

Open Science in publishing

Nonia Pariente

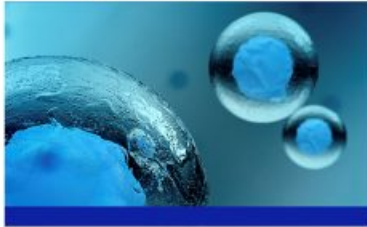
**Editor in Chief
PLOS Biology**

3 April 2025

A bit about PLOS

PLOS is **non-profit publisher** on a mission to **drive open science forward** with measurable, meaningful change in research publishing, policy and practice. Our journals cover all scientific disciplines with a focus on fundamental and applied research across life, health, sustainability, engineering, and technology.

Flagships



PLOS Biology

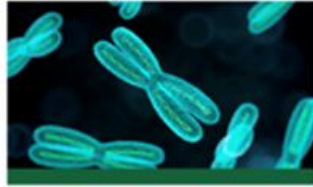


PLOS Medicine

Subject specialized



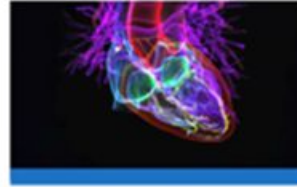
PLOS Pathogens



PLOS Genetics



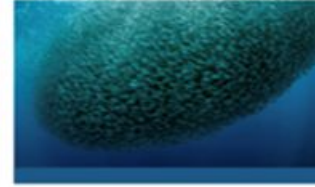
PLOS Neglected Tropical Diseases



PLOS Computational Biology



PLOS Sustainability and Transformation



PLOS Complex Systems



PLOS Digital Health

Sound science



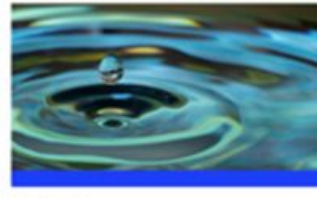
PLOS One



PLOS Global Public Health



PLOS Climate



PLOS Water



PLOS Mental Health



The PLOS Biology team

Our Staff Editors partner with our Academic Editors, ensuring expertise, fairness and efficiency for each manuscript.



Ines Alvarez-Garcia


Senior Editor, Section Manager

 orcid.org/0000-0002-8996-1849
ialvarez-garcia@plos.org



Christian Schnell


Senior Editor, Section Manager

 orcid.org/0000-0002-3499-9217
cschnell@plos.org



Roli Roberts


Senior Editor, Section Manager

 orcid.org/0000-0001-6636-1579
rroberts@plos.org



Richard Hodge

Associate Editor

 orcid.org/0000-0002-1920-1385
rhodge@plos.org



Lucas Smith


Associate Editor

 <http://orcid.org/0000-0003-3452-6177>
lsmith@plos.org



Melissa Vazquez Hernandez


Associate Editor

 orcid.org/0000-0003-2527-9135
mvazquezhernandez@plos.org



Joanna Clarke

Senior Editor, Front Section

 orcid.org/0000-0002-9004-6103
jclarke@plos.org



Taylor Hart

Associate Editor

 orcid.org/0000-0001-9692-8150
thart@plos.org

Editorial Board

Our team of 260 Academic Editors, who assist and advise our in-house editors on manuscripts during the review process.

Data sharing

PLOS journals require authors to make all data underlying the findings described in their manuscript fully available without restriction at the time of publication.


When specific legal or ethical requirements prohibit public sharing of a dataset, authors must indicate how researchers may obtain access to the data.

March 2014

- Summary data underlying figures – increasingly in external repositories (where it is more visible and reusable). 70% in 2024
- When community standard is to deposit raw data in a repository, we mandate it



Accessible Data

See the data 

This article includes the Accessible Data icon, an experimental feature to encourage data sharing and reuse. [Find out how research articles qualify for this feature.](#)

Data management plans

- A data management plan (DMP) is a written document outlining how you are planning to manage your research data both during and after your research project
- DMPs help
 - Think about and developing your strategy for issues such as data storage and long-term preservation, handling of sensitive data, data retention and sharing, early on in your research.
 - Anticipate legal, ethical and commercial exceptions to releasing data; deciding who can have access to data in the short and long term

Good resource: “10 simple rules to a good DMP”
<https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1004525>

