

# Supplemental Materials

Molecular Biology of the Cell

Doolin *et al.*

*Supplemental Information for:*

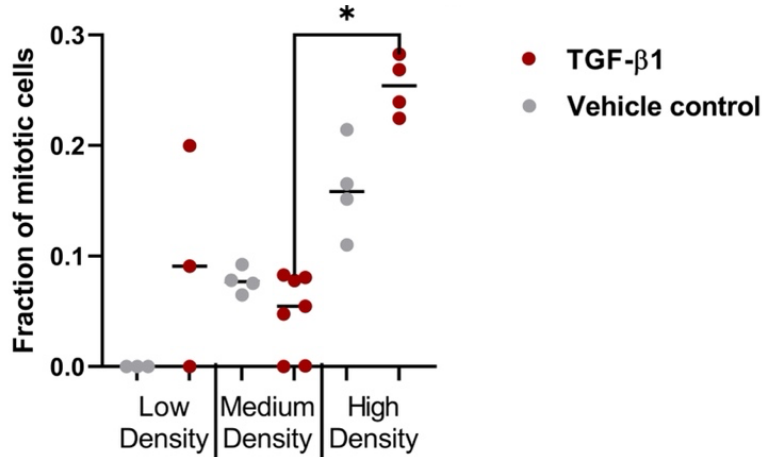
*Title:* Fibroblast to Myofibroblast Transition is Enhanced by Increased Cell Density

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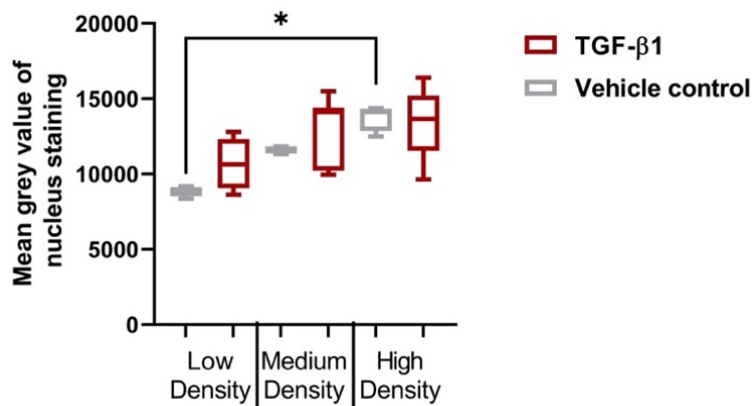
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## Supplemental Figures:

**Supplemental Figure S1.** Fraction of mitotic HLFs for conditions of varying cell density and TGF- $\beta$ 1 treatment. Images from experiments represented in Figure 5 of the main text were analyzed by counting the number of cells whose nuclei visually appeared mitotic and dividing by the total number of nuclei, to obtain the fraction of mitotic cells shown in this plot. Each dot represents the mitotic fraction of cells for each image, pooled from 3 independent experiments (\* indicates  $p < 0.05$ ).



**Supplemental Figure S2.** Mean gray value of nuclear Hoechst staining for HLFs under conditions of varying cell density and TGF- $\beta$ 1 treatment. Images from experiments represented in Figure 5 of the main text were analyzed by quantifying the Hoechst fluorescence intensity (in arbitrary units) in individual cell nuclei. Box and whisker plots are shown and represent nuclei pooled from 3 independent experiments (\* indicates  $p < 0.05$ ).



Supplemental Tables containing statistical comparisons:

**Supplemental Table 1. Statistical comparisons for mean nucleus area, accompanying Figure 5D.**

Note: \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$  via a Kruskal-Wallis test with Dunn's multiple comparisons test.

Comparisons	Control vs. TGF- $\beta$ 1	Comparisons	Control	TGF- $\beta$ 1
Low density	ns	Low vs. medium	**	*
Medium density	ns	Low vs. high	****	ns
High density	****	Medium vs. high	****	***

**Supplemental Table 2. Statistical comparisons for mean number of nuclei per image, accompanying Figure 9C**

Note: \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$  via a Kruskal-Wallis test with Dunn's multiple comparisons test.

Comparisons	Control vs TGF- $\beta$ 1	Comparisons	Control	TGF- $\beta$ 1
TCPS	ns	TCPS vs. PDMS	ns	ns
PDMS	ns	TCPS vs. 5 $\mu$ m	**	**
5 $\mu$ m	ns	TCPS vs. 10 $\mu$ m	ns	ns
10 $\mu$ m	ns	TCPS vs. 20 $\mu$ m	ns	*
20 $\mu$ m	ns	TCPS vs. 50 $\mu$ m	ns	**
50 $\mu$ m	ns	PDMS vs. 5 $\mu$ m	ns	ns
		PDMS vs. 10 $\mu$ m	ns	ns
		PDMS vs. 20 $\mu$ m	ns	ns
		PDMS vs. 50 $\mu$ m	ns	ns
		5 $\mu$ m vs. 10 $\mu$ m	ns	ns
		5 $\mu$ m vs. 20 $\mu$ m	ns	ns
		5 $\mu$ m vs. 50 $\mu$ m	ns	ns
		10 $\mu$ m vs 20 $\mu$ m	ns	ns
		10 $\mu$ m vs 50 $\mu$ m	ns	ns
		20 $\mu$ m vs 50 $\mu$ m	ns	ns

**Supplemental Table 3. Statistical comparisons for mean nucleus area, accompanying Figure 9D**

Note: \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$  via a Kruskal-Wallis test with Dunn's multiple comparisons test.

Comparisons	Control vs TGF- $\beta$ 1
TCPS	****
PDMS	****
5 $\mu$ m	ns
10 $\mu$ m	ns
20 $\mu$ m	*
50 $\mu$ m	ns

Comparisons	Control	TGF- $\beta$ 1
TCPS vs. PDMS	ns	ns
TCPS vs. 5 $\mu$ m	ns	****
TCPS vs. 10 $\mu$ m	****	****
TCPS vs. 20 $\mu$ m	ns	****
TCPS vs. 50 $\mu$ m	ns	****
PDMS vs. 5 $\mu$ m	ns	**
PDMS vs. 10 $\mu$ m	ns	****
PDMS vs. 20 $\mu$ m	*	****
PDMS vs. 50 $\mu$ m	*	****
5 $\mu$ m vs. 10 $\mu$ m	***	***
5 $\mu$ m vs. 20 $\mu$ m	ns	ns
5 $\mu$ m vs. 50 $\mu$ m	ns	****
10 $\mu$ m vs 20 $\mu$ m	****	ns
10 $\mu$ m vs 50 $\mu$ m	ns	ns
20 $\mu$ m vs 50 $\mu$ m	****	ns