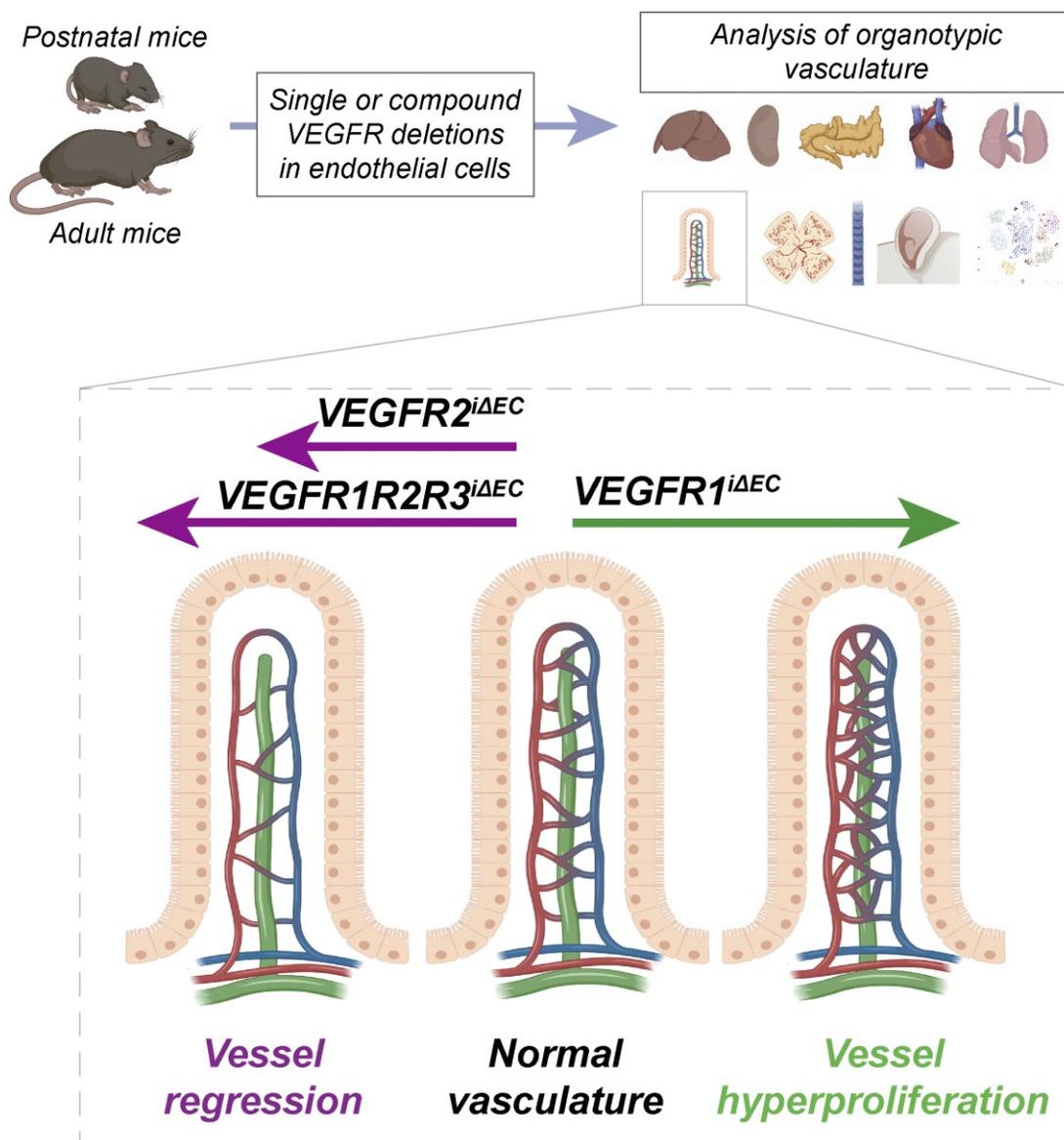


**Interplay of vascular endothelial growth factor receptors in organ-specific vessel maintenance.** Karaman S, Paavonsalo S, Heinolainen K, Lackman MH, Ranta A, Hemanthakumar KA, Kubota Y, Alitalo K. *J Exp Med.* 2022 Mar 7;219(3):e20210565. doi: 10.1084/jem.20210565. Epub 2022 Jan 20.



**Key findings:**

- Endothelial VEGFR1 deletion increases vascular density, VEGFR2 deletion causes widespread blood vessel regression and VEGFR3 deletion leads to hypersprouting of retinal blood vessels and regression of lymphatic vessels.
- Vascular regression induced by VEGFR2 deletion is further aggravated by the deletion of VEGFR1 or VEGFR3 in the intestine, kidney, and pancreas, but not in the liver or kidney.
- Combined deletion of VEGFR1 and VEGFR3 induces higher vascular density in the kidney glomeruli, liver, Langerhans islets, intestine, and trachea.
- Perturbations of VEGFR signaling pathways cause profound changes in endothelial transcriptomes and organ-specific vessel maintenance mechanisms highlighting the importance of organotypic sensitivity of the ECs to VEGFR signaling