**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 4th 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).