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.	● Alexa Fluor 488 Mouse Anti-STAT3 (pY705) Supplier: BD Biosciences, Clone: 4/P-STAT3, Cat No: 557814. ● Alexa Fluor 488 Mouse Anti-STAT3 (pS727) Supplier: BD Biosciences, Clone: 49/p-Stat3, Cat No: 558085. ● IL-6 rabbit monoclonal antibody Supplier: Cell Signaling Technology, Clone: D3K2N, Cat No: 12153, Citations: 22. ● STAT3 rabbit monoclonal antibody Supplier: Cell Signaling Technology, Clone:79D7, Cat No: 4904, Citations: 511. ● phospho-STAT3 (pS727) rabbit monoclonal antibody Supplier: Cell Signaling Technology, Clone: D8C2Z, Cat No: 94994, Citations: 15. ● COX IV rabbit monoclonal antibody Supplier: Cell Signaling Technology, Clone: 3E11, Cat No: 4850, Citations: 230. ● β-actin mouse monoclonal antibody Supplier: Beyotime Institute of Biotechnology, Cat No: AF0003, Citations: 82. ● GAPDH mouse monoclonal antibody Supplier: Beyotime Institute of Biotechnology, Cat No: AF0006, Citations:76. ● HRP-conjugated goat anti-rabbit IgG (H+L) Supplier: Beyotime Institute of Biotechnology, Cat No: A0208, Citations: 190. ● HRP-conjugated goat anti-mouse IgG (H+L) Supplier: Beyotime Institute of Biotechnology, Cat No: A0216, Citations: 186.	

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	● HL-60 Supplier: Cell Bank of Type Culture Collection Chinese Academy of Sciences (CBTCCCAS), accession number in repository: TCHu 23, Organism: Homo sapiens, Tissue: peripheral blood, Disease: acute promyelocytic leukemia, Cell Type: promyeloblast, Age: 36 years, Gender: female, Morphology: myeloblastic, Growth Properties: suspension ● U-937 Supplier: CBTCCCAS, accession number in repository: TCHu159, Organism: Homo sapiens, Tissue: Pleura/pleural effusion, lymphocyte, Myeloid, Disease: histiocytic lymphoma, Age: 37 years, Gender: male, Morphology: monocyte, Growth Properties: suspension. ● THP-1 Supplier: CBTCCCAS, accession number in repository: SCSP-567, Organism: homo sapiens, Tissue: peripheral blood, Disease: acute monocytic leukemia, Cell Type: monocyte, Age: 1 year infant, Gender: male, Morphology: monocyte, Culture Properties: suspension. ● HS-5 Supplier: American Type Culture Collection (ATCC), accession number in repository: CRL11882, Organism: Homo sapiens, Tissue: bone marrow, Disease: normal, Cell Type: HPV16 E6/E7 transformed, Age: 30 years, Gender: male, Morphology: fibroblast, Growth Properties: adherent.	

Primary cultures: Provide species, strain, sex of origin, genetic modification status.	The information about the primary cultures have been provided in Table 1.	

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		Experimental animals have not been involved in the experiments.
Animal observed in or captured from the field: Provide species, sex and age where possible		
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		

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)		Plants have not been involved in the experiments.
Microbes: provide species and strain, unique accession number if available, and source	LentiCRISPRv2 was a gift from Brett Stringer, RRID: Addgene_98290 (have been provided in "Methods" section).	

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.		Human research participants have not been involved in the experiments.
Provide statement confirming informed consent obtained from study participants.		
Report on age and sex for all study participants.		

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		Clinical trials have not been involved in the experiments.

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	ALL detailed step-by-step protocols are available in "Methods" section.	

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		Not carried out
Randomisation		Not carried out
Blinding		Not carried out
Inclusion/exclusion criteria		Not carried out

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

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.		Human participants have not been involved in the experiments.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Experimental animals have not been involved in the experiments.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	The collection of human specimens was approved by the ethics committee of the Fujian Medical University Union Hospital (No. 2019KJCX029) and the written informed consent were obtained from each patient (have been provided in "Ethical Statement" of "Footnote" section).	

Dual Use Research of Concern (DURC)	Yes (indicate where provided:	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		The study is not subject to 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.		There is no sample or data point from the analysis is excluded in this study.

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Student *t*-test was used, because data conform to normal distribution.	

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 newly created datasets was used in this study.
If data are publicly available, provide accession number in repository or DOI or URL.		No publicly data was used in this study.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		No publicly available data were used in this study.

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 code or software was used in this study.
If code is publicly available, provide accession number in repository, or DOI or URL.		No code or software was used in this study.

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.	No other guidelines are provided with the manuscript.

Article information: http://dx.doi.org/10.21037/atm-20-3191