

MANUSCRIPT CHECKLIST

	Yes	N/A
TITLE		
No more than 15 words	✓	
Does not contain punctuation	✓	
AUTHORS		
Full postal address for all authors is provided	✓	
One e-mail address for correspondence is provided	✓	
Maximum of three equally contributing authors (further contributions can be outlined in the author contribution statement)	✓	
ABSTRACT		
No more than 150 words	✓	
Does not contain references	✓	
Results of the current study are written in present tense	✓	
Starts with short description of background (2-3 sentences)	✓	
Continues with presentation of the major results ('Here we show' or similar)	✓	
Ends with a description of the paper's conclusion	✓	
MAIN TEXT		
No more than 4000 words in total (Introduction, Results, Discussion)	✓	
Section order is: Title, Abstract, Introduction, Results, Discussion, Methods, References, End Notes, Figure legends, Tables	✓	
Main text is provided as a Word or Tex document	✓	
Abbreviations are defined at first use	✓	
Genes and genotypes are italicized		✓
Mathematical equations: Variables and scalars are displayed in italics, vectors in boldface; Subscripts are displayed in normal font (unless they are variables)	✓	
Introduction		
Less than 1000 words	✓	
Contains no subheadings	✓	
Introduces the background and rationale for work	✓	
The last paragraph contains a brief summary of both the results and the conclusions (written in present tense)	✓	
Contains no reference to display items (unless overview figures are presented)	✓	
Results		
Divided by subheadings less than 60 characters (incl spaces) that do not contain punctuation	✓	
All data are shown either in the main text or the supplement	✓	
If personal communication from another laboratory is cited, written permission is provided		✓
Reference to Supplementary items format is (Supplementary Fig. S1), (Supplementary Table S1), (Supplementary Note 1), (Supplementary Data 1), (Supplementary Movie 1)	✓	

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	Yes	N/A
Discussion		
Does not contains subheadings	✓	
Does not contain overlap with results section	✓	
METHODS		
No more than 1500 words	✓	
Methods are contained within main paper wherever possible		
Divided by subheadings less than 60 characters (incl spaces) that do not contain punctuation	✓	
Contain sufficient detail to repeat experiments (avoid 'as previously described')	✓	
For experiments involving live vertebrates and higher invertebrates, a statement of compliance with ethical regulations is provided and the committee approving the experiments is identified		✓
Species, strain, sex and age of animals used is reported. We recommend following the ARRIVE reporting guidelines when documenting animal studies		✓
For experiments involving human subjects, a statement confirming that informed consent was obtained from all subjects must be provided and the committee approving the study protocol identified		✓
New species name has been deposited in Zoobank and LSIDs are provided		✓
Taxonomic description for new species has been provided		✓
Microarray data are in MIAME format and accession numbers are provided		✓
Primer sequences are provided		✓
Small RNA sequences are provided		✓
Antibody sources and dilutions are listed		✓
Source of cell lines is identified		✓
REFERENCES		
No more than 60		
Numbered in the order they appear in the text, tables, figures and boxes	✓	
Formatted in Nature Communications style: 'Authors, Title, Journal, Volume, First-last page, (year)'	✓	
References to web-only journals include: 'Authors, Title, Journal, url/doi and year of publication		✓
References to websites include: 'Authors (if known), Title of page, url and year of publication		✓
Contains only published work or work in press	✓	
Does not contain footnotes	✓	
END NOTES		
Acknowledgements are brief	✓	
Author contributions statement is provided	✓	
Conflict of interest statement is provided	✓	
Accession codes of newly sequenced genes, coordinates of novel protein structures and/or datasets are included and repository defined		✓
New chemical structures have been deposited in CCDC and accession codes are provided		✓

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LEGENDS		
Contain a brief title	✓	
No more than 350 words each	✓	
Every panel is described	✓	
Length of scale bars is defined	✓	
Definitions for new abbreviations / symbols / colours is provided	✓	
The exact sample size (n) for each experimental group/condition is given	✓	
A statement of how many times the experiment was replicated is provided	✓	
The name of the statistical test used is provided	✓	
The statistical test results is provided (e.g. P-values)	✓	
Error bars are defined as s.d. or s.e.m.	✓	
DISPLAY ITEMS		
No more than 8 total	✓	
Fit within a column/page (including legend)	✓	
Numbered in the order they appear in the main text	✓	
Figures		
Figures do not contain tables	✓	
Figure panels are arranged into a rectangular shape	✓	
Each panel is labelled	✓	
Panels are not subdivided	✓	
Figure width is either 1 column (85mm) or two columns (180mm)	✓	
Scale bars are included (but not labelled within the figure)		✓
Blots and gels contain molecular weight or size markers		✓
Axes are labelled, including units	✓	
Stereo figures sufficient width apart (equivalent points separated by 5.5cm)	✓	
If possible, avoid the use of red and green in figures to avoid confusion for colour-blind readers (magenta and turquoise are alternatives)	✓	
Tables		
Include a title (no punctuation)		✓
Tables are editable (not embedded as a picture in the document)		✓
If table legend is required, it is displayed underneath the table		✓
SUPPLEMENTARY INFORMATION		
Provided as a single Word file (except for Movies, Audio and Data)		✓
Supplementary files are less than 30 MB	✓	
Supplementary items are labelled and sections are displayed in the order: Supplementary Figure S1 / Supplementary Table S1 / Supplementary Note 1 / Supplementary Discussion / Supplementary Methods / Supplementary References	✓	
Each Supplementary item is cited in the main text and in the correct order	✓	
Figure legends are displayed underneath each figure; ideally, each display item and its corresponding legend fit on one page		✓

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SUPPLEMENTARY INFORMATION (continued)		
Format of the legends is the same as in the main manuscript (please see section above)	✓	
Movie legends are provided in the cover letter		✓
Supplementary Reference numbering continues from main text, and reference list contains no duplication with the main text		✓
Where portions of blots and gels have been presented in the main paper, the full blot or gel are included in the Supplementary Information		✓
Supplementary Information does not contain essential display items (these should be displayed in the main text)	✓	
Supplementary Information does not contain Results	✓	
NMR standard table for structural refinement statistics has been used (http://www.nature.com/ncb/pdf/nsmb_tables_nmr_f.pdf)		✓
X-ray standard table for structural refinement statistics has been used (please see http://www.nature.com/ncb/pdf/nsmb_tables_xray_f.pdf)		✓
Stereo image of a portion of the electron density map (X-ray structures) or of the superimposed lowest energy structures (>10; NMR papers) is provided		✓
Chemical structures are drawn using a Nature Chemistry Chemdraw template (please see http://www.nature.com/nchem/authors/submit/nchemstyleguide.pdf)		✓
Full chemical characterization (including ¹ H NMR, ¹³ C NMR and mass spectrometry data) is provided for novel small molecules		✓