Supplementary Materials

Title: Thalamostriatal Degeneration Contributes to Cholinergic Interneuron Loss and Dystonia in a Huntington’s Mouse Model

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Experimental Timeline

Birth | 4 weeks | 6 weeks | 9 weeks | 11 weeks | 13 weeks

- Baseline behavioral tests followed by surgery (sham or lesion)
- First session post-op behavioural tests
- Second session post-op behavioural tests
- Third session post-op behavioural tests
- Second histological endpoint
- First histological endpoint
Supplementary Fig. 1: Matrix Neuron Soma Area in WT and R6/2 mice. Demonstrates a reduction in the R6/2 soma area of matrix neurons compared to WT at both 11 and 13wks with no significant effect of PF lesion. A 2-way between subject ANOVA was applied to the data and was followed by a Tukey HSD *post hoc* test where appropriate. ***p<0.001.
Supplementary Fig. 2: Striosome cell count in WT and R6/2 mice. Demonstrates a trend to reduction in number of striosome neurons is seen in R6/2 compared WT mice that was not significant (~8% decrease, p=0.23) at 11wks but was significant (p<0.05) at 13wks. There was no significant effect of thalamic lesion on striosome neuron number. A 2-way between subject ANOVA was applied, followed by a Tukey HSD post hoc test.*p<0.05; ***p<0.001.
Supplementary Fig. 3: Striosome Neuron Soma Area in WT and R6/2. Demonstrates a reduction in soma area of striosome neurons in R6/2 animals at both 11 and 13 wks compared to WT. There is no significant effect of lesion on striosome neuron soma area. A 2-way between subject ANOVA was applied followed by a Tukey HSD post hoc test. ***p<0.001.
Supplementary Fig. 4: CHAT+ Cell Soma Area in Saporin Treated Animals. No significant difference between remaining CHAT+ cells in either WT or R6/2 animals treated with saporin toxins. A 2-way between subject ANOVA was applied to the data and was followed by a Tukey HSD post hoc test.