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.oio/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: page no/section/legend)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available	Yes, 1 antibody detected, 1 RRID provided RRID:AB_10763546 : anti-BrdU Please add identifiers for all resources where possible	

Cell Materials	Yes (indicate where provided: page no/section/legend)	n/a
Cell lines: Provide species information, strain. Provide accession number in repository OR supplier name, catalog number, clone number, OR RRID	Yes, 3 cell lines detected, 3 RRIDs provided RRID:CVCL_8194 : The EPLC-65 cell RRID:CVCL_0045 : HEK293 RRID:CVCL_0470 : N2a Please add identifiers for all resources where possible	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	Not currently checked by SciScore	

Experimental Animals	Yes (indicate where provided: page no/section/legend)	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	Yes, 1 organism detected, 1 RRID provided RRID:BDSC_51324 : w1118; vas-Cas9 Please add identifiers for all resources where possible	
Animal observed in or captured from the field: Provide species, sex and age where possible	Not currently checked by SciScore	
Model organisms: Provide Accession number in repository (where relevant) OR RRID	See laboratory animals section for information.	

Plants and microbes	Yes (indicate where provided: page no/section/legend)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	Not currently checked by SciScore	
Microbes: provide species and strain, unique accession number if available, and source	Not currently checked by SciScore	

Human research participants	Yes (indicate where provided: page no/section/legend)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The study (IRB ID#201104109) was approved by the Washington University Institutional Review Board Committee, and was carried out in accordance with the principles expressed in the Declaration of Helsinki.	
Provide statement confirming informed consent obtained from study participants.	Patients gave the written informed consent, and their records were de-identified prior to the analysis.	
Report on age and sex for all study participants.	**Age:**Their age varied from 19 to 47 years (mean 26.3 , ssd 6.4) and length of relationship from 4 months to 23 years (mean 3.7, ssd 4.4). **Sex:**All females were of reproductive age and none were on progestin.	

Design

Study protocol	Yes (indicate where provided: page no/section/legend)	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.	NCT04371575	

Laboratory protocol	Yes (indicate where provided: page no/section/legend)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Not detected.	

Experimental study design (statistics details)	Yes (indicate where provided: page no/section/legend)	n/a
State whether and how the following have been done, or if they were not carried out		
Sample size determination	To determine the sample size of animal experiments, we used power analysis assuming the (difference in means)/(standard deviation) is >2.5.	
Randomization	Enrolled subjects on continuous suppressive ART were randomized to receive either mesalamine or matching placebo for 12 weeks, followed by a 12 week crossover period on the alternative arm.	
Blinding	Subjects, coordinators, clinicians, and laboratory personnel were blinded to treatment assignment.	
inclusion/exclusion criteria	Subjects were eligible for the cross-sectional study if they were fluent in English and had a sexual partner (SP) in the previous 18 months and ineligible if they were post-menopausal or had undergone a sex change.	

Sample definition and in-laboratory replication	Yes (indicate where provided: page no/section/legend)	n/a
State number of times the experiment was replicated in laboratory	Bioassays were replicated three times.	
Define whether data describe technical or biological replicates	Not detected.	

Ethics	Yes (indicate where provided: page no/section/legend)	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 (IRB ID#201104109) was approved by the Washington University Institutional Review Board Committee, and was carried out in accordance with the principles expressed in the Declaration of Helsinki.	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The Ohio State University Institutional Animal Care and Use Committee (IACUC) specifically approved 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.	Permission to conduct field surveys on each location was given by the individual landowners concerned, and by the regulatory authority (Natural England) in those situations where the field site was afforded protected status (i.e. Site of Special Scientific Interest).	

Dual Use Research of Concern (DURC)	Yes (indicate where provided: page no/section/legend)	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 currently checked by SciScore	

Analysis

Attrition	Yes (indicate where provided: page no/section/legend)	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.	Of these, 21 ticks could not be removed from the birds and 162 ticks were lost due to technical problems during nucleic acid extraction, resulting in 1,150 ticks available for analysis.	

Statistics	Yes (indicate where provided: page no/section/legend)	n/a
Describe statistical tests used and justify choice of tests.	Normally distributed data were analyzed using unpaired two-sided t-tests (two groups), ordinary one-way ANOVA with Tukey post hoc analysis for multiple comparisons (≥3 groups), or ordinary two-way ANOVA and Tukey post hoc for multiple comparisons (two variables) and is shown as mean ± sem.	

Data availability	Yes (indicate where provided: page no/section/legend)	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Sequencing data is available upon request to the corresponding author.	
If data are publicly available, provide accession number in repository or DOI or URL.	The RNA sequencing reads have been deposited in the Gene Expression Omnibus (GEO) Sequence Read Archive of the National Center for Biotechnology Information (GSE1463966) for experiments performed at 25 °C. Experiments performed at 37 °C, previously published, reads were already deposited in GEO (GSE105133).	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Not detected.	

Code availability	Yes (indicate where provided: page no/section/legend)	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 detected.	
If code is publicly available, provide accession number in repository, or DOI or URL.	Coding sequences of all ortholog alignments were concatenated to create a single multiple sequence alignment (https://github.com/nylander/catfasta2phyml). All other scripts are available at https://github.com/plissonf/ML-guided-discovery-and-design-of-non-hemolytic.	

Analysis

Adherence to community standards	Yes (indicate where provided: page no/section/legend)	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.	Not currently checked by SciScore	