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Protocol status: Working
We use this protocol and it's working

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Rotarod Test

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ABSTRACT

Behavioral assay to measure motor impairments, specifically balance and coordination, in mice.

MATERIALS

- MedAssociates mouse rotarod equipment
- computer with rotarod software
- Papertowels/kimwipes
- ethanol
- water
- timer

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1 Set up rotarod equipment as needed and clean thoroughly.

2 Turn on rotarod using green button and log into computer. Open software directly from desktop once machine is ON and connected.

3 Specify settings:
   a. Protocol: Increasing speed
   b. Speed: 4.0- 40 RPM
   c. File name [EXP NAME].txt
      i. Important: save file as .txt to then convert to excel once saved.
   d. Subject ID: animal number

4 Place mouse on rotarod—can place up to five animals at a time. Make sure mice are all facing the same direction (i.e. wall, AWAY from experimenter) before starting.

5 Press RESET to start. IMPORTANT. IF YOU DO NOT PRESS RESET, THE SPEED SETTINGS WON'T APPLY.

6 Record behavior for 5 minutes or until mouse falls. If mouse falls <5s, place back on rod, reset zone using button, and continue recording. If mouse stays static (not walking/running but gripping rod) and spins more

than three times, remove and mark as failed trial.

a. IMPORTANT: The sensors register when a mouse falls and stops experiment for that zone. You must remove the fallen mouse as quickly as possible so that it doesn't intercept another zone.

7 Place mice back in home cage and leave to rest for one minute before starting next trial. Clean rod in the meantime (within cage, use only water and/or kimwipe. Between cages, clean rod with ethanol and water).

8 Perform five 5-minute (300 second) trials per cage.