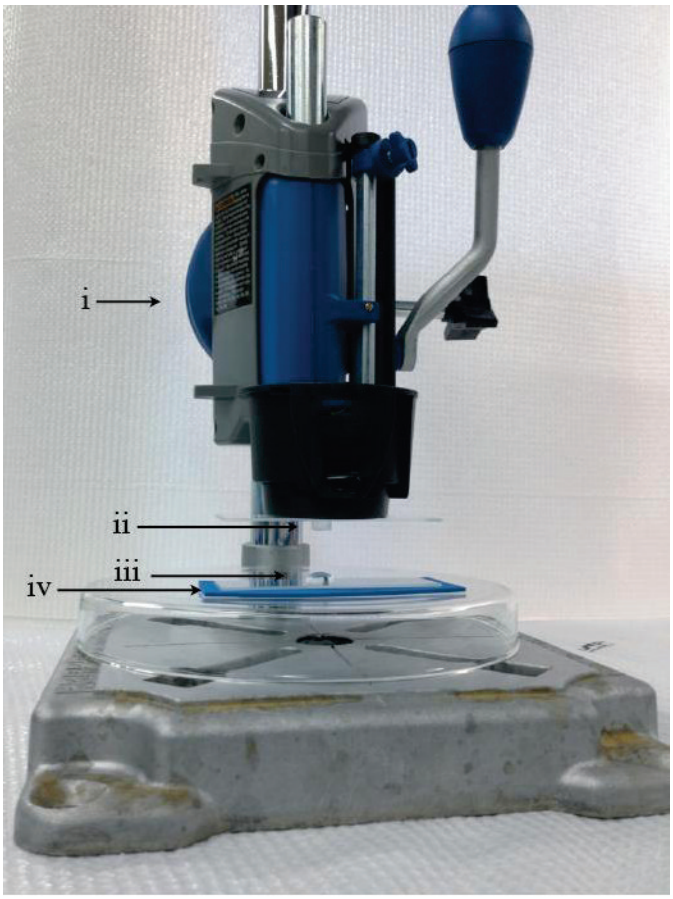
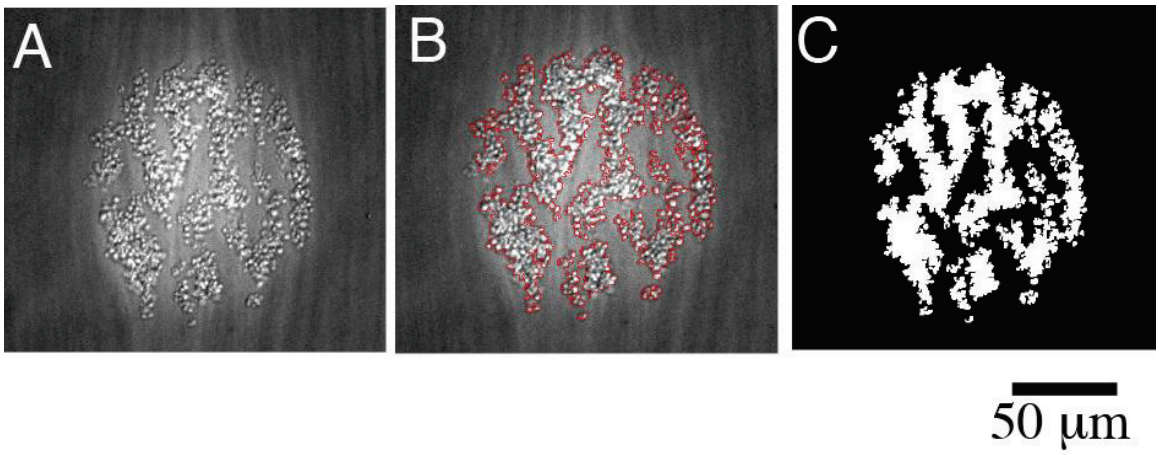
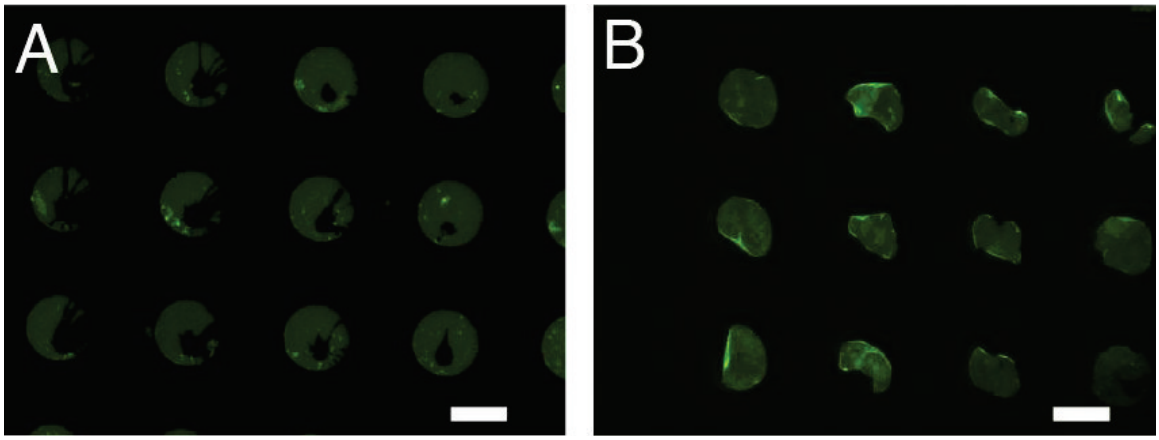
SUPPLEMENTAL FIGURES



