

**Supplementary Figure**. Measurement of Perfused Boundary Region by Glycocheck. RBCs, Red Blood Cells; SDF, Sideview Darkfield Imaging; PBR, Perfused Boundary Region . llustration A) depicts the concept of normal non-affected glycocalyx layer. PBR is calculated by the following formula: [Perfused Diameter - RBC column width]/2. llustration B) portrays the concept of glycocalyx with reduced thickness and increased affected PBR resulting in greater than normal lateral displacement of RBCs.