Supplemental Figures

Figure 1. *Hdh*$^{(CAG)150}$ mice show abnormal gait pattern. Gait was captured by painting the paws of wild type, heterozygous, and homozygous mice with contrasting non-toxic colors prior to walking a paper-lined corridor. Gait pattern was normal in wild type mice, with overlapping fore- and hind-paws, consistent stride length and narrow stride width, at all ages. Homozygotes showed progressive and overt gait abnormalities beginning at 70 weeks. By 100 weeks, homozygotes exhibited fore- and hindpaw stride length compared to wild type littermates (Table 2a). *Hdh*$^{(CAG)150}$ mutants exhibit progressive decrease in forepaw base beginning at 70 weeks, which becomes significantly worse at 100 weeks (Table 2a; n=9, $p < 0.05$) compared to wild type. Values presented as mean ± SEM cm. * Denotes $p < 0.5$ compared to WT.

Figure 2. *Hdh*150^{CAG} mice show no motor abnormalities up to 50 weeks of age on the balance beam. *Hdh*$^{(CAG)150}$ mutant mice show no motor abnormalities up to and including 50 weeks of age, and there were no differences observed between groups in the amount of time to traverse the **(a)** 11 mm round and the **(b)** 5 mm square balance beams (11 mm $F_{(2,10)} = 0.013$; 5 mm $F_{(2,10)} = 0.179$ effect for genotype, $p > 0.05$) at 50 weeks.