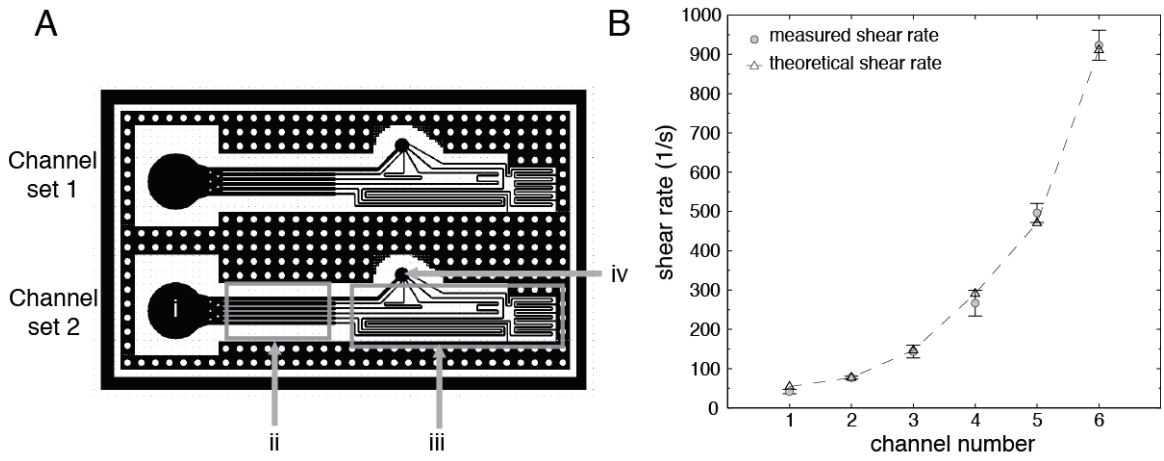
Supplementary Figure 1. Setup for aqueous μCP of CTF onto glass microfluidic substrates. The approach involves use of a (i) Dremel Rotary Tool, (ii) a hydrated PDMS stamp functionalized with solubilized collagen (incubated for 1 hr. at 100 mg/mL, PBS), (iii) an OTS-functionalized glass slide with 300 mL of PBS pipetted over the slide contact region, and (iv) a polyurethane foam backing.



Supplementary Figure 2. Image processing of 40X RC spots using the Sobel method. Platelet aggregates are visible in original RC images (A) and the edges of the aggregates are identified after edge-finding (red lines, B). This allows for image thresholding into binary images, and measurement of platelet areas and surface coverages.



Supplementary Figure 3. Images of immunofluorescently stained CTF spots after dehydrating the stamps and μCP in air. Under these conditions, spots often appear damaged (A) or delaminated from the surface (B). Scale bar = 50 μm.



Supplementary Figure 4. (A) Detailed layout of the multishear device highlighting i) the channel inlet, ii) the ligand binding region, iii) the channel resistor region, and iv) the channel outlet. The ligand binding region contains channel number 1 (bottom) through channel number 6 (top). Devices were designed to contain two sets of (channel sets 1 and 2) for parallel experiments. (B) Theoretical and measured shear rates of each channel in the ligand binding region (ii) of the device at an overall flow rate of 10 μL/min. Velocity profiles were determined by tracking fluorescent polystyrene beads through the channel.