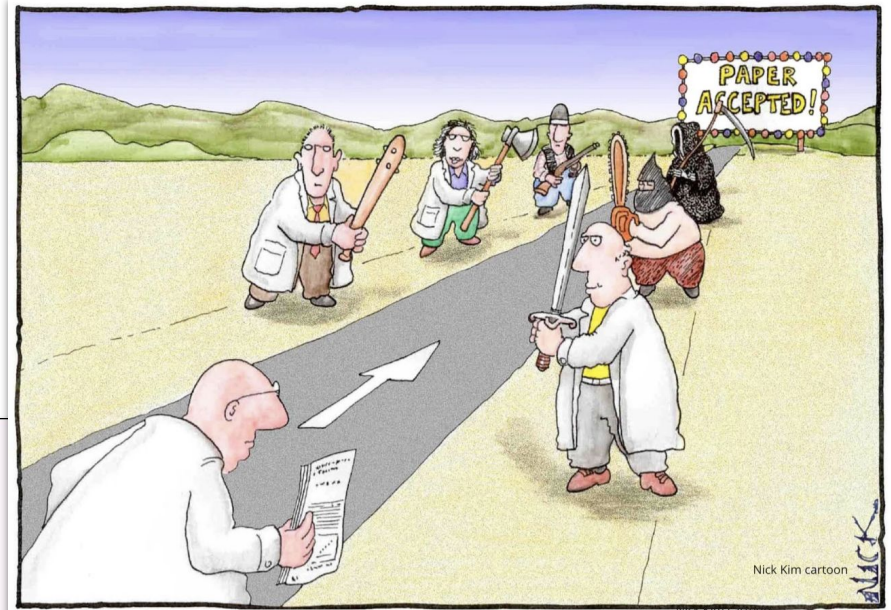
Why peer review?

Peer review is the evaluation of work by one or more people with similar competencies as the producers of the work. It functions as a form of self-regulation by **qualified members of a profession** within the relevant field.

—Wikipedia



<https://twitter.com/digitalsci/status/781860071831642113>



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



Peer review is inequitable and unsustainable

- The pool of people called to review/people willing to do so is small and often insufficient for the number of review requests
- The composition of the reviewer pool is homogenous across many dimensions
- Most reviewers are male, mid- or late-career researchers selected by journal editors as “experts” in their field
- Yet, most have never received any formal training in conducting peer review
- Despite the vital work that peer reviewers do, it most often goes unpaid and unrecognized

