

Supplemental data:

I) Self-clasping of limbs in DYT1 transgenic mice: Affected transgenic animals when hung by their tail demonstrated a dystonic-like self-clasping of limbs, which was never seen in hundreds of wild type animals examined. These movements were videotaped. A 16 sec segment of the movie is shown in the following files: a) Video of wild type control mouse hung by its tail showing normal limb movements. b) Video of DYT1 transgenic mouse hung by its tail showing dystonic-like abnormal self-clasping of limbs.

II) Circling in DYT1 transgenic mice: Transgenic animals also demonstrated abnormal circling behavior. Affected animals from each transgenic line exhibited circling both, with turning frequencies as fast as 1-2 cycles per second. c) Video of wild type control mice. d) Video of DYT1 transgenic mice showing rapid bidirectional circling.

III) Abnormal head shaking in DYT1 transgenic mice:

A few of the affected transgenic mice also demonstrated intermittent periods of abnormal shaking of the head from side to side and sustained deviation of the head toward one side or the other. e) Video of wild type control mice. f) Video of DYT1 transgenic mice showing abnormal head movements