

Supplementary Information

Confined environments induce polarized paraspeckle condensates

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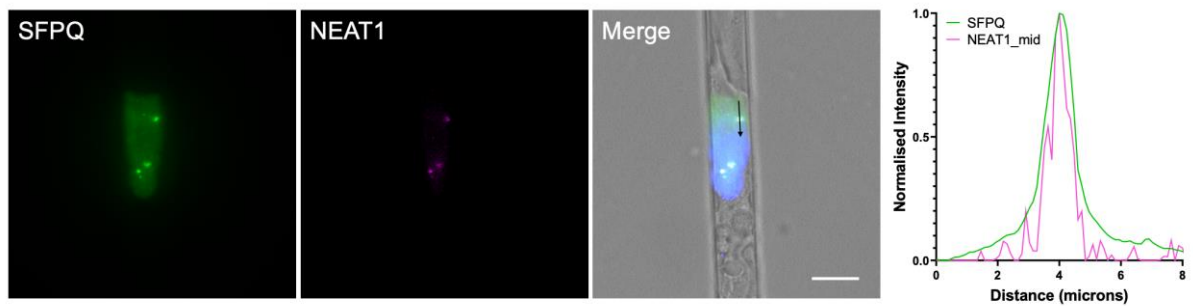
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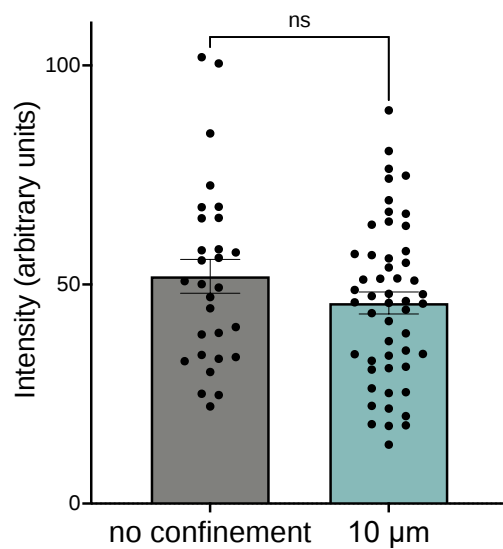
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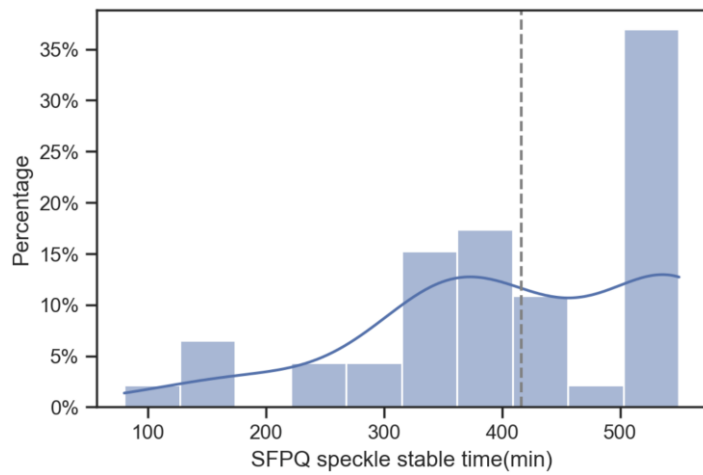
Supplementary Figures



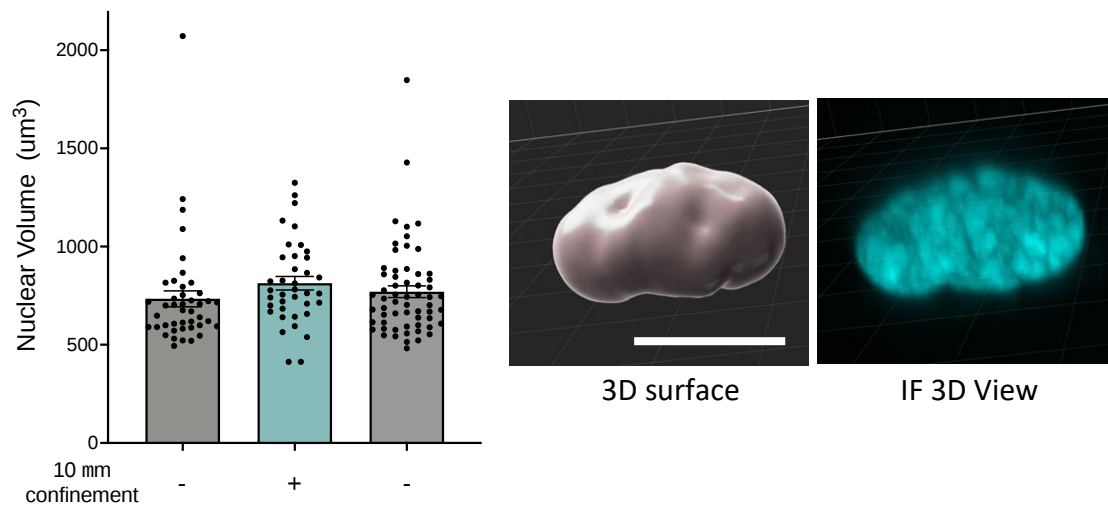
Supplementary Figure 1. NEAT1 FISH and SFPQ immunofluorescence colocalization. All scale bars = 10 μ m.



