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

Antibodies	Yes	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		This research was performed based on public database resources. No commercial reagents were used.

Cell materials	Yes	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		This research was performed based on public database resources. No cell lines were used.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		This research was performed based on public database resources. No primary cultures were used.

Experimental animals	Yes	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		This research was performed based on public database resources. No laboratory animals were used.
Animal observed in or captured from the field: Provide species, sex and age where possible		This research was performed based on public database resources. No Animals observed in or captured from the field were used.
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		This research was performed based on public database resources. No model organisms were used.

Plants and microbes	Yes	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		This research was performed based on public database resources. No plants were used.
Microbes: provide species and strain, unique accession number if available, and source		This research was performed based on public database resources. No microbes were used.

Human research participants	Yes	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The study did not include human subjects performed by any of the authors, neither ethical approval nor patient consent were required.
Provide statement confirming informed consent obtained from study participants.		The study did not include human subjects performed by any of the authors, neither ethical approval nor patient consent were required.
Report on age and sex for all study participants.		The study did not include human subjects performed by any of the authors, neither ethical approval nor patient consent were required.

Design

Study protocol	Yes	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		This research was performed based on public database resources. No clinical trials were involved in this study.

Laboratory protocol	Yes	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		This research was performed based on public database resources. No clinical trials were involved in this study.

Experimental study design (statistics details)	Yes	n/a
State whether and how the following have been done**, or** if they were not carried out.		This research was performed based on public database resources. No clinical trials were involved in this study.
Sample size determination		
Randomisation		
Blinding		
Inclusion/exclusion criteria		

Sample definition and in-laboratory replication	Yes	n/a
State number of times the experiment was replicated in laboratory		This research was performed based on public database resources. No laboratory experiments were involved in this study.
Define whether data describe technical or biological replicates		This research was performed based on public database resources. No laboratory experiments were involved in this study.

Ethics	Yes	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		The study did not include human subjects performed by any of the authors, neither ethical approval nor patient consent were required.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		This research was performed based on public database resources. No laboratory experiments were involved in this study.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		This research was performed based on public database resources. No specimen and field samples were involved in this study.

Dual Use Research of Concern (DURC)	Yes	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		The study was not subject to dual use research of concern.

Analysis

Attrition	Yes (indicate where provided:	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.	We downloaded comprehensive cancer transcriptome data and clinical parameters of GC patients from UALCAN database and TCGA database. Patients with incomplete data such as those lacking attribute values or with missing values within the records were deleted from the dataset. This part was provided in paragraph of "##Association of CMTM family proteins with clinicopathological features of GC" in "Methods".	

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	Chi-square, ANOVA, and Student t-test statistical analyses were conducted based on R script. All analysis results were considered to be statistically significant at P value <0.05. The GEPIA and Oncomine databases also provided t-test analysis. Kaplan-Meier plotter online tool was applied for statistical analyses of hazard ratios and survival rates. A log-rank test was performed to evaluate the equality of survival curves between different patient groups. Description of statistical tests were provide din paragraph of "##Statistical Analysis" in "Methods".	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		No datasets are newly created.
If data are publicly available, provide accession number in repository or DOI or URL.	http://ualcan.path.uab.edu/; https://portal.gdc.cancer.gov/; http://kmplot.com/analysis/ Detailed information was provided in the section of "Methods".	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	http://ualcan.path.uab.edu/; https://portal.gdc.cancer.gov/; http://kmplot.com/analysis/ Detailed information was provided in the section of "Methods".	

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.	http://gepia2.cancer-pku.cn/; http://xena.ucsc.edu/; http://ualcan.path.uab.edu/; https://www.proteinatlas.org/; http://kmplot.com/analysis/; http://string-db.org/; https://www.cancer.gov/tcga/ Detailed information was provided in the section of "Methods".	
If code is publicly available, provide accession number in repository, or DOI or URL.	https://cran.r-project.org/web/packages/survival/index.html/; https://cran.r-project.org/web/packages/corrplot/index.html/ Detailed information was provided in the section of "Methods".	

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.	We present the following article in accordance with the Materials Design Analysis Reporting (MDAR) reporting checklist.	
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.	

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