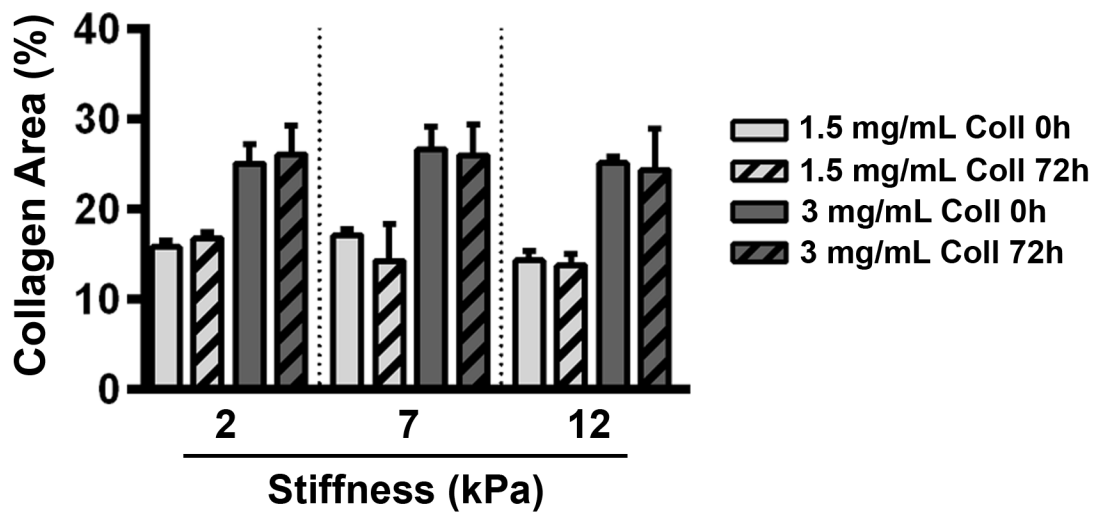
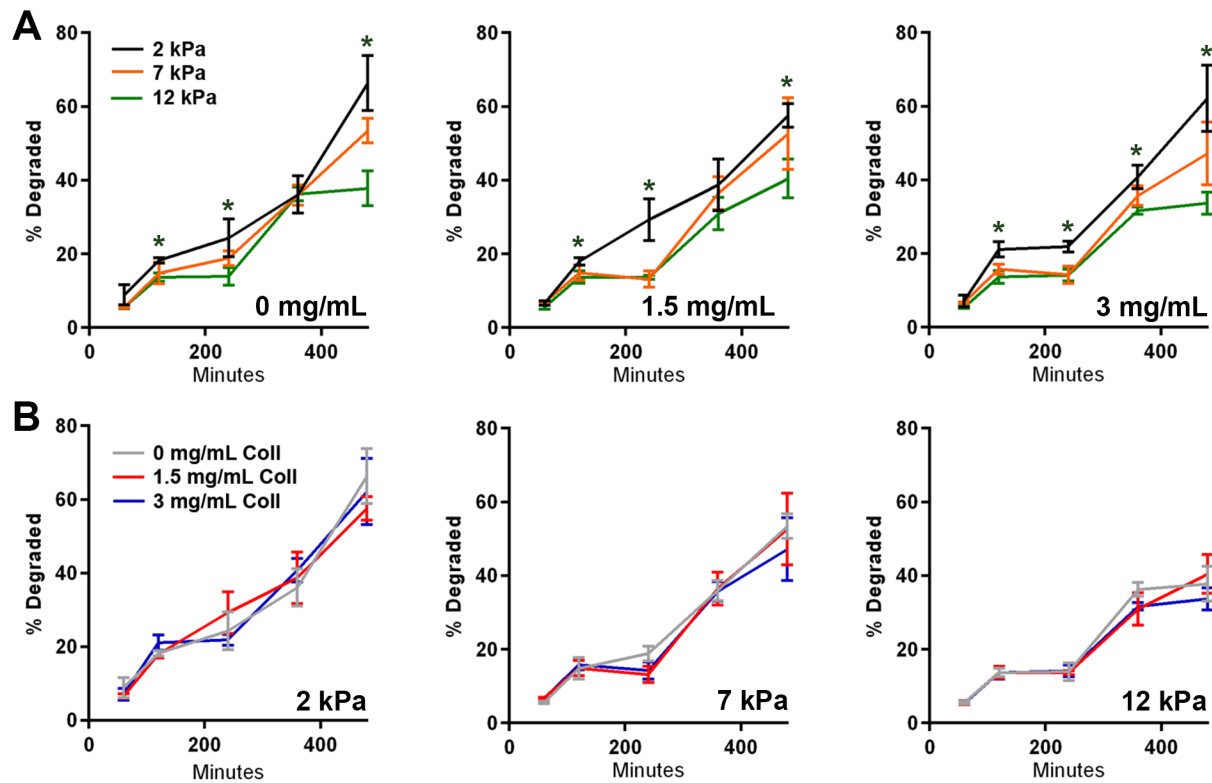


