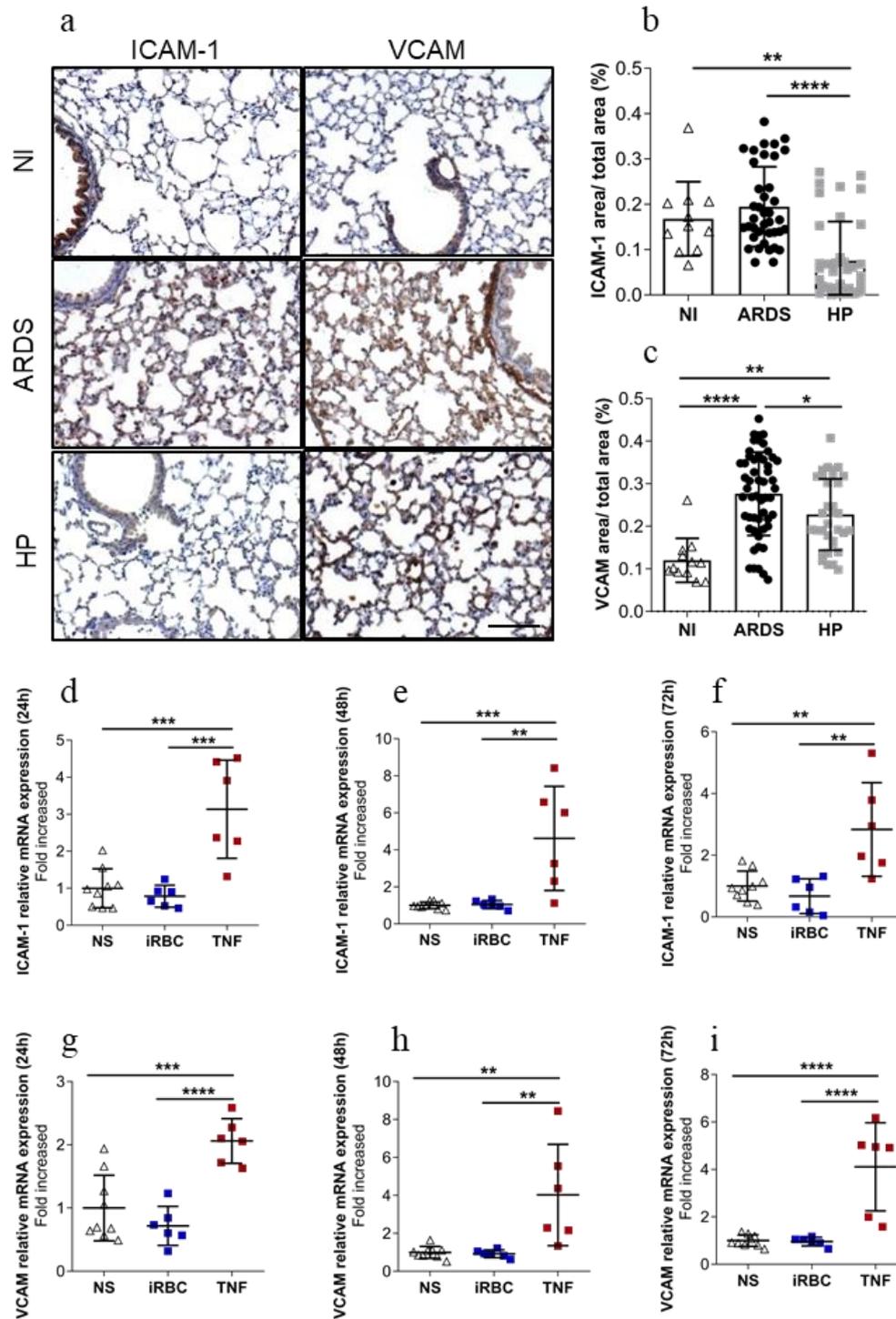


820

821 **Supplementary Figure 1: Primary microvascular lung endothelial cell**
 822 **characterization.** PMLECs were stained by immunofluorescence with lectin from *Ulex*
 823 *europaeus* and anti-vWF, CD31, ACE, CD62E, eNOS and VE-cadherin antibodies.
 824 Nuclei stained with Hoechst stain (blue). PMLECs: primary culture of microvascular
 825 lung endothelial cells from DBA/2 mice. (scale bar: 50 µm).

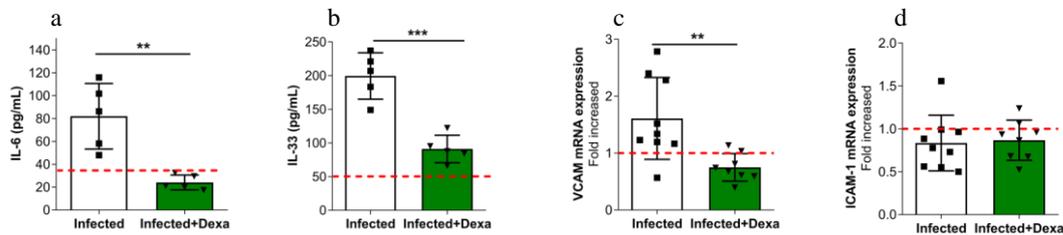


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827 **Supplementary Figure 2: ARDS-developing mice show more ICAM-1 and VCAM**
 828 **expression in the lungs than HP-developing or noninfected mice.** (a-c) DBA/2 mice
 829 infected with *Plasmodium berghei* ANKA and lung tissues were analyzed on the 7th day
 830 post-infection. (a) Representative immunohistochemistry images for ICAM-1 and
 831 VCAM in the lungs of NI, ARDS-developing and HP-developing mice (scale bar: 100
 832 μ m). (b) Quantification of (b) ICAM-1 and (c) VCAM areas stained by
 833 immunohistochemistry. (d-i) Primary microvascular lung endothelial cells from
 834 uninfected DBA/2 mice (PMLECs) were stimulated with *Plasmodium berghei* ANKA-
 835 infected red blood cells (iRBCs) or with recombinant TNF and analyzed for (d-f)

836 ICAM-1 mRNA and (g-i) VCAM mRNA by qRT-PCR. Bars represent the average \pm
 837 SD. (b-i) One-way ANOVA from two grouped experiments. (* $p < 0.05$; ** $p < 0.01$; ***
 838 $p < 0.001$). ARDS: acute respiratory distress syndrome; HP: hyperparasitemia; NI: non-
 839 infected mice; NS: non-stimulated cells.

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841

842 **Supplementary Figure 3: Dexamethasone reduced inflammation and VCAM**
 843 **expression but did not decrease ICAM-1 expression in *P. berghei*-infected mice.**
 844 *Plasmodium berghei* ANKA-infected DBA/2 mice were treated with dexamethasone
 845 and compared to infected-untreated mice. Serum and lung tissues were analyzed on the
 846 7th day post-infection. Serum levels of (a) IL-6 and (b) IL-33 analyzed by ELISA.
 847 mRNA expression from lung tissues was evaluated for (c) VCAM and (d) ICAM-1 by
 848 qRT-PCR. Bars represent the average \pm SD (** $p < 0.01$; *** $p < 0.001$). (a-b) Unpaired t
 849 test representative of two independent experiments; (c-d) Mann-Whitney test from two
 850 grouped experiments. Infected+Dexa: *P. berghei* ANKA-infected mice and treated with
 851 dexamethasone. Red dashed lines: noninfected mice.

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