Preprints pave the way for community feedback



Receiving feedback is a top motivator for authors

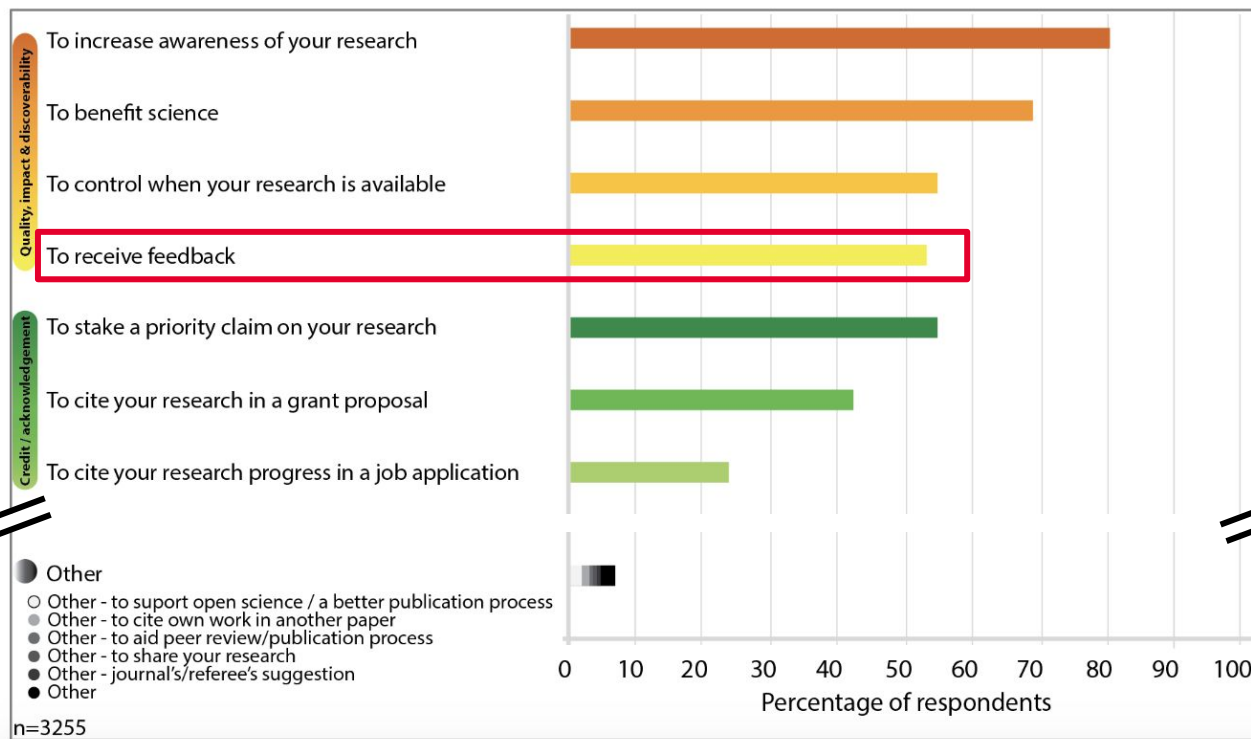


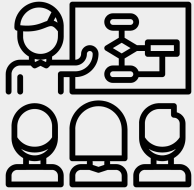
Fig. 7. Motivations for posting work on bioRxiv. In a survey of bioRxiv users, scientists were asked why they post manuscripts on the server (see main text and Supplementary Data).

We believe peer review expertise should be measured by ***constructive contributions*** and ***community engagement*** and not by seniority and prestige.

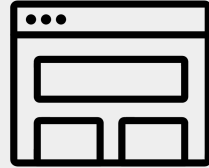
PREreview's mission is to bring more **equity** and **transparency** to scholarly peer review by supporting and empowering communities of researchers, particularly those at early stages of their career (ECRs) and who have been historically excluded, to review preprints in a process that is rewarding to them.



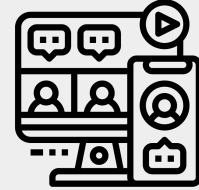
PREreview is a preprint review platform, a resource center, a convener



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



Open platforms where anyone with an ORCID account can give constructive feedback to preprints



Collaborative reviews to engage researchers across the world in constructive and timely discussions around preprints



Open Reviewers

- Peer review workshops conducted in partnership with organizations and institutions
- Content tailored to specific audiences (e.g., undergraduate students, graduate students and postdocs, editors and established reviewers)
- Focus on challenging the *status quo* of peer review
- Practice how to recognize and mitigate personal bias in peer review
- Practice how to provide constructive, clear and actionable feedback



