

Oxidative stress activates red cell adhesion to laminin in sickle cell disease

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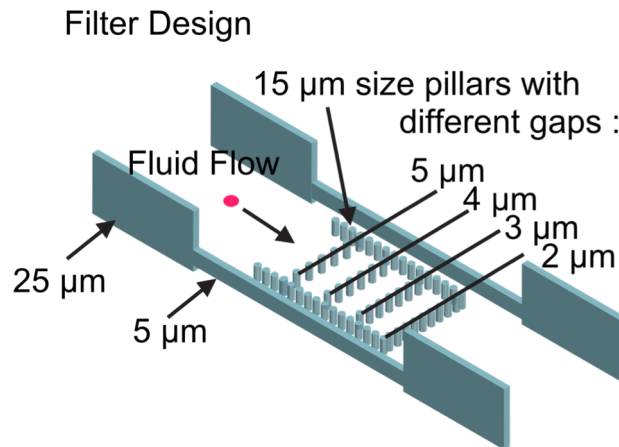
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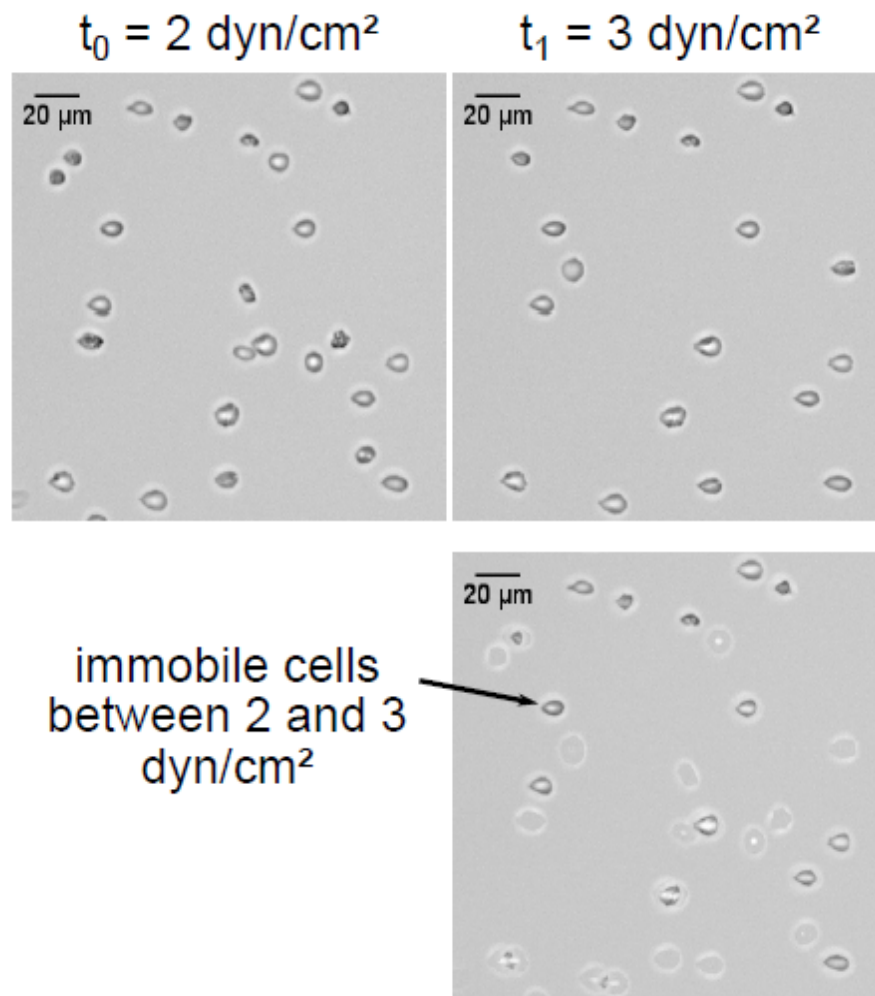
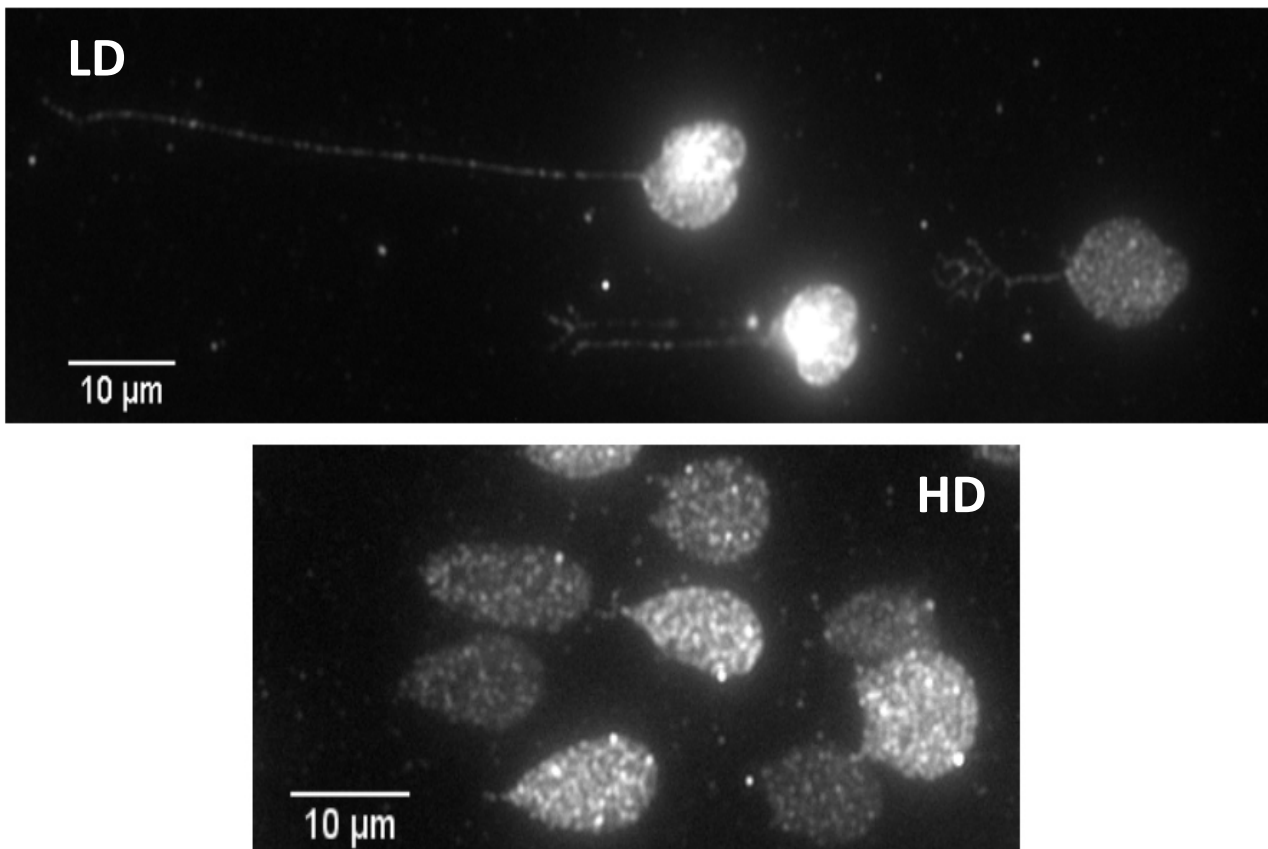
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Supplemental Figure S1



