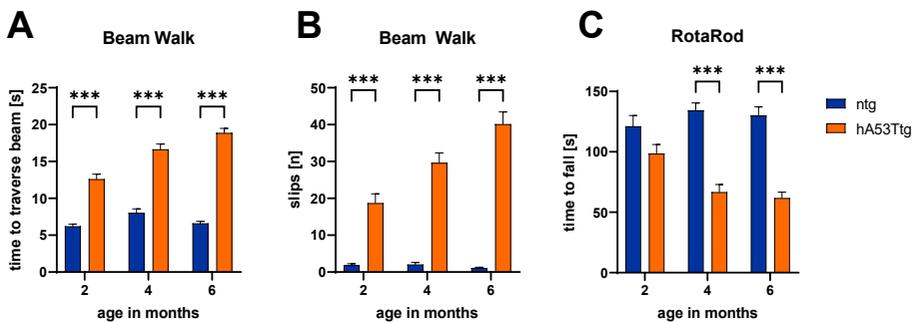


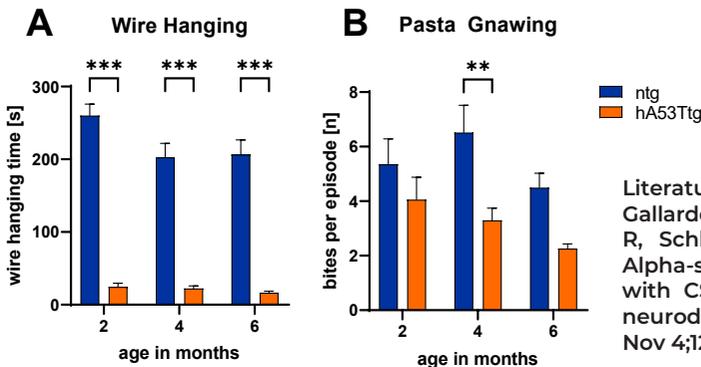
## hA53Ttg Transgenic Mouse Model

hA53Ttg mice express A53T mutant human  $\alpha$ -synuclein under the control of the murine Thy-1 promoter (JAX# 008135). This line M53 is bred on a C57BL/6J background.

- **Progressive age-dependent increase of motor deficits**
- **Orofacial motor deficits**
- **Severe early muscle weakness**



**Figure 1: Motor deficits in the beam walk and RotaRod test of hA53Ttg mice compared to non-transgenic littermates.** Time to traverse the beam (A) and number of slips (B) in the beam walk test as well as time to fall off the rod in the RotaRod test (C). n = 23-24 per group. Two-way ANOVA with Bonferroni's post hoc test; mean + SEM; \*\*\*p<0.001.



Literature: Chandra S, Gallardo G, Fernández-Chacón R, Schlüter OM, Südhof TC. Alpha-synuclein cooperates with CSPalpha in preventing neurodegeneration. Cell. 2005 Nov 4;123(3):383-96.

**Figure 2: Muscle strength and motor deficits in the wire hanging test and pasta gnawing test of hA53Ttg mice compared to non-transgenic littermates.** Wire hanging time observed in the wire hanging test (A) and bites per episode in the pasta gnawing test (B). n = 23-24 per group. Two-way ANOVA with Bonferroni's post hoc test; mean + SEM; \*\*p<0.01; \*\*\*p<0.001.