

Table S1. Simulation of microtissue forces

	Cantilever stiffness, $k = 0.098 \mu\text{N}/\mu\text{m}$		Cantilever stiffness, $k = 0.397 \mu\text{N}/\mu\text{m}$	
	Experiments	Simulations	Experiments	Simulations
E=5 kPa (CD=1.0mg/ml)	$5.13 \pm 0.25 \mu\text{N}$	$4.10 \mu\text{N}$	$7.92 \pm 0.47 \mu\text{N}$	$8.30 \mu\text{N}$
E=25 kPa (CD=2.5mg/ml)	$5.77 \pm 0.31 \mu\text{N}$	$4.45 \mu\text{N}$	$10.25 \pm 0.44 \mu\text{N}$	$10.8 \mu\text{N}$

CD: Collagen Density, $\sigma_{max} = 250 \text{ kPa}$ for all cases, experimental measurements are \pm standard error on the mean