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* 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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Sample sizes for each experiment can be found in the description of the figure captions and in the Materials and Methods section

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* You should report how often each experiment was performed
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* 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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* Statistical analysis methods should be described and justified
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* 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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* Include model definition files including the full list of parameters used
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Data for Figures 4a, 4e, 4c, and 5i and Matlab software codes for particle tracking can be found in the public access online repository **https://gitlab-public.circ.rochester.edu/araghuna/bulk-flow-is-not-an-artifact\_raghunandan\_et\_al\_2021.git**