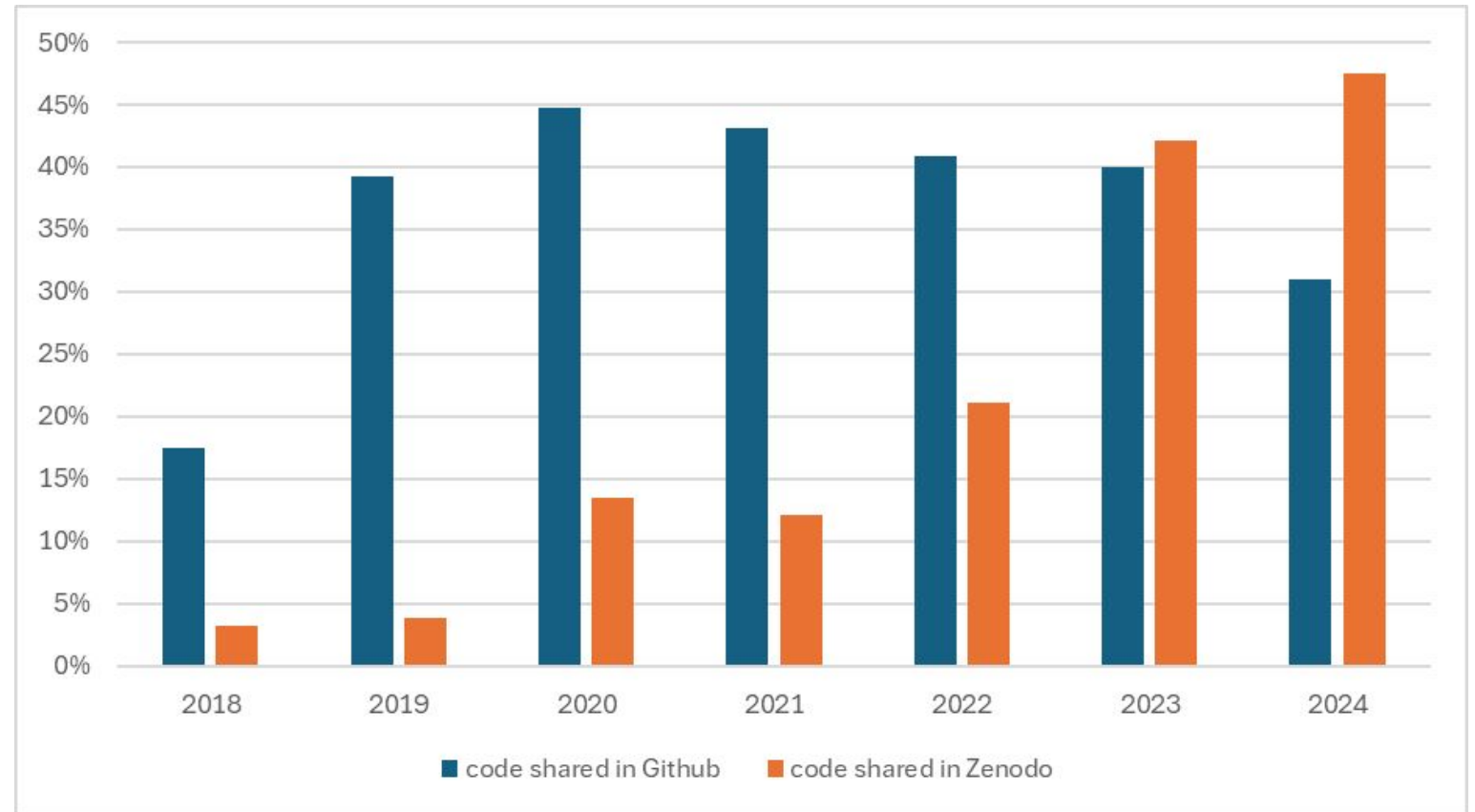
Code sharing

In alignment with our [data availability policy](#), *PLOS Computational Biology* requires authors to make all author-generated code directly related to their study's findings publicly available without access restriction at the time of publication unless specific legal or ethical restrictions prohibit public sharing of code. In these cases, authors must indicate how others may request access to the code. Access to code must be described in the Data Availability Statement. Relevant code should be available to editors and reviewers at the time of submission and throughout the editorial process, but does not need to be publicly shared prior to acceptance.

Shared code needs to be made accessible for free and should be easy to locate and download. We strongly recommend that all code be deposited in a permanent, public repository that issues citable digital object identifiers (DOI) or other persistent identifiers, for example using Zenodo to archive GitHub packages, CodeOcean, or the [Software Heritage archive](#).

Code deposition in PLOS Biology

This graph shows the proportion of articles sharing code in Github and Zenodo out of all the PLOS Biology articles that share code. An article may share code in both Github and Zenodo (11% of articles with shared code use both). Our research suggest that authors like to share in both as Github allows readers to see the up to date version of code and Zenodo provides the archival copy.



Methods sharing: publishing protocols



PLOS One
Published peer-reviewed protocols
A research protocol is a detailed study design or set of instructions for carrying out a specific experimental process or procedure.

protocols.io
protocols.io is an open-access platform for researchers to collaboratively create step-by-step, interactive and dynamic protocols that can be run on mobile or web. Researchers can share protocols with colleagues, collaborators, the research community or make them public, with ease and efficiency. 6 Oct 2022

protocols.io + PLOS

STAR Protocols
Open access

nature protocols
www.nature.com/nprot / November 2022 Vol. 17 No. 11

Tools for Open Methods



Reporting animal research: Explanation and elaboration for the ARRIVE guidelines 2.0

Nathalie Percie du Sert , Amrita Ahluwalia, Sabina Alam, Marc T. Avey, Monya Baker, William J. Browne, Alejandra Clark, Innes C. Cuthill, Ulrich Dirnagl, Michael Emerson, Paul Garner, Stephen T. Holgate, David W. Howells, [...], Hanno Würbel [view all]

Published: July 14, 2020 • <https://doi.org/10.1371/journal.pbio.3000411>

The ARRIVE guidelines 2.0

This section of the website provides detailed explanations about each item of the guidelines. Use the left-hand side menu to navigate to each item. The guidelines in their entirety can also be downloaded as a PDF, in [English](#) or a variety of [translations](#).

