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:	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Materials and methods section, paragraph 3-6	

Cell materials	Yes (indicate where provided:	n/a
Cell lines: Provide species information, strain. Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID		n/a no cell lines were used.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		n/a no primary cultures were used

Experimental animals	Yes (indicate where provided:	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 No experimental animals were used in this study
Animal observed in or captured from the field: Provide species, sex and age where possible		n/a No experimental animals were used in this study
Model organisms: Provide Accession number in repository (where relevant) OR RRID		n/a No experimental animals were used in this study

Plants and microbes	Yes (indicate where provided:	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		n/a No plants and microbes were used in this study
Microbes: provide species and strain, unique accession number if available, and source		n/a No plants and microbes were used in this study

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Materials and methods section, paragraph 1	
Provide statement confirming informed consent obtained from study participants.	Materials and methods section, paragraph 1	
Report on age and sex for all study participants.	Materials and methods section, paragraph 2 Results/paragraph 1	

Design

Study protocol	Yes (indicate where provided:	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.		n/a It's not a clinical trial study.

Laboratory protocol	Yes (indicate where provided:	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Materials and methods section/paragraph 3	

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		n/a, 10 samples (5 vs 5) were included because at the time the study was performed, the maximum multiplexing capacity of TMT proteomics analysis was 10.
Randomisation	Materials and methods section, paragraph 2	
Blinding		n/a Blinding was not used in this study.
Inclusion/exclusion criteria	Materials and methods section, paragraph 2	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Materials and methods section, paragraph 6	
Define whether data describe technical or biological replicates	Materials and methods section, paragraph 2	

Ethics	Yes (indicate where provided:	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Materials and methods section, paragraph 1	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a No experimental animals were involved in this study.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		n/a No specimen and field samples were involved in this study.

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		n/a The study was not subject to dual use research of concern.

Analysis

Attrition	Yes (indicate where provided:	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 sample or data were excluded

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	Materials and methods section, paragraph 7	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Results/paragraph 2	
If data are publicly available, provide accession number in repository or DOI or URL.	Results/paragraph 2	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a This study did not use publicly available data.

Code Availability	Yes (indicate where provided:	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.	Materials and methods section, paragraph 7	
If code is publicly available, provide accession number in repository, or DOI or URL.		n/a, this study did not use publicly available code.

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 guidelines for publication.	

Article information: https://dx.doi.org/10.21037/tau-22-155