

## **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](https://doi.org/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**

<b>Antibodies</b>	<b>Yes (indicate where</b>	<b>n/a</b>
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	/	The study used TCGA Database. There was no experiments.
<b>Cell materials</b>	<b>Yes (indicate where</b>	<b>n/a</b>
<b>Cell lines:</b> Provide species information, strain. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID	/	The study used TCGA Database. There was no experiments.
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.	/	The study used TCGA Database. There was no experiments.
<b>Experimental animals</b>	<b>Yes (indicate where</b>	<b>n/a</b>
<b>Laboratory animals:</b> Provide species, strain, sex, age, genetic modification status. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID	/	The study used TCGA Database. There was no experiments.
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible	/	The study used TCGA Database. There was no experiments.
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID	/	The study used TCGA Database. There was no experiments.
<b>Plants and microbes</b>	<b>Yes (indicate where</b>	<b>n/a</b>
<b>Plants:</b> provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	/	The study used TCGA Database. There was no experiments.
<b>Microbes:</b> provide species and strain, unique accession number if available, and source	/	The study used TCGA Database. There was no experiments.
<b>Human research participants</b>	<b>Yes (indicate where</b>	<b>n/a</b>
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	/	The study used TCGA Database only without human participants.
Provide statement confirming informed consent obtained from study participants.	/	The study used TCGA Database only without human participants.
Report on age and sex for all study participants.	/	The study used TCGA Database only without human participants.

**Design**

<b>Study protocol</b>	<b>Yes (indicate)</b>	<b>n/a</b>
For clinical trials, provide the trial registration number <b>OR</b> cite DOI in manuscript.	/	<b>The study used TCGA Database only without human participants.</b>
<b>Laboratory protocol</b>	<b>Yes (indicate)</b>	<b>n/a</b>
Provide DOI or other citation details if detailed step-by-step protocols are available.	/	<b>The study used TCGA Database only without human participants.</b>
<b>Experimental study design (statistics)</b>	<b>Yes (indicate)</b>	<b>n/a</b>
State whether and how the following have been done, <b>or</b> if they were not carried out.		
Sample size determination	/	<b>The study used TCGA Database.</b>
Randomisation	/	<b>The study used TCGA Database.</b>
Blinding	/	<b>The study used TCGA Database.</b>
Inclusion/exclusion criteria	/	<b>The study used PC data from TCGA Database.</b>
<b>Sample definition and in-laboratory</b>	<b>Yes (indicate)</b>	<b>n/a</b>
State number of times the experiment was replicated in laboratory	/	<b>The study used TCGA Database. There was no experiments.</b>
Define whether data describe technical or biological replicates	/	<b>The study used TCGA Database. There was no experiments.</b>
<b>Ethics</b>	<b>Yes (indicate)</b>	<b>n/a</b>
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	/	<b>The study used TCGA Database only without human participants.</b>
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	/	<b>The study used TCGA Database only without human participants.</b>
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	/	<b>The study used TCGA Database only without human participants.</b>
<b>Dual Use Research of Concern (DURC)</b>	<b>Yes (indicate)</b>	<b>n/a</b>
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	/	<b>The study is not a subject to dual use research</b>

## Analysis

<b>Attrition</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	<b>Materials and methods/ TCGA Database Analysis</b>	/
<b>Statistics</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
Describe statistical tests used and justify choice of tests.	<b>Materials and methods/ Paragraph5 (Statistical analysis)</b>	/
<b>Data Availability</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State whether newly created datasets are available, including protocols for access or restriction on access.	/	<b>No newly created datasets are available.</b>
If data are publicly available, provide accession number in repository or DOI or URL.	/	<b>No newly created datasets are available.</b>
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	<b>Materials and methods/ Paragraph1 (TCGA database analysis) <a href="https://www.genome.gov/Funded-Programs-Projects/Cancer-Genome-Atlas">https://www.genome.gov/Funded-Programs-Projects/Cancer-Genome-Atlas</a></b>	/
<b>Code Availability</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.	/	<b>No newly generated code and software was used</b>
If code is publicly available, provide accession number in repository, or DOI or URL.	/	<b>No newly generated code and software was used</b>

## Reporting

<b>Adherence to community standards</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
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.	

Many Spaces are filled in with N/A, because this study is a kind of bioinformatics analysis using the data downloaded from the public database, and does not involve many contents in the MDAR Framework.

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