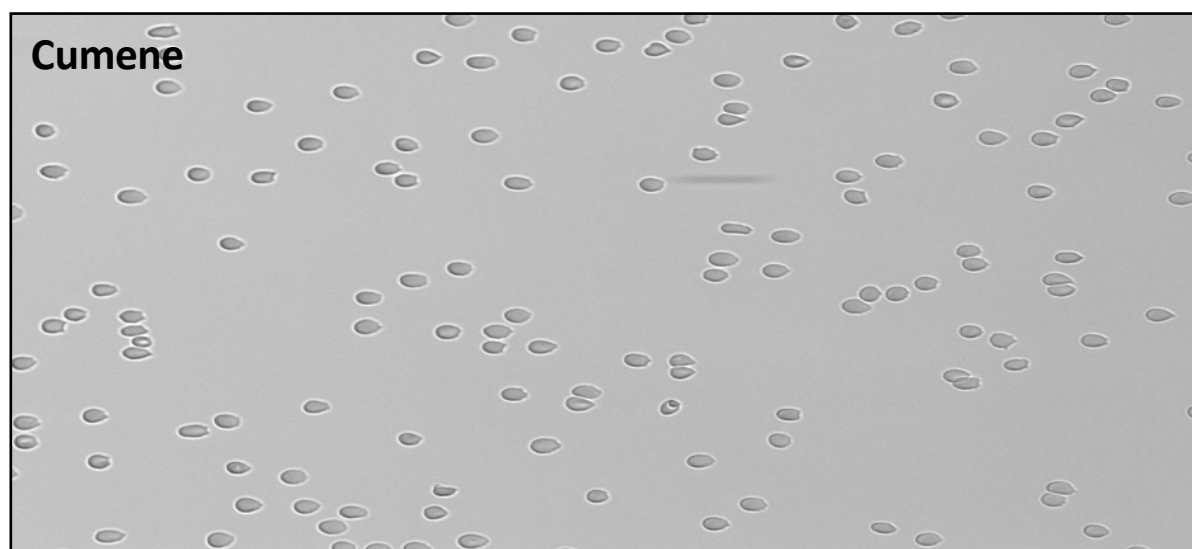
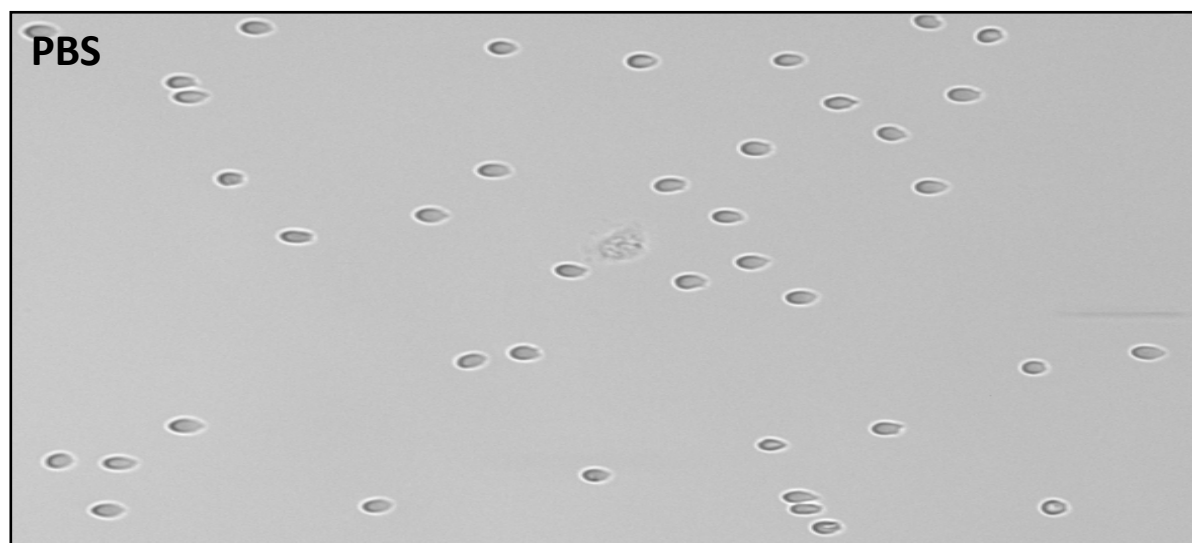
Supplemental Figure S1. Microfluidic biomimetic chip. One of the 8 filtering units of the microfluidic device. The filtering unit is 5 μm -high and has a U shape composed of a series of 15 μm pillars separated by 2 μm slits, with two 10 μm -wide side channels. Inside the U shape, 4 rows are disposed in parallel with decreasing slit width (5, 4, 3 and 2 μm).

