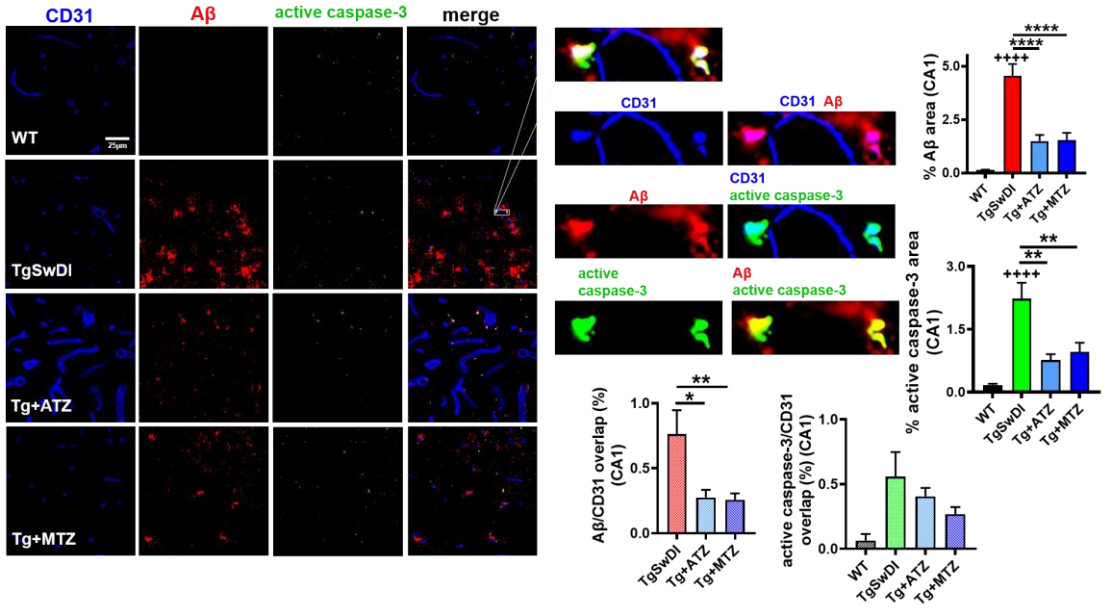
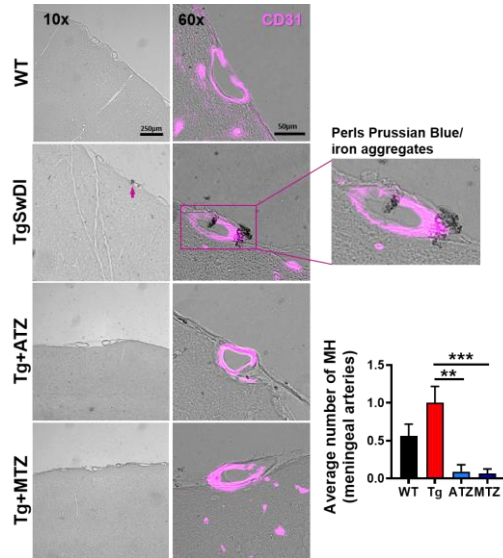


**A****B**

**Supplementary Figure 2: CAIs diminish vascular A $\beta$  burden and endothelial caspase-3 activation in CA1 area in TgSwDI animals.** **A)** Representative immunofluorescence images of the CA1 hippocampal region of 16-month-old mice. Compared to WT, untreated TgSwDI animals exhibited massive amount of A $\beta$  (red) and evident caspase-3 activation (green) in CA1, both significantly decreased by 8-month CAI treatment. Original magnification, 60x. Scale bar, 25 $\mu$ m. On the right, the relative quantification is plotted as the percentage of A $\beta$  and active caspase-3 area per acquisition field. For %A $\beta$ , WT, TgSwDI and MTZ: N=5, ATZ: N=4, n $\geq$ 12 measurements acquired /group. For %active caspase-3, WT, TgSwDI and MTZ: N=5, ATZ: N=3, n $\geq$ 9 measurements acquired /group. \*\*p<0.01, \*\*\*\* and ++++p<0.0001, One-way ANOVA and Tukey's post-hoc test. The magnified images show the spatial overlap between the signals: A $\beta$  (red) in the microvasculature; CD31 (blue) (overlap, magenta), endothelial active caspase-3 (green) (overlap, cyan), A $\beta$  overlapping active caspase-3 (yellow). Below, percentage of A $\beta$  and active caspase-3 signals overlapping with CD31 are graphed. ATZ and MTZ significantly attenuate A $\beta$ /CD31 overlap, and show a trend in reducing active caspase-3/CD31 overlap in TgSwDI mice. For A $\beta$ /CD31 overlap, TgSwDI and MTZ: N=5, ATZ: N=4, n $\geq$ 12 measurements acquired /group. \*p<0.05 and \*\*p<0.01, One-way ANOVA and Tukey's post-hoc test. For active caspase-3/CD31 overlap, =3-5 mice/group, n  $\geq$ 5 measurements/group. **B)** Representative 10x and 60x images of DAB-enhanced Perls Prussian Blue staining in meningeal arteries of 16-month-old mice, showing higher number of microhemorrhages (MH) (indicated with arrows) in TgSwDI mice, vs WT animals, which are reduced in CAI-treated groups. Colocalization of iron aggregates with CD31+ BVs (magenta) is shown in the 60x and magnified images. Scale bars are 250 $\mu$ m and 50 $\mu$ m, respectively for 10x and 60x magnification. The plot on the right represents the average number of MH counted. WT, TgSwDI and MTZ: N=4, ATZ: N=3, n $\geq$ 10 counts/group. \*\*p<0.01 and \*\*\*p<0.001, One-way ANOVA and Tukey's post-hoc test. Data are expressed as mean  $\pm$  SEM.