In vivo Animal Models

Parkinson's Disease

D-Line Transgenic Mouse Model

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

- Progressive, age dependent accumulation of intracellular α-syn
- Lewy body like inclusions
- Axonal α-syn depositions
- Loss of striatal dopaminergic synapses
- Age-associated cortical atrophy
- Impaired nest building behavior

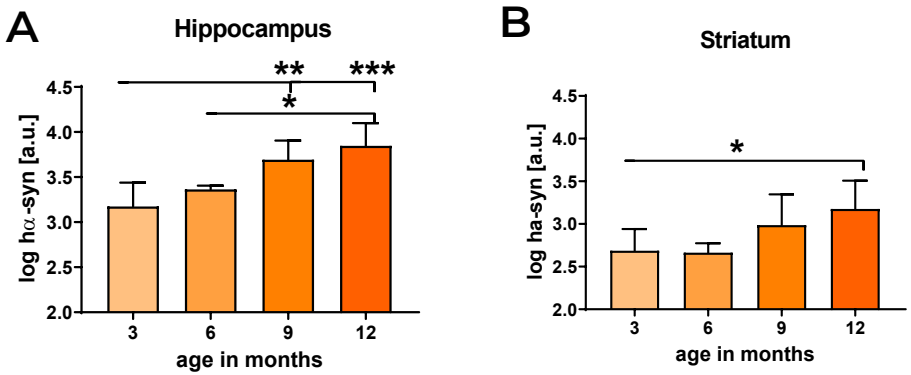

Figure 1. Human α-syn levels in the hippocampus and striatum of 3, 6, 9 and 12 month old D-Line mice as measured by ELISA. Mean + SEM, n = 6; One-way ANOVA: *p<0.05, **p<0.01, ***p<0.001.

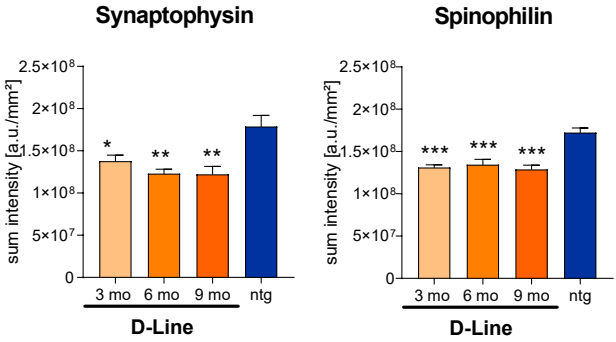

Figure 2. Quantification of synapses by synaptophysin and spinophilin labeling in the hippocampus of D-Line mice over age. Mean + SEM; n = 5; One-way ANOVA: *p<0.05, **p<0.01, ***p<0.001.

Amschl et al. 2013: Time course and progression of wild type α-synuclein accumulation in a trans- genic mouse. BMC Neurosci. Jan 9;14:6.

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

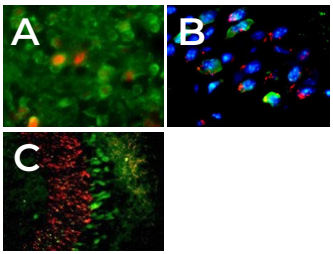

Figure 3A: Phosphorylated hα-syn (red) within human wildtype α-syn (green) positive granule cells of the D-Line olf. bulb. B: Ubiquitinization (red) of α-syn positive neurons (green) in the hippoc. CA1 region of D-line mice, counterstained with DAPI (blue). C: Human (green) and murine (red) α-syn in the hippocampal CA3 region of D-line mice.

QPS Austria
Parkring 12, 8074 Grambach, Austria
Email office-austria@qps.com
Website www.qpsneuro.com
Tel +43 316 258 111

QPS LLC
3 Innovation Way, Suite 240
Newark, DE 19711, USA
Email info@qps.com
Website www.qps.com