Science /AAAS Authorship Form and Statement of Conflicts of Interest

Each author must complete the following form prior to acceptance of their paper.

1. Authorship

Authorship Criteria
Authors in Science Journals must fulfill the criteria described below that are informed by the International Committee of Medical Journal Editors definition of authorship. Specifically,

- Each author is expected to have made substantial contributions to the conception or design of the work;
- OR the acquisition, analysis, or interpretation of data;
- OR creation of new software used in the work;
- OR have drafted the work or substantially revised it;
- AND has approved the submitted version (and any substantially modified version that involves the author’s contribution to the study;
- AND agrees to be personally accountable for the author’s own contributions and for ensuring that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and documented in the literature.

I meet the criteria for authorship as defined above

_____ Yes
_____ No

Corresponding Author Responsibilities

- Ensure that all listed authors have received and approved the manuscript prior to submission, and fulfill the authorship criteria listed above.
- Receive all substantive correspondence with editors as well as full reviews.
- Verify that all data, materials (including reagents), and code, even those developed/provided by other authors, comply with the transparency and reproducibility standards of both the field and the journal.
- Ensure that original data/materials/code upon which the submission is based are preserved and retrievable for reanalysis.
- Confirm that the presentation in the paper of the data/materials/code accurately reflects the original.
- Foresee and minimize obstacles to the sharing of data/materials/code
- Ensure the entire author group is fully aware of and in compliance with best practices.
- Operational responsibilities, including signing off on galleys, vouching for other authors where necessary, ensuring all authors complete the COI declaration and license forms.

Select one of the following statements:

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I contributed to this manuscript as listed below:

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<thead>
<tr>
<th>Contributor Role Taxonomy (CRediT)</th>
<th>Role Definition</th>
<th>YES</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>Conceptualization</td>
<td>Ideas; formulation or evolution of overarching research goals and aims.</td>
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<td>Methodology</td>
<td>Development or design of methodology; creation of models.</td>
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<tr>
<td>Software</td>
<td>Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</td>
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<td>Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.</td>
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<td>Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.</td>
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Funding Sources, including in-kind contributions

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I affirm that all data necessary for a reader to understand and evaluate the conclusions of the paper are provided in the manuscript and supplementary material or are archived in an approved public database. The name of the database and accession numbers are included in the data accessibility statement in the acknowledgment section.

____ Not applicable as this is a commentary piece and does not include data.

____ Yes, I affirm.

____ No, I can’t affirm compliance I defer to the senior author on this question.

____ No, I can’t affirm compliance due to the constraints listed below.

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The senior author from each lab or group must have personally checked all the original data that was generated by her/his lab or group.

____ Not applicable as this is a commentary piece and does not include data.

____ I am not a senior author.

____ I am a senior author representing a lab or group and have checked all the original data that were generated by my lab. The data generated by my team are presented in the figures and tables (including Supplementary Material) listed:

___________________________________________________________________________________________

____ I am a senior author and I have not checked all the original data that were generated by my lab for the following reasons:

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I affirm that after publication, all reasonable requests for materials, data and code will be fulfilled.

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____ Yes, I affirm.

____ No, I don’t affirm. I am not a senior author and do not have control of materials, data or code.

____ No, I can’t affirm due to the constraints listed below.

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I am a senior author and there are MTAs, but I have not provided the agreement for the following reason:

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