

hA53Ttg Transgenic Mouse Model

hA53Ttg mice express A53T mutant human α -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**

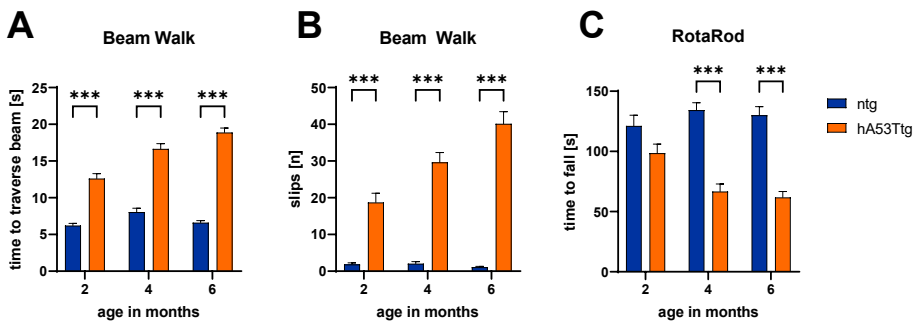
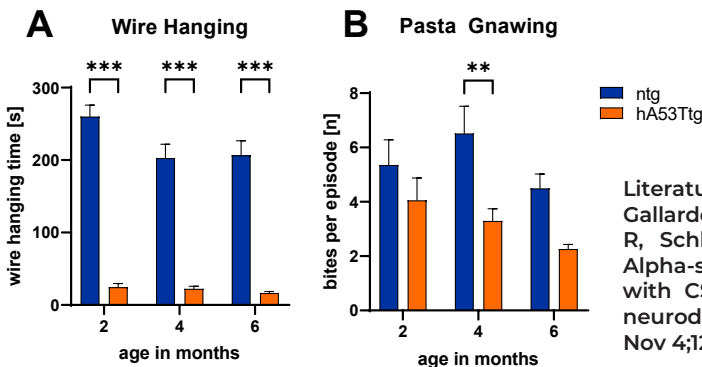


Figure 1: Motor deficits in the beam walk and RotaRod test of hA53Ttg mice compared to non-transgenic littermates. Time to traverse the beam (A) and number of slips (B) in the beam walk test as well as time to fall off the rod in the RotaRod test (C). $n = 23-24$ per group. Two-way ANOVA with Bonferroni's 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; ** $p < 0.01$; *** $p < 0.001$.