Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: doi:10.31222/osf.io/9sm4x.). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

Materials

Antibodies	Yes (indicate where provided:	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		Antibodies are not subject of the present study.

Cell materials	Yes (indicate where provided:	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		Cell experiment was not conducted.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		Cell experiment was not conducted.

Experimental animals	Yes (indicate where provided:	n/a
Laboratory animals: Provide species, strain, sex, age, genetic modification status. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		Animal experiment was not conducted.
Animal observed in or captured from the field: Provide species, sex and age where possible		Animal experiment was not conducted.
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		Animal experiment was not conducted.

Plants and microbes	Yes (indicate where provided:	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		Plants and microbes were not used.
Microbes: provide species and strain, unique accession number if available, and source		Plants and microbes were not used.

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Publicly available secondary datasets without any identity information were used.
Provide statement confirming informed consent obtained from study participants.		Publicly available secondary datasets were used.
Report on age and sex for all study participants.		Publicly available secondary datasets were used.

Design

Study protocol	Yes (indicate where provided:	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		Clinical trial was not conducted.

Laboratory protocol	Yes (indicate where provided:	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		Laboratory experiment was not conducted

Experimental study design (statistics details)	Yes (indicate where provided:	n/a
State whether and how the following have been done**, or** if they were not carried out.		
Sample size determination		Secondary dataset were used
Randomisation		Secondary dataset were used
Blinding		Secondary dataset were used
Inclusion/exclusion criteria		Secondary dataset were used

Sample definition and in-laboratory replication	Yes (indicate where provided:	n/a
State number of times the experiment was replicated in laboratory		Experiment was not conducted.
Define whether data describe technical or biological replicates		Publicly available secondary datasets were used.

Ethics	Yes (indicate where provided:	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Human participants were not involved.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Animal experiment was not conducted.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		Specimen and field samples were not used.

Dual Use Research of Concern (DURC)	Yes (indicate where provided:	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		The present study is not subject to dual use research of concern.

Analysis

Attrition	Yes (indicate where provided:	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.		Publicly available secondary datasets were used without any exclusion.

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	The used statistical tests were described in the Method section (Statistical analysis).	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		Publicly available secondary datasets were used.
If data are publicly available, provide accession number in repository or DOI or URL.		Publicly available secondary datasets were used.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Linked URLs of the used dataset are clarified in the Method section (Data sharing policy).	

Code Availability	Yes (indicate where provided:	n/a
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.		All statistical analyses were conducted using JMP version 12.0.1 statistical software and the code is not available.
If code is publicly available, provide accession number in repository, or DOI or URL.		The code is not available.

Reporting

Adherence to community standards	Yes (indicate where provided: section/paragraph)	n/a
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.		
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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