



Line 61 Transgenic Mouse Model

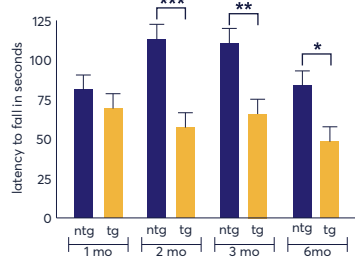
This PD transgenic mouse model overexpresses human wild type α -synuclein under the control of the human Thy1 promoter.

- High expression of α -syn already in young mice
- Axonal α -syn depositions
- Loss of striatal dopaminergic synapses
- Impaired nest building behavior
- Motor deficits in behavioral read outs

Figure 1: RotaRod and Pasta Gnawing test of 1, 2, 3 and 6 month old Line 61 mice. Mean + SEM; n = 13 - 15; Two-way ANOVA with Bonferroni's post hoc test: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

RotaRod

Figure 1:



Pasta Gnawing

Figure 1:

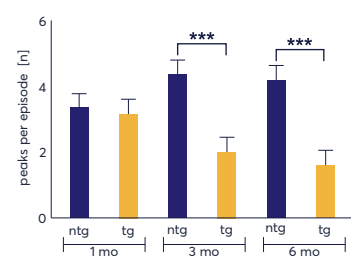
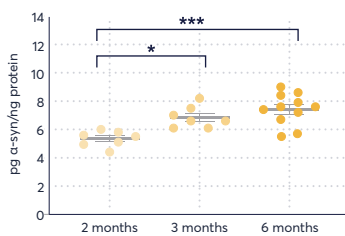


Figure 2: Total hippocampal soluble and insoluble α -synuclein levels of 2, 3 and 6 month old male Line 61 mice. Mean + SEM; n = 8; One-way ANOVA; * $p < 0.05$; *** $p < 0.001$.

Insoluble fraction

Figure 2:



Soluble fraction

Figure 2:

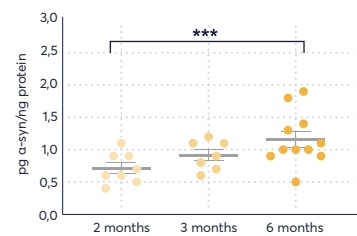
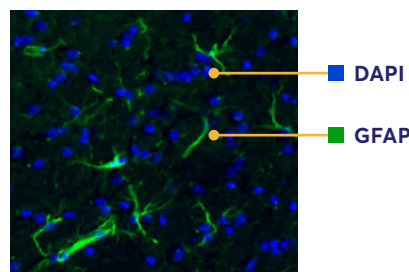


Figure 3: Astrocytosis in Line 61 mice. Representative images of GFAP labeling in the striatum of 6 month old Line 61 and ntg animals. Scale bar: 50 μ m.

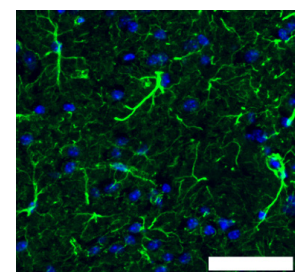
ntg

Figure 3:



Line 61

Figure 3:



Fleming SM, Salcedo J, Hutson CB, Rockenstein E, Masliah E, Levine MS, Chesselet MF. Behavioral effects of dopaminergic agonists in transgenic mice overexpressing human wildtype alpha-synuclein. *Neuroscience*. 2006 Nov 3;142(4):1245-53. Epub 2006 Aug 23.

