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	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		The study is bioinformatics research, not experimental study.

Cell materials	Yes (indicate	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		The study is bioinformatics research, not experimental study.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		The study is bioinformatics research, not experimental study.

Experimental animals	Yes (indicate	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		The study is bioinformatics research, not experimental study.
Animal observed in or captured from the field: Provide species, sex and age where possible		The study is bioinformatics research, not experimental study.
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		The study is bioinformatics research, not experimental study.

Plants and microbes	Yes (indicate	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		The study is bioinformatics research, not experimental study.
Microbes: provide species and strain, unique accession number if available, and source		The study is bioinformatics research, not experimental study.

Human research participants	Yes (indicate	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The study is bioinformatics research, not experimental study.
Provide statement confirming informed consent obtained from study participants.		The study is bioinformatics research, not experimental study.
Report on age and sex for all study participants.		The study is bioinformatics research, not experimental study.

Design

Study protocol	Yes (indicate where	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		The study is bioinformatics research, not clinical trial.

Laboratory protocol	Yes (indicate where	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		The study is bioinformatics research, not clinical trial.

Experimental study design (statistics details)	Yes (indicate where	n/a
State whether and how the following have been done**, or** if they were not carried out.		The study is bioinformatics research, not clinical trial.
Sample size determination		
Randomisation		
Blinding		
Inclusion/exclusion criteria		

Sample definition and in-laboratory replication	Yes (indicate where	n/a
State number of times the experiment was replicated in laboratory		The study is bioinformatics research, not clinical trial.
Define whether data describe technical or biological replicates		The study is bioinformatics research, not clinical trial.

Ethics	Yes (indicate where	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The study is bioinformatics research, not clinical trial.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The study is bioinformatics research, not clinical trial.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		The study is bioinformatics research, not clinical trial.

Dual Use Research of Concern (DURC)	Yes (indicate where	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 bioinformatics research, not clinical trial.

Analysis

Attrition	Yes (indicate where	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.		The study is bioinformatics research, not clinical trial.

Statistics	Yes (indicate where	n/a
Describe statistical tests used and justify choice of tests.		n/a

Data Availability	Yes (indicate where	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		n/a
If data are publicly available, provide accession number in repository or DOI or URL.		n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a

Code Availability	Yes (indicate where	n/a
For all newly generated code and software essential for replicating the main findings of the study:		n/a
State whether the code or software is available.		n/a
If code is publicly available, provide accession number in repository, or DOI or URL.		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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