***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

Sample sizes indicate the number of independent biological replicates and can be found in the figure legends.

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* You should report how often each experiment was performed
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* Statistical analysis methods should be described and justified
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**Group allocation**

One tailed Fisher’s exact test is used where we made statistical claims. The information, as well as mean, SD or SEM, can be found in the figure legends.

In some of the analyses, samples were designated “1-budded” or “2-budded”, etc, according to the obvious outcomes of the cell cycles of interest. These information can be found in the results section.

Source code files for numerical simulations for all of our models are provided as source code files. Model definition and full parameter lists can be found in the methods section.

* 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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