<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:	n/a
For commercial reagents, provide supplier		No antibodies used in the
name, catalogue number and RRID, if available.		article.

Cell materials	Yes (indicate where provided:	n/a
Cell lines: Provide species information, strain.		No cell experiment in the
Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID		article.
Primary cultures: Provide species, strain, sex of		No experiment content in
origin, genetic modification status.		the article.

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

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 and microbes experiment t in the article.
Microbes: provide species and strain, unique accession number if available, and source		No plants and microbes experiment t in the article.

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		This research does not contain any studies with human participants performed by any of the authors.
Provide statement confirming informed consent obtained from study participants.		This research does not contain any studies with
Report on age and sex for all study participants.		This research does not contain any studies with

Design

Study protocol	Yes (indicate where provided:	n/a
For clinical trials, provide the trial registration		This is not a clinical trials
number OR cite DOI in manuscript.		article.
Laboratory protocol	Yes (indicate where provided:	n/a
Provide DOI or other citation details if detailed step-		No laboratory protocol
by-step protocols are available.		used in the article.
Experimental study design (statistics details)	Yes (indicate where provided:	n/a
State whether and how the following have been		
done, or if they were not carried out.		
Sample size determination	Page 7, Line 129.	
Randomisation	Not carried out.	
Blinding	Page 5, Line 97.	
Inclusion/exclusion criteria	Not carried out.	
Sample definition and in-laboratory replication	Yes (indicate where provided:	n/a
State number of times the experiment was	(managed and processes)	No experiment in the
replicated in laboratory		article.
Define whether data describe technical or biological		No experiment in the
replicates		article.
Ethics	Yes (indicate where provided:	n/a
Studies involving human participants: State details of		This research does not
authority granting ethics approval (IRB or equivalent		contain any studies with
committee(s), provide reference number for		human participants.
Studies involving experimental animals: State details		This research does not
of authority granting ethics approval (IRB or		contain any studies with
equivalent committee(s), provide reference number		animal experiment.
for approval		·
Studies involving specimen and field samples: State if		This research does not
relevant permits obtained, provide details of		contain any studies with
authority approving study; if none were required,		specimens.
Dual Use Research of Concern (DURC)	Yes (indicate where provided:	n/a
If study is subject to dual use research of concern,	,	No dual use in this
state the authority granting approval and reference		article.
number for the regulatory approval		

<u>Analysis</u>

Attrition	Yes (indicate where	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were		No sample excluded.
determined and specified in advance.		

Statistics	Yes (indicate where	n/a
Describe statistical tests used and justify choice of	Page 7, Line 139-142	
tests.		

Data Availability	Yes (indicate where	n/a
State whether newly created datasets are available,		No newly create datasets.
including protocols for access or restriction on		
access.		
If data are publicly available, provide accession	https://portal.gdc.canc	
number in repository or DOI or URL.	er.gov/cart	
If publicly available data are reused, provide	https://portal.gdc.canc	
accession number in repository or DOI or URL, where	er.gov/cart	
possible.		

Code Availability	Yes (indicate where	n/a
For all newly generated code and software essential		No newly code or software.
for replicating the main findings of the study:		
State whether the code or software is available.		No newly code or software.
If code is publicly available, provide accession		No newly code or software.
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.		n/a
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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