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

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* You should state whether an appropriate sample size was computed when the study was being designed
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N/A – our results and figures are obtained by averaging over a suitable number of simulations. The number of simulations used in each figure is stated in the figure captions and error bars indicate standard deviations.

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All of our results are based on simulations and analytical theory. The results can be replicated by following the simulation methods stated in the methods section of the paper. Source code for simulations is also provided.

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(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
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This information does not apply to our submission. Our work is based on simulations and analytical theory; we do not use experimental data.

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* Include model definition files including the full list of parameters used
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Please indicate the figures or tables for which source data files have been provided:

Source code is provided for simulations and for the generation of figures 3 through 6 and the appendix figure. Supplementary video files 1-3 correspond to the snapshots shown in Figure 2 and supplementary video files 4 and 5 correspond to snapshots shown in Figure 6 (A) and (B).