Supplementary material for:

Covalent Immobilization of P-selectin Enhances Cell Rolling

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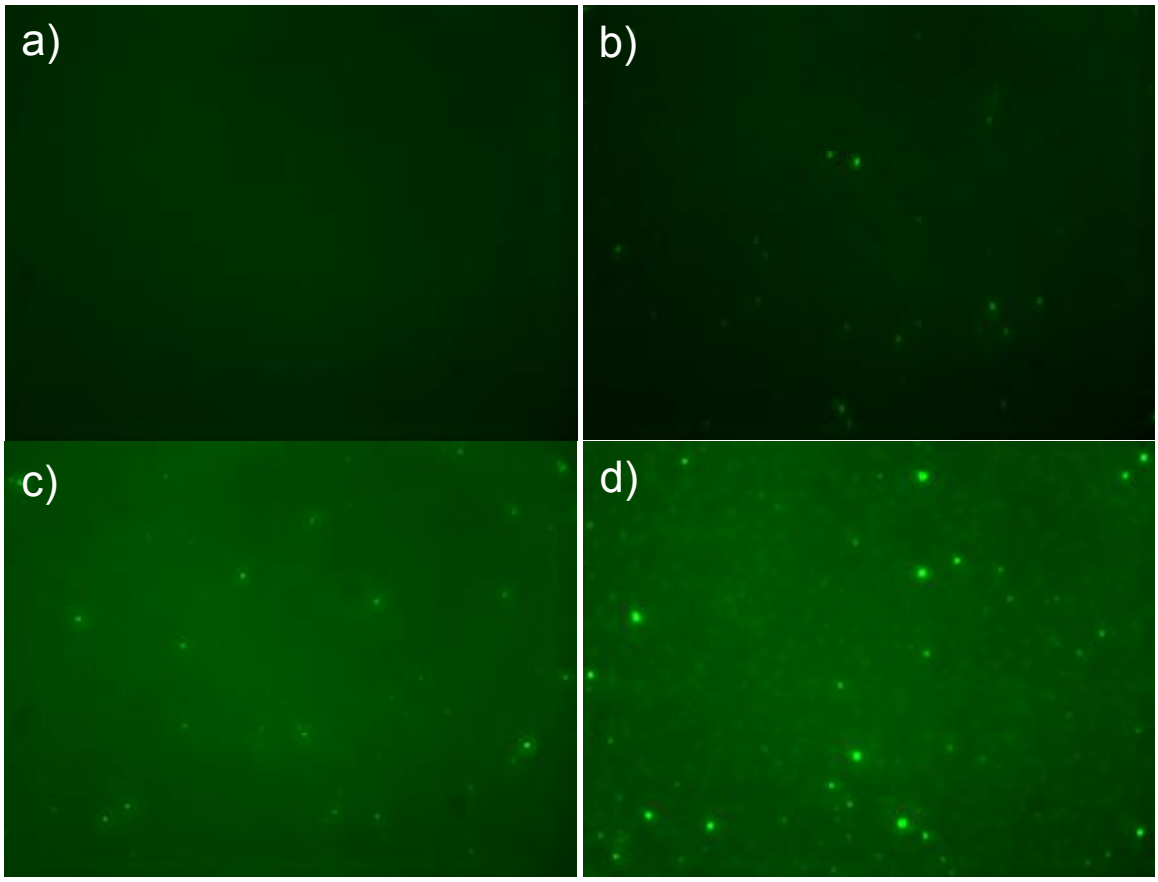
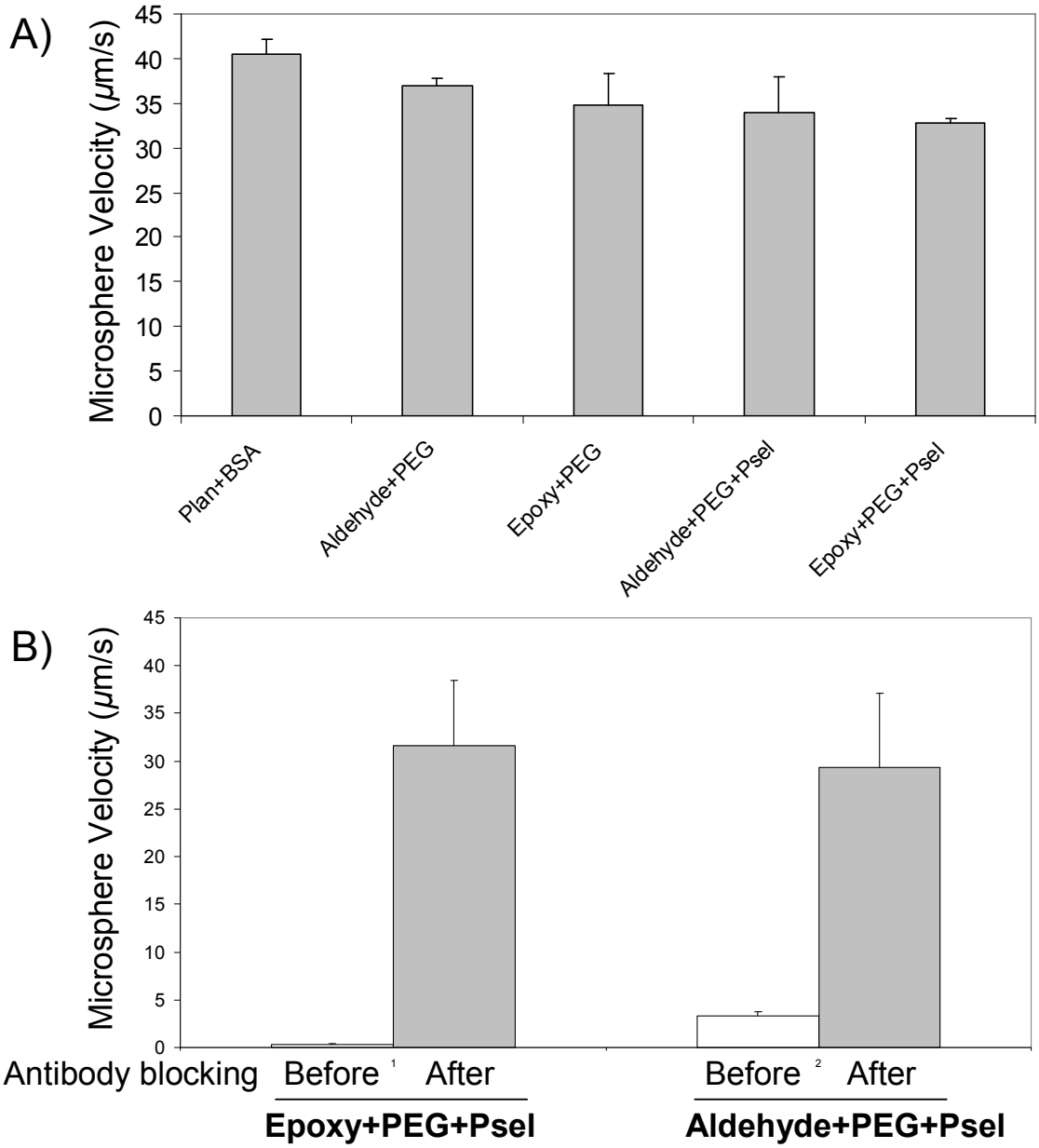


