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Opto-RT-CPP

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Protocol status: Working

We use this protocol and it's working

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Abstract

Opto-RT-CPP in Serra et al 2023

- 1 A three-compartment apparatus (Spatial Place Preference Box, Panlab, Harvard Apparatus) was used for the Opto-RT-CPP test. The apparatus is composed of two compartments with different visual and tactile cues for both floors and walls and a connecting corridor (neutral compartment) with transparent walls and floor.
- 2 The study was carried out throughout 8 consecutive days preceded by one "Habituation" day.
- 3 On each day of the experiment, subjects were placed in a neutral cage for at least 3 min to recover after connecting the optic cables.
- 4 Mice were subsequently moved into the transparent corridor of the apparatus where, after 30–50 s, the doors were removed and animals allowed to freely explore the apparatus. The position of the mouse was detected by a camera positioned above the apparatus.
- 5 On "Habituation", "Pre Test" and "Conditioning Place Test" days (15 min), mice were connected to the optic fiber but no light was paired to any chamber.
- 6 On the "Real Time Conditioning" days (30 min), one chamber was randomly chosen as a light-paired chamber (counterbalanced across animals) while the other one was subsequently assigned as light-paired chamber on the "Reverse Real Time Conditioning" days (30 min).
- 7 Every time the subject entered the light-paired chamber, the laser was activated according to the stimulation protocol (20Hz, 5ms, 5mW).
- 8 Cumulative duration of the time spent in each compartment was recorded by using the Ethovision XT13.0/14.0 tracking software (Noldus Information Technology, The Netherlands).
- 9 Mice that showed strong initial preference during the "Pre-Test" for either one of the two compartments (<25% or >75% of time spent) were excluded from the statistical analysis.