

## DATA SHARING POLICY

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Research data should be made widely available to the research community in order to demonstrate the robustness and validity of the research presented in the journal, to encourage replication of the results, and to provide the community with opportunities to learn. Such transparency improves the quality of science and benefits not only the wider research community, but the researchers as well by increasing their impact and enhancing their citation rates.

### **Policy summary for authors**

By publishing in the journal authors are encouraged to make the research data that support their publications available but are not required to do so. The preferred method for data sharing is via repositories. The decision to publish will not be affected by whether or not authors share their research data. In addition to that, the journal encourages authors to cite any publicly available research data in their reference list.

### **Definition of research data**

This policy applies to the research data that would be required to verify the results of research reported in articles published in the journal. Research data include data produced by the authors for the study being reported (“primary data”), data from other sources that are reused or analysed by the authors in their study (“secondary data”) and any other materials that might be required to reproduce or replicate the results. Research data includes any recorded factual material that are used to produce the results in digital and non-digital form. This may include (but is not limited to) tabular data, code, images, audio, questionnaires, documents, video, raw and/or processed data.

Authors are encouraged to share any data that were generated by the authors to produce the results (i.e. primary data) and properly cite any reused or analysed data (i.e. secondary data) as indicated in Data citation section below.

### **Definition of exceptions**

Research data that are not required to verify the results reported in articles are not covered by this policy. This policy does not require public sharing of such secondary data.

This policy does not require public sharing of quantitative or qualitative data that are personal or sensitive, e.g. could identify a research participant unless participants have consented to data release. The policy also does not require public sharing of any other sensitive data, such as the locations of endangered species or data subject to other legitimate restrictions on public availability. Alternatives to the public sharing of sensitive or personal data include:

- Deposition of research data in controlled access repositories
- Anonymisation or deidentification of data before public sharing
- Only sharing metadata about the research data
- Stating the procedures for accessing your research data in your article and managing data access requests from other researchers

## **Embargoes**

Embargoes on data sharing apply to data the authors wish to make publicly available according to this policy and are permitted with the agreement of the Editor-in-Chief. If your data cannot be made available upon publication (for example, if the dataset cannot be published before the completion of a funded research project), the Editor-in-Chief may allow for the dataset to be published with an embargo period - that way, the data would be safely deposited in a repository, but others will not have access to the data until the time specified in the embargo. The standard embargo on data sharing is up to 12 months.

## **Supplementary materials**

Researchers are discouraged from using Supplementary Materials to publish their data as that would restrict access to the datasets. Authors are encouraged to ensure that their datasets are either deposited in publicly available repositories (where available and appropriate) or presented in the main manuscript.

## **Data repositories**

The preferred mechanism for sharing research data is via data repositories. Please see <https://www.re3data.org/>, <https://fairsharing.org/>, or <https://repositoryfinder.datacite.org/> for help finding research data repositories. Unless there are other institutional or funder's policy requirements, research data should be submitted to discipline-specific, community-recognized repositories where possible, or to general-purpose repositories (such as Dryad, figShare,

or Zenodo) if no suitable community resource is available. We strongly recommend using [CoreTrustSeal](#) certified repositories.

## Data citation

The journal encourages authors to cite any publicly available research data in their reference list. References to datasets (data citations) must include a persistent identifier (such as a DOI). Citations of datasets, when they appear in the reference list, should include the minimum information recommended by DataCite and follow journal style.

## Data licensing

The journal encourages research data to be made available under open licences that permit reuse freely (for example, [Creative Commons 4.0](#) CC0 or CC-BY are widely used for such a purpose). Your data should be assigned a persistent identifier (e.g., DOI) to ensure the link will be preserved even if the dataset moves to another website. The journal does not enforce particular licenses for research data, where research data are deposited in third party repositories. The publisher of the journal does not claim copyright in research data.

## Data availability statements

The journal encourages authors of any articles that report results derived from research data to include a Data Availability Statement (DAS). DASs should include information on where data supporting the results reported in the article can be found including, where applicable, hyperlinks to publicly archived datasets analyzed or generated during the study. Where research data are not publicly available, this must be stated in the manuscript along with any conditions for accessing the data. DAS should be placed as a separate (unnumbered) section between the Acknowledgements and References. Authors are responsible for providing truthful and verifiable information in this section. DASs must take one of the following forms (or a combination of more than one if required for multiple types of research data):

- The datasets generated during and/or analysed during the current study are available in the [NAME] repository, [PERSISTENT WEB LINK TO DATASETS]
- The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.
- Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.
- All data generated or analysed during this study are included in this published article [and its supplementary information files].

- The data that support the findings of this study are available from [third party name] but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of [third party name].