Supplementary Information Titles

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Article Title:	HETEROTYPIC INTERACTIONS ENABLED BY POLARIZED NEUTROPHIL MICRODOMAINS MEDIATE THROMBO-INFLAMMATORY INJURY
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Supplementary Item & Number (add rows as necessary)	**Title or Caption**
Supplementary Figure 1	**Elevated expression of αMβ2 on *Selplg*$^{-/-}$ leukocytes.**
Supplementary Figure 2	**Reduced nRBC capture in mice deficient in C3.**
Supplementary Figure 3	**Specificity of albumin-coated fluosphere capture *in vivo*.**
Supplementary Figure 4	**Fluosphere capture by adherent leukocytes correlates with the level of αMβ2 expression.**
Supplementary Figure 5	**Inhibition of Src kinases protects from lung injury.**
Supplementary Figure 6	***In vivo* detection of reactive oxygen species (ROS) in adherent leukocytes following anti-H2d infusion.**
Supplementary Figure 7	**N-acetyl-cysteine prevents ROS generation by adherent leukocytes and vascular permeability after anti-H2d infusion.**
Supplementary Figure 8	**Kinetics of leukocyte recruitment and RBC-leukocyte interactions in SCD mice.**
Supplementary Figure 9	**Frequency of adherent leukocyte subsets in venules of sickle transgenic mice.**
Supplementary Figure 10	**Leukocyte recruitment in venules of wild-type, *Selp*$^{-/-}$ and *Sele*$^{-/-}$ mice reconstituted with hematopoietic stem and progenitor cells from SCD mice.**
Supplementary Figure 11	**Effect of adhesion receptor deficiency and SCD mutation on αMβ2 activity on adherent leukocytes.**
Supplementary Table 1	**Hemodynamic parameters in mice analyzed for RBC-leukocyte interactions**
Supplementary Table 2	**Hemodynamic parameters in mice analyzed for fluosphere capture.**

Supplementary Methods	
Supplementary Video 1	**nRBC captures are mediated by the leading edge of adherent PMNs.** Adherent leukocytes in venules of C57BL/6 mice treated with TNF-α were imaged following the intravenous injection of PE-conjugated anti-L-selectin (red, 0.5 μg) and FITC-conjugated anti-LFA-1 (clone M17/4; green, 1 μg). L-selectin clusters identify the trailing edge of adherent leukocytes. Brightfield images of nRBC interactions with PMNs in inflamed venules were captured 180 min after cytokine administration.
Supplementary Video 2	**Platelets interact mostly with leukocyte microdomains at the leading edge.** Platelets were labeled by anti-CD41 (red, 1 μg / mouse) and the trailing edge with anti-L-selectin (blue, 0.02 mg/Kg) in a TNF-α-stimulated mouse. Real time is shown in the left upper corner (h:min:s).
Supplementary Video 3	**Regional activation of αMβ2 integrin at the leading edge of adherent leukocytes mediates fluosphere capture.** TNF-α-treated C57BL/6 mice were injected with PE-conjugated anti-L-selectin (red; 0.5 μg) to label the trailing edge of adherent leukocytes. Fluosphere interactions with adherent leukocytes in inflamed venules were imaged 180 min after cytokine treatment, immediately upon the injection of albumin-coated fluospheres (green) through a catheter placed in the left carotid artery.
Supplementary Video 4a and 4b	**Platelet-WBC interactions are markedly induced by anti-H2d administration in Balb/c mice.** Platelets were labeled by anti-CD41 (red, 1 μg / mouse) and the trailing edge with anti-L-selectin (blue, 0.02 mg/Kg). **(a)** Sequence of images just before anti-H2d administration. **(b)** Sequence of images taken after anti-H2d injection. Note the increase in platelet captures by leukocytes and also the interactions of non-labeled RBCs with adherent leukocytes.