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.	Page5/ Materials and Methods / paragraph 4-10/ Cell culture and transfection	

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	Page5 /Line 16-17 /Materials and Methods/ paragraph 4/ Cell culture and transfection/KGN and SVOG cells (GC cell line) purchased from American Type Culture Collection (ATCC, Manassas, VA, USA)	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	Page 5/Line 3-8/ Materials and Methods / paragraph 2/ Clinical sample data and ethics approval/ granulosa cells, human	

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	Our research did not involve animal experiment.	None
Animal observed in or captured from the field: Provide species, sex and age where possible	Our research did not involve animal experiment.	None
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	Our research did not involve animal experiment.	None

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)	Our research did not involve plants.	None
Microbes: provide species and strain, unique accession number if available, and source	Our research did not involve microbes.	None

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.	Page 4/line24-28/ Materials and Methods/ Clinical sample data and ethics approval / paragraph 1 Page 12/Line 14-16/Footnote/ paragraph 4	
Provide statement confirming informed consent obtained from study participants.	Page 4/line24-25/ Materials and Methods/ Clinical sample data and ethics approval/ paragraph 1	
Report on age and sex for all study participants.	Page 4/Line 14 /Materials and Methods/ Clinical sample data and ethics approval/ 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.	Our study is not a clinical trial.	None

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Our study is not a clinical trial.	None

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.	Page 4-Page 5/ Materials and Methods / Clinical sample data and ethics approval/ paragraph/1-2	
Sample size determination	Our study is not a clinical trial.	None
Randomisation	Our study is not a clinical trial.	None
Blinding	Our study is not a clinical trial.	None
Inclusion/exclusion criteria	Page 4/ Materials and Methods / Clinical sample data and ethics approval / 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	Page 7/Line 3/ Materials and Methods / paragraph11/Statistical analysis	
Define whether data describe technical or biological replicates	Page 7/Line 3/ Materials and Methods / paragraph11/ Statistical analysis	

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.	Page 4/line24-28/ Materials and Methods/ paragraph 1/ Clinical sample data and ethics approval	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Our research did not involve animal experiment.	None
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	Page 4/line24-28/ Materials and Methods/ paragraph 1/ Clinical sample data and ethics approval	

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	Our study is not subject to dual use research of concern.	None

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.	No sample or data point from the analysis was excluded.	None

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Page 7/Line 2-6/ Materials and Methods/ paragraph 1/ 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 access.	No, because we need to keep the current datasets, increase the sample size and further verify the data, and expect to publish new articles.	
If data are publicly available, provide accession number in repository or DOI or URL.	No data are publicly available.	None
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	No publicly available data are reused.	None

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:	Our study is not involved newly generated code and software.	None
State whether the code or software is available.	Our study is not involved newly generated code and software.	None
If code is publicly available, provide accession number in repository, or DOI or URL.	Our study is not involved newly generated code and software.	None

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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