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Sticker Removal

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We use this protocol and it's working.

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Abstract

The sticker removal test is a form of adhesive removal task assessment that is used by our lab to asses sensory stimuli and motor tasks in mice. Simply, an adhesive substance is placed on the nose of the mouse which is sensed, then removed by the mice using their forepaws[1]. Difficulties in these tasks are commonly attributed to either sensory perturbations or difficulty in initiating or performing movement[2]. PD models (Parkin-KO, DJ-1, and Thy1-aSyn) mice show an increase in the time required to remove the adhesive sticker compared to controls[2].

Materials

1. Tube cap labels → https://www.fishersci.com/shop/products/label1-2in-circle-assortrl5000/501531730#?keyword=circle%20labels
2. Tweezers
3. Stopwatch
4. Empty rodent cage
5. 70% EtOH

Acclimation

1 Bring mice up from vivarium in their home cage to acclimate for at least 1h prior to sticker removal assessment.

2 Randomize the order of mice for assessment and record this order in your lab notebook

Assessment

3 With one hand use the tweezers to pick up one sticker, allowing it to sit on a single prong with the
adhesive side freely visible.

4 With the free hand grab one mouse and manually restrain with a “scruff technique” immobilizing the head and forepaws.

5 Using the tweezers gently press the adhesive side of the sticker onto the snout of the restrained mouse, gently putting down the tweezers and picking up a stopwatch.

5.1 Avoid placing the tweezers onto a hard surface or dropping them, as the high pitch noise will disturb the mice.

6 Place the restrained mouse into a clean, empty, cage and allow the mouse to remove the sticker from the snout, using its forepaws.

7 Stop the timer once the sticker has been removed completely from the snout and remove the sticker (now on the forepaws) from the mouse.

8 Allow the mouse 30 seconds to recover in the clean cage.

9 Repeat 2x times for a total of 3 replications.

10 Move on to the next mouse.

10.1 Clean the cage with 70% EtOH or use a new cage for the assessment when moving onto the next home cage.

11 Record the adhesive removal time as the average of 3 replications.

Protocol references

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2. A, Mann & MF, Chesselet. (2015). Techniques for Motor Assessment in Rodents. Movement Disorders (Second Addition). 8.4. 139-157. 10.1016/B978-0-12-405195-9.00008-1.