Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our Editorial Policies and the Editorial Policy Checklist.

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a | Confirmed
---|---
☑ | The exact sample size \( n \) for each experimental group/condition, given as a discrete number and unit of measurement
☑ | A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☑ | The statistical test(s) used AND whether they are one- or two-sided
☐ | Only common tests should be described solely by name; describe more complex techniques in the Methods section.
☐ | A description of all covariates tested
☐ | A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐ | A full description of the statistical parameters including central tendency (e.g., means) or other basic estimates (e.g., regression coefficient) AND variation (e.g., standard deviation) or associated estimates of uncertainty (e.g., confidence intervals)
☐ | For null hypothesis testing, the test statistic (e.g., \( F, t, r \)) with confidence intervals, effect sizes, degrees of freedom and \( P \) value noted
☐ | Give \( P \) values as exact values whenever suitable.
☑ | For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☐ | For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☐ | Estimates of effect sizes (e.g. Cohen’s \( d \), Pearson’s \( r \)), indicating how they were calculated

Our web collection on [statistics for biologists](https://nature.com/natureportfolio/) contains articles on many of the points above.

Software and code

Policy information about availability of computer code

| Data collection | Data analysis |
|-----------------|---------------|
| NCBI, Netprimer | GraphPad Prism V8.3, Cytoscape V3.8 (CiteGo, Citepedia) |

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio guidelines for submitting code & software for further information.

Data

Policy information about availability of data

All manuscripts must include a data availability statement. This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our policy

The RNA seq raw data has been submitted to NCBI, sequence read archive under the bioproject accession number PRJNA 672226
Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

Life sciences [ ] Behavioural & social sciences [ ] Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/re-reporting-summary-flat.pdf

Life sciences study design

All studies must disclose on these points even when the disclosure is negative.

Sample size: Sample size calculation was not performed. We selected the minimum number of bacteriological isolates that could be used for statistical analysis for bacteriocidal experiments.

Data exclusions: Data was not excluded.

Replication: All bacteriological experiments were performed in three biological replicates and repeated twice. The transcriptomics experiment was performed with three biological replicates.

Randomization: Same bacterial isolates were used in each experiment.

Blinding: Describe whether the investigators were blinded to group allocation during data collection and/or analysis. If blinding was not possible, describe why or explain why blinding was not relevant to your study.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

| Materials & experimental systems | Methods |
|---------------------------------|---------|
| n/a                             | n/a     |
| ☑ Antibodies                    | ☑ ChIP-seq |
| ☑ Eukaryotic cell lines         | ☑ Flow cytometry |
| ☑ Paleontology and archaeology  | ☑ MRI-based neuroimaging |
| ☑ Animals and other organisms   |         |
| ☑ Human research participants   |         |
| ☑ Clinical data                 |         |
| ☑ Dual use research of concern  |         |

Animals and other organisms

Policy information about studies involving animals: ARRIVE guidelines recommended for reporting animal research

Laboratory animals: Not used

Wild animals: Not used

Field-collected samples: All the campylobacter isolates were isolated from chicken meat samples collected from the meat processing plants.

Ethics oversight: None required as no animal work or human trial was performed.

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Completed by:

Kapil Choudhary

21/6/21