Supporting Information

The Impact of Topographic Cues, Heparin Hydrogel Microstructures and Encapsulated Fibroblasts on Phenotype of Primary Hepatocytes

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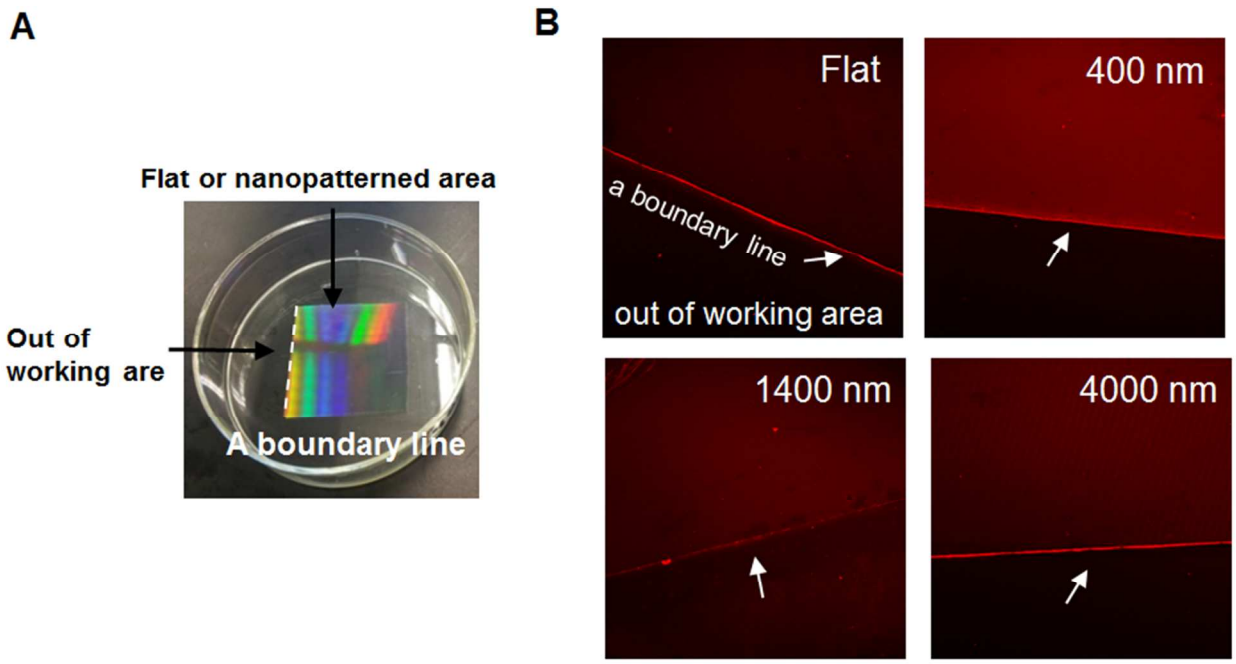

Figure S1. (A) Photograph image of NOA topographically patterned substrate on polystyrene. (B) Rhodamine fibronectin was physically adsorbed onto the flat and patterned surfaces.

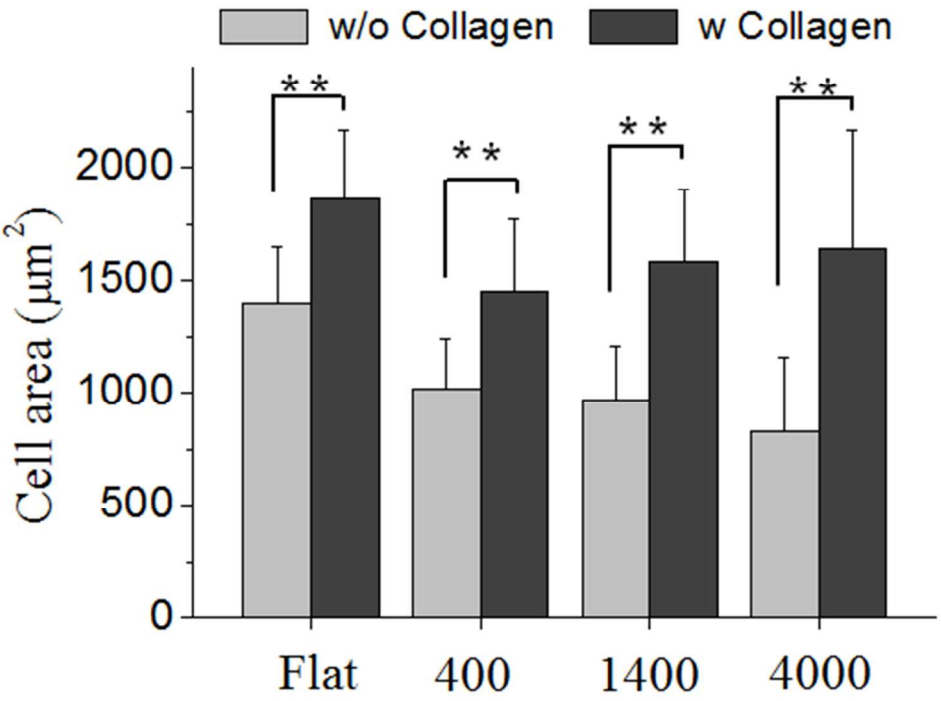

Figure S2. Cell area of hepatocytes cultured on flat and topographically patterned substrates with and without collagen I coating at day 1. In the absence of coallgen I coating, cells had smaller surface areas when cultures on topographically patterned surfaces compared to planar controls ($p \leq 0.05$) and the scale of the topographic features did not significantly affect cell size . Cells had larger surface areas for all substrates in the presence of collagen I. (** $0.001 < p \leq 0.01$)

