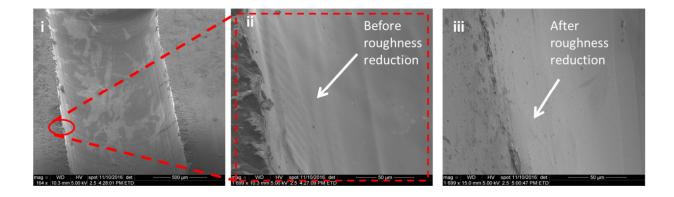
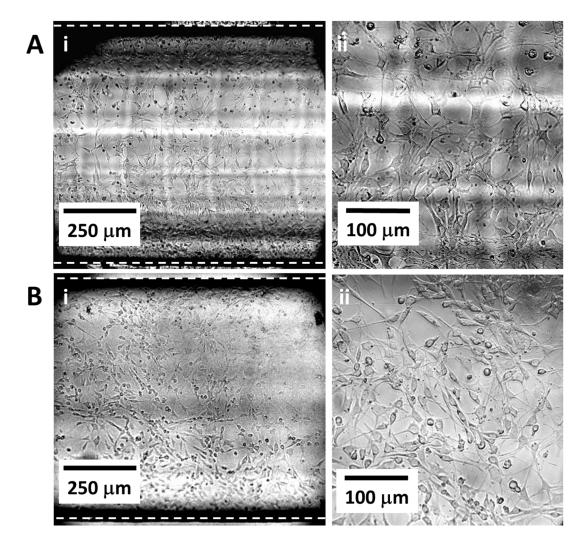
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## **Supplemental Information**



**Figure S1.** Effect of solvent assisted vapor-phase surface roughness reduction using acetone on polystyrene microfluidic channels characterized using Scanning Electron Microscopy (i) Image of a microchannel section obtained with thermal scribing (164X, 5kV) (ii) Image of the surface finish typically obtained immediately after machining (1699X, 5kV) (iii) Image of the smoothened channel surface after roughness reduction (1699X, 5kV)



**Figure S2**. Spread and proliferation of IMR90 fibroblasts as seen under phase contrast brightfield imaging after 24 hours culture inside microfluidic channels A) without surface roughness reduction and B) after surface reduction.