To facilitate a step-wise approach to improving reporting, the guidelines are organised into two prioritised sets:

ARRIVE Essential 10

These ten items are the basic minimum that must be included in any manuscript describing animal research. Without this information readers and reviewers cannot assess the reliability of the findings.

Recommended Set

These items complement the Essential 10 set and add important context to the study described. Reporting the items in both sets represents best practice.

AT THE NATIONAL ACADEMIES | BIOLOGICAL SCIENCES | 



The MDAR (Materials Design Analysis Reporting) Framework for transparent reporting in the life sciences

Malcolm Macleod , Andrew M. Collings , Chris Graf ,  +4, and Valda Vinson  [Authors Info & Affiliations](#)

April 23, 2021 | 118 (17) e2103238118 | <https://doi.org/10.1073/pnas.2103238118>

Materials sharing

We expect that authors submitting to PLOS will make all relevant materials that may be reasonably requested by others available without restriction upon publication of the work. Where proportionate and justified restrictions exist, such as those intended to protect privacy or confidentiality of human research subjects, we expect their disclosure in the Materials and Methods section and a description of the conditions, if any, under which the materials may be accessed or used. Other acceptable grounds for restrictions can be found on page 11 of the [UNESCO Recommendation on Open Science](#).

We strongly encourage authors to deposit copies of materials, including plasmids, cell lines, and model organisms, to established repositories. We support the use of any repository that meets [our criteria](#). We suggest utilizing [FAIRsharing](#), the [RRID Portal](#) or the Registry of Research Data Repositories ([Re3Data](#)) to find the most appropriate repository.

Materials-sharing more of a work in progress: if problems, contact the journal/ editor

Did this study involve local collaborators that are residents of the country where the research was conducted or members of the community studied? If you do not have any authors from said communities, please provide an explanation for this below.

Everyone listed as an author should meet PLOS' criteria for authorship and all individuals who meet these criteria should be included in the author byline, rather than the acknowledgements. For further information please see the journal's Authorship Policy.

cal,

Human subjects research (e.g. health research, medical research, cross-cultural psychology)

Did you obtain written informed consent from a representative of the local community or region before the research took place? How did you establish who speaks for the community? Details of written informed consent obtained from study participants should be reported separately in the Methods section of your manuscript.

t
y

How did members of the local community provide input on the aims of the research investigation, its methodology, and its anticipated outcome(s)?

Open review processes: Transparent and journal-independent peer-review

Article	Authors	Metrics	Comments	Media Coverage	Peer Review
---------	---------	---------	----------	----------------	-------------

Peer Review History

Original Submission	August 10, 2024
Decision Letter - Richard Hodge, Editor	19 Aug 2024
Revision 1	
Decision Letter - Richard Hodge, Editor	14 Oct 2024
Revision 2	
Author Response	20 Dec 2024
Decision Letter - Richard Hodge, Editor	9 Jan 2025
Revision 3	



ABOUT EDITORS & BOARD GUIDELINES REFEREED PREPRINTS BLOG SUBMIT



Authors spend less time re-submitting their paper to multiple journals.



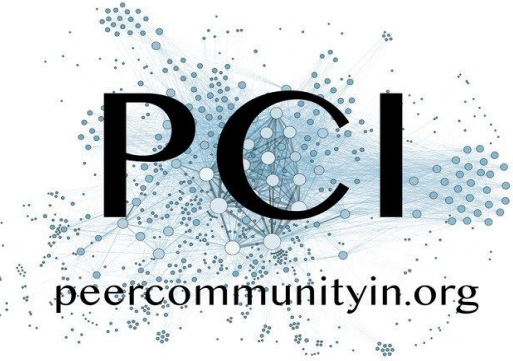
Reviewers focus objectively on the science, not specific journal fit.




Readers can see peer reviews and author responses alongside preprints.




Journals can make informed decisions without having to start the process from scratch.






DEPOSIT

your preprint, data, script and code in any open repository




SUBMIT

your article to a PCI for open peer-review by researchers in your field




VALIDATE

your article with a published, free and citable recommendation from the PCI




PUBLISH


for free in Peer Community Journal or submit to a PCI-friendly or other journal




PCI Evol Biol




PCI Ecology




PCI Paleo




PCI Animal Science




PCI Neuro




PCI Zool




PCI Genomics




PCI Math & Comp Biol




PCI Forest & Wood Sci




PCI Archaeo




PCI Network Sci




PCI RR



PCI Ecotox Env Chem



PCI Infections



PCI Microbiol