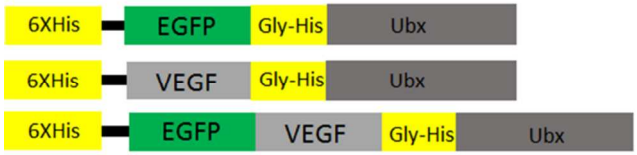
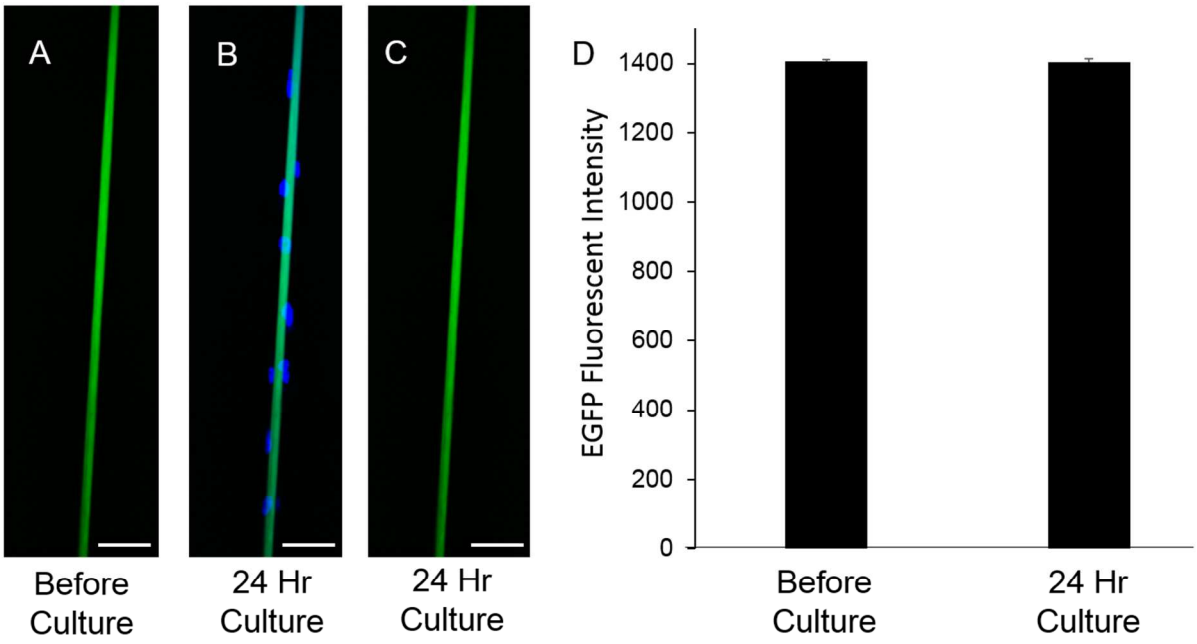
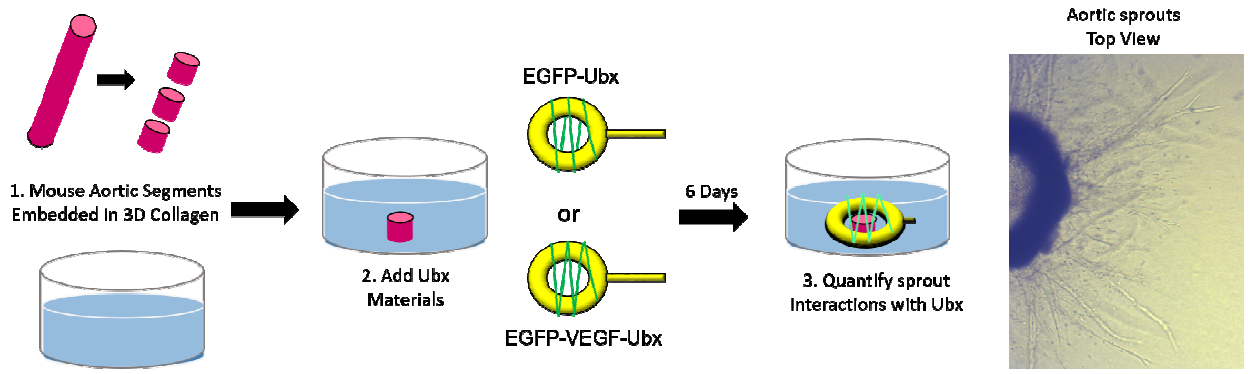
Supporting Information



Supporting Information Figure 1. Schematic of Ubx fusions.



Supporting Information 2. EGFP is not released from EGFP-VEGF-Ubx fibers when cultured with endothelial cells. EGFP-VEGF-Ubx fibers imaged using confocal microscopy (A) before and (B,C) 24 hours after cell culture. (B) Green Channel only. (C) Green and Blue channel showing DAPI stained cells. Scale bars equal 50 μm. Identical coordinates where imaged in panels A-C. (D) EGFP fluorescent intensity quantification (3 samples; 25 replicates) shows that there is no difference between fibers before and after culture. EGFP is tethered to Ubx materials via VEGF (Figure S1), if VEGF were degraded by cell culture then EGFP would be lost from the fiber. Since there is no difference in EGFP intensity, we can assume that VEGF is at least intact.



Supporting Information 3. Schematic of modification of mouse aortic ring assay for use with Ubx materials. Note that sprouts emanate linearly from tissue radius.

Supporting Information Figure 4. Z-stack image of an endothelial sprout (blue; DAPI stained cells) wrapped around an EGFP-VEGF-Ubx fiber (green).

Supporting Information Figure 5. Z-stack image of an endothelial sprout (blue; DAPI stained cells) passing by an EGFP-Ubx fiber (green).