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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

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- Ensure that all listed authors have received and approved the manuscript prior to submission, and fulfill the authorship criteria listed above.
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- 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.
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- Foresee and minimize obstacles to the sharing of data/materials/code
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2. Contributions

I contributed to this manuscript as listed below:

Contributor Role Taxonomy (CRediT)	Role Definition	YES	NO
Conceptualization	<i>Ideas; formulation or evolution of overarching research goals and aims.</i>		
Methodology	<i>Development or design of methodology; creation of models.</i>		
Software	<i>Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</i>		
Validation	<i>Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.</i>		
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Resources	<i>Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.</i>		
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Writing – Review & Editing	<i>Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary, or revision – including pre- or post- publication stages.</i>		
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Supervision	<i>Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.</i>		
Project Administration	<i>Management and coordination responsibility for the research activity planning and execution.</i>		
Funding Acquisition	<i>Acquisition of the financial support for the project leading to this publication.</i>		

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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.

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

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

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I confirm that I have read all the questions, responded to the best of my ability, and provided information as required. In addition, all my declarable relationships are either currently in the acknowledgment or have been provided to the corresponding author. The relationships are listed below for inclusion in the final version of the paper.

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