

In vivo Animal Models





# BTBR T+ tf/J Inbred Mouse Model

BTBR T+ tf/J mice are an inbred strain completely missing the corpus callosum and a severely reduced hippocampal commissure. As negative control, wild type inbred mice (e. g. C57BL/6) can be used.

- Social behavior and interaction deficits
- Repetitive behavior
- Reduced anxiety
- Spatial learning deficits
- Nest building and muscle strength deficits

#### Figure 1:

Three chamber social interaction test of BTBR mice. Time spent sniffing in seconds at the unfamiliar mouse or the empty cup during social approach (A) and the time spent sniffing in seconds at the familiar or the unfamiliar mouse during social recognition (B). n = 14 - 15; males only; mean + SEM. Two-way ANOVA with Bonferroni's post hoc test. \*p<0.05; \*\*p<0.01.

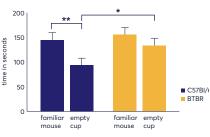
#### Figure 2:

Autogrooming behavior in BTBR mice **(A)**. Mean duration of grooming bouts. Time spent in the open arms of the elevated plus maze test **(B)**. n = 14 - 15; males only; mean + SEM; unpaired t-test; \*\*p<0.01; \*\*\*p<0.001.

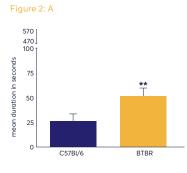
e.g.: McFarlane et al. Autism-like behavioral phenotypes in BTBR T+tf/J mice. Genes Brain Behav. 2008 Mar;7(2):152-63.

### Social Approach

## **Time Sniffing** Figure 1: A

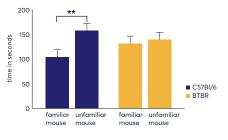


## **Grooming Bouts**



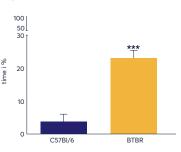
## Social Recognitaion

# Time Sniffing Figure 1: B



#### Time i Open Arms





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