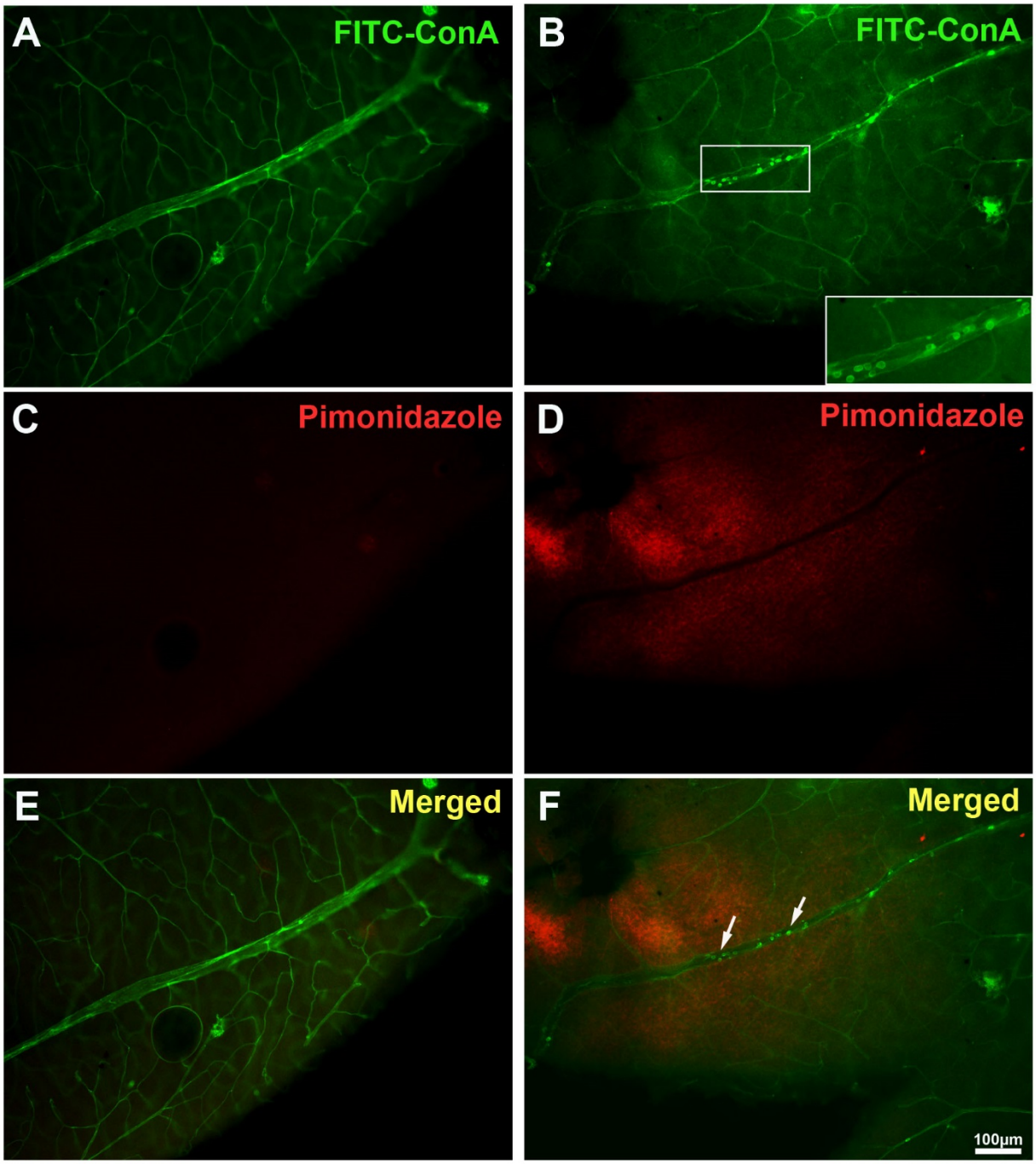
Table S1. Sequences of primers used for quantitative real time PCR on mice

Gene	Forward primers (5'to 3')	Reverse primers (5'to 3')
ICAM-1	TTCACACTGAATGCCAGCTC	GTCTGCTGAGACCCCTCTTG
ICAM-2	ATCAACTGCAGCACCAACTG	ACTTGAGCTGGAGGCTGGTA
VCAM-1	CCCAGGTGGAGGTCTACTCA	CAGGATTTTGGGAGCTGGTA
E-selectin	AGCTACCCATGGAACACGAC	ACGCAAGTTCTCCAGCTGTT
P-selectin	GTCCACGGAGAGTTTGGTGT	AAGTGGTGTTCGGACCAAAG
VAP-1	CTTCACCGACTTCATCAGCA	CCCGGAAATAGATGGAGTCA
Integrin β1	TGGACAATGTCACCTGGAAA	TGTGCCCACTGCTGACTTAG
Integrin α4	CCCAGGCTACATCGTTTTGT	CATGAATGGGGGTAAGGATG
CyclophilinA	CAGACGCCACTGTCGCTTT	TGTCTTTGGAACTTTGTCTGCAA