prereview.org/trainings



PREview Champions 2024



Cesar Acevedo-Triana



Femi Arogundade



Lonni Besançon



Juan Bizzotto



Janaynne Carvalho do Amaral



Kylie Yui Dan



Ebuka Ezeike



Samir Hachani



Narcisse Mbunzama



Sahar Mohamed



Anna Oliveras



Seun Olufemi



Chris Pavlakis



Pablo Ranea-Robles



Maria Sol Ruiz



María Eugenia Segretin



Allegra Spensieri



Muhammad Imtiaz Subhani



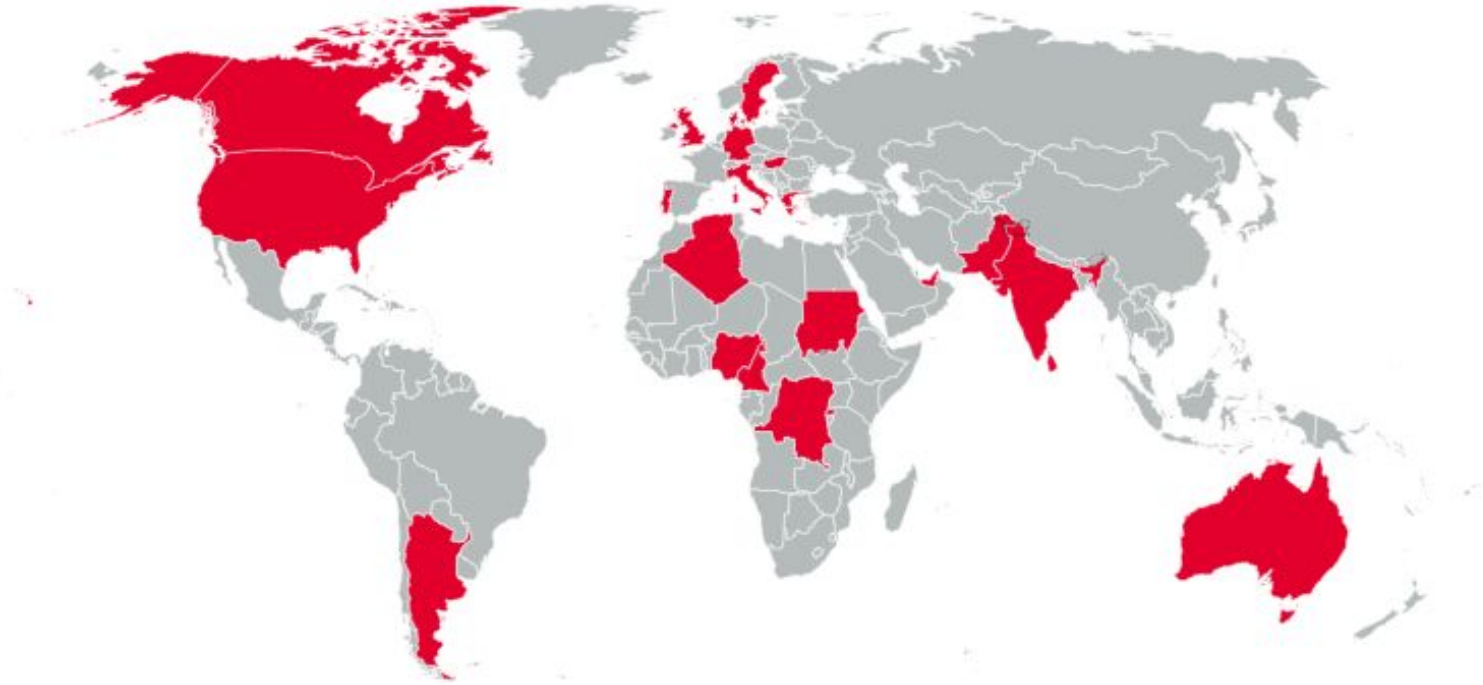
Azra Shaheen Syeda



Lamis Yahia Mohamed Elkheir

*“Without community,
there is no liberation”*
- Audre Lorde

Champions Pilot Program - Applicants 2024



Source: World Bank Official Boundaries
Created with flourish.studio



Community Use Cases

Peer Review
workshop #2
Conducting Effective Peer Review
With Dr. Sahar Al Khatim
And Dr. Lamis Elkheir
19 July - 9:00 pm

PSRA
PHARMACEUTICAL STUDIES
AND RESEARCH ASSOCIATION
UDPH/PSRA

Dónde **se esconden los sesgos** en peer review

- Reputación/Fama
- Etnia/Raza
- Género
- Idioma materno y estilo de escritura
- Reputación de la institución del autor/a
- País de la institución del autor/a
- Número de autores/as en el manuscrito



Enraigados en creencias sistémicas que se han forjado en nuestra sociedad a lo largo de la historia

A workshop to empower the next generation of African Peer Reviewers





Live Reviews




- Reviews of preprints done collaboratively over a Zoom call
- Facilitated 90-minute conversation with researchers joining from all over the world
- The output of these calls are reviews written collaboratively and published on PRereview.org
- These events are organized in collaboration with journals and other groups



prereview.org/live-reviews



PREreview of “Stigma against Mental Illness and Mental Health: the role of Social Media”

by [Roseline Dzekem Dine](#) , [Patience Sindayigaya](#) , [Nuhu Lawan Adamu](#) , and 1 other author

Published August 21, 2024

DOI [10.5281/zenodo.13354500](https://doi.org/10.5281/zenodo.13354500)

License [CC BY 4.0](#)

Summary:

This review is the result of a virtual, collaborative live review discussion organized and hosted by PREreview and the Rwanda Preprint Club on Aug 12, 2024. The discussion was joined by 17 people: 2 facilitators and 15 live review participants. The authors of this review have dedicated additional asynchronous time over the course of two weeks to help compose this final report using the notes from the Live Review. We thank all participants who contributed to the discussion and made it possible for us to provide feedback on this preprint.

