

## CENTRAL NERVOUS SYSTEM

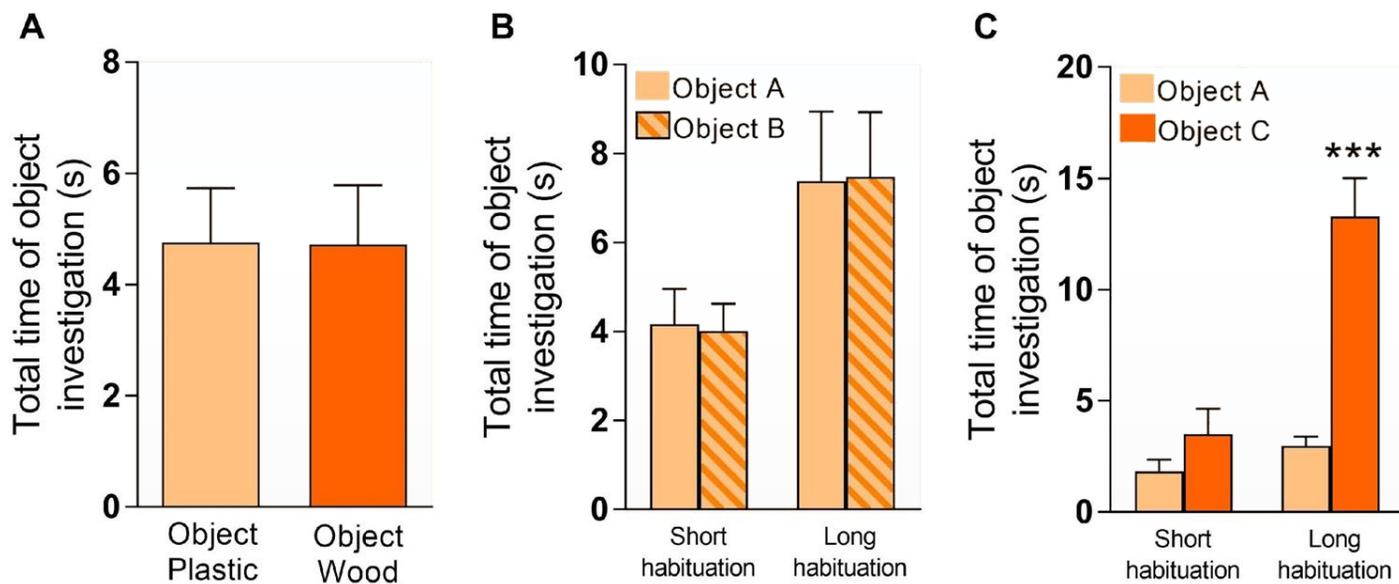
### Object Recognition Test

The Object Recognition Test (ORT) evaluate the rodents ability to recognize an object which was presented previously. Basically, ORT uses the natural rodents tendency to explore new objects. The procedure has three phases: habituation, familiarization and test. The results obtained are influenced by hippocampal and cortex lesions<sup>1</sup>.

**Species:** *Mus musculus* (C57Bl/6)  
**Number of animals/group:** 8-10 animals  
**Route of administration:** upon request  
**Treatment mode:** upon request

**Main read-outs:** total time of object investigation.  
**Facultative read-outs:** Number of crossing, rearing, recognition rate.

### Validation Data



**Figure:** Object Recognition Test model validation. According to the Figure (A), there is no innate preference for either objects (plastic x wood). (B) There is no difference when the protocol has short or long habituation (Object A = Object B). However, (C) when the objects are different (Object A ≠ Object C), the mice learn the task since they spend more time investigating the new object (object C) than the old one (object A). Each column represents the mean ± SEM of 8 mice per group. Non-paired t-Student test was used for statistical analysis \*,  $P < 0.05$ , versus control group.

To avoid bias and to allow reproducibility all in vivo experiments follow the ARRIVE guidances<sup>2</sup>. Mouse colony from Charles River Laboratories is breed and maintained in SPF conditions. The project includes study plan and final report. Raw data are inspected by quality assurance unity. The experimental procedures was previously approved by the CIEnP Committee on the Ethical Use of Animals.

#### References:

- <sup>1</sup>Buckmaster CA, et al. Entorhinal cortex lesions disrupts the relational organization of memory in monkeys. *J Neurosci*, 24, 9811-25, 2004
- <sup>2</sup>Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG. Animal research: reporting in vivo experiments: The ARRIVE guidelines. *PLoS Biol.* 8 (6): e1000412, 2010.