

Supplementary Material

Development of an In Vitro Blood Vessel Model Using Autologous Endothelial Cells Generated from Footprint-Free hiPSCs to Analyze Interactions of the Endothelium with Blood Cell Components and Vascular Implants

Josefin Weber, Marbod Weber, Adrian Feile, Christian Schlensak and Meltem Avci-Adali *

Department of Thoracic and Cardiovascular Surgery University Hospital Tuebingen, , Calwerstraße 7/1, 72076 Tuebingen, Germany

* Correspondence: meltem.avci-adali@uni-tuebingen.de

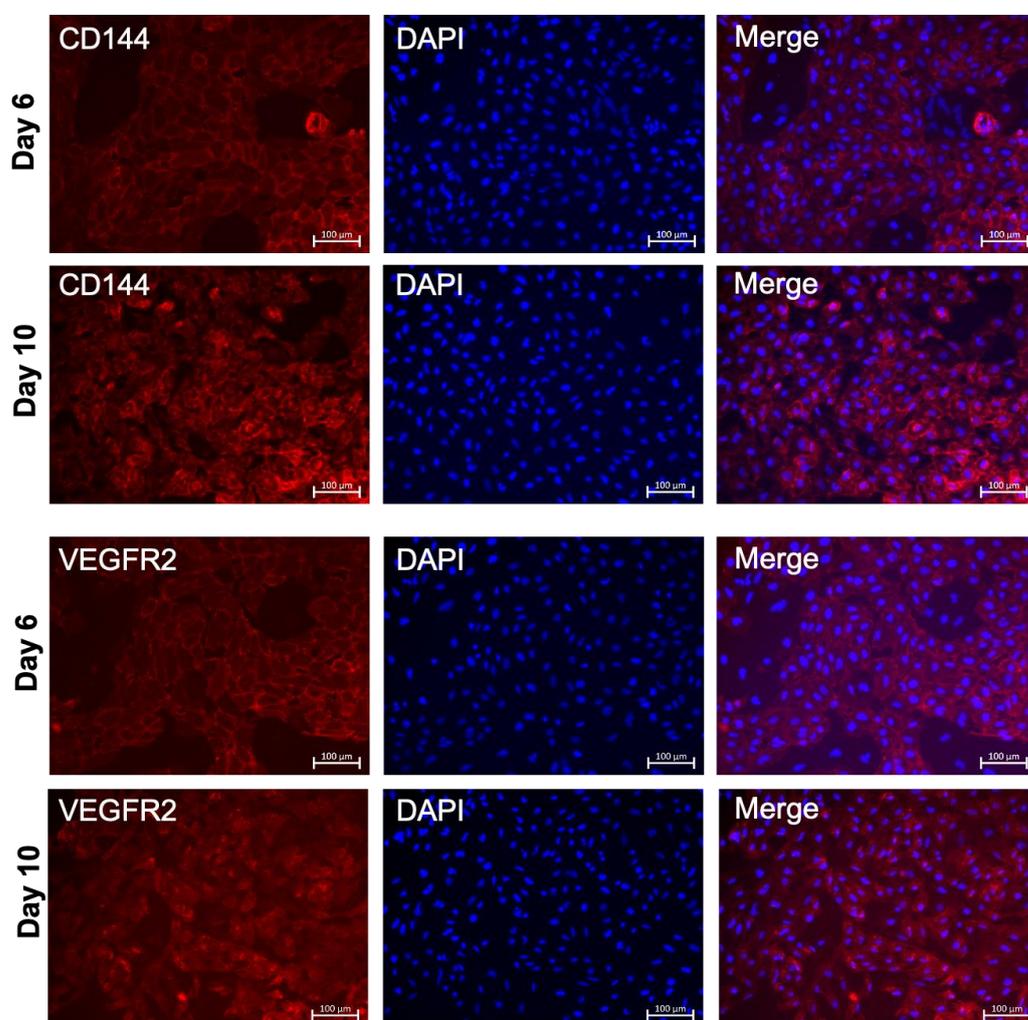


Figure S1. Representative immunofluorescence microscopy images of hiPSC-ECs. The cells were stained with PE-labeled CD144- and VEGFR2-specific antibodies on day 6 (before separation) and 10 of differentiation. Scale bars represent 100 µm.

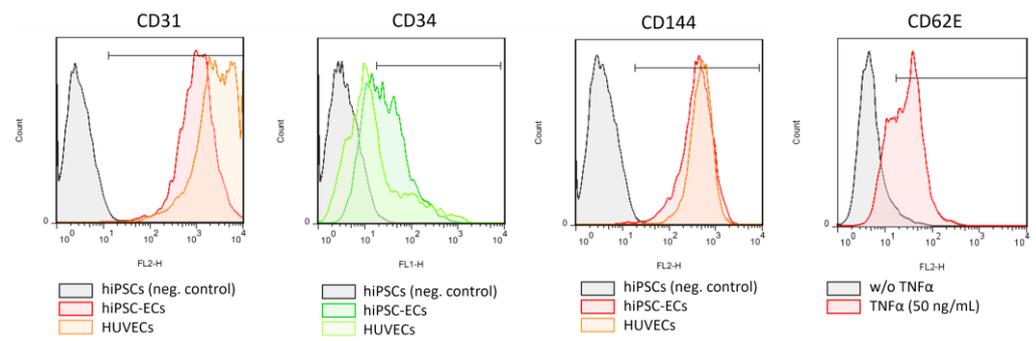


Figure S2. Characterization of hiPSC-ECs. Representative flow cytometry histograms of the markers used for cell characterization (CD31, CD34, CD144, and CD62E).

