In vivo Animal Models

AD / Tauopathy

TMHT Transgenic Mouse Model

The TMHT (Thy1 Mutated Human Tau) mouse was developed in-house and is exclusively available at QPS Austria. TMHT mice overexpress the human TAU441 with two mutations, V337M and R406W under control of the neuron- specific murine Thy1 promoter.

- Cognitive deficits in the Morris water maze starting at 5 months of age
- No motor deficits
- TAU phosphorylation at Thr181, Ser202, Thr231/Ser235, Ser396/Ser404

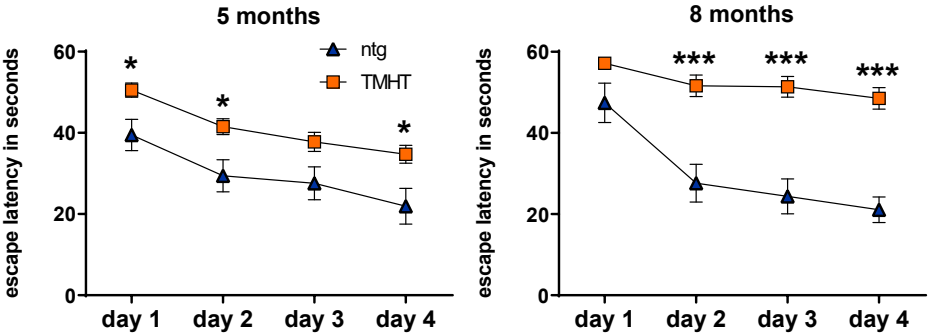

Figure 1: Morris water maze escape latencies of 5 and 8 month old TMHT mice. Mean ± SEM; n = 19 - 54; Two-way ANOVA with Bonferroni's *post hoc* test; *p<0.05, ***p<0.01.

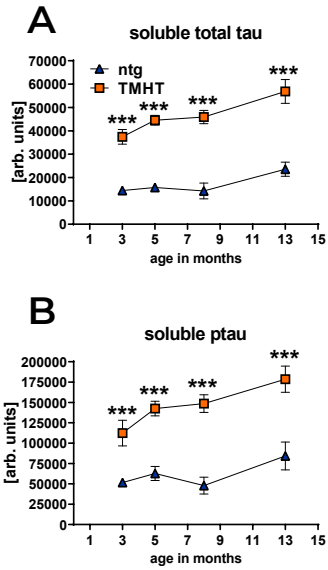

Figure 2: Quantitative analysis of soluble and insoluble Tau and pTau expression levels in the hippocampus of 3 to 13 months old TMHT mice compared to non-transgenic animals by MSD immunosorbent assay. A: Soluble total Tau levels. B: Soluble pTau Thr231 levels. n = 4 - 13. Mean ± SEM. Two-way ANOVA with Bonferroni's *post hoc* test. ***p< 0.001

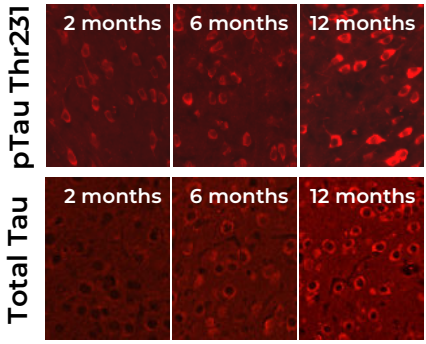

Figure 3: Immuofluorescent of total tau (HT7) and pTau Thr231 (AT180) labeling in the amygdala of 2, 6 and 12 months old TMHT mice.

Flunkert et al. Elevated Levels of Soluble Total and Hyperphosphorylated Tau Result in Early Behavioral Deficits and Distinct Changes in Brain Pathology in a New Tau Transgenic Mouse Model. Neurodegener Dis. 2012 Jul 10.

TMHT mice are cryo-preserved and will be recovered upon request.

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