



**Supplementary Figure S1. Making of VoC - details.** (a) left: the collagen solution is poured into the microchannels and tips are left in place to form a column, middle: droplets of cell suspension are loaded in the opposite inlet while the devices are still on ice to prevent collagen reticulation, right: the devices are ready for incubation at 37° C for collagen reticulation. (b) 30 individual vessels were created at the same time in one representative experiment and visualized by phase contrast microscopy, bar = 500  $\mu$ m.