**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

| Section                          | Yes (indicate where) | n/a |
|---------------------------------|----------------------|-----|
| Antibodies                      |                      | 2.1 |
| For commercial reagents, provide supplier name, catalogue number and RRID, if provided | n/a | No antibody used |
| Cell lines: Provide species information, strain. Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID | n/a | No cell line used |
| Primary cultures: Provide species, strain, sex of origin, genetic modification status. | n/a | No Primary cell used |
| Experimental animals            |                      | 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 animal used |
| Animal observed in or captured from the field: Provide species, sex and age where possible | n/a | No experimental animal used |
| Model organisms: Provide Accession number in repository (where relevant) OR RRID | n/a | No experimental animal used |
| Plants and microbes             |                      | 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 used |
| Microbes: provide species and strain, unique accession number if available, and source | n/a | No plants and microbes used |
| Human research participants     |                      | n/a |
| Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | n/a | All the data used in this paper have been published in the TCGA database, so approval from the Ethics committee was not required. |
| Provide statement confirming informed consent obtained from study participants. | n/a | Since the data was obtained from the public databases, written informed consent from patients was not required. |
| Report on age and sex for all study participants. | n/a | The data downloaded from the TCGA Data Portal included age, gender, clinical stage, survival status and survival time. |
### 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 No clinical trial is involved |       |

| Laboratory protocol                                                                 | Yes (indicate where provided: section/paragraph) | n/a   |
|-----------------------------------------------------------------------------------|-----------------------------------------------|-------|
| Provide DOI or other citation details if detailed step-by-step protocols are available. | n/a No laboratory experiment is involved |       |

| 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. | Yes See Methods/paragraph 3 |       |
| Sample size determination                                                          | Yes See Methods/paragraph 2 |       |
| Randomisation                                                                     | n/a No Randomisation                           |       |
| Blinding                                                                          | n/a No Blinding                                |       |
| Inclusion/exclusion criteria                                                       | Yes See Methods/paragraph 1                   |       |

| Sample definition and in-laboratory replication                                  | Yes (indicate where provided: section/paragraph) | n/a   |
|-----------------------------------------------------------------------------------|-----------------------------------------------|-------|
| State number of times the experiment was replicated in laboratory                | n/a No laboratory experiment is involved      |       |
| Define whether data describe technical or biological replicates                  | n/a No laboratory experiment is involved      |       |

| 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. | Yes See Footnote/paragraph 2 |       |
| Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | n/a The experimental animals aren’t involved. |       |
| 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 The specimen and field samples aren’t involved. |       |

| 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 This study is not a DURC |       |
### Analysis

| Attribute          | Yes (indicate where) | n/a |
|--------------------|----------------------|-----|
| **Attrition**      |                      | 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 |

| Statistics         | Yes (indicate where) | n/a |
|--------------------|----------------------|-----|
| Describe statistical tests used and justify choice of tests. | Yes | See Methods/Paragraph 10 |

| 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. |                   | https://portal.gdc.cancer.gov/repository |

| 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. |                  | n/a |
| State if relevant guidelines (e.g., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (e.g., CONSORT, PRISMA, ARRIVE) is provided with the manuscript. |                  | We confirm that the ICMJE guideline was followed in the manuscript. |

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