<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	Reagents and equipment/paragraph3	
name, catalogue number and RRID, if available.		

Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain.	No cell material was used	n/a
Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID		
Primary cultures: Provide species, strain, sex of	No cell material was used	n/a
origin, genetic modification status.		

Experimental animals	Yes (indicate where provided: section/paragraph)	n/a
Laboratory animals: Provide species, strain, sex, age,	No expeerimental animals was used	n/a
genetic modification status. Provide accession		
number in repository OR supplier name, catalog		
number, clone number, OR RRID		
Animal observed in or captured from the	No expeerimental animals was used	n/a
field: Provide species, sex and age where		
possible		
Model organisms: Provide Accession number	No expeerimental animals was used	n/a
in repository (where relevant) OR RRID		

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	No plants was used	n/a
Microbes: provide species and strain, unique accession number if available, and source	No microbes was used	n/a

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or	Ethical approval/paragraph1	
equivalent committee(s), provide reference number		
for approval.		
Provide statement confirming informed consent	Ethical approval/paragraph1	
obtained from study participants.		
Report on age and sex for all study participants.	Ethical approval/paragraph1	

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.	It's not a clinical trials	n/ a
Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step- by-step protocols are available.		n/ a
Experimental study design (statistics details)	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done, or if they were not carried out.		
Sample size determination	Methods/paragraph1	
Randomisation	This is a retrospective study, no randomization was	n/a
Blinding	This is a retrospective study, no blinding was used	n/a
Inclusion/exclusion criteria	Methods/paragraph1	
Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Methods/paragraph1	
Define whether data describe technical or biological replicates		n/a
Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Methods/Ethical approval/paragraph1	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Studies not involving experimental animals	n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required,	Studies not involving specimen and field samples	n/a

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

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is	Method/Inclusion and exclusion/paragraph1	
excluded, and whether the criteria for exclusion were		
determined and specified in advance.		

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of	Method/Statistical analysis/paragraph1	
tests.		

Data Availability	Yes (indicate where provided: section/paragraph)	n/a
State whether newly created datasets are available,		n/a
including protocols for access or restriction on		
access.		
If data are publicly available, provide accession		n/a
number in repository or DOI or URL.		
If publicly available data are reused, provide		n/a
accession number in repository or DOI or URL, where		
possible.		

Code Availability	Yes (indicate where provided: section/paragraph)	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.		n/a
If code is publicly available, provide accession		n/a
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,	Footnote	
ARRIVE) have been followed, and whether a checklist		
(eg., CONSORT, PRISMA, ARRIVE) is provided with		
the manuscript.		

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