

## **SOP of Crawley's social interaction test**

### **Purpose**

Social approaches are measured.

The apparatus is consisted of three chambers. A novel mouse or an inanimate novel object is placed in a wire cage at the left or right corner. Duration for exploration of the novel mouse or the inanimate novel object is measured.

### **Experimental Design**

Minimum number of animals: 7 per experimental group

Age at test: 9 weeks

Sex: males

### **Parameters measured**

Time spent near the novel object or stranger mouse.

### **Procedure**

The subject mouse was placed in the middle chamber and allowed to explore the entire apparatus for a 10 min session one week before the test for habituation. After one week from the habituation, we performed social novelty test.

1. Mice are habituated to testing room for 15 minute.
2. Place a mouse in the middle of chamber and allowed to explore the entire apparatus for a 10 min.
3. Place the novel object in the wire cage one side of chamber for 10 minutes.
4. Remove the novel object and place the unfamiliar male mouse (C57BL/6J) in a wire cage on another side of chamber for 10 minutes.
5. Take the mouse out of the apparatus after the test session.
6. Remove any feces with a paper towel and clean the floor and wire cage.

### **Notes**

Please ensure that the mice are not handled prior to the test, except handling for cage change.

## Equipment

The apparatus comprised a rectangular, three-chambered box and a lid containing an infrared video camera (O'Hara & Co.). Each chamber was  $20 \times 40 \times 22$  cm and the dividing walls were made from clear Plexiglass, with small square openings ( $5 \times 3$  cm) allowing access into each chamber.

The total time spent near each cage ( $<4.5$  cm) during a 10-min period was determined with a video-imaging system purchased from a commercial supplier (Time CSI2, O'Hara & Co.)