Supplementary Figure 1. Fluorescence microscopy of P-selectin antibody-FITC conjugate incubated on a) untreated amine glass and amine glass substrates with b) 5 μg, c) 10 μg, and d) 20 μg of P-selectin. P-selectin was immobilized onto the amine glass overnight after pre-activation with EDC and NHS. The anibody-FITC conjugate was incubated for 2 hours. Note that significant aggregation of P-selectin was observed in this chemistry. The images were taken using a 10x objective.



Supplementary Figure 2. Confirmation of specific interaction between P-selectin and surface bound ligand (sLe^x) on microspheres. (A) Measured velocities of native microspheres (without sLe^x) on control and experimental surfaces. Note that the velocities were not significantly different, indicating that there is minimal non-specific interaction between substrates and microspheres. (B) Comparison of velocities of microsphere-sLex conjugates on P-selectin immobilized substrates before and after treatment with an antibody for P-selectin. Velocities significantly increased when substrates were preincubated with antibody indicating that the reduced velocities observed in experimental groups were due to a direct interaction of P-selectin with the sLe^x.

Supplementary Table 1. Statistical analysis (P values) for the comparison between samples examined 3 days and 28 after preparation.

Wall shear stress (dyn/cm^2)	Plain glass slide	PEGylated epoxy glass slide (inactivated)	PEGylated epoxy glass slide (activated)
1	0.155	0.041	0.161
3	0.082	0.002	0.212
5	0.011	0.010	0.017
10	0.011	0.008	0.004