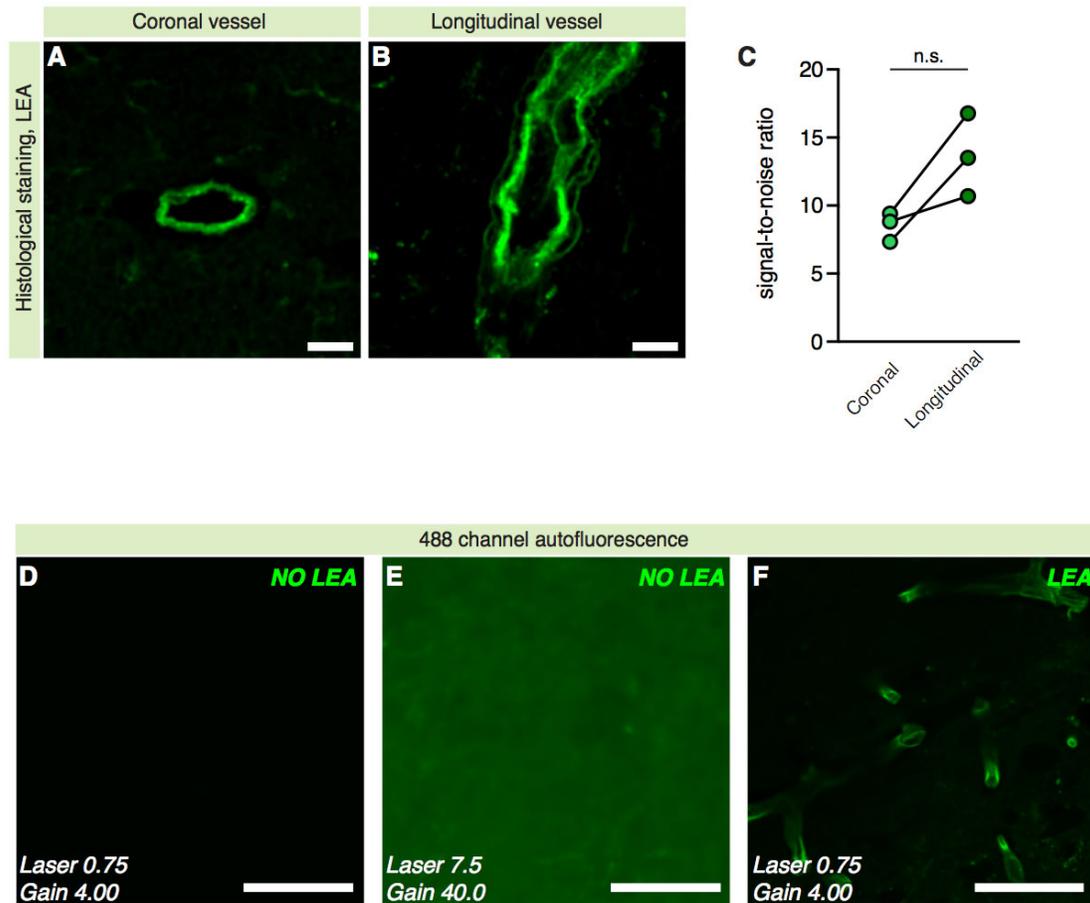
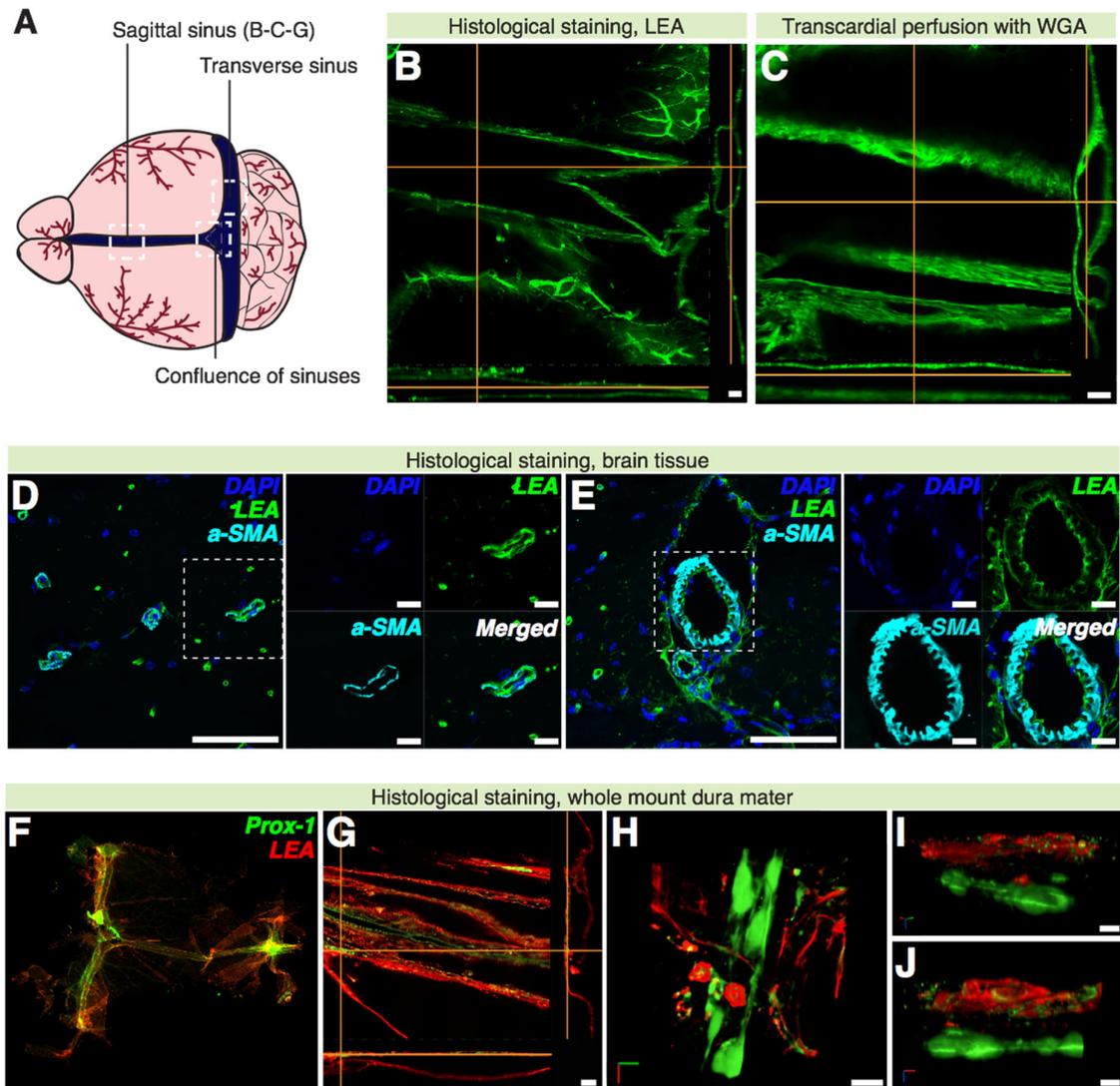


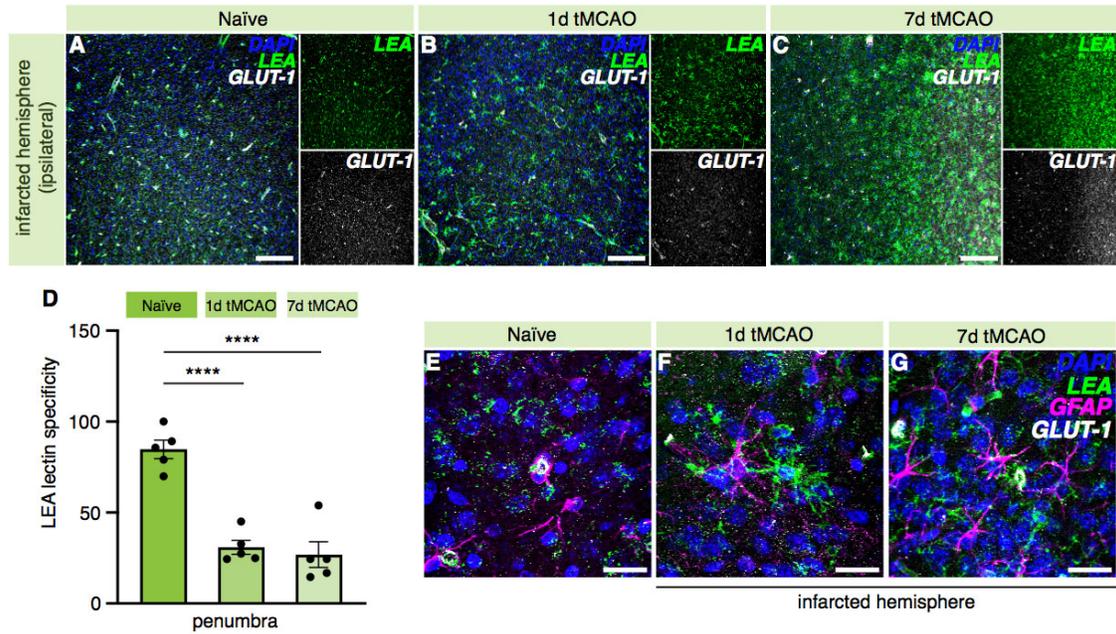
## Supplementary information



**Figure S1: Comparison of LEA lectin labelling of longitudinal vs. coronal sectioned vessels. (A-B)** Representative 20× confocal images (scale bars: 10 μm) of blood vessels in the hippocampus (cross-sectional) or in the cortex (longitudinal) labelled with LEA lectin. **(C)** Quantification of the signal-to-noise ratio values (Paired t-test:  $p = 0.0917$ ).  $n = 3$  mice. **(D-F)** Representative confocal images of mouse brain sections non-labelled with LEA lectin, compared to a labelled one to address whether autofluorescence could have an impact on LEA signal. Scale bars: 50 μm.



**Figure S2: Determination of lectin labelling of veins vs arteries vs. lymphatic vessels.