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	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		No antibodies were used.

Cell materials	Yes (indicate where	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	The 'Method'section, paragraph 2	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		No primary cultures were performed

Experimental animals	Yes (indicate where	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		No laboratory animals were involved.
Animal observed in or captured from the field: Provide species, sex and age where possible		No animals were observed in or captured from the field
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		No model organisms were used

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

Human research participants	Yes (indicate where	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The ethics approval was waived by the ethical commitee
Provide statement confirming informed consent obtained from study participants.		The informed consent was waived due to the anonymous data and non-intervention feature of the study.
Report on age and sex for all study participants.		The study endpoints were not relevant to sex and age of the participants.

Design

Study protocol	Yes (indicate where	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		This study is not a clinical trial.

Laboratory protocol	Yes (indicate where	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		No detailed step-by-step protocol has been pre-defined

Experimental study design (statistics details)	Yes (indicate where	n/a
State whether and how the following have been done**, or** if they were not carried out.		
Sample size determination		Sample size was not calculated based on analytical method.
Randomisation		No randomisation was performed
Blinding		No blinding was performed
Inclusion/exclusion criteria		No inclusion/exclusion criteria was pre-defined

Sample definition and in-laboratory replication	Yes (indicate where	n/a
State number of times the experiment was replicated in laboratory		The experiment was not replicated in laboratory
Define whether data describe technical or biological replicates		There were not technical or biological replicates

Ethics	Yes (indicate where	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The ethics approval was waived by the ethical commitee
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		No experimental animals were involved
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		The relevant permits were not required for specimen and field samples due to the anonymous data.

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

Analysis

Attrition	Yes (indicate where	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.	The 'Method'section, paragraph 2	The criteria for exclusion were not determined and specified in advance.

Statistics	Yes (indicate where	n/a
Describe statistical tests used and justify choice of tests.	The 'Method'section, paragraph 3-4	

Data Availability	Yes (indicate where	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		No dataset was newly created
If data are publicly available, provide accession number in repository or DOI or URL.		The data are not publicly available.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		No publicly available data were reused

Code Availability	Yes (indicate where	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.		No code or software was newly generated
If code is publicly available, provide accession number in repository, or DOI or URL.		No code or software was newly generated

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.	

Article information: https://dx.doi.org/10.21037/atm-22-486