Thanks to the authors for putting together this file on Stigma against mental illness and mental health: the role of social media. We applaud you for thinking about this growing global public health concern in our contemporary society. Mental health problems became a serious issue especially post COVID-19 era and widespread communal conflict, where cases of mental illness are on the increase which necessitate the need for appropriate measures to mitigate its effects such as stigmatization. On the other hand, healthcare workers in the field of mental health are equally affected by one form of stigmatization or the other. We also acknowledge the huge role of so-

PREreview Clubs



JMIR Publications

JMIR Publications teamed up with PRE offerings through [Live Reviews](#): topic-based video conference tool such as Zoom.

Club leads

Shaochen (Shawn) Huang and Tiffany

[Contact the club](#)

PREreviews

Animal Science and Zoology • Ecology • Invertebrate Biology

Daniela Saderi, Vaishnavi Nagesh, Rishi Arogundade reviewed "Exploring the pseudoknotted RNA structures"

July 8, 2024

Health Informatics • Health Information Management

Vanessa Fairhurst, Christopher Stevens, Qudus Arogundade, Ruchi Pathak Kaul, Sidharth Narayanan, and Shah S reviewed "Artificial Intelligence in Healthcare: 2023 Year in Review"

June 11, 2024



Language

The Language Club is a common interest in language

Our purpose is to offer time in the field of linguistics. E collaboration, and responsibility

Club leads

Miguel Oliveira, Jr.

[Join the club](#)

PREreviews

Philosophy • Linguistics and Applied Linguistics

Miguel Oliveira, Jr., Artur Kyvia Fernanda Tenório reviewed "Traduções de sinais de

December 20, 2023



[Reviews](#) [Requests](#) [Trainings](#) [Live Reviews](#) [Resources](#) [Clubs](#)

HIMI Transparent and Accountable Peer Review Training Pilot

HIMI is a biomedical research organization and philanthropy that supports a vibrant community of researchers, educators, students, and professionals. Together, we're unlocking the fundamentals of biology and building an open, inclusive future for science.

As part of a newly developed training pilot, participating graduate students and post-docs in HIMI labs will learn to conduct peer review in a manner that is constructive and transparent.

Club leads

Anna Hatch and Michele Avissar-Whiting

PREreviews

Plant Science • Parasitology • Molecular Biology

Pink Deer reviewed "Mitochondrial ATP synthesis is essential for efficient gametogenesis in *Plasmodium falciparum*"

July 18, 2024

bioRxiv



prereview.org/clubs

medRxiv



Preprint Review Platform

- ◉ **Open:** open-source code on GitHub (MIT License); reviews have open licenses CC BY 4.0
- ◉ **Participatory:** designed with community input
- ◉ **Agile:** Small changes with measured feedback
- ◉ **Inclusive:** login *via* ORCID, public and pseudonym profiles
- ◉ **Adaptable:** multiple paths to help write a review, from structured to free-form
- ◉ **Citable:** Reviews get **DOIs** via DataCite/Zenodo
- ◉ **Interoperable:**
 - Preprint server-agnostic
 - Links to reviews appear on bioRxiv, medRxiv, EuropePMC, and Society
 - Via COAR Notify, authors can request feedback to PRereview



PREreview imagines more equitable and broader participation in peer review... and here is how **ORCID** is helping us to do that

- **Open** - Our work is open, transparent, and non-proprietary.
- **Trust** - Log-in via ORCID ensures accountability and provides clarity in research contributions.
- **Inclusive** - Contributions to peer review via PREreview are barrier free, extending the pool of reviewers to those traditionally excluded.
- **Recognition** - ORCID auto-update allows public peer review activity to be added seamlessly to reviewers profiles, building recognition and credit for this work.



PREreview Platform Demo

prereview.org

[Blog](#) [About](#) [Donate](#) [Log in](#)



[Reviews](#) [Trainings](#) [Live Reviews](#) [Resources](#) [Clubs](#) [Partners](#)

Open preprint reviews. For all researchers.

