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.	Hes 1 and Hey 1were acquired from Abcam (Cambridge, MA, USA). Materials and reagents section	

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	Canine EPCs (Shanghai Jing Kang bioengineering company). A human embryonic kidney cell line (293T cells)(Shanghai Cell Bank of the Chinese Academy of Sciences. Cell culture and transfection section	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	hNotch1.ICN gene overexpressed with lentivirus section Canine, hNotch1.ICN gene overexpression	

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		N/a Animal experiments are not covered in this paper.
Animal observed in or captured from the field: Provide species, sex and age where possible		N/a Animal experiments are not covered in this paper.
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		N/a Animal experiments are not covered in this paper.

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)		N/a This paper has nothing to do with plants and microbes.
Microbes: provide species and strain, unique accession number if available, and source		N/a This paper has nothing to do with plants and microbes.

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.		N/a There is no human research participants in this research

Provide statement confirming informed consent obtained from study participants.		N/a There is no human research participants in this research
Report on age and sex for all study participants.		N/a There is no human research participants in this research

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		n/a， this research is not clinical trials.

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-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 they were not
Randomisation		n/a they were not
Blinding		n/a they were not
Inclusion/exclusion criteria		n/a they were not

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	The experiment was replicated in laboratory 3 times . Methods section.	
Define whether data describe technical or biological replicates	biological replicates Methods section.	

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.		n/a, No involving human participants
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a, No involving experimental animals
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	The ethics committee approved the study of the Affiliated Tumor Hospital of Guangxi Medical University, Institute of Cancer Prevention and Treatment of Guangxi Zhuang Autonomous Region. Methods section.	

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		n/a No dual use research of concern.

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.		n/a No involving that.

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

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.		n/a No newly created datasets are available.
If data are publicly available, provide accession number in repository or DOI or URL.		n/a No data are publicly available.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a No publicly available data are reused.

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.		n/a No code availability.
If code is publicly available, provide accession number in repository, or DOI or URL.		n/a No code availability.

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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