



SUPPLEMENTAL FIG. 3. Comparison of angiogenesis in microvascular networks with flow in the blood vessels (Perfused), with topical flow across the blood vessels (Media Sham), and without flow (Static). Tissues in the Media Sham group were cultured with flow in the biochamber, but without cannulating the feeding arteriole, for 48 hours with 10% serum supplementation and a total of 250 mL of media in the media reservoir. Microvascular networks from all three experimental groups became angiogenic after 48 hours in culture with serum stimulation, defined by an increase in vascular density. Microvascular network density from the Perfused group (94.9 ± 44.2 segments/vascular area, $n = 9$ networks) were significantly less dense compared to the Media Sham (484.4 ± 136.5 segments/vascular area, $n = 3$ networks; $p = 0.0030$) and Static (332.1 ± 191.5 segments/vascular area, $n = 3$ networks; $p = 0.0148$) groups. No significant difference ($p = 0.3182$) was observed in vascular density between the Media Sham and Static groups. The * and ** indicates a significant difference of $p < 0.05$ and $p < 0.01$ respectively by One-Way ANOVA and Tukey's post hoc method. The "ns" indicates no significant difference ($p > 0.05$).