The IntelliMaze: measuring cognitive ability and behavioral phenotype in a social home-cage setting

INSTRUCTOR RESUME

Dr. Sven Krackow has extensive experience in standardized behavioral testing of house mice as a behavioral biologist originally working in sociobiological contexts. During recent years he spent considerable time validating and testing designs with the IntelliCage and its Addons as well as analysing large data-sets acquired in EU-project collaborative studies using modern statistical tools.

Dr Sven Krackow, NewBehavior AG, Zurich, Switzerland

sven.krackow@newbehavior.com / www.newbehavior.com

BENEFