Inflammatory monocyte response due to altered wall shear stress in an isolated femoral artery model.

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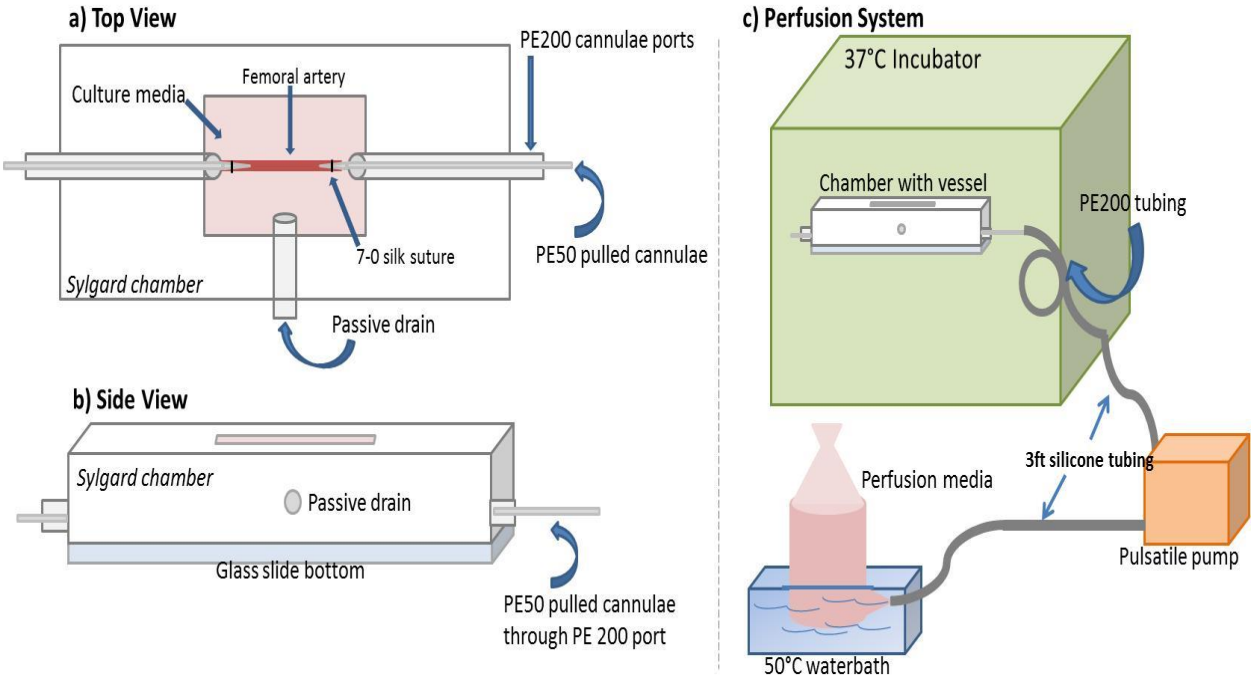
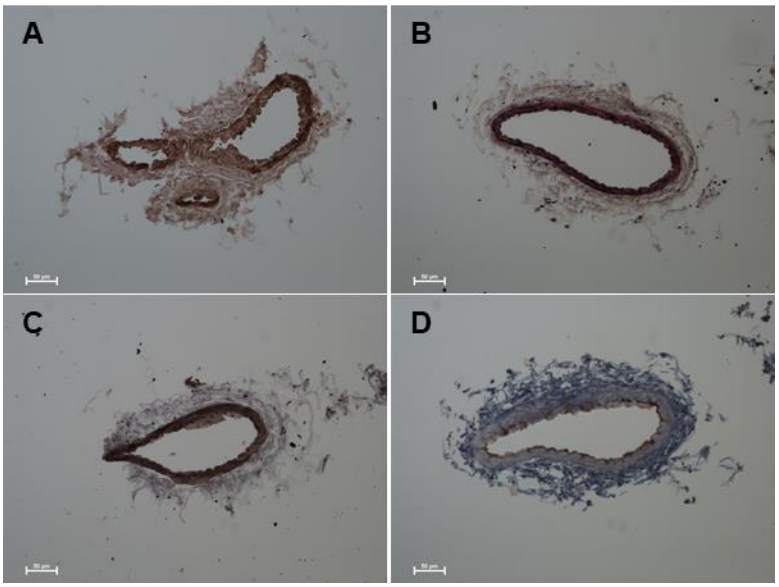
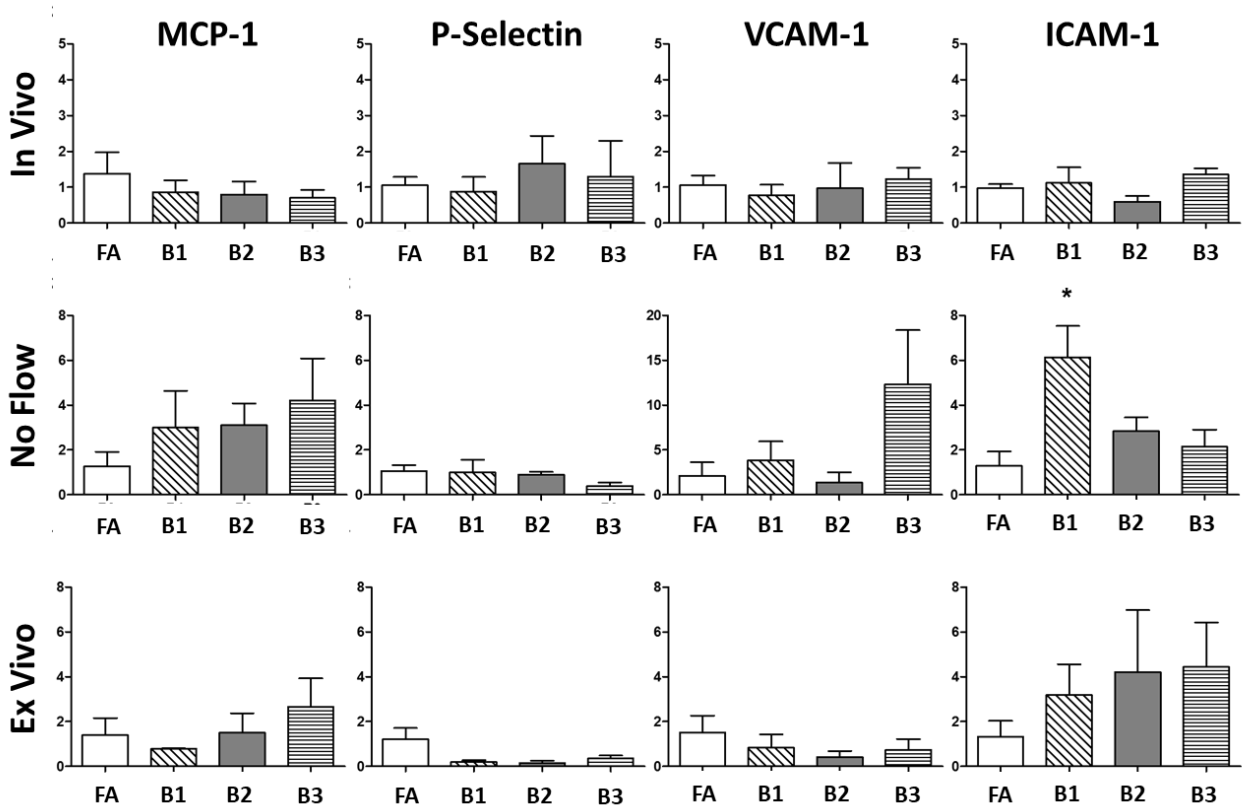


