

MANUSCRIPT CHECKLIST

|   | Yes | N/A |
|---|-----|-----|
| <b>TITLE</b>  | X   |     |
| No more than 15 words   | X   |     |
| Does not contain punctuation  |     |     |
|   |     |     |
| <b>AUTHORS</b>  |     |     |
| Full postal address for all authors is provided   | X   |     |
| One e-mail address for correspondence is provided   | X   |     |
| Maximum of three equally contributing authors (further contributions can be outlined in the author contribution statement)  | X   |     |
|   |     |     |
| <b>ABSTRACT</b>   |     |     |
| No more than 150 words  | X   |     |
| Does not contain references   | X   |     |
| Results of the current study are written in present tense   | X   |     |
| Starts with short description of background (2-3 sentences)   | X   |     |
| Continues with presentation of the major results ('Here we show' or similar)  | X   |     |
| Ends with a description of the paper's conclusion   | X   |     |
|   |     |     |
| <b>MAIN TEXT</b>  |     |     |
| No more than 5000 words in total (Introduction, Results, Discussion)  | X   |     |
| Section order is: Title, Abstract, Introduction, Results, Discussion, Methods, References, End Notes, Figure legends, Tables  | X   |     |
| Main text is provided as a Word or Tex document   | X   |     |
| Abbreviations are defined at first use  | X   |     |
| Genes and genotypes are italicized  | X   |     |
| Mathematics: Scalar variables and constants should be italic, vectors should be bold without italics, subscripts and superscripts are displayed in non-italic font unless they are variables. Unit dimensions should be expressed using negative integers (e.g. $\text{kg m}^{-1} \text{s}^{-2}$ not $\text{kg/ms}^2$ ) or the word 'per' |     | X   |
|   |     |     |
| <b>Introduction</b>   |     |     |
| Less than 1000 words  | X   |     |
| Contains no subheadings   | X   |     |
| Introduces the background and rationale for work  | X   |     |
| The last paragraph contains a brief summary of both the results and the conclusions (written in present tense)  | X   |     |
| Contains no reference to display items (unless overview figures are presented)  | X   |     |
|   |     |     |
| <b>Results</b>  |     |     |
| Divided by subheadings less than 60 characters (incl spaces) that do not contain punctuation  | X   |     |
| All data are shown either in the main text or the Supplementary Information   | X   |     |
| If personal communication from another laboratory is cited, written permission is provided  |     | X   |
| Reference to Supplementary items format is (Supplementary Fig. 1), (Supplementary Table 1), (Supplementary Note 1), (Supplementary Data 1), (Supplementary Movie 1)   | X   |     |

**MANUSCRIPT CHECKLIST**

|  | Yes | N/A |
|--|-----|-----|
| <b>Discussion</b>  |     |     |
| Does not contains subheadings  | X   |     |
| Does not contain overlap with Results section  | X   |     |
| <b>METHODS</b>   |     |     |
| No more than 3000 words  | X   |     |
| Methods are contained within main paper wherever possible  | X   |     |
| Divided by subheadings less than 60 characters (incl spaces) that do not contain punctuation   | X   |     |
| Contain sufficient detail to repeat experiments (avoid 'as previously described')  | X   |     |
| 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    | X   |     |
| Species, strain, sex and age of animals used is reported. We recommend following the ARRIVE reporting guidelines when documenting animal studies   | X   |     |
| 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 | X   |     |
| A statement describing how the sample size was chosen is provided  | X   |     |
| A statement outlining sample exclusion criteria is provided  | X   |     |
| Randomization and/or blinding strategy is described  | X   |     |
| New species name has been deposited in Zoobank and LSIDs are provided  |     | X   |
| Taxonomic description for new species has been provided  |     | X   |
| Microarray data are in MIAME format and accession numbers are provided   |     | X   |
| Primer sequences are provided  | X   |     |
| Small RNA sequences are provided   |     | X   |
| Antibody sources and dilutions are listed  | X   |     |
| Source of cell lines is identified   | X   |     |
| <b>REFERENCES</b>  |     |     |
| No more than 70  | X   |     |
| Numbered in the order they appear in the text, tables, figures and boxes   | X   |     |
| Formatted in Nature Communications style: 'Authors, Title, Journal, Volume, First-last page or article number, (year)'   | X   |     |
| References to web-only journals include: 'Authors, Title, Journal, url/doi and year of publication'  |     | X   |
| References to websites include: 'Authors (if known), Title of page, url and year of publication'   |     | X   |
| References to preprint servers should be formatted as 'Authors. Preprint title. Preprint at <a href="http://arxiv.org/abs/">http://arxiv.org/abs/</a> YYMM.NNNN (Year)'                          |     | X   |
| Contains only published work or work in press (including doi)  | X   |     |
| Does not contain footnotes   | X   |     |

