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# eLife's transparent reporting form

We encourage authors to provide detailed information within their submission to facilitate the interpretation and replication of experiments. Authors can upload supporting documentation to indicate the use of appropriate reporting guidelines for health-related research (see <a href="EQUATOR Network">EQUATOR Network</a>), life science research (see the <a href="BioSharing Information">BioSharing Information</a> <a href="Resource">Resource</a>), or the <a href="ARRIVE guidelines">ARRIVE guidelines</a> for reporting work involving animal research. Where applicable, authors should refer to any relevant reporting standards documents in this form.

If you have any questions, please consult our Journal Policies and/or contact us: editorial@elifesciences.org.

#### 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:

We routinely perform power analyses during experimental design, and base these on a rich data set of previously published data of similar experimental design. For this study, our power analysis is reported in the section titled "Methods and Materials: Data Analysis" in the manuscript. We often calculate a range of sample sizes to achieve a minimum power of 0.8 for our studies.

## **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
- If you encountered any outliers, you should describe how these were handled
- Criteria for exclusion/inclusion of data should be clearly stated
- High-throughput sequence data should be uploaded before submission, with a private link for reviewers provided (these are available from both GEO and ArrayExpress)

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:

Replicate numbers are provided for all experiments, and are reported in the Figure Legends and the Results section when significance values are reported. This is noted in the manuscript.



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#### **Statistical reporting**

- 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)
- Report exact p-values wherever possible alongside the summary statistics and 95% confidence intervals. These should be reported for all key questions and not only when the p-value is less than 0.05.

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:

Statistical methods are reported in the section titled "Methods and Materials: Data Analysis" of the manuscript, and the method used for analysis is cited for each result reported. Raw/representative data is presented in most figures, and overlaid on population data so the reader has full access to visualizing the data presented. P-values on figures are reported as exact P unless they are lower than P < 0.001.

(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.)

#### **Group allocation**

- 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

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:

Individual animals were randomized into experimental groups, but experimental group is defined by the pharmacological treatment of the preparation. There was no masking of experimental group, as the experiments required knowledge of treatment and concentration to be performed by the experimenter to know which combinations (and the timing) should be performed.

### Additional data files ("source data")

- We encourage you to upload relevant additional data files, such as numerical data that are represented as a graph in a figure, or as a summary table
- 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
- Include model definition files including the full list of parameters used
- Include code used for data analysis (e.g., R, MatLab)
- Avoid stating that data files are "available upon request"

Please indicate the figures or tables for which source data files have been provided:



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The Schulz Lab is in the process of establishing and beta-testing their own publicly accessible "lab wiki/data" web site for all source data for all of their publications — we are trying multiple platforms, including GitLab and others. We will post all numerical data on this website in time for publication of the manuscript if this goes forward at eLife. If this timing is held up by technical issues of hosting the site, we will upload the source data files to eLife directly.