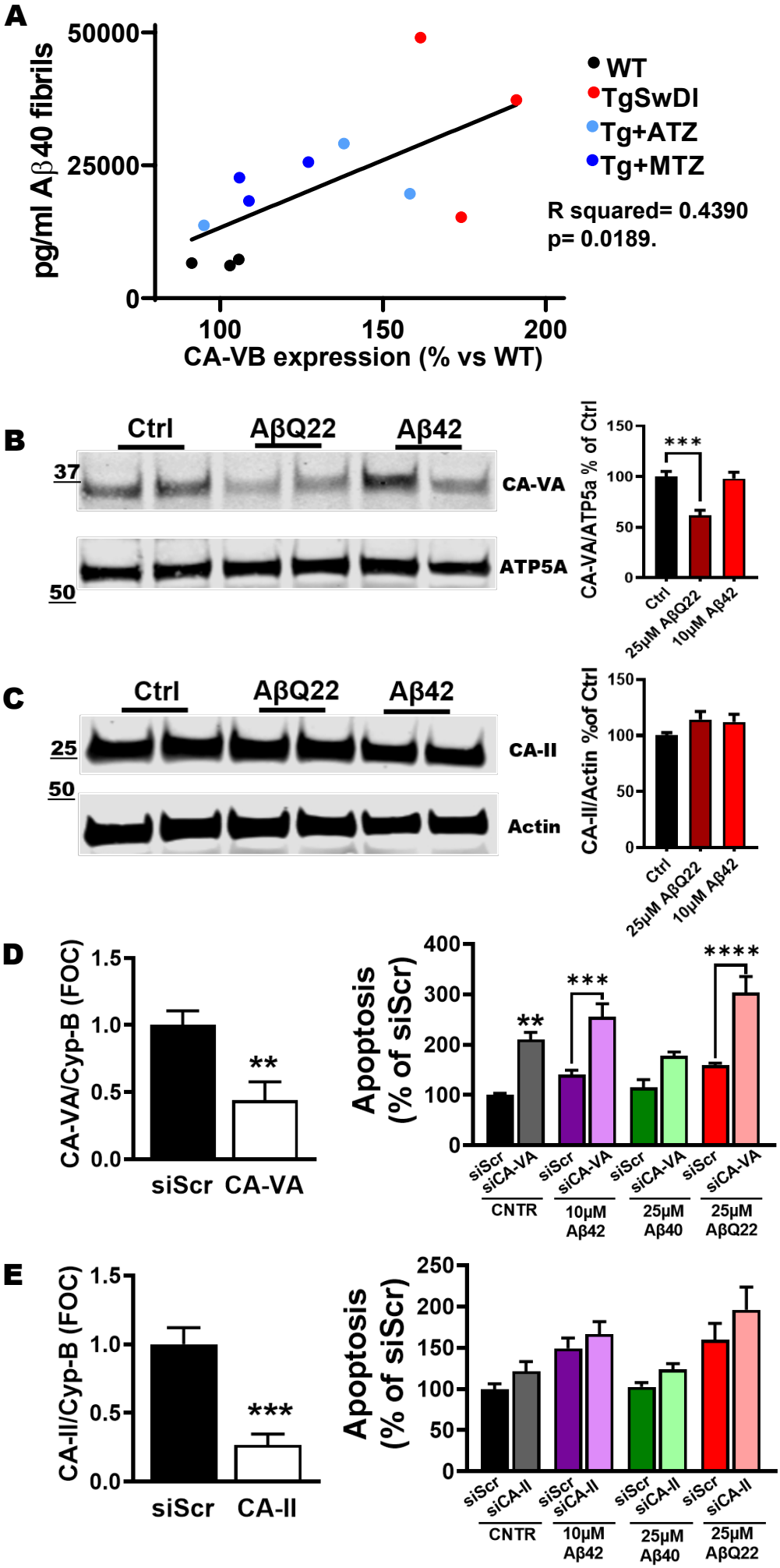
A
pg/ml Aβ40 fibrils
50000
25000
0
100
150
200
CA-VB expression (% vs WT)
WT
TgSwDI
Tg+ATZ
Tg+MTZ
R squared= 0.4390
p= 0.0189.
B
Ctrl
AβQ22
Aβ42
37
CA-VA
ATP5A
50
CA-VA/ATP5a % of Ctrl
150
100
50
0
***
Ctrl
25μM AβQ22
10μM Aβ42
C
Ctrl
AβQ22
Aβ42
25
CA-II
50
Actin
CA-II/Actin %of Ctrl
150
100
50
0
Ctrl
25μM AβQ22
10μM Aβ42
D
CA-VA/Cyp-B (FOC)
1.5
1.0
0.5
0.0
**
siScr
CA-VA
Apoptosis (% of siScr)
400
300
200
100
0
**
***
****
siScr
siCA-VA
CNTR
10μM Aβ42
25μM Aβ40
25μM AβQ22
E
CA-II/Cyp-B (FOC)
1.5
1.0
0.5
0.0
***
siScr
CA-II
Apoptosis (% of siScr)
250
200
150
100
50
0
siScr
siCA-II
CNTR
10μM Aβ42
25μM Aβ40
25μM AβQ22

**Supplementary Figure 6: Correlation of cerebral CA-VB expression and Aβ overload, and impact of CA-VA and CA-II downregulation on apoptosis. A)** Positive correlation between brain CA-VB expression and cerebral Aβ40 fibril overload. N=3/group. R squared=0.4390, p=0.0189. **B, C)** Expression of CA-VA (**B**) and CA-II (**C**) in hCMEC/D3 cells. Western Blot analysis of CA-VA and CA-II after 24hrs of treatment with Aβ40-Q22 (25μM) and Aβ42 (10μM). CA-VA was normalized to mitochondrial protein ATP5a, while cytosolic CA-II was normalized to actin. Quantification on the right. The expression of CA-VA is significantly reduced following 24hr Aβ40-Q22 treatment. Data represents the combination of at least three experiments, each with 2 replicates, graphed as mean + SEM. Ctrl vs. Q22 ***p<0.001. **D)** qRT-PCR for the mRNA expression levels of CA-VA and Cyp-B (control) at 48hrs post-transfection with siRNA for CA-VA (siCA-VA) or with a scrambled sequence (siScr). On the right, the impact of CA-VA downregulation on apoptosis, as measured by the formation of fragmented nucleosomes, after Aβ42 (10μM), Aβ40 (25μM) or AβQ22 (25μM) challenge for 24hrs. **p<0.01, ***p<0.001, ****p<0.0001 vs. siScr control, One-way ANOVA and Tukey's post-hoc test. **E)** qRT-PCR for the mRNA expression levels of CA-II and Cyp-B (control) at 48hrs post-transfection with siRNA for CA-II (siCA-II) or with a scrambled sequence (siScr). ***P<0.001 vs siScr, Unpaired two-tailed t-test. On the right, the effects of CA-II downregulation in apoptosis, as measured by the formation of fragmented nucleosomes, after Aβ42 (10μM), Aβ40 (25μM) or Q22 (25μM) challenge for 24hrs. In **D** and **E**, graphs display one representative experiment of at least N=3 experiments, each one performed in duplicate (n=2). Data are expressed as mean ± SEM.