

**Supplementary material:** Influence of cell spreading and cell contractility on stiffness measurements using AFM

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## 1 Supplementary Figures

Cell Dimensions : Volume  $524\mu\text{m}^3$

Cell Spread $S$ ( $\mu\text{m}$ )	Cell Height $H$ ( $\mu\text{m}$ )
2	9.90
5	9.38
10	7.56
15	5.13
20	3.22

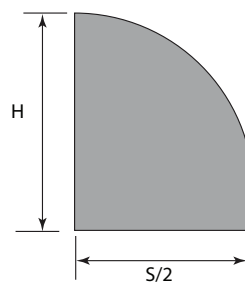


Fig. S1: Cell dimensions for different spread geometries subject to constant volume.

Nucleus Dimensions : Volume  $65.45\mu\text{m}^3$

Cell Spread $S$ ( $\mu\text{m}$ )	Location of nucleus centre $Y$ ( $\mu\text{m}$ )	Equilateral radius $r_1$ ( $\mu\text{m}$ )	Polar radius $r_2$ ( $\mu\text{m}$ )
2	4.95	2.5	2.5
5	4.69	2.5	2.5
10	3.78	2.5	2.5
15	2.56	2.75	2.07
20	1.61	3.39	1.36

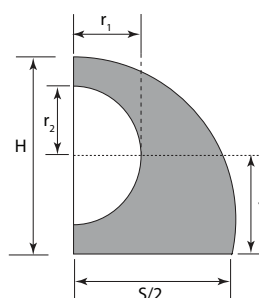


Fig. S2: Position and dimensions of the nucleus for different spread geometries subject to constant nuclear volume.

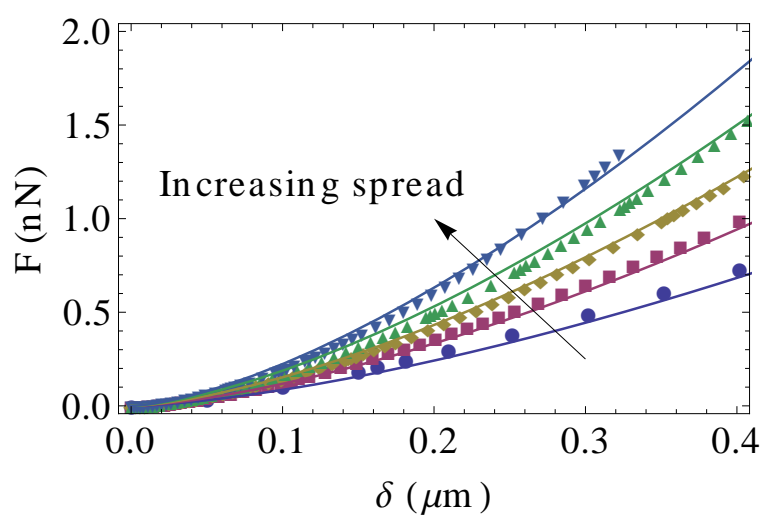


Fig. S3: Sample force displacement curves for various spread geometries and fitted with Hertz model.