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* You should state whether an appropriate sample size was computed when the study was being designed
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No Sample size data is applicable in study, however experiments were performed in biological replicates and indicated at appropriate places (in Figure legends).

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All relevant experiments used in study were performed with three or more biological replicates. The detailed information is provided in the Figure legends as well as methods section. Any high-throughput data was not used in the manuscript. The details of the software used in the study has been provided in the method section and/or in the appropriate Figure legends. New codes used for image analysis is available on GitHub: (https://github.com/sayan08/FynBS\_inStem).

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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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* 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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NO clinical study has been performed in the study.

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* Include model definition files including the full list of parameters used
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Source data files provided for Figure 1, Figure 3, Figure 4, Figure 5, Figure 6, Figure 7, Figure 8, Figure 9 and Figure 2-figure supplement 3, Figure 3-figure supplement 2, Figure 3-figure supplement 4, Figure 3-figure supplement 5, Figure 3-figure supplement 6, Figure 3-figure supplement 7, Figure 3-figure supplement 9, Figure 3-figure supplement 10, Figure 3-figure supplement 11, Figure 4-figure supplement 1, Figure 5-figure supplement 1, Figure 5-figure supplement 2, Figure 5-figure supplement 3, Figure 5-figure supplement 4, Figure 6-figure supplement 1, Figure 6-figure supplement 2, Figure 7-figure supplement 1, Figure 7-figure supplement 2, Figure 7-figure supplement 3, Figure 8-figure supplement 1

Matlab codes developed is available on GitHub (https://github.com/sayan08/FynBS\_inStem).