



**Supplemental Figure S1.** Fig. S1 Pathological changes begin at 6 months in all hippocampal subfields of the TgF344-AD rat.

Bar graphs (left) of quantified anti-A $\beta$  (6E10 ab) in Wt and Tg CA1 and CA3 at 3 (nWt=4, nTg=4), 6 (nWt=4, nTg=4), 9 (nWt=4, nTg=4), 12 (nWt=3, nTg=5), and 19 (nWt=3, nTg=3) months. Two-way RM ANOVAs shows significant interaction of genotype and age in CA1 ( $F_{[4, 30]}=2.961$ ,  $p=0.0357$ ) and significant effect of genotype, but not age in CA3 (Geno:  $F_{[1, 30]}=9.30$ ,  $p=0.0048$ ; Age:  $F_{[4, 30]}=1.668$ ,  $p=0.1833$ ). Bar graphs (right) of quantified total fiber length/area including 15 (nWt=4, nTg=2) and 24 (nWt=3, nTg=2) month old male rats was significant for genotype differences by 2-way RM ANOVA in CA1 ( $F_{[1, 37]}=8.136$ ,  $p=0.0071$ ) and CA3 ( $F_{[1, 37]}=18.75$ ,  $p=0.0001$ ). All values are mean  $\pm$  SEM.