## Treadmill Running (90 min).v1

This procedure will allow for measure biological responses to acute endurance exercise. The protocol has been used for Laker et al. Nat Commun, 2017.

## **Procedure**

- 1. Prime the mice at 10:00 am on treadmill for 3 days (0% incline at 0.5 mph for 10 min).
- 2. Perform the running at 10 am on the 4<sup>th</sup> day.
- 3. Set incline to 5% slope (5.0 on treadmill)!!!!!!!!
- 4. Run mice at 0.5 mph for 10 min (total distance 134.11 m).
- 5. Run mice at 0.6 mph to 20 min (total distance 295.05 m).
- 6. Run mice at 0.7 mph to 70 min (total distance 1233.83 m).
- 7. Run mice at 0.8 mph to 90 min (total distance 1662.00 m).

Note: If a mouse has a hard time to complete the running, sacrifice the mouse and record the time (to calculate the running distance later).