Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishesa 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.	Yes (Methods/paragraph 1)	

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	Yes (Methods/paragraph 1)	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	/	No primary culture used

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 animals used
Animal observed in or captured from the field: Provide species, sex and age where possible	/	No animals used
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	/	No organism used

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)	/	No plants used
Microbes:provide species and strain, unique accession number if available, and source	/	No microbes used

Human research participants	Yes (indicate where	n/a
Identify authority granting ethics approval(IRB or equivalent committee(s), provide reference number for approval.	/	No human participated
Provide statement confirming informed consent obtained from study participants.	/	No human participated
Report on age and sex for all study participants.	/	No human participated

Design

Studyprotocol	Yes (indicate where	n/a
For clinical trials, provide the trial registration number **OR**cite DOI in manuscript.	/	Not a clinical trial

Laboratoryprotocol	Yes (indicate where	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Yes, (Methods/Paragraph 2-7)	

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	/	Not a clinical trial
Randomisation	/	Not a clinical trial
Blinding	/	Not a clinical trial
Inclusion/exclusion criteria	/	Not a clinical trial

Sample definition and in-laboratory replication	Yes (indicate where	n/a
State number of times the experiment was replicated in laboratory	Yes (Methods/Paragraph8)	
Define whether data describe technical or biological replicates	Yes (Methods/Paragraph8)	

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.	/	No human participants
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	/	No animals used
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	/	No specimen used

Dual Use Research of Concern (DURC)	Yes (indicate where	n/a
If study is subject to dual use research ofconcern, statethe authority granting approval and reference number for the regulatory approval		No dual use

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.		Not applicable

Statistics	Yes (indicate where	n/a
Describestatistical tests used and justify choice of tests.	Yes (Methods/Paragraph8)	

Data Availability	Yes (indicate where	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Yes (Throughout the full text)	
If data are publicly available, provide accession number in repository or DOI or URL.	/	No provided accession
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	/	No reused data

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.	/	Not applicable
If code is publicly available, provide accession number in repository, or DOI or URL.	/	Not applicable

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: http://dx.doi.org/10.21037/tcr-20-2913