Supplemental figures

Culturing of cardiac fibroblasts in Engineered Heart Matrix reduces myofibroblast differentiation but maintains their response to cyclic stretch and transforming growth factor β1

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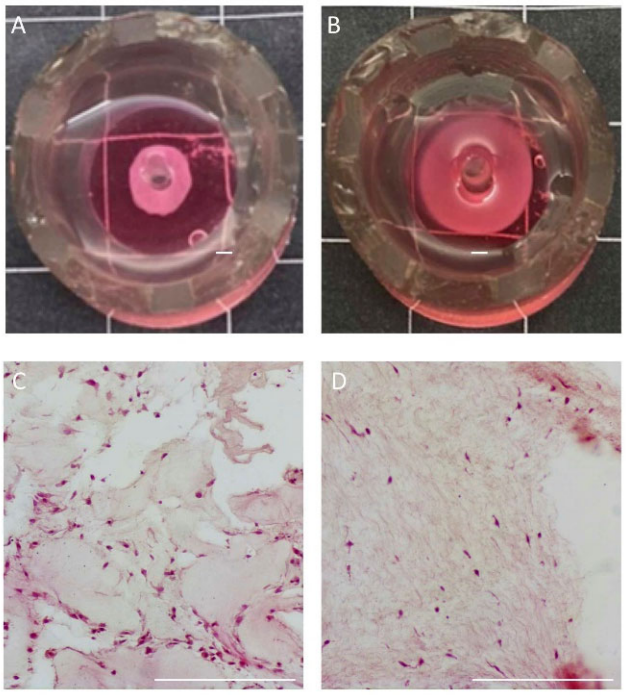
Supplemental Figure S1. Effect of initial collagen concentration on EHM compaction. EHM-rings using 1 mg/ml (A) or 3 mg/ml (B) initial collagen concentrations (2000 cells/μL) in 250 uL gel after 24 h. Images are taken on the black and white grid of 1 x 1 cm. Shown is the silicone mold, the central pole containing the ring in light pink tones, surrounded by CFMM. Bars represent 2 mm. HE staining of the EHM-ring after 24 h using 1 mg/ml (C) and 3 mg/ml (D) initial collagen concentrations (2000 cells/μL in 250 uL gel) showing the cell density difference between the two collagen concentrations. Magnification 20x. Bars represent 200 μm.



Supplemental Figure S2. Effect of initial collagen concentration (1 or 3 mg/ml) on RNA yield per cell (pg/ cell) and gene expression of Acta2, Ctgf and Tgfβ1 of the EHM-rings after 24 h of culture (2000 cells/μL in 250 μL gel) (n=2). Bar represents mean.