

Online Supplemental Materials

ROR α modulates Semaphorin 3E transcription and neurovascular interaction in pathological retinal angiogenesis

Ye Sun^a, Chi-Hsiu Liu^a, Zhongxiao Wang^a, Steven S. Meng^a, Samuel B. Burnim^a, John Paul SanGiovanni^b, Theodore M. Kamenecka^c, Laura A. Solt^d, Jing Chen^{a,1}

^aDepartment of Ophthalmology, Harvard Medical School, Boston Children's Hospital, Boston, MA 02115;

^bSection on Nutritional Neuroscience, National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD 20892 and Department of Biochemistry and Molecular & Cellular Biology, Georgetown School of Medicine, Washington, DC 20057;

^cDepartment of Molecular Medicine, ^dDepartment of Immunology and Microbiology, the Scripps Research Institute, Jupiter, FL 33458.

¹To whom correspondence should be addressed to:

Email: jing.chen@childrens.harvard.edu; Tel: 617-919-2525.

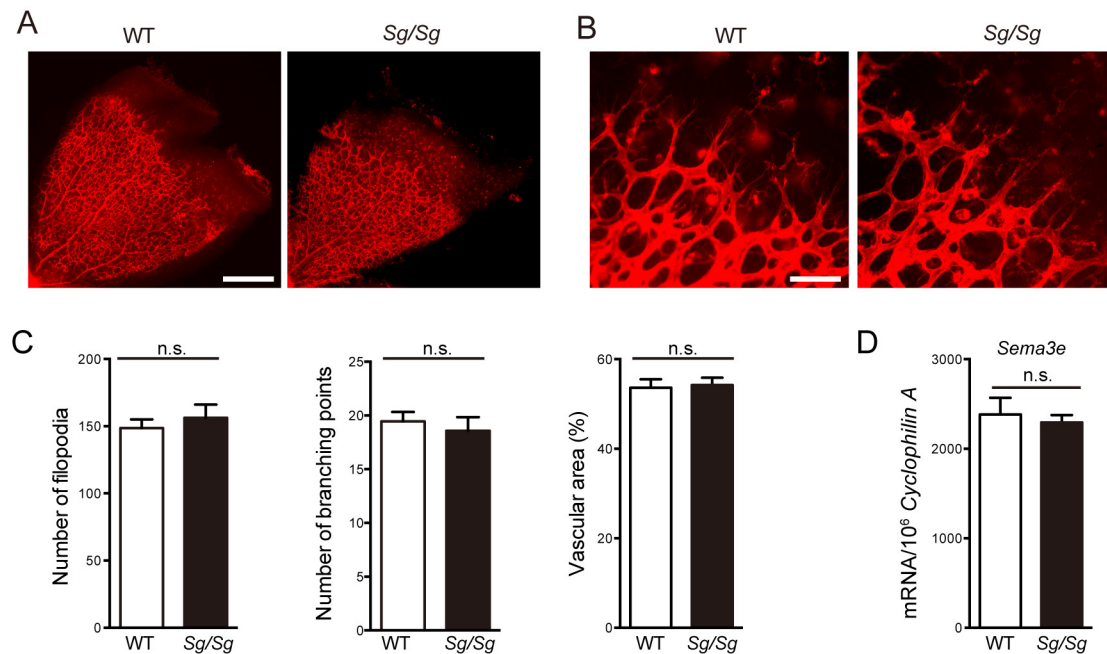


Figure S1 ROR α deficiency does not influence normal retinal vascular development.

A. Representative retinal whole-mount images from P5 *Sg/Sg* and WT mice were stained with isolectin IB₄ (red) for vasculature. **B.** Enlarged images of retinal whole-mounts from P5 *Sg/Sg* and WT mice showed retinal vascular growth front with endothelial cell filopodias. Retinas were stained with isolectin IB₄ (red) for vasculature. **C.** There were comparable numbers of retinal vessel tip cell filopodia, vascular branching points, and vascular areas between *Sg/Sg* and WT retinas at P5. Vascular areas were expressed as percentage of total retinal areas; **D.** There was no significant difference in the mRNA levels of *Sema3e* between *Sg/Sg* and WT retinas at P5; Data are presented as mean \pm SEM. no significance; n=5-6/group. Scale bar: 500 μ m (A) and 25 μ m (B).