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Supplemental Information

In Vitro Measurement and Modeling of Platelet Adhesion on VWF-Coated Surfaces in Channel Flow

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SUPPLEMENTAL INFORMATION

Flow Cytometry

Surface receptors and platelet activation levels were quantified by flow cytometry using the commercially available Biocytex Platelet Gp/Receptors assay (Stago, Marseille, France). Whole blood is incubated with antibodies against CD62p (p-selectin, a measure of platelet activation), CD41(GPIIbIIIa) and CD42b (GPIb) in the presence or absence of thrombin activating peptide. Receptor counts are extrapolated from a standard curve generated by measuring the Mean Fluorescent Intensity (MFI) of fluorescently labelled calibration beads according to the manufacturers instructions.

Movies

Movie 1: Sample experimental movie at standard operating conditions. A total of 1000 frames are shown, but only the first 500 frames are used for analysis.
Movie 2: Sample simulation video, $Ht = 30\%$, only platelets near one wall are shown.

Figures and Tables

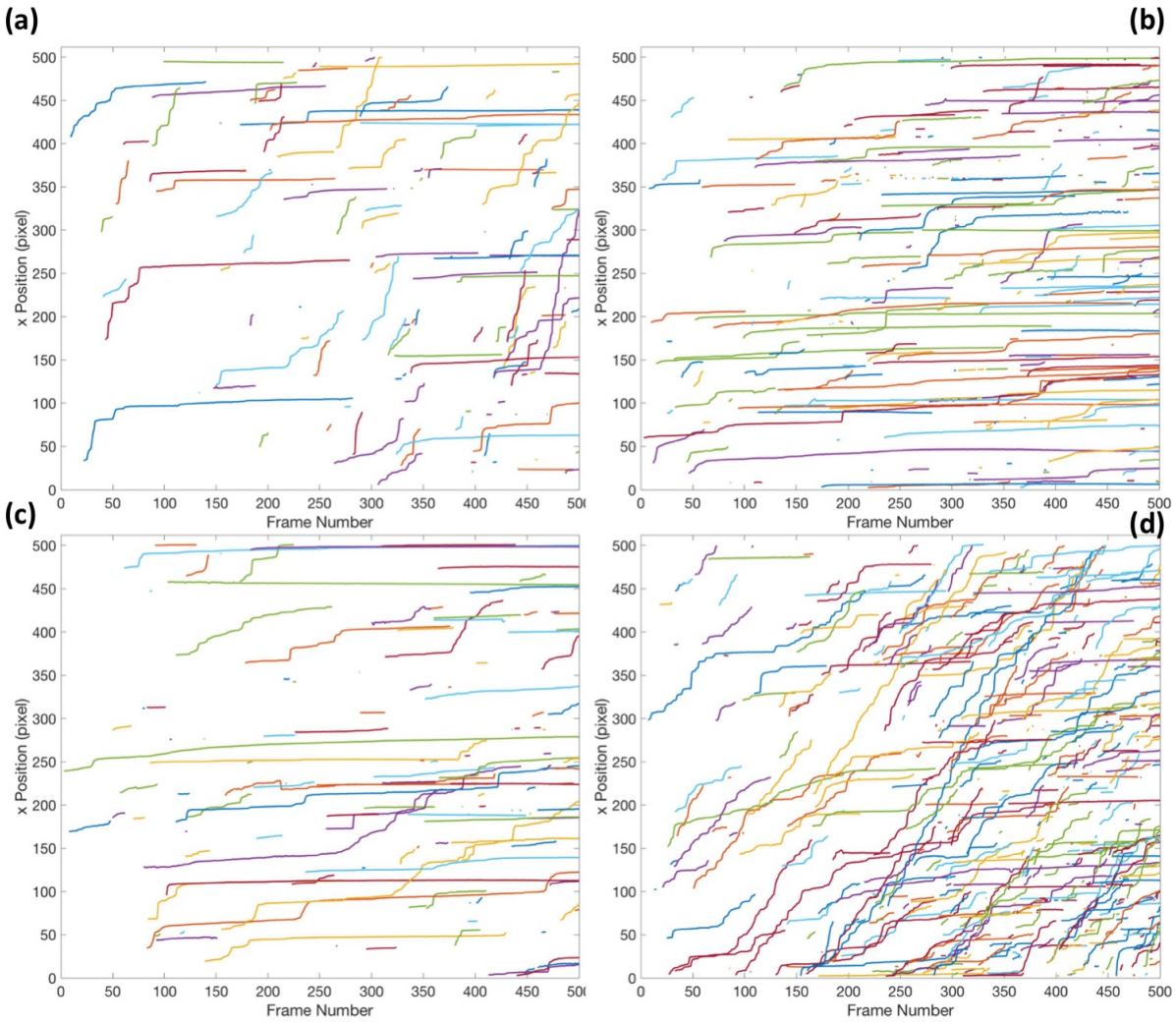

Figure 1: Sample platelet tracks obtained from one experimental run at various operating conditions. (a) AK2 at 2 μg/ml (b) 20% hematocrit (c) 500 s^{-1} shear rate (d) ReoPro at 2.5 μg/ml. Only 20% of the total number of platelet tracks (randomly selected) are shown.

Name	α	β
Donor 1	39525	47837
Donor 2	47964	71482
Donor 3	50421	40807
Donor 4	24434	77477
Mean	40586	59401
Standard Deviation	11736	17815

Table 1: Flow cytometry measurement of GPIb and GPIIbIIIa receptor count.