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.	No, the study did not use antibodies	N/A

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, the study did not use cell materials.	N/A
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No, the study did not use cell materials.	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, the study did not use experimental animals.	N/A
Animal observed in or captured from the field: Provide species, sex and age where possible	No, the study did not use experimental animals.	N/A
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	No, the study did not use experimental animals.	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, the study did not involve plants.	N/A
Microbes: provide species and strain, unique accession number if available, and source	No, the study did not involve microbes.	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.	No, there were no study participants.	N/A
Provide statement confirming informed consent obtained from study participants.	No, there were no study participants.	N/A
Report on age and sex for all study participants.	No, there were no study participants.	N/A

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	No, the study was not clinical trials.	N/A

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, See the section of Methods	

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	No, the study did not involve this part	N/A
Randomisation	No, the study did not involve this part	N/A
Blinding	No, the study did not involve this part	N/A
Inclusion/exclusion criteria	Yes, See the "Tissue samples " in methods.	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	No, the study did not involve this part of experiment.	N/A
Define whether data describe technical or biological replicates	No, the study did not involve this part of experiment.	N/A

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.	No, not involved.	N/A
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No, not involved.	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. See the "Ethical Statement" and the attachment.	

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	No, this 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. See the paragraph of "LncRNA-mRNA microarrays" in methods.	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Yes. See the paragraph of "LncRNA-mRNA microarrays" in methods.	

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, datasets are available in supplemental attachment	
If data are publicly available, provide accession number in repository or DOI or URL.	Yes. See the paragraph of "Identification of DEGs and lncRNAs" in results.	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Yes. See the section of Enrichr, ONCOMINE and GEPIA database analysis in methods.	

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.	No, not involved.	N/A
If code is publicly available, provide accession number in repository, or DOI or URL.	No, not involved.	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.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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