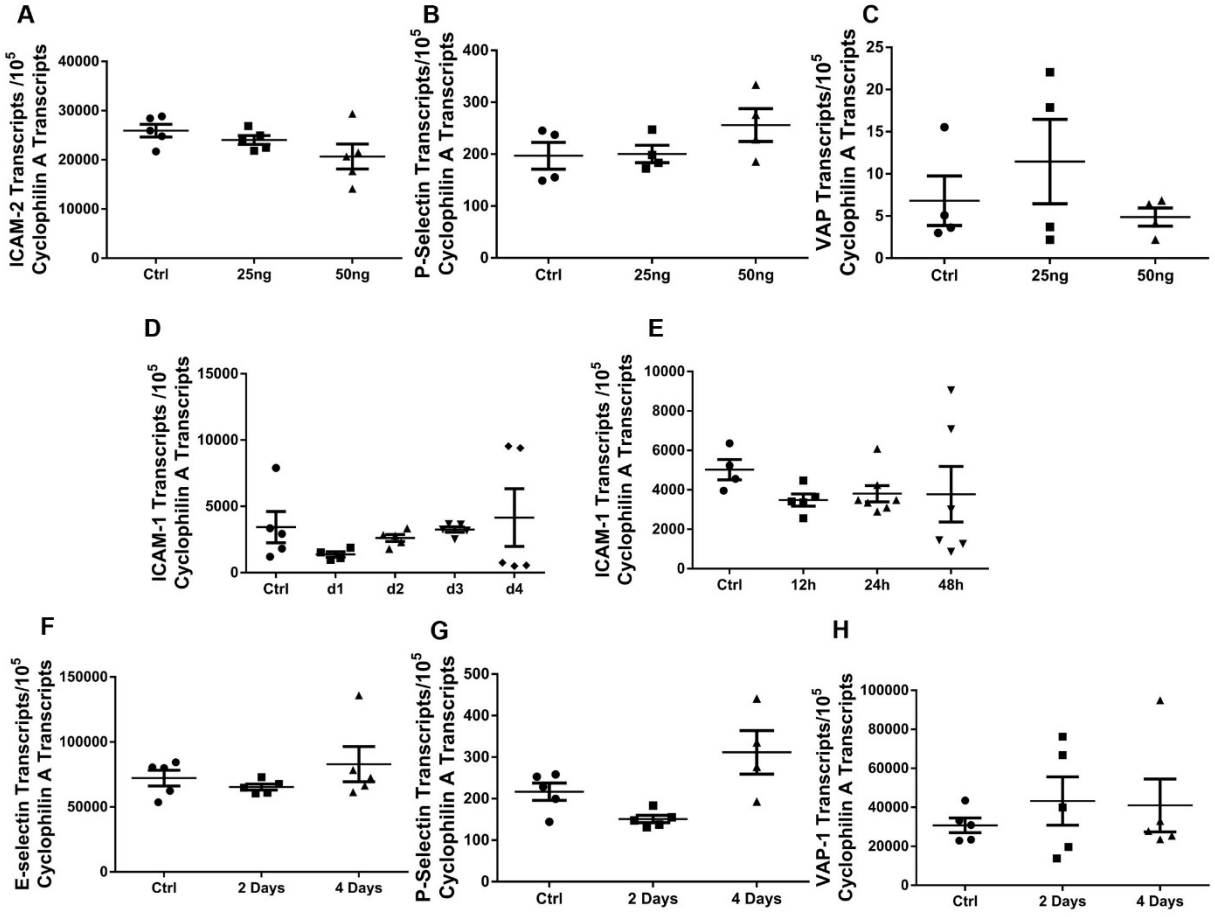
Abbreviations: ICAM-1 = intercellular adhesion molecule-1; ICAM-2 = intercellular adhesion molecule-2; VCAM-1 = vascular cell adhesion molecule-1; VAP-1 = vascular adhesion protein-1

Supplemental Figure 1



Supplemental Figure 1. VEGF-induced leukostasis is associated with retinal hypoxia. Figure 2H shows the pimonidazole-stained retina of a doxycycline-treated *Tet/opsin/VEGF transgenic* mouse that had been perfused with FITC-Con A. The image is shown at high magnification to clearly show leukocytes within retinal vessels as well as pimonidazole staining. This figure supplements Figure 2H by showing that the retina of a FITC-Con A-perfused *Tet/opsin/VEGF* mouse that was not treated with doxycycline does not show any staining with pimonidazole (A, C, E) and also shows a relatively low power image of a pimonidazole-stained retina from a doxycycline-treated *Tet/opsin/VEGF* mouse that had been perfused with FITC-Con A (B, D, F). The leukocytes are more difficult to discern except in the magnified view of the boxed area (B), but provides more perspective to illustrate that the retinal hypoxia is not uniform throughout the entire retina, but rather occurs in patches.

Supplemental Figure 2



Supplemental Figure 2. Adhesion molecules that did not show significant VEGF-induced stimulation of expression.

Figure 7 shows adhesion molecules for which expression was increased in cultured retinal endothelial cells (HRECs) by incubation with VEGF. The mRNAs for ICAM-2 (A), P-selectin (B) and VAP-1 (C) were not significantly increased in HRECs incubated with 25 or 50 ng/ml of VEGF for 4 hours. Figure 8 shows adhesion molecules for which mRNA levels were increased in the retina after intravitreous injection of VEGF in wild type mice or by doxycycline-induced expression of VEGF in the retinas of *Tet/opsin/VEGF* transgenics. Retinal mRNA for ICAM-1 was not increased during 4 days of doxycycline treatment in Tet/opsin/VEGF mice or between 12 and 48 hours after intravitreous injection of 1 µg of VEGF (D, E). Likewise retinal mRNAs for E-selectin (F), P-selectin, and VAP (H) were not significantly increased during 4 days of doxycycline treatment in *Tet/opsin/VEGF* mice (n ≥ 4 for each group).