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 (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Antibodies were not included in this research.	n/a

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	Cell lines were not included in this research.	n/a
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	Primary cultures were not included in this research.	n/a

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	Animals were not included in this research.	n/a
Animal observed in or captured from the field: Provide species, sex and age where possible	Animals were not included in this research.	n/a
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	Animals were not included in this research.	n/a

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)	Plants were not included in this research.	n/a
Microbes: provide species and strain, unique accession number if available, and source	Microbes were not included in this research.	n/a

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.	The study was approved by the local ethics committee of Beijing Children's Hospital of Capital Medical University (No. 2016-91). Details are presented on Page 6, Lines 126-129. Section 2.1. Paragraph 1.	
Provide statement confirming informed consent obtained from study participants.	The informed consent was obtained from all patients in this research.	
Report on age and sex for all study participants.	A total of 20 subjects were included in the DDA experiment, including 5 for each symptom group and 5 for the healthy control group. A total of 39 subjects were included in the DIA experiment, including 11 children with WH syndrome, 10 children with DP syndrome, 9 children with SD syndrome and 9 healthy controls. Details are presented on Table S1 and on Page 11, Lines 257-261. Section 3.1. Paragraph 1.	

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	Clinical trials were not included in this research.	n/a

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	The step-by-step protocols mainly include the urine sample preparation and LC-MS/MS analysis. Details are presented on Page 7-8, Lines 147-186. Section 2.3,2.4.	

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	No statistical methods were used to predetermine sample sizes. Required experimental sample sizes were estimated based on previous established protocols in the field. The sample sizes were adequate as the differences between experimental groups were reproducible.	
Randomisation	Randomisation was used for LC-MS/MS analysis between different subtypes of AHSP and healthy controls.	
Blinding	Blinding was not possible as the author who performed the experiments also analyzed the data. However, the person who collected urine specimen and analyzed data were not the same person.	
Inclusion/exclusion criteria	Patients with hematuria, severe proteinuria, and other diseases were excluded. Details are presented on Page 6, Lines 119-120 and 124-126. Section 2.1. Paragraph 1.	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	For DIA analysis, the pooled sample was used as the technical replicates. For DDA analysis, each sample was analyzed twice as technical replicates. Details are presented on Page 8, Lines 185-186. Section 2.4. Paragraph 3.	
Define whether data describe technical or biological replicates	Data in this research describe both technical and biological replicates. For DDA analysis, details are presented on Page11. Lines 257-258. For DIA analysis, details are presented on Page11, Lines 258-261.	

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.	The study was approved by the local ethics committee of Beijing Children's Hospital of Capital Medical University (No. 2016-91). Details are presented on Page 6, Lines 126-129.	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	We do not use animals in this research.	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.	Urine samples were included in this research. The study was approved by the local ethics committee of Beijing Children's Hospital of Capital Medical University (No. 2016-91). Details are presented on Page 6, Lines 126-129.	

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	This research was not subjected to dual use research of concern.	n/a

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.	For later analysis, we required the proteins to be removed if the coefficient of variation (CV) in mixed samples were more than 30% or the missing values were present in more than 12 samples. Details are presented on Page 10, Lines 216-219.	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	For comparisons between two groups, unpaired t-tests were used. For comparisons between more than two groups, ANOVA followed by a LSD post hoc test was used. Differences were considered significant when $P < 0.05$. Details are presented on Page 10, Lines 223-226.	

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.	All datasets and protocols were presented in the manuscript.	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	All raw files are available with the request to the corresponding author in peer-review stage. All raw data are publicly available in the iProx database (www.iprox.org) after this research is published.	n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where	The publicly available data were not included in this research.	n/a

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.	The Proteome Discoverer (Version 2.1, Thermo, USA) software and Spectronaut Pulsar X (Biognosys AG, Switzerland) software were included in this research. As these software are commercially available, the code is not available in this research.	n/a
If code is publicly available, provide accession number in repository, or DOI or URL.	The code or software was not included in this research.	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.		
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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