### <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.

# For all that apply, please note where in the manuscript the required information is provided.

#### Materials:

| Newly created materials                             | indicate where provided: page no/section/legend) | n/a |
|---|--|-----|
| The manuscript includes a dedicated "materials      |  |     |
| availability statement" providing transparent       |  |     |
| disclosure about availability of newly created      | Not applicable for our study                     | n/a |
| materials including details on how materials can be |  |     |
| accessed and describing any restrictions on access. |  |     |

| Antibodies                                       | indicate where provided: page no/section/legend) | n/a |
|--|--|-----|
| For commercial reagents, provide supplier name,  | Not applicable for our study                     | 2/2 |
| catalogue number and <u>RRID</u> , if available. | Not applicable for our study                     | n/a |

| DNA and RNA sequences   | indicate where provided: page no/section/legend) | n/a |
|---|--|-----|
| Short novel DNA or RNA including primers, probes:<br>Sequences should be included or deposited in a<br>public repository. | Not applicable for our study                     | n/a |
|   |  |     |
| Cell materials  | indicate where provided: page no/section/legend  | n/a |
| Cell lines: Provide species information, strain.  |  |     |
| Provide accession number in repository <b>OR</b> supplier   | Not applicable for our study                     | n/a |
| name, catalog number, clone number, <b>OR</b> RRID.   |  |     |
| Primary cultures: Provide species, strain, sex of   |  |     |
| origin, genetic modification status.  |  |     |

| Experimental animals  | indicate where provided: page no/section/legend) | n/a |
|---|--|-----|
| Laboratory animals or Model organisms: Provide<br>species, strain, sex, age, genetic modification status.<br>Provide accession number in repository OR supplier<br>name, catalog number, clone number, OR RRID. | Not applicable for our study                     | n/a |
| Animal observed in or captured from the field:<br>Provide species, sex, and age where possible.   | Not applicable for our study                     | n/a |

| Plants and microbes   | indicate where provided: page no/section/legend) | n/a |
|---|--|-----|
| <b>Plants:</b> provide species and strain, ecotype and cultivar where relevant, unique accession number if available, and source (including location for collected wild specimens). | Not applicable for our study                     | n/a |
| Microbes: provide species and strain, unique accession number if available, and source.   |  |     |

| Human research participants  | indicate where provided: page no/section/legend) or<br>state if these demographics were not collected   | n/a |
|--|---|-----|
| If collected and within the bounds of privacy<br>constraints report on age, sex and gender or<br>ethnicity for all study participants. | Demographic information are collected from publicly<br>available data with no personal identifiers. See pages 2-<br>3 in the Materials and Methods section of the |     |
|  | Supplementary Materials.  |     |

## Design:

| Study protocol   | indicate where provided: page no/section/legend) | n/a |
|--|--|-----|
| If study protocol has been pre-registered, provide DOI. For clinical trials, provide the trial registration number <b>OR</b> cite DOI. | Not applicable for our study                     | n/a |
| Laboratory protocol  | indicate where provided: page no/section/legend) | n/a |
| Provide DOI <b>OR</b> other citation details if detailed step-<br>by-step protocols are available.                                     | Not applicable for our study                     | n/a |

| Experimental study design (statistics details)                          |  |     |
|---|--|-----|
| For in vivo studies: State whether and how the following have been done | indicate where provided: page no/section/legend.<br>If it could have been done, but was not, write not<br>done | n/a |
| Sample size determination   | Not applicable for our study   | n/a |
| Randomisation   |  |     |
| Blinding  |  |     |
| Inclusion/exclusion criteria  |  |     |

| Sample definition and in-laboratory replication                    | indicate where provided: page no/section/legend | n/a |
|--|---|-----|
| State number of times the experiment was replicated in laboratory. | Not applicable for our study                    | n/a |
| Define whether data describe technical or biological replicates.   |   |     |

| Ethics   | indicate where provided: page no/section/legend                                    | n/a |
|--|--|-----|
| <b>Studies involving human participants:</b> State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.   | IRB approval from Unity Health Toronto REB (15-<br>231; Aug 5, 2021); see page 12. |     |
| <b>Studies involving experimental animals:</b> State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | Not applicable for our study   | n/a |
| <b>Studies involving specimen and field samples:</b> State if relevant permits obtained, provide details of authority approving study; if none were required, explain why. | Not applicable for our study   | n/a |

| Dual Use Research of Concern (DURC)  | indicate where provided: page no/section/legend | n/a |
|--|---|-----|
| If study is subject to dual use research of concern<br>regulations, state the authority granting approval<br>and reference number for the regulatory approval. | Not applicable for our study                    | n/a |

### Analysis:

| Attrition   | indicate where provided: page no/section/legend                       | n/a  |
|---|---|------|
| Describe whether exclusion criteria were<br>preestablished. Report if sample or data points were<br>omitted from analysis. If yes report if this was due to<br>attrition or intentional exclusion and provide<br>justification. | There were no exclusion criteria for the three data sources included. |      |
| Statistics  | indicate where provided: page no/section/legend                       | n/a  |
|   | We used simplest comparisons with 95% confidence                      | ii/a |
| Describe statistical tests used and justify choice of   | ranges in a transparent manner. See pages 3-4 in                      |      |
| tests.  | Supplementary Materials.  |      |
|   |   |      |
| Data availability   | indicate where provided: page no/section/legend                       | n/a  |

| For newly created and reused datasets, the<br>manuscript includes a data availability statement<br>that provides details for access or notes restrictions<br>on access. | See page 12. All relevant data for the HMIS and CRS data are in the Supplementary Materials. The CVoter data is already publically availale. |     |
|---|--|-----|
| If newly created datasets are publicly available,<br>provide accession number in repository <b>OR</b> DOI <b>OR</b><br>URL and licensing details where available.       | Not applicable for our study   | n/a |
| If reused data is publicly available provide accession<br>number in repository <b>OR</b> DOI <b>OR</b> URL, <b>OR</b> citation.   | Not applicable for our study   | n/a |

| Code availability   | indicate where provided: page no/section/legend | n/a |
|---|---|-----|
| For all newly generated custom computer<br>code/software/mathematical algorithm or re-used<br>code essential for replicating the main findings of<br>the study, the manuscript includes a data availability<br>statement that provides details for access or notes<br>restrictions. | Not applicable for our study                    | n/a |
| If newly generated code is publicly available, provide<br>accession number in repository, <b>OR</b> DOI <b>OR</b> URL and<br>licensing details where available. State any<br>restrictions on code availability or accessibility.  | Not applicable for our study                    | n/a |
| If reused code is publicly available provide accession<br>number in repository <b>OR</b> DOI <b>OR</b> URL, <b>OR</b> citation.   | Not applicable for our study                    | n/a |

## **Reporting**

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.

| Adherence to community standards  | indicate where provided: page no/section/legend | n/a |
|---|---|-----|
| State if relevant guidelines (e.g., ICMJE, MIBBI,<br>ARRIVE) have been followed, and whether a checklist<br>(e.g., CONSORT, PRISMA, ARRIVE) is provided with<br>the manuscript. | Not relevant                                    | n/a |