Provide and receive constructive feedback on preprints from an international community of your peers.

[Review a preprint](#)



For underserved researchers

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 >](#)

The experience of the African reproducibility Network with PREREVIEW



PREREVIEW

The experience of the African reproducibility Network with **PREVIEW**



PREVIEW

Key partnership in AREN's effort to link global open science initiatives with African Scholars and Institutions

Local Network Leads Training program

Extensive training on Peer Review that spanned Two Levels of training



PREVIEW

The experience of the African reproducibility Network with **PREVIEW**



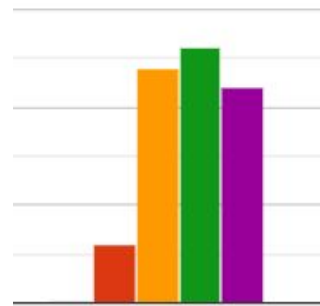
PREVIEW

Local Network Leads Training program

Confidence in your ability to conduct open peer review

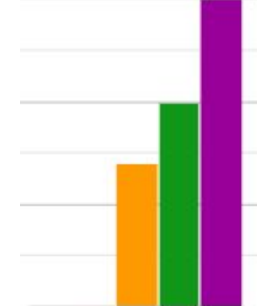
1 (Not Confident) 2 3 4 5 (Very Confident)

Pre-Training



Open Peer Review

Post-Training



Open Peer Review

The experience of the African reproducibility Network with **PREVIEW**



PREVIEW

Local Network Leads Training program



Reviews on PREreview

Published August 10, 2024 | Version v1

Peer review

Open

PREreview of "Empowering future scientists: Exploring How Mentors Guide Students to Write and Publish Scientific Papers"

Lamis Elkheir ; Ahmed Mohamed Hussein Unshur ; Paul Hassan Ilegbusi ; Samira Hussein 
Ernest Holy Sebewu ; Hafsat Rufai, Ahmad ; Daniel Banda ; Zoé Aubierge Ouangrè 
Adekunbi Adetola Malomo ; CLARA AMAKA NKPOIKANKE AKPAN ; Sahar Mohamednour 
Emmanuel Boakye ; 1 other author

This Zenodo record is a permanently preserved version of a PREreview. You can view the complete PREreview at <https://prereview.org/reviews/13292650>.

This review is the result of a virtual, collaborative live review discussion organized and hosted by PREreview and the African Reproducibility Network (AREN) on July 15, 2024. The discussion was joined by 26 people: 2 facilitators, 2 members of the AREN team, and 22 live review participants including one who agreed to be named: Ernest Holy Sebewu, Sarah Sarah, Modester Samwel, Abimbola Oluwole-Barjo, and Mwise Thomas. . The authors of this review have dedicated additional asynchronous time over the course of two weeks to help compose this final report using the notes from the Live Review. We thank all participants who contributed to the discussion and made it possible for us to provide feedback on this preprint.

Experience with PREreview from Rwanda



PREREVIEW

Experience with PREreview from Rwanda

- Involved in several live Prereview sessions organized by Prereview and/or partners
- Interactive sessions that allow multiple collaborators to discuss and share border feedback to improve authors write-ups
- Organized the first session with Rwanda Preprint club to review “*Stigma against Mental Illness and Mental Health: the role of Social Media*” by Amelia Rizzo, Lorena Calandi, Monica Faranda, Maria Grazia Rosano, Viviana Carlotta, Enrica Vinci
- Diverse participants from early to senior career researchers including traditional journal editors
- The entire process from review to posting of feedback to authors took us about a week demonstrating the seamless nature of the entire process

Experience with PREreview from Rwanda, CTD

Testimonials after the session

“Despite my extensive experience in reviewing manuscripts for many years and my recognition in local and international indexed journals, this experience with the Rwandan preprint offered me a fresh perspective on the academic approach to manuscript review.”

“I was particularly impressed and inspired by several aspects: Preprint journals are indeed fast, accurate, transparent, and constructive, significantly”

Outcome

- More early career scientist reaching out requesting for their write-ups to be reviewed in a similar way
- Increase in the number of preprints posted particularly via AfricArXiv
- Increase awareness and interest to get involved



How Collaborative Peer Review Can Transform Scientific Research



PREVIEW

***Peer review** is a process used in academic and scholarly publishing where experts in the same field as the author evaluate a manuscript or research work before it is published.*

The goal of peer review is to assess the quality, validity, and originality of the work to ensure that it meets the standards of the discipline and the publication.