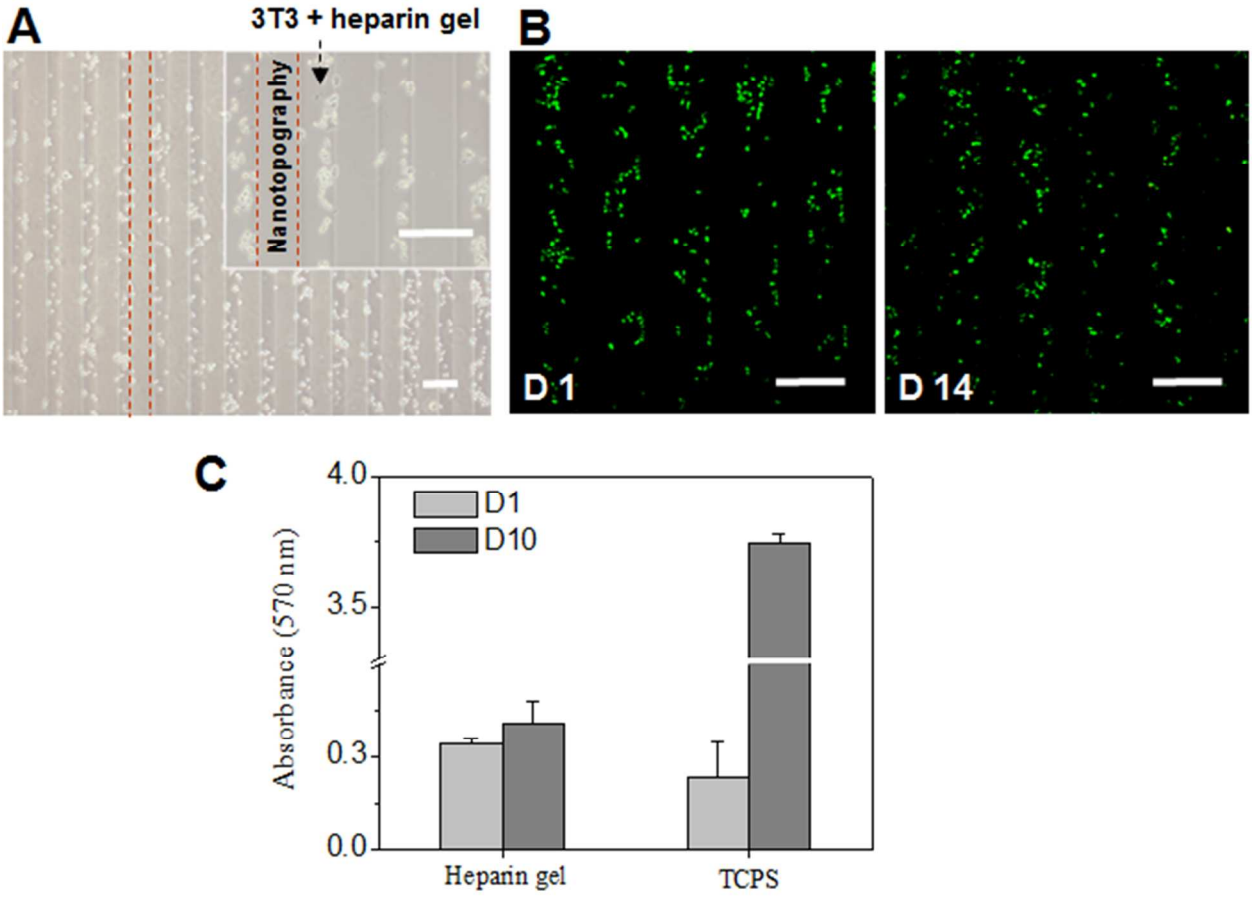

Figure S3. Characterization of the phenotypes of 3T3 fibroblasts encapsulated inside heparin gels. (A) Optical microscopic images of 3T3 fibroblasts encapsulated inside 100 μm heparin hydrogel microstructure molded across a 400 nm pitch topographically patterned substrate. Inset: Magnified optical image. Scale bar = 200 μm. (B) Alive/dead staining of 3T3 fibroblasts encapsulated in heparin gel microstructures at day 1 and 14. Scale bar = 200 μm. (C) MTT assay of 3T3 fibroblasts encapsulated inside heparin hydrogel microstructures and cultured on TCPS at day 1 and 10. Proliferation of fibroblasts is restricted by embedding in the hydrogel.