Supplemental Figure 1. Schematics showing the *ex vivo* set up for femoral artery perfusion. **A.** the top view of the cannulation chamber where you can see silk sutures holding pulled PE50 tubing into the vessel. PE200 ports hold the PE50 pulled cannulae in place, **B.** the side view where you can see the cannulation ports are below the passive drain, and **C.** the whole set up where the pump and media are maintained outside the heated chamber. Chamber and media are kept at 37 ℃ as checked by a temperature probe.



Supplemental Figure 2. Femoral arteries were perfused for 24 hours and stained to visualize vessel structure. All vessels remained intact after 24 hours of perfusion. Representative images of **A.** No Flow vessel stained for SMA and pWSS stained for **B.** H&E, **C.** SMA and **D.** Factor VIII are shown. All images were taken at 20x. Scale bars = 50μm.



Supplemental Figure 3. Bar graphs reresenting mRNA expression of MCP-1, P-selectin, VCAM-1 and ICAM-1 in the three branches of the femoral artery, with respect to the main femoral artery. Analysis is shown for *in vivo*, *ex vivo* with no WSS, and *ex vivo* with 1.4x pWSS. In all cases there were minimal differences seen in expression by the branches when compared to the the femoral artery and only reached significance for ICAM-1 in B1 under no Flow. Data is normalized to housekeeping gene GAPDH and fold change is expressed with respect to Main Femoral Artery for each condition. n=3 *p<0.05 vs. FA.