Traditionally, this review process is done by individual reviewers, selected opaquely by editors, prior to publication. This can be a lengthy and slow process where the feedback received is not always the most constructive or helpful in improving the manuscript.

Hence the need for a collaborative peer review, which provides much higher quality feedback, minimize bias, and open up the peer-review process to those who have been traditionally excluded from it.



What is Collaborative Peer Review?

Collaborative peer review involves multiple reviewers working together to evaluate a research paper. Instead of working in isolation, these reviewers discuss their thoughts and feedback openly, sharing their insights and concerns with one another. This team effort can lead to a more thorough and balanced assessment of the research.



The Benefits of Collaborative Peer Review

- ❑ **Higher Quality Feedback:** By combining their expertise, reviewers can provide more comprehensive and constructive feedback to the authors. This helps improve the overall quality of the research paper.
- ❑ **Reduced Bias:** Every reviewer has their own biases, whether they are aware of them or not. By working together, reviewers can help each other recognize and mitigate these biases. Collaborative peer review encourages diverse perspectives which can lead to a more objective evaluation of the research.
- ❑ **Faster Review Process:** Collaborative peer review can speed up the review process.

Related blog post:

<https://content.prereview.org/how-collaborative-peer-review-can-transform-scientific-research/>



- ❑ **Mentorship and Learning:** For researchers of all levels, but particularly early-career researchers, participating in collaborative peer review can be a valuable learning experience. By working alongside more experienced reviewers, they can gain insights into the review process and improve their own reviewing skills. This mentorship aspect helps build a stronger, more knowledgeable community of researchers.

- ❑ **Improved Research Transparency:** Collaborative peer review promotes transparency in the research process. Reviewers' discussions and feedback can be made available to the authors and, in some cases, to the public. This openness helps build trust in the research findings and the review process itself. For example, during PREREVIEW's Live Reviews, authors are invited to join to listen to the discussion and find this a very valuable form of feedback.

What's next at PREreview?



PREREVIEW

PREreview in numbers

>**2,800** PREreview users

>**900** published PREreviews

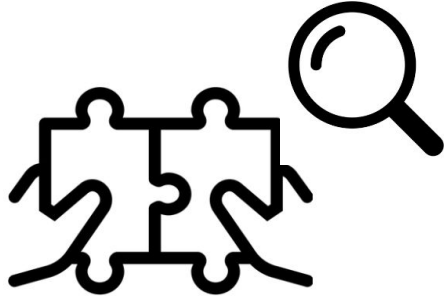
>**280** author review requests

>**400** Open Reviewers trainees

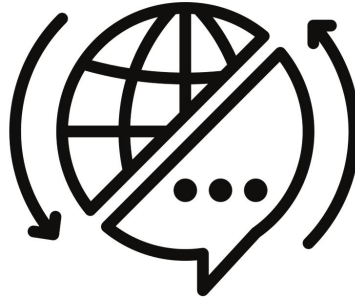
>**22** countries represented in our community

>**8,000** downloads across review resources on Zenodo

Coming up next



Search and recommendation to improve discoverability of content and match-making



Localization and translation of our website and resources



Exploration of new reviewing audiences (e.g., patients, trainees)

What you can do next?

- ★ Create an account on PREreview.org, fill in your profile and start reviewing!
- ★ Look into PREreview Open Reviewers training for your organization or join our next community workshop
- ★ Inquire about hosting a live review for your journal
- ★ Start a [PREreview Club](#) or join an existing one
- ★ Join the conversation on the [PREreview Slack Community](#)
- ★ Sign up for our [newsletter](#)

Join us at **PRE**review!



bit.ly/PREreview-newsletter



bit.ly/PREreview-Slack

Email us at community@prereview.org

Twitter [@PREreview_](https://twitter.com/PREreview_) | Mastodon [@prereview@mas.to](https://mas.to/@prereview) | BlueSky [@prereview.bsky.social](https://bsky.social/@prereview)

Thank You!

