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Reporting Summary

Nature Research 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 Research 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 contains articles on many of the points above.

Software and code

Policy information about availability of computer code

Data collection	n/a
Data analysis	n/a

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 Research 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 list of figures that have associated raw data
- A description of any restrictions on data availability

Data availability: Data presented in this protocol (dataset for Figures 3 and 4) are available in the supporting primary research articles (refs. 26, and 27), and raw data are available from the corresponding author upon request

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/nr-reporting-summary-flat.pdf

Life sciences study design

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

Sample size	n/a as No new data were generated in this Protocol. Examples from previous studies were shown (Fig.3 and 4, Refs. 26, 27)
Data exclusions	n/a as No new data were generated in this Protocol. Examples from previous studies were shown (Fig.3 and 4, Refs. 26, 27)
Replication	n/a as No new data were generated in this Protocol. Examples from previous studies were shown (Fig.3 and 4, Refs. 26, 27)
Randomization	n/a
Blinding	n/a

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

n/a	Involved in the study
☐	☒ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☐	☒ Human research participants
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging

Antibodies

Antibodies used	Enzyme-linked immunosorbent assay (ELISA) kits for MCP-1 and IL-1β (eBioscience Inc., San Diego, CA). CCL2 (MCP-1) Monoclonal Antibody (2H5), Functional Grade (Cat NO:16-7096-81) CCL2 (MCP-1) Monoclonal Antibody (2H5), Biotin (Cat NO: 13-7096-85) IL-1 beta Monoclonal Antibody (CRM56) (Cat NO: 14-7018-81) IL-1 beta Monoclonal Antibody (CRM57), Biotin (Cat NO: 13-7016-85)
Validation	Antibodies for these aforementioned cytokines are have been reported for use in ELISA, intracellular staining for flow cytometric analysis, and cytokine neutralization etc.

Human research participants

Policy information about studies involving human research participants

Population characteristics	Generally, in all our experiments, including data presented in Fig. 4, related to human research, blood samples are collected from healthy volunteers, who are free from any diseases and/or allergies. Volunteers are either males or females, aged between 21-65 years, with BMI approximately 20–35 kg/m2. All participants were from the laboratory or the University. We exclude all volunteers with seasonal allergies, smokers, substance abusers, or if they are under stress or expressed any signs of abnormalities. Women are also excluded if they were pregnant or breastfeeding.
Recruitment	Healthy volunteers were recruited, and blood was collected following the University of British Columbia ethics certification and guidelines, as mentioned in the original articles. We had also included a statement in this Protocol to emphasize on the human research ethics.

Ethics oversight	University of British Columbia Human Research Ethics committee. In addition, all participants had provided written consents.

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