## 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 $10: 00 \mathrm{am}$ on treadmill for 3 days $(0 \%$ incline at 0.5 mph for 10 min).
2. Perform the running at 10 am on the $4^{\text {th }}$ 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).

