**Supplementary material**

**Modified Neurological Severity Score (mNSS):**

**Motor tests 6**

Raising rat by the tail 3

 Flexion of forelimb 1

 Flexion of hindlimb 1

 Head moved >10° to the vertical axis within 30 s 1

Placing rat on the floor (normal=0; maximum=3) 3

 Normal walking 0

 Inability to walk straight 1

 Circling toward the paretic side 2

Falling to the paretic side 3

**Sensory tests 2**

Placing test (visual and tactile test) 1

 Proprioceptive test (deep sensation, pushing paw against the table edge to stimulate the limb muscles) 1

**Beam balance tests (normal=0; maximum=6) 6**

Balances with a steady posture 0

 Grasps side of beam 1

 Hugs beam and 1 limb falls from the beam 2

 Hugs beam and 2 limbs fall from the beam or spins on the beam (>60 s) 3

 Attempts to balance on the beam but falls (>40 s) 4

 Attempts to balance on the beam but falls (>20 s) 5

 Falls off; no attempt to balance or hang on to the beam (<20 s) 6

**Reflex absence and abnormal movements 4**

Pinna reflex (head shakes when auditory meatus is touched) 1

 Corneal reflex (eye blinks when cornea is lightly touched with cotton) 1

 Startle reflex (motor response to a brief noise from snapping clipboard paper) 1

 Seizures, myoclonus, or myodystony 1

**Maximum points 18**

**Reference**

1. Borlongan CV, Randall TS, Cahill DW, Sanberg PR. Asymmetrical motor behavior in rats with unilateral striatal excitotoxic lesions as revealed by the elevated body swing test. Brain Res.1995; 676:231–234.

2. Shohami E, Novikov M, Bass R. Long-term effect of HU-211, a novel non-competitive NMDA antagonist, on motor and memory functions after closed head injury in the rat. Brain Res.1995; 674:55–62.

3. Chen Y, Constantini S, Trembovler V, Weinstock M, Shohami E. An experimental model of closed head injury in mice: pathophysiology, histopathology, and cognitive deficits. J Neurotrauma.1996; 13:557–568.

4. Schallert T, Kozlowski DA, Humm JL, Cocke RR. Use-dependent structural events in recovery of function. Adv Neurol.1997; 73:229–238.