

Supplementary Table 1: Description of Seizure Grades

SEIZURE GRADE	PHENOTYPE	LATENCY TIME CRITEREA
0	No change in behavior.	N/A
1	Progressive decrease in motor activity until the mouse comes to rest in a crouched or prone position with abdomen in full contact with the bottom of the cage.	Time at which the mouse rests abdomen on bottom of cage after period of hypoactivity.
2	Twitches.	Time of first whole body twitch (head to tail hiccup).
3	Mouse falls but recovers. Grade 3 seizures are fully developed minimal seizures with clonus of the head muscles and forelimbs. The righting reflex is present.	Time of first fall or when the head and shoulders are hunched and the mouse would fall if not supported by the side of the cage.
4	Falls and stays down. Grade 4 seizures are major seizures involving a fall and exhibiting forelimbs that are parallel to the body axis and stiff.	Time of fall (mouse does not right self) and forelimbs are parallel to the body axis and stiff.
5	Major seizure resulting in death. There is hyperactive bouncing followed by a fall and clonus of all four limbs that leads to death.	Time of onset of WRJ (wild running and jumping).