**MANUSCRIPT CHECKLIST**

|   | Yes          | N/A |
|---|--------------|-----|
| <b>END NOTES</b>  | <del>X</del> |     |
| Acknowledgements are brief  | X            |     |
| Author contributions statement is provided  | X            |     |
| Conflict of interest statement is provided  | X            |     |
| Accession codes of newly sequenced genes, coordinates of novel protein structures and/or datasets are included and repository defined   |              | X   |
| New chemical structures have been deposited in CCDC and accession codes are provided  |              | X   |
|   |              |     |
| <b>LEGENDS</b>  |              |     |
| Contain a brief title   | X            |     |
| No more than 350 words each   | X            |     |
| Every panel is described  | X            |     |
| Length of scale bars is defined   | X            |     |
| Definitions for new abbreviations / symbols / colours is provided   | X            |     |
| The exact sample size (n) for each experimental group/condition is given  | X            |     |
| A statement of how many times the experiment was replicated is provided   | X            |     |
| The name of the statistical test used is provided   | X            |     |
| The statistical test results is provided (e.g. P-values)  | X            |     |
| Error bars are defined as s.d. or s.e.m.  | X            |     |
| Fit curves to data points are described   | X            |     |
|   |              |     |
| <b>DISPLAY ITEMS</b>  |              |     |
| No more than 10 total   | X            |     |
| Fit within a column/page (including legend)   | X            |     |
| Numbered in the order they appear in the main text  | X            |     |
| Scalar variables and constants are in italics, vectors are in bold (incl. subscripts and superscripts).<br>Unit dimensions are expressed using negative integers (e.g. kg m <sup>-1</sup> s <sup>-2</sup> not kg/ms <sup>2</sup> ) or the word 'per'. |              | X   |
|   |              |     |
| <b>Figures</b>  |              |     |
| Figures do not contain tables   | X            |     |
| Figure panels are arranged into a rectangular shape   | X            |     |
| Each panel is labelled with a single letter   | X            |     |
| Panels are not subdivided   | X            |     |
| Figure width is either 1 column (85mm) or two columns (180mm)   |              |     |
| Scale bars are included (but not labelled within the figure)  | X            |     |
| Blots and gels contain molecular weight or size markers   | X            |     |
| Axes are labelled, including units  | X            |     |
| Stereo figures sufficient width apart (equivalent points separated by 5.5cm)  |              | X   |
| If possible, avoid the use of red and green in figures to avoid confusion for colour-blind readers (magenta and turquoise are alternatives)   | X            |     |
|   |              |     |
| <b>Tables</b>   |              |     |
| Include a title (no punctuation)  | X            |     |
| Tables are editable (not embedded as a picture in the document)   | X            |     |
| If table legend is required, it is displayed underneath the table   | X            |     |

**MANUSCRIPT CHECKLIST**

|  | Yes | N/A |
|--|-----|-----|
| <b>SUPPLEMENTARY INFORMATION</b>   |     |     |
| Provided as a single Word file (except for Movies, Audio and Data)   |     | X   |
| Supplementary files are less than 30 MB  | X   |     |
| Supplementary items are labelled and sections are displayed in the order: ,<br>Supplementary Figure 1 / Supplementary Table 1 / Supplementary Note 1 /<br>Supplementary Discussion / Supplementary Methods / Supplementary<br>References | X   |     |
| Supplementary Equations are numbered 1, 2, ...   | X   |     |
| Each Supplementary item is cited in the main text and in the correct order   | X   |     |
| Figure legends are displayed underneath each figure; ideally, each display item<br>and its corresponding legend fit on one page  | X   |     |
| Format of the legends is the same as in the main manuscript (please see<br>section above)  | X   |     |
| Movie legends are provided in the cover letter   |     | X   |
| Supplementary References are numbered sequentially from 1 and are self-<br>contained (they do not refer to the list of References in the main paper; any<br>such papers is duplicated in the list of Supplementary References)           | X   |     |
| Where portions of blots and gels have been presented in the main paper, the<br>full blot or gel are included in the Supplementary Information  | X   |     |
| Supplementary Information does not contain essential display items (these<br>should be displayed in the main text)   | X   |     |
| Supplementary Information does not contain Results   | X   |     |
| Supplementary Data files contain titles  | X   |     |
| NMR standard table for structural refinement statistics has been used<br>( <a href="http://www.nature.com/ncb/pdf/nsmb_tables_nmr_f.pdf">http://www.nature.com/ncb/pdf/nsmb_tables_nmr_f.pdf</a> )                                       |     | X   |
| X-ray standard table for structural refinement statistics has been used (please<br>see <a href="http://www.nature.com/ncb/pdf/nsmb_tables_xray_f.pdf">http://www.nature.com/ncb/pdf/nsmb_tables_xray_f.pdf</a> )                         |     | X   |
| Stereo image of a portion of the electron density map (X-ray structures) or of<br>the superimposed lowest energy structures (>10; NMR papers) is provided  |     | X   |
| Chemical structures are drawn using a Nature Chemistry Chemdraw template<br>(please see <a href="http://www.nature.com/nchem/authors/submit/nchemstyleguide.pdf">http://www.nature.com/nchem/authors/submit/nchemstyleguide.pdf</a> )    |     | X   |
| Full chemical characterization (including $^1\text{H}$ NMR, $^{13}\text{C}$ NMR and mass<br>spectrometry data) is provided for novel small molecules   |     | X   |