



Supplemental Fig. 1: Views of a preliminary study using the CDMH where no channels were used. Initially cast as a cylinder, after 60 days, growth and matrix heterogeneities were present and constructs grew with bulges present. **a** top view, arrow points to crack present. **b** side view of bulged growth profile, arrow points to cracks. **c** cross sectional view of construct, void interior present (arrow). **d** Safranin-O histology (4x). Note cracking and void interior (arrow). **e** Picrosirius red histology (4x). Note cracking and void interior (arrow). **f** Safranin-O histology (20x). High cell density post scaffold contraction is evident.