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.		**n/a** (Our study does not involve antibodies)

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		**n/a** (Our study does not involve Cell materials)
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		**n/a** (Our study does not involve Cell materials)

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		**n/a** (Our study does not involve Experimental animals)
Animal observed in or captured from the field: Provide species, sex and age where possible		**n/a** (Our study does not involve Experimental animals)
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		**n/a** (Our study does not involve Experimental animals)

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)		**n/a** (Our study does not involve Plants)
Microbes: provide species and strain, unique accession number if available, and source		**n/a** (Our study does not involve Microbes)

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

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		**n/a** (we have registrated in Registration and Filing Information System for Medical Research, but we have not obtained a registration number)

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** (we have no detailed step-by-step protocols)

Experimental study design (statistics	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done**, or** if they were not		
Sample size determination		**n/a** (Due to the equipment, we only include a limited number of patients.)
Randomisation	Methods/Para 1	
Blinding	Methods/Para 1	
Inclusion/exclusion criteria	Methods/Para 1	

Sample definition and in-laboratory	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Methods/Para 6	
Define whether data describe technical or biological replicates	Methods/Para 6	

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	Methods/Para 1	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference		**n/a** (Our study does not involve experimental animals)
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required,		**n/a** (Our study does not involve specimen and field samples)

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

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in	Methods/Para 1	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Methods/Para 9	

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

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** (Our study does not involve newly generated code and software)
If code is publicly available, provide accession number in repository, or DOI or URL.		**n/a** (Our study does not involve newly generated code and software)

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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