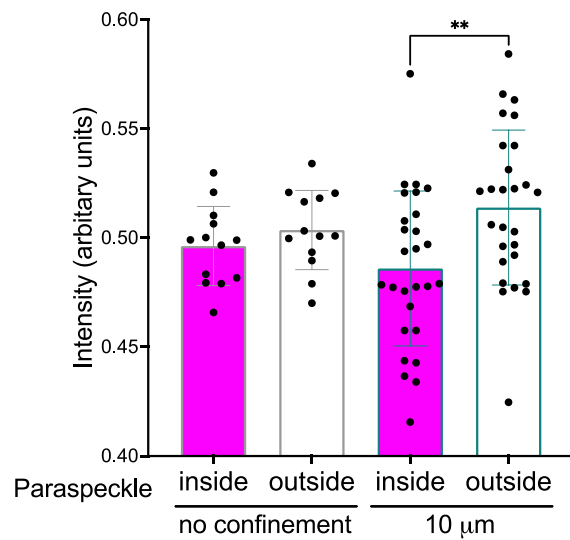
Supplementary Figure 2. NEAT1 FISH intensity under no confinement and 10 μ m confinement conditions. All data shown as mean $\pm$ SEM.



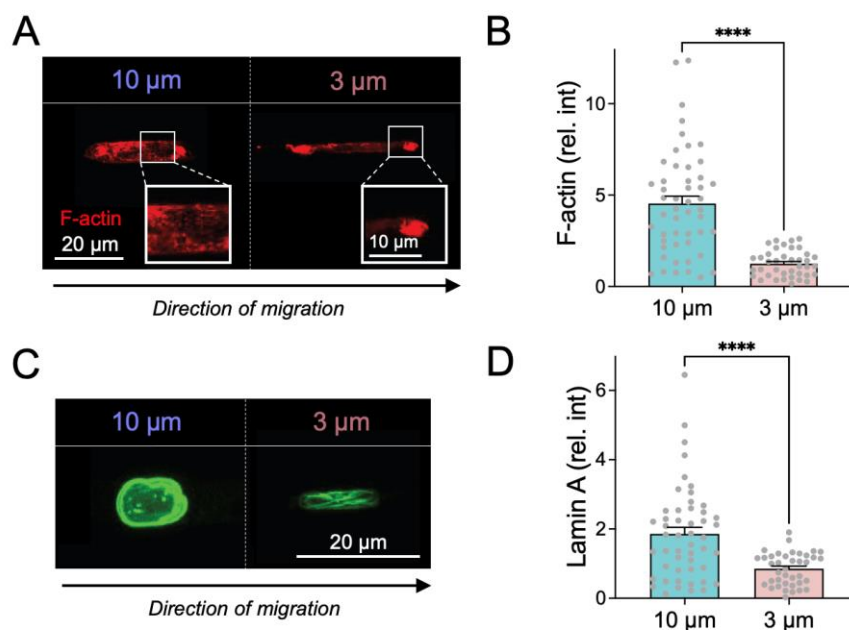
Supplementary Figure 3. Paraspeckle stability measured as a function of time. The majority of paraspeckle condensates are stable for periods of time longer than 5 hours, which is longer than the time cells spend in confinement.



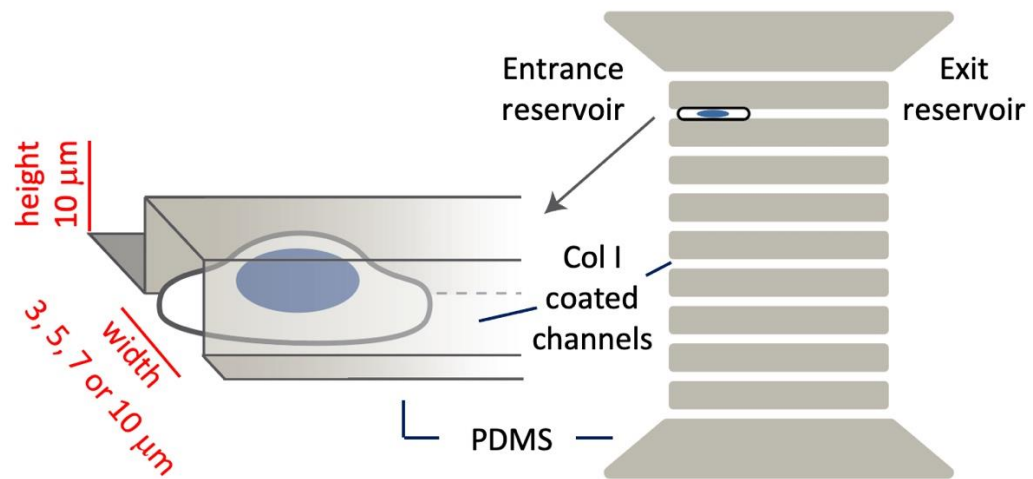
Supplementary Figure 4. Nuclear volume before, during, and after 10 μm confinement. All data shown as mean ± SEM. One-way ANOVA showed no differences. All scale bars = 10 μm.



Supplementary Figure 5. DAPI intensity inside and outside of paraspeckles. All data shown as mean $\pm$ SEM. One-way ANOVA showed significance only in inside vs. outside in 10 μ m confinement. ** $p=0.0089$



Supplementary Figure 6. Intensities of F-actin and Lamin-A in cells under 10 μ m and 3 μ m confinement. All data shown as mean $\pm$ SEM. Student's t-test with Mann-Whitney test showed significance 10 μ m vs. 3 μ m. **** $p<0.0001$.



Supplementary Figure 7. Schematic drawing of microchannel chips.