Supplemental Figure S2

A**B**

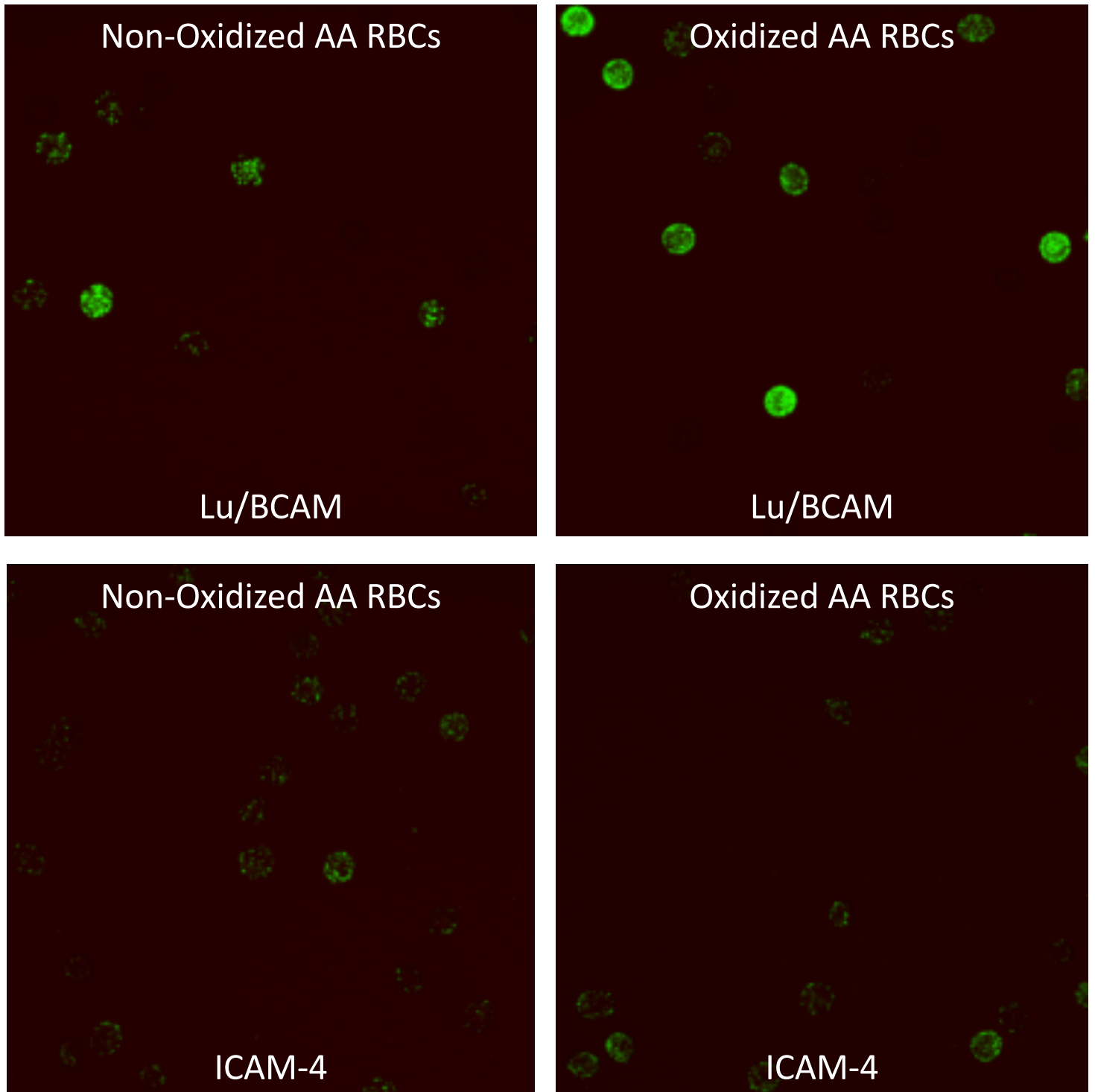
Supplemental Figure S2. Enlarged images from (A) Figure 2C and (B) Figure 2E.

