***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
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* If no explicit power analysis was used, you should describe how you decided what sample (replicate) size (number) to use

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All experiments and treatments were carried out at least three times. As this study does not involve patients or animals, power analysis was not performed *a priori*.

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* You should report how often each experiment was performed
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* 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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* 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)

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* All error bars represent standard deviation (see individual figures).
* All raw data are explicitly provided in individual plots as discrete data points (see individual figures). Any data normalization procedures are explained in corresponding legends.
* No data has been excluded in individual experiments.
* All data are biological replicates; independent wells with independent cells. However, the virus used in the individual replicates are not always from different lots.
* Critical experiments (including viral preparations) have been independently carried out by more than one of the co-authors of this manuscript.
* Exposure time for all fluorescent micrographs is identical and all images have been treated identically using Zeiss Zen 2012 software. There are no changes to gamma settings and there are no non-linear adjustments in the final images.
* Plasmids developed in our laboratory will be deposited at Addgene (as stated in Methods).

**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.

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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
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This is a basic science study. All treatments were planned in advance of the study and data analysis methods were agreed upon by investigators prior to undertaking individual experiments. All data are presented, with no exclusions.

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