

Figure S1: Vessel dialation mediated by CXCL12 isofroms in collagen/HA matrices. The data were expressed as mean ± standard error (S.E.M).



Figure S2: Quantifying HUVEC sprouting angiogenesis. (A) HUVECs sprouting into collagen/HA ECM. (B) Zoomed-in image of yellow box region showing area tracing of HUVEC sprouts. Scale bar = $100 \mu m$.



Figure S3: Quantifying area behind HUVEC monolayer. Yellow region represents area displacement of HUVECs monolayer into collagen/HA matrices. Scale bar = 100 µm.



Figure S4: Apparent vascular permeability assay. Texas Red-labeled dextran diffused across HUVEC monolayer into collagen-only ECM channel. Intensity (I) within the yellow boxed-in region was analyzed over time (t) to determine a dI/dt value. Scale bar = 100 µm.