

## **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 provided: section/paragraph)</b>	<b>n/a</b>
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Methods: lines 111-238	yes
<b>Cell materials</b>	<b>Yes (indicate where provided: section/paragraph)</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	No cell lines were used in this study. Methods: lines 111-238	n/a
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.	No cell lines were used in this study. Methods: lines 111-238	n/a
<b>Experimental animals</b>	<b>Yes (indicate where provided: section/paragraph)</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	No animals were used in this study. Methods: lines 111-238	n/a
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible	No animals were used in this study. Methods: lines 111-238	n/a
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID	No organisms were used in this study. Methods: lines 111-238	n/a
<b>Plants and microbes</b>	<b>Yes (indicate where provided: section/paragraph)</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)	No plants were used in this study. Methods: lines 111-238	n/a
<b>Microbes:</b> provide species and strain, unique accession number if available, and source	No microbes were used in this study. Methods: lines 111-238	n/a
<b>Human research participants</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Methods: lines 190-191; Results: lines 320-323	yes
Provide statement confirming informed consent obtained from study participants.	This was a retrospective study using archived clinical pathology tissue samples.	yes
Report on age and sex for all study participants.	Results: lines 205-226; Table #1 - lines 326-330; Table #3 – 339-341; Supplemental Table #1 – lines 351-356	yes

**Design**

<b>Study protocol</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
For clinical trials, provide the trial registration number <b>OR</b> cite DOI in manuscript.	This was not a clinical trial nor were the tissue samples used obtained through a clinical trial.	yes
<b>Laboratory protocol</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Provide DOI or other citation details if detailed step-by-step protocols are available.	Methods: lines 87-200	yes
<b>Experimental study design (statistics details)</b>	<b>Yes (indicate where provided: section/paragraph)</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	The number of cases was determined by available archived tissue blocks. Methods: lines 111-238	n/a
Randomisation	This was a retrospective study.	yes
Blinding	This was a retrospective study.	yes
Inclusion/exclusion criteria	All available tissue blocks were included.	yes
<b>Sample definition and in-laboratory replication</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State number of times the experiment was replicated in laboratory	Methods: Lines 182-183	yes
Define whether data describe technical or biological replicates	Data describe technical replicates.	yes
<b>Ethics</b>	<b>Yes (indicate where provided: section/paragraph)</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.	Methods: lines 186-187 This study conformed to the provisions of the Declaration of Helsinki (as revised in 2013), available at <a href="https://www.wma.net/wp-content/uploads/2016/11/DoH-Oct2013-JAMA.pdf">https://www.wma.net/wp-content/uploads/2016/11/DoH-Oct2013-JAMA.pdf</a> . Appears in Methods Section	yes
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No animals were used in this study. Methods: lines 111-238	n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	IRB approval was obtained but no special permits were required for the protocol and study design. Methods: lines 111-238	n/a
<b>Dual Use Research of Concern (DURC)</b>	<b>Yes (indicate where provided: section/paragraph)</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	Study is not subject to dual use research of concern.	yes

**Analysis**

<b>Attrition</b>	<b>Yes (indicate where provided: section/paragraph)</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.	No data points were excluded in the analyses. Methods: lines 111-238	n/a
<b>Statistics</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Describe statistical tests used and justify choice of tests.	Methods: lines 194-200	yes
<b>Data Availability</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State whether newly created datasets are available, including protocols for access or restriction on access.	None. Methods: lines 111-238	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	Data are provided in paper.	yes
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Data were not reused from publicly available database.	yes
<b>Code Availability</b>	<b>Yes (indicate where provided: section/paragraph)</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.	No code or software was generated in this study.	yes
If code is publicly available, provide accession number in repository, or DOI or URL.	No code or software was generated in this study.	yes

**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.	Footnote 1	yes
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.	yes

Article information: <http://dx.doi.org/10.21037/gist-20-2>