***eLife’s* transparent reporting form**

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**Sample-size estimation**

* You should state whether an appropriate sample size was computed when the study was being designed
* You should state the statistical method of sample size computation and any required assumptions
* If no explicit power analysis was used, you should describe how you decided what sample (replicate) size (number) to use

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn’t apply to your submission:

1. We indicate in the statistics section of materials and methods that no statistical method was used to pre-determine the sample size. No randomization or blinding was used for in vivo studies. The sample size was decided from experience of the techniques performed and practical considerations.

2. Every figure legend displays the exact n number and the statistical analyses used in this study. In addition, we provide a Table, Table 2, where Degrees of Freedom as well as F and t values are provided for each relevant figure.

**Replicates**

* You should report how often each experiment was performed
* You should include a definition of biological versus technical replication
* The data obtained should be provided and sufficient information should be provided to indicate the number of independent biological and/or technical replicates
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* Statistical analysis methods should be described and justified
* Raw data should be presented in figures whenever informative to do so (typically when N per group is less than 10)
* For each experiment, you should identify the statistical tests used, exact values of N, definitions of center, methods of multiple test correction, and dispersion and precision measures (e.g., mean, median, SD, SEM, confidence intervals; and, for the major substantive results, a measure of effect size (e.g., Pearson's r, Cohen's d)
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General information on data analysis are described in materials and methods section. Every figure legend has statistical information concerning the data representation, and details of tests. Furthermore, Table 2 describes the statistical test used, degrees of Freedom as well as F and t values for each relevant figure.

(For large datasets, or papers with a very large number of statistical tests, you may upload a single table file with tests, Ns, etc., with reference to sections in the manuscript.)

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* Indicate how samples were allocated into experimental groups (in the case of clinical studies, please specify allocation to treatment method); if randomization was used, please also state if restricted randomization was applied
* Indicate if masking was used during group allocation, data collection and/or data analysis

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No applicable.

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* Where provided, these should be in the most useful format, and they can be uploaded as “Source data” files linked to a main figure or table
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We provide source data for the following figures:

Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6, Figure 1-figure supplement 2, Figure 2-figure supplement 1, Figure 3-figure supplement 1, Figure 3-figure supplement 2, Figure 3-figure supplement 3, Figure 4-figure supplement 2, Figure 5-figure supplement 1 and Figure 6-figure supplement 1.