** (A) Schematic depicting the sagittal and transverse sinuses in the dura mater. (B-C) Representative confocal images of a 3D reconstruction of the sagittal sinus of the dura mater, labelled with LEA lectin histological staining and WGA lectin intracardially perfused, respectively. Scale bar: 50  $\mu$ m. (D-E) Representative confocal images of brain arteries labelled with  $\alpha$ -SMA that shows co-labelling with LEA lectin. Scale bar: 50  $\mu$ m. White dashed squares mark the magnified insets on the right. Scale bars: 10  $\mu$ m. The images are representative of the co-localization in 5 different mice. (F) Representative image of the whole mount dura of a Prox1-eGFP transgenic mice labelled with LEA lectin and (G) 3D reconstruction of the sagittal sinus of the dura mater and lymphatic vessels along it. Scale bar: 50  $\mu$ m. (H-J) Volumetric projections of the lymphatic vessel in (G) that shows no overlapping with LEA labelling. Scale bars: 10  $\mu$ m. The images are representative of 3 different mice.



**Figure S3: LEA lectin specificity in the penumbra of mice after tMCAo.** (A-C) Representative confocal images of blood vessels in the peri-infarct region in the brain of 1d tMCAo and 7d tMCAo mice, labelled with LEA lectin and GLUT-1 antibody and compared to naïve intact brain. Scale bars: 100  $\mu$ m. (D) Quantification of the LEA lectin specificity. (One-Way ANOVA test,  $p < 0.0001$ ; Tukey's multiple comparisons test for the infarcted hemisphere: naïve vs 1d tMCAo  $p < 0.0001$ ; naïve vs 7d tMCAo  $p < 0.0001$ ; 1d tMCAo vs 7d tMCAo  $P = 0.8583$ ).  $n = 5$  mice/group. \*\*\*\* =  $p < 0.0001$  (E-F) Representative 20 $\times$  confocal images of naïve, 1d tMCAo and 7d tMCAo mice brain sections incubated with LEA lectin, GLUT-1 antibody and GFAP antibody to stain astrocytes. Note that LEA lectin and GFAP signal do not overlap. Scale bars: 20  $\mu$ m.