



Standard Operating Procedure for *Accelerating Rotor-Rod for Mice*

1.0 PURPOSE

This procedure describes how to test muscular coordination using the accelerating rotor-rod.

2.0 SCOPE (Should include which Cores this SOP applies to)

This procedure applies to all personnel who will test mice using the accelerating rotor-rod within the Stem Cells Engraftment and *in vivo* Analysis Core.

3.0 PROCEDURE

3.1 Apparatus

A four-lane automated accelerating rotor-rod for mice (San Diego Instruments) will be used. The detailed specifications are available at the following link: <http://www.sandiegoinstruments.com/rotor-rod-rotarod-test/>

3.2 General Procedures

All testing occurs during the dark-phase (the active phase) of the light cycle. Testing is conducted under dim white-light illumination (about 150 lux). The subjects are moved from their housing room to the testing room and allowed to acclimate for at least 10min before testing. After testing is completed, the mice are immediately returned to the housing room. The test is recorded using digital video cameras.

3.3 Testing Procedure

1. Clean the testing arena with soap and water. Allow the arena to dry before use.
2. Place the four subjects onto the cylinder.
3. Begin the program. Rotation gradually accelerates from 4rpm to 40rpm over five minutes.
4. As each subject falls, ensure the photobeam was broken and the timer stopped.
5. After all subjects have fallen, return the subjects to their homecage.