Supplementary Table 1: GelMA/Collagen Formulations

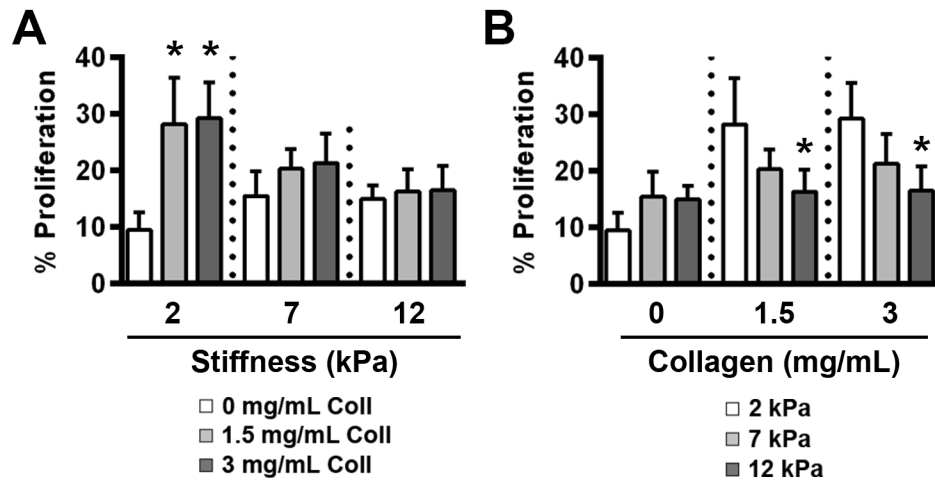
G' (kPa)	Final Collagen (mg/mL)	GelMA (20% w/v)	Gelatin (10 mg/mL) (μ L)	Collagen (10 mg/mL) (μ L)	10X PBS (μ L)	NaOH (0.1 M) (μ L)	LAP (1%) (μ L)	PBS (μ L)	Swelling Ratio
2	0	120 μ L 2.5M 240 μ L 0.25M	432	-	-	-	50	158	20.57 \pm 1.79
	1.5	375 μ L 0.25M	225	225	28	28	50	69	20.55 \pm 1.79
	3	375 μ L 0.25M	-	450	56	56	50	13	18.79 \pm 1.73
7	0	140 μ L 2.5M 210 μ L 0.25M	420	-	-	-	50	180	19.72 \pm 1.63
	1.5	88.8 μ L 2.5M 266 μ L 0.25M	213	213	26.5	26.5	50	116	18.76 \pm 1.86
	3	88.8 μ L 2.5M 266 μ L 0.25M	-	426	53	53	50	63	17.86 \pm 2.17
12	0	275 μ L 2.5M	330	-	-	-	50	345	20.18 \pm 2.09
	1.5	305 μ L 7M	183	183	23	23	50	233	19.81 \pm 2.32
	3	305 μ L 7M	-	366	46	46	50	187	18.09 \pm 1.22



Supplemental Figure 1: The collagen network in gelMA/coll hydrogels is stable and remains intact under experimental conditions. Incubation in DMEM medium at 37°C and 5% CO₂ for 72 hours did not change the percent area of CNA35-EGFP labelled collagen in any gelMA/coll formulation imaged ($p > 0.05$).



Supplemental Figure 2: Hydrogel degradation is affected by gelMA acrylation but not the addition of collagen. (A) Degradation of gelMA/coll hydrogels upon treatment with exogenous collagenase was more rapid in scaffolds with lower degrees of gelMA acrylation. * indicates significance ($p < 0.05$) between 2 kPa and 12 kPa conditions. (B) The addition of collagen at each stiffness had no effect on the rate of degradation within a given stiffness. $n=3$, data are mean with standard deviation.



Supplemental Figure 3: MDA-MB-231 proliferation increases with the addition of fibrous collagen. (A) The addition of collagen significantly increases proliferation in 2 kPa gelMA/coll gels. * indicates $p < 0.05$ when compared to 0 mg/mL coll at same stiffness, $n=8$, data are mean with standard deviation. (B) As stiffness increases for a given fiber density, proliferation decreases. * indicates $p < 0.05$ when compared to 2 kPa of same collagen concentration, $n=8$, data are mean with standard deviation.