

Programme de financement 2013

SOURIS-CITY

Screening individual and social behaviors in mice through ecological and automatized laboratory

Laboratoire ou site d'accueil	Porteur de projet	Institution porteuse
UMR 7102 Neurobiologie des Processus Adaptatifs	Philippe Faure	CNRS

The goal is to screen mice behaviors in an «ethological» environment: development of an experimental setup combining an environment where animals live, associated with a high-throughput modular testing platform. In this environment, groups of normal or pathological-model mice have access to specific feeding-related tasks while their social, circadian and cognitive behaviors are monitored continuously using multiple sensors. We call this environment the Souris-city.

It has 3 main advantages:

- 1) subjects are tested in an environment shared with their social group;
- 2) there is no need for specific training, a minimization of handling or novelty effect and experimenter's presence is made unnecessary by the full automation;
- 3) it permits testing of complex social and non-social cognitive skills.

This setup would represent an ideal mean to assess mice in paradigms relevant for psychiatry as well as a unique opportunity to address the link between cognitive performance and individual traits derived from spontaneous behavior.