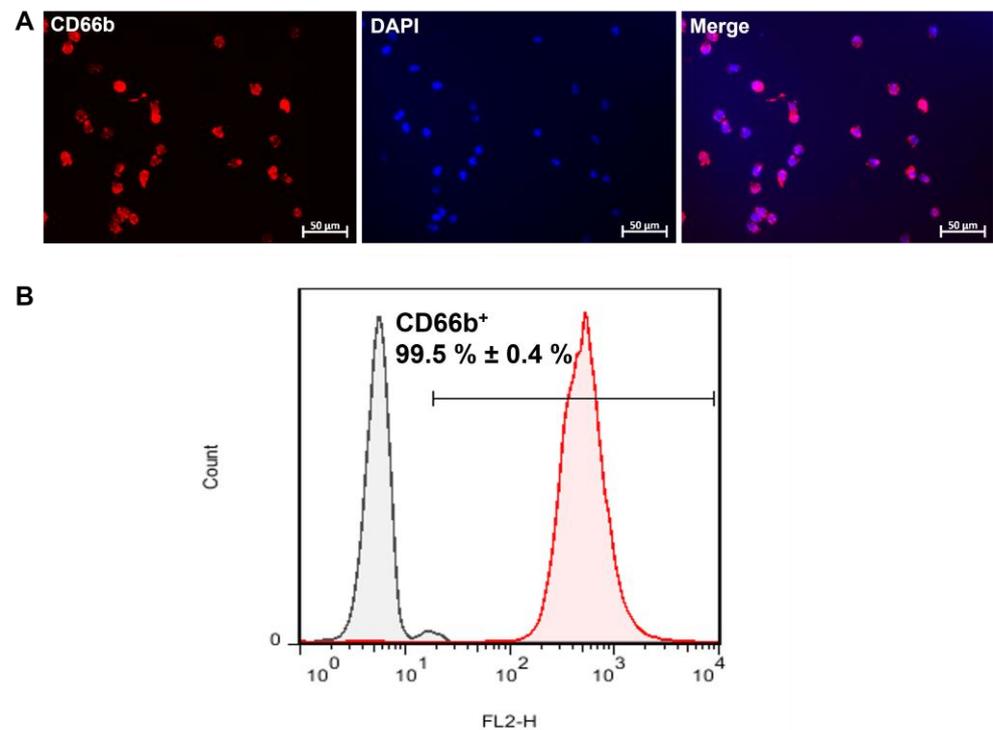


Figure S3. Characterization of isolated granulocytes from human blood. (A) Representative immunofluorescence microscopy images of granulocytes stained with a CD66b-specific antibody. Scale bars represent 50 μm . (B) Flow cytometry analysis of isolated neutrophil granulocytes expressing CD66b ($n = 3$).

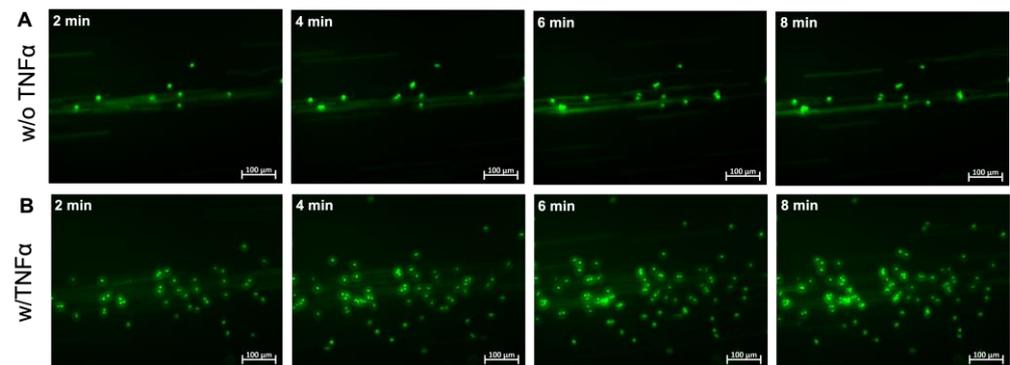


Figure S4. Interaction of fluorescently labeled granulocytes with hiPSC-ECs under flow conditions. (A) Interaction of fluorescently labeled granulocytes (calcein AM, green) with unstimulated and (B) 50 ng/ml TNF- α -stimulated hiPSC-ECs in a PDMS model during perfusion. Granulocytes were perfused with a flow rate of 150 μ L/min for 10 min over the ECs, corresponding to a shear stress of 0.4 dyne/cm². Images were acquired after 2, 4, 6, and 8 min of perfusion.