Supplemental Figure S3



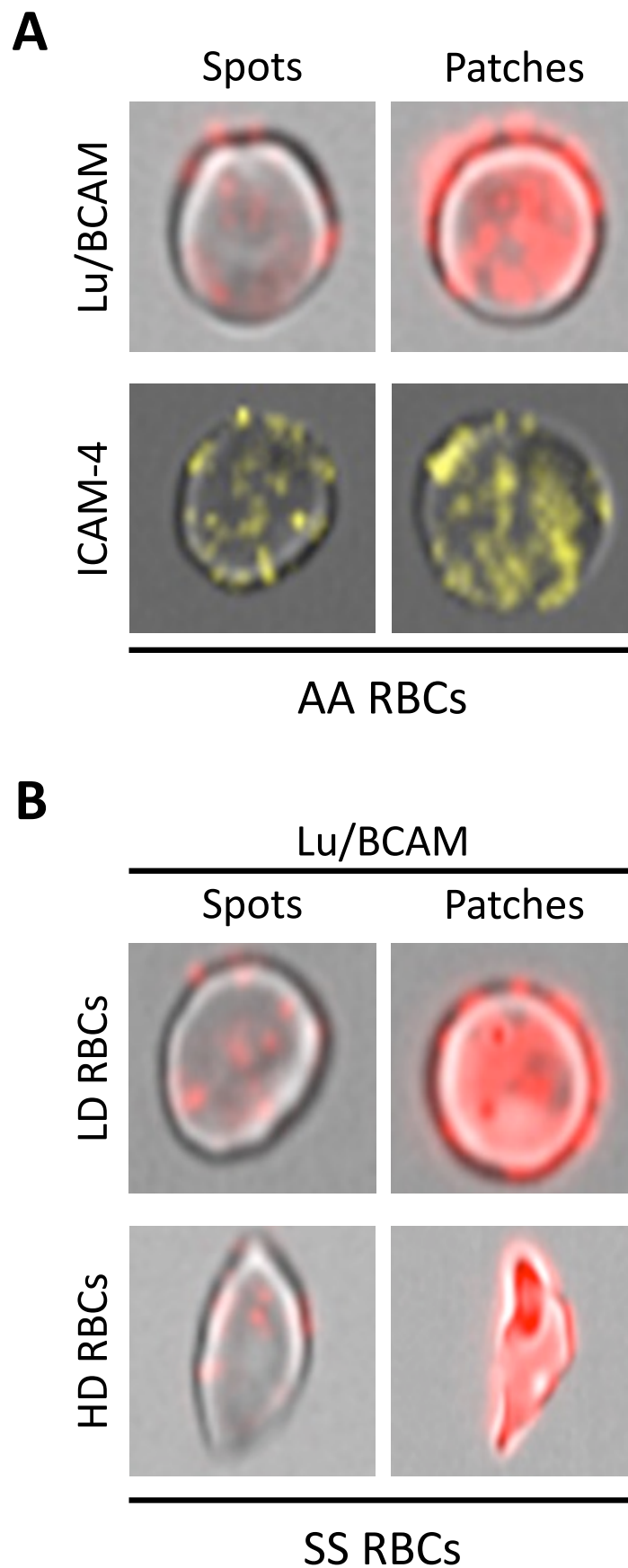
Supplemental Figure S3. Enlarged images from Figure 3A.

Supplemental Figure S4



Supplemental Figure S4. Enlarged images from Figure 4A.

Supplemental Figure S5



Supplemental Figure S5. Enlarged images from Figure 4 showing typical Lu/BCAM and ICAM-4 staining on (A) AA and (B) SS RBCs.

Video legend

Video 1: Adhesion to laminin 521 of sickle red blood cells (RBCs) from the low density (LD, top panel) and high density (HD, bottom panel) fractions (shear stress: 3 dyn/cm²). HD RBCs adhere firmly to laminin while LD RBCs show a dual cellular behavior, with firm adhesion and rolling. The rolling LD RBCs are most probably young reticulocytes, as reflected by their round, multilobar morphology.