<u>Materials Design Analysis Reporting (MDAR)</u> 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: section/paragraph)	n/a
For commercial reagents, provide supplier		Not
name, catalogue number and RRID, if available.		involved

Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain.		Not
Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID		involved
Primary cultures: Provide species, strain, sex of		Not
origin, genetic modification status.		involved

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

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession		Not
number if available, and source (including location for collected wild specimens)		involved
Microbes: provide species and strain, unique		Not
accession number if available, and source		involved

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or	Methods	
equivalent committee(s), provide reference number		
for approval.		
Provide statement confirming informed consent	Ethical Statement	
obtained from study participants.		
Report on age and sex for all study participants.	Table 1	

Design

Study protocol	Yes (indicate where provided:	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.		Not involved
Laboratory protocol	Yes (indicate where provided:	n/a
Provide DOI or other citation details if detailed step- by-step protocols are available.		Not involved
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		Not involved
Randomisation		Not involved
Blinding		Not involved
Inclusion/exclusion criteria		Not involved
Sample definition and in-laboratory replication	Yes (indicate where provided:	n/a
State number of times the experiment was replicated in laboratory	res (maleate where provided.	Not involved
Define whether data describe technical or biological replicates		Not involved
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.	Methods	п/а
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Not involved
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		Not involved
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	,	Not involved

Analysis

Attrition	Yes (indicate where provided:	n/a
State if sample or data point from the analysis is		Not involved
excluded, and whether the criteria for exclusion were		
determined and specified in advance.		

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of	Statistical Analysis	
tests.		

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on	By email request to the corresponding author.	
access.		
If data are publicly available, provide accession		Not involved
number in repository or DOI or URL.		
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		Not involved

Code Availability	Yes (indicate where provided:	n/a
For all newly generated code and software essential		Not involved
for replicating the main findings of the study:		
State whether the code or software is available.		Not involved
If code is publicly available, provide accession		Not involved
number in repository, or DOI or URL.		

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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