### <u>Materials Design Analysis Reporting (MDAR)</u> 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 where provided:  | n/a               |
|--|--|-------------------|
| For commercial reagents, provide supplier              | Materials and Methods/ Western-blot  |                   |
| name, catalogue number and RRID, if available.         | assay/ 8 page 128-133 lines  |                   |
| Cell materials   | Yes (indicate where provided:  | n/a               |
| Cell lines: Provide species information, strain.       | Materials and Methods/ Cell culture and  |                   |
| Provide accession number in repository <b>OR</b>       | reagents / 7 page 111-112 lines  |                   |
| supplier name, catalog number, clone number,           |  |                   |
| <b>OR</b> RRID   |  |                   |
| Primary cultures: Provide species, strain, sex of      |  | This study did no |
| origin, genetic modification status.                   |  | use primary cells |
| Experimental animals                                   | Yes (indicate where provided:  | n/a               |
| Laboratory animals: Provide species, strain, sex, age, | ·  | This study did no |
| genetic modification status. Provide accession         |  | use any animals.  |
| number in repository <b>OR</b> supplier name, catalog  |  |                   |
| number, clone number, <b>OR</b> RRID                   |  |                   |
| Animal observed in or captured from the                |  | This study did no |
| field: Provide species, sex and age where              |  | use any animals.  |
| possible   |  |                   |
| Model organisms: Provide Accession number              |  | This study did no |
| in repository (where relevant) <b>OR</b> RRID          |  | use any model     |
|  |  | organisms.        |
| Plants and microbes                                    | Yes (indicate where provided:  | n/a               |
| Plants: provide species and strain, unique accession   | ·  | This study did no |
| number if available, and source (including location    |  | use any plants.   |
| for collected wild specimens)                          |  |                   |
| Microbes: provide species and strain, unique           |  | This study did no |
| accession number if available, and source              |  | use any           |
|  |  | microbes.         |
| Human research participants                            | Yes (indicate where provided:  | n/a               |
| Identify authority granting ethics approval (IRB or    | The state of the s | This study did no |
| equivalent committee(s), provide reference number      |  | perform human     |
| for approval.  |  | research.         |
| Provide statement confirming informed consent          |  | This study did no |
| obtained from study participants.                      |  | perform human     |
| ,. ,   |  | research.         |
| Report on age and sex for all study participants.      |  | This study did no |
|  |  | perform human     |
|  |  | research.         |

# Design

| Study protocol   | Yes (indicate where provided:  | n/a   |
|--|--|---|
| For clinical trials, provide the trial registration  |  | This study  |
| number <b>OR</b> cite DOI in manuscript.   |  | was not a   |
|  |  | clinical trial.   |
| aboratory protocol   | Yes (indicate where provided:  | n/a   |
| Provide DOI or other citation details if detailed step-  | ,  | There was no  |
| py-step protocols are available.   |  | additional  |
|  |  | method.   |
| Experimental study design (statistics details)   | Yes (indicate where provided:  | n/a   |
| State whether and how the following have been  | , and the second | .,, =   |
| done, <b>or</b> if they were not carried out.  |  |   |
| Sample size determination  |  | This study  |
|  |  | was not a   |
|  |  | clinical trial.   |
| Randomisation  |  | This study  |
| nana om sudon  |  | was not a   |
|  |  | clinical trial.   |
| Blinding   |  | This study  |
| billiding  |  | •   |
|  |  | was not a   |
| La dividant front action and action  |  | clinical trial.   |
| Inclusion/exclusion criteria   |  | This study  |
|  |  | was not a   |
|  |  | clinical trial.   |
| Sample definition and in-laboratory replication  | Yes (indicate where provided:  | n/a   |
| State number of times the experiment was   | Materials and Methods/ Statistical analysis  |   |
| replicated in laboratory   | / 9 page 138 lines   |   |
| Define whether data describe technical or biological   | Materials and Methods/ Statistical analysis  |   |
| replicates   | / 9 page 138 lines   |   |
|  |  |   |
| Ethica   | Voc /indicate whose was ideal.   | -/-   |
|  | Yes (indicate where provided:  | n/a   |
| Studies involving human participants: State details of   | Yes (indicate where provided:  | This study di   |
| Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent   | Yes (indicate where provided:  | This study di<br>not involve  |
| Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for  | Yes (indicate where provided:  | This study di<br>not involve<br>human   |
| Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.  | Yes (indicate where provided:  | This study di<br>not involve<br>human<br>participants.  |
| Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.  Studies involving experimental animals: State details   | Yes (indicate where provided:  | This study di<br>not involve<br>human<br>participants.<br>This study di   |
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| Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.  Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.  Studies involving specimen and field samples: State if relevant permits obtained, provide details of   |  | This study di not involve human participants. This study di not involve experimenta animals. This study di not involve specimen an field sample.                                    |
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concern

# <u>Analysis</u>

| Attrition   | Yes (indicate where provided: | n/a          |
|---|-------------------------------|--------------|
| State if sample or data point from the analysis is    |                               | There was no |
| excluded, and whether the criteria for exclusion were |                               | exclusion of |
| determined and specified in advance.                  |                               | data points. |

| Statistics  | Yes (indicate where provided:               | n/a |
|---|---|-----|
| Describe statistical tests used and justify choice of | Materials and Methods/ Statistical analysis |     |
| tests.  | / 9 page 138-141 lines                      |     |

| Data Availability  | Yes (indicate where provided: | n/a          |
|--|-------------------------------|--------------|
| State whether newly created datasets are available,  |                               | There was no |
| including protocols for access or restriction on   |                               | newly        |
| access.  |                               | created      |
|  |                               | datasets.    |
| 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 provided: | 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.                                      |                               | 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. | Section Acknowledgement.  |     |
| 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. | N/A |

| Article information: http://dx.doi.org/10.21037/tcr-20-2447 |  |
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