

Fig. S1. Effects of injection of kainate into the cerebellum. **A**, Mean number of dystonic response with score D4/D5 (Pizoli *et al.* 2002) during 2hr observation. The number of events was significantly higher in *Atp1a3*^{+/-} than WT. **B**, The mean duration of individual D4/D5 response was not different between *Atp1a3*^{+/-} and WT. $n = 16$ (WT) and $n = 15$ (*Atp1a3*^{+/-}). Data are mean \pm SEM. Open bars: WT, solid bars: *Atp1a3*^{+/-}. * $p < 0.05$.

Ikeda *et al.* Supplemental Fig.S2

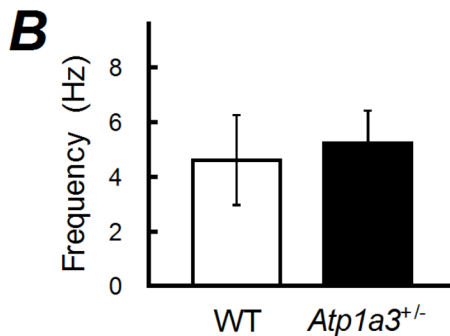
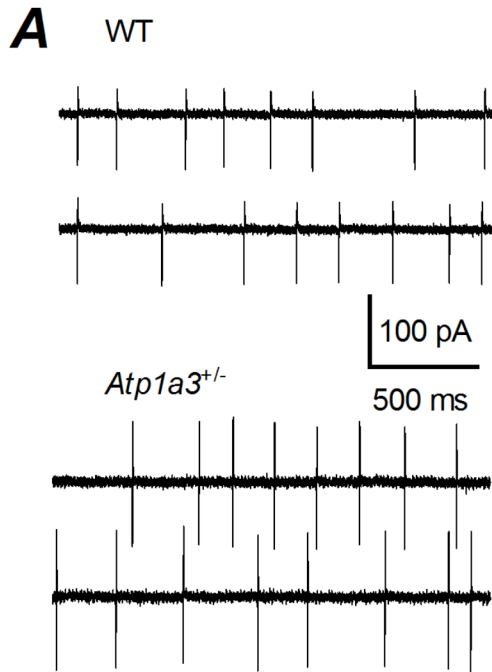


Fig. S2. Comparison of the spontaneous action potential firing of presynaptic ML interneurons in WT and *Atp1a3*^{+/-}. **A**, Successive traces of spontaneously occurring action potentials recorded from single interneurons in WT and *Atp1a3*^{+/-}. **B**, Summary of the action potential firing frequency of WT (open bar, $n = 15$) and *Atp1a3*^{+/-} (solid bar, $n = 10$).