### <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: section/paragraph)	n/a
For commercial reagents, provide supplier	These information are provided in Materials and	
name, catalogue number and RRID, if available.	methods section/ Western blot.	

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	These information are provided in Materials and methods section/ Cell culture.	
Primary cultures: Provide species, strain, sex of		n/a
origin, genetic modification status.		

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 <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID		n/a
Animal observed in or captured from the field: Provide species, sex and age where possible		n/a
Model organisms: Provide Accession number in repository (where relevant) OR RRID		n/a

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
<b>Plants:</b> provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		n/a
Microbes: provide species and strain, unique accession number if available, and source		n/a

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or	These information are provided in Materials and	
equivalent committee(s), provide reference number	methods section/ Clinical samples.	
for approval.		
Provide statement confirming informed consent	These information are provided in Materials and	
obtained from study participants.	methods section/ Clinical samples.	
Report on age and sex for all study participants.		n/a

# <u>Design</u>

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Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration		n/a
number <b>OR</b> cite DOI in manuscript.		
Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-		n/a
by-step protocols are available.		
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		n/a
Randomisation		n/a
Blinding		n/a
Inclusion/exclusion criteria		n/a
Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was	These information are provided in Materials and	
replicated in laboratory	methods section/ Migration assay.	
Define whether data describe technical or biological	These information are provided in Materials and	
replicates	methods section/ Statistical analysis.	
Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of	These information are provided in Materials and	
authority granting ethics approval (IRB or equivalent	methods section/ Clinical samples.	
committee(s), provide reference number for		
approval.		
Studies involving experimental animals: State details		n/a
of authority granting ethics approval (IRB or		
equivalent committee(s), provide reference number		
for approval.		
Studies involving specimen and field samples: State if	These information are provided in Materials and	
relevant permits obtained, provide details of	methods section/ Clinical samples.	
authority approving study; if none were required,		
explain why.		
Dual Use Research of Concern (DURC)	Yes (indicate where provided: section/paragraph)	n/a
If study is subject to dual use research of concern,		n/a
state the authority granting approval and reference		
number for the regulatory approval		

# <u>Analysis</u>

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is	These information are provided in Materials and	
excluded, and whether the criteria for exclusion were	methods section/ Statistical analysis.	
determined and specified in advance.		

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of	These information are provided in Materials and	
tests.	methods section/ Statistical analysis.	

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

Code Availability	Yes (indicate where provided: section/paragraph)	n/a
For all newly generated code and software essential		n/a
for replicating the main findings of the study:		
State whether the code or software is available.		n/a
If code is publicly available, provide accession		n/a
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		n/a
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,	ICMJE guidelines were followed, as the journal follows	
ARRIVE) have been followed, and whether a checklist	ICMJE recommendations for publication.	
(eg., CONSORT, PRISMA, ARRIVE) is provided with		
the manuscript.		

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