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: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Yes (Page 7-8/Line 144,150-155/Methods/Paragraph 4-5)	

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

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

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 were used in the study.	n/a
Microbes: provide species and strain, unique accession number if available, and source	No microbes were used in the study.	n/a

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Yes(Page 6/Line 115/Methods/Paragraph 1; Page 16/Line 326-328/Footnote/Paragraph 3)	
Provide statement confirming informed consent obtained from study participants.	Yes(Page 6/Line 116-117/Methods/Paragraph 1; Page 16/Line 329-330/Footnote/Paragraph 3)	
Report on age and sex for all study participants.	Yes(Page 9/Line 179-180,184-185/Results/Paragraph 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.	Yes(Page 5/Line 101-102/Methods/Paragraph 1; Page 16/Line 328-329/Footnote/Paragraph 3)	

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Yes(Page 7-8/Line 142-162/Methods/Paragraph 4-5)	

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	Yes(Page 5-6/Line 101-108/Methods/Paragraph 1)	
Randomisation	It is a prospective registered cohort trial	n/a
Blinding	Yes(Page 7/Line 133-135/Methods/Paragraph 3)	
Inclusion/exclusion criteria	Yes(Page 5-6/Line 101-114/Methods/Paragraph 1)	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Yes(Page 8/Line 161-162/Methods/Paragraph 5)	
Define whether data describe technical or biological replicates	Yes(Page 8/Line 161-162/Methods/Paragraph 5)	

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.	Yes(Page 6/Line 114-115/Methods/Paragraph 1; Page 16/Line 326-328/Footnote/Paragraph 3)	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	This study was 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, explain why.	Yes(Page 6/Line 116-117/Methods/Paragraph 1; Page 16/Line 329-330/Footnote/Paragraph 3)	

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	The study is not subject to dual use research of concern.	n/a

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 advance.	Yes(Page 6/Line 108-111/Methods/Paragraph 1)	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Yes(Page 8-9/Line 163-176/Methods/Paragraph 6)	

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.	Yes(Page 5/Line 101-102/Methods/Paragraph 1; Page 16/Line 328-329/Footnote/Paragraph 3)	
If data are publicly available, provide accession number in repository or DOI or URL.	Yes(Page 5/Line 101-102/Methods/Paragraph 1; Page 16/Line 328-329/Footnote/Paragraph 3)	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	The publicly available data are not reused.	n/a

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.	Yes(Page 8-9/Line 159,176/Methods/Paragraph 5-6)	
If code is publicly available, provide accession number in repository, or DOI or URL.	There was not newly generated code in the study.	n/a

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.	Yes(Page 5/Line 98/Introduction/Paragraph 3; Page 16/Line 331/Footnote/Paragraph 4)	

Article information: http://dx.doi.org/10.21037/apm-20-422