# <span style="color:red">Materials Design Analysis Reporting (MDAR)<br>Checklist for Authors</span>

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: section/paragraph) | n/a |
|---|---|---|
| For commercial reagents, provide supplier name, catalogue number and RRID, if available. | Yes, see Materials and methods/Cell culture and reagents | |

| Cell materials | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| **Cell lines:** Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID | Yes, see Materials and methods/Cell culture and reagents | |
| **Primary cultures:** Provide species, strain, sex of origin, genetic modification status. | Not Applicable | |

| Experimental animals | Yes  (indicate where provided: section/paragraph) | 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 | Not Applicable | |
| **Animal observed in or captured from the field:** Provide species, sex and age where possible | Not Applicable | |
| **Model organisms:** Provide Accession number in repository (where relevant) **OR** RRID | Not Applicable | |

| Plants and microbes | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| **Plants:** provide species and strain, unique accession number if available, and source (including location for collected wild specimens) | Not Applicable | |
| **Microbes:** provide species and strain, unique accession number if available, and source | Not Applicable | |

| Human research participants | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | Yes, see Materials and methods/Pancreatic cancer tissues | |
| Provide statement confirming informed consent obtained from study participants. | Yes, see Materials and methods/Pancreatic cancer tissues | |
| Report on age and sex for all study participants. | Yes, see Supplementary Table 3 | |

## Design

| Study protocol | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| For clinical trials, provide the trial registration number **OR** cite DOI in manuscript. | Not Applicable | |

| Laboratory protocol | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| Provide DOI or other citation details if detailed step-by-step protocols are available. | Yes, see Materials and methods/ Immunohistochemistry, western blot and RT-qPCR | |

| 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. | | |
| Sample size determination | Not Applicable | |
| Randomisation | Not Applicable | |
| Blinding | Not Applicable | |
| Inclusion/exclusion criteria | Yes, see Materials and methods/Pancreatic cancer | |

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

| 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. | Not Applicable | |
| Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | Not Applicable | |
| Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why. | Yes, see Materials and methods/Pancreatic cancer tissues | |

| 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 | Not Applicable | |

## Analysis

| Attrition | Yes  (indicate where provided: section/paragraph) | 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. | Yes, see Materials and methods/ Pancreatic cancer tissues | |

| Statistics | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| Describe statistical tests used and justify choice of tests. | Yes, see Materials and methods/Statistical analyses | |

| Data Availability | Yes  (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| State whether newly created datasets are available, including protocols for access or restriction on access. | Yes, Not Applicable | |
| If data are publicly available, provide accession number in repository or DOI or URL. | Yes, see Footnote/Data Sharing Statement | |
| If publicly available data are reused, provide accession number in repository or DOI or URL, where possible. | Yes, see Materials and methods/ Analysis of mRNA microarray data | |

| Code Availability | Yes  (indicate where provided: section/paragraph) | 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. | Not Applicable | |
| If code is publicly available, provide accession number in repository, or DOI or URL. | Not Applicable | |

## 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. | |

| Article information: https://dx.doi.org/10.21037/gs-21-776 |
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