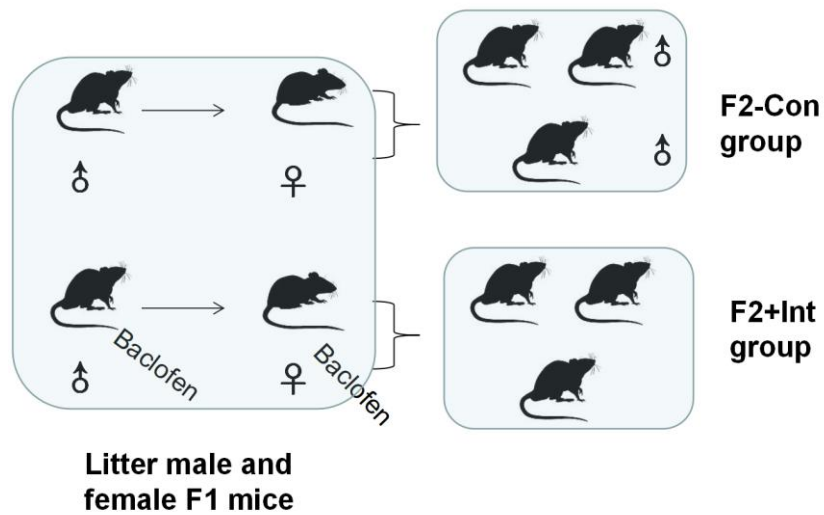
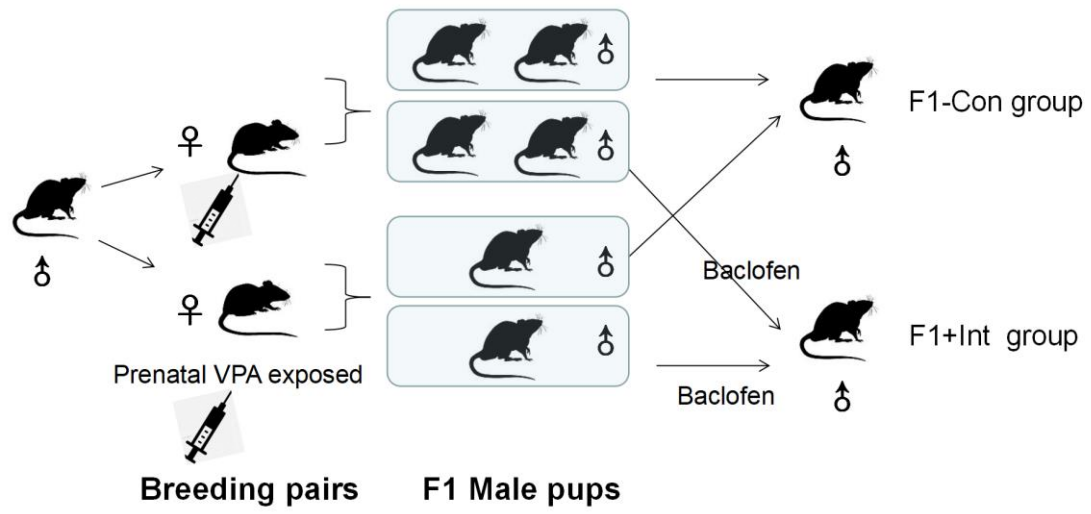
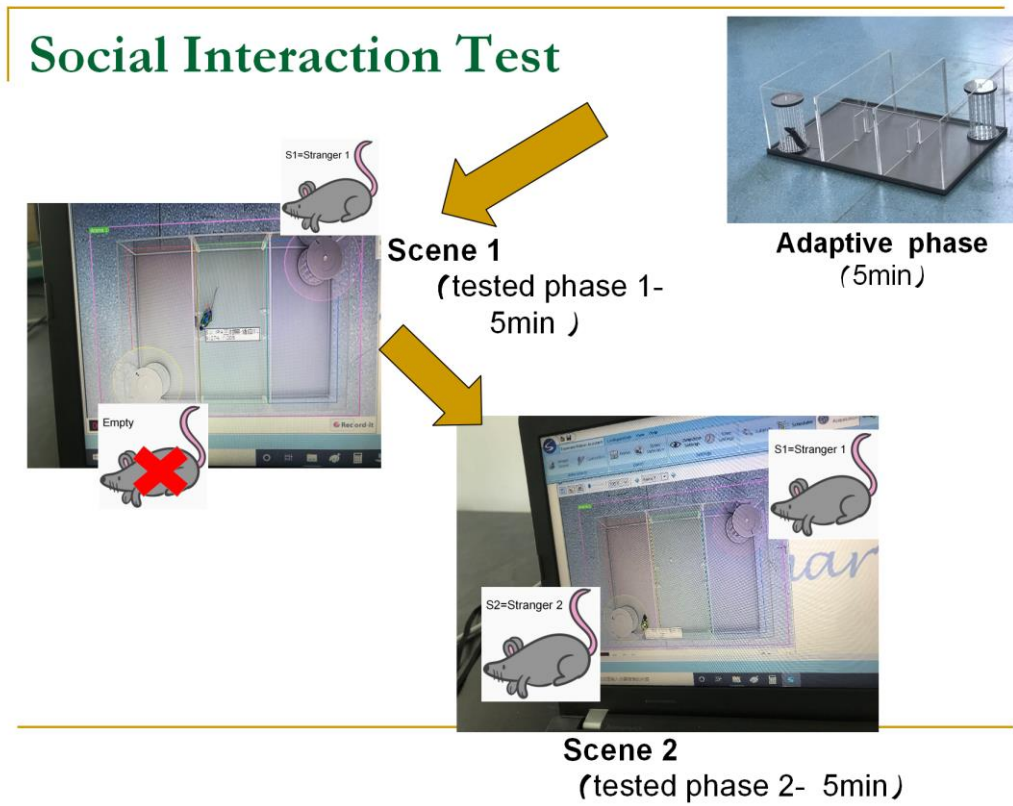


Supplementary Figure 1: Flowchart for eliminating the “litter effect”

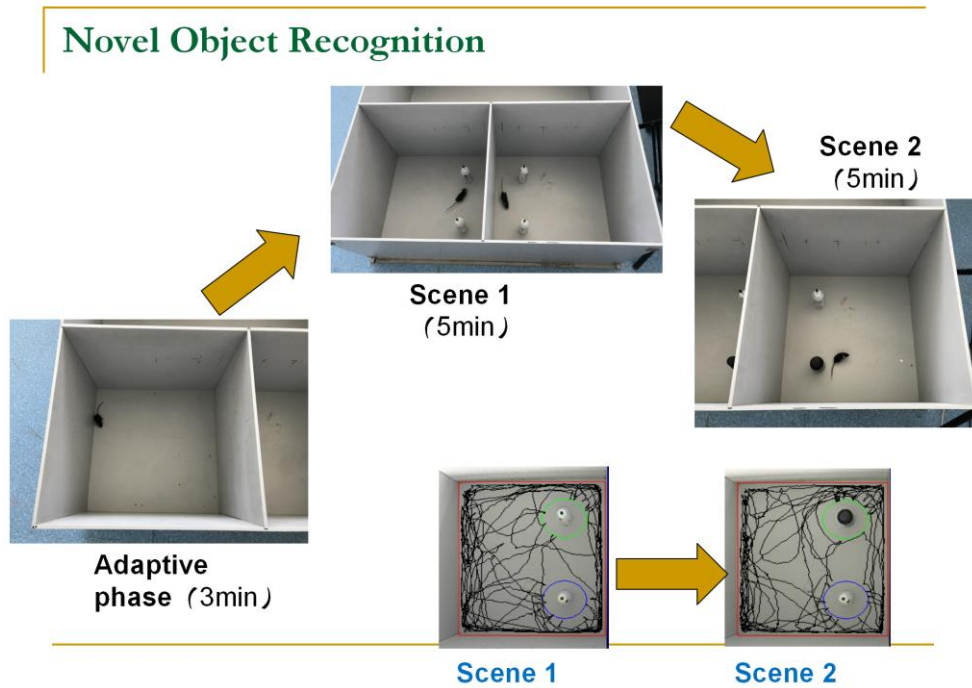


Supplementary Figure 2: Flowchart for behavioral test

① Flowchart of social interaction test

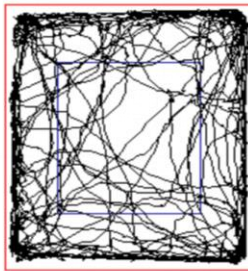


② Flowchart of novel object recognition task



③ Flowchart of open-field task and open-field habituation task

### Open-Field Task and Open-Field Habituation Task



24h later  
→



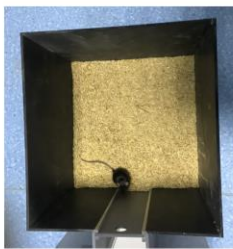
Behavior of control mice (WT)

**Open-Field Task**  
(10min)

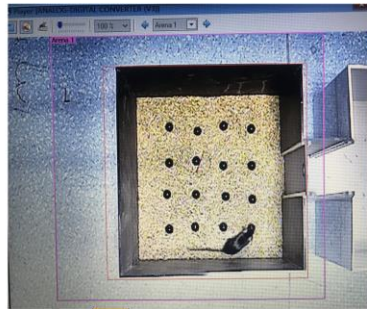
**Open-Field Habituation Task**  
(10min)

④ Flowchart of marble burying test

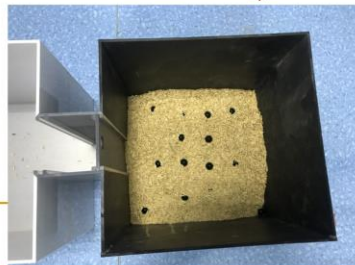
### Marble Burying Test



Adaptive phase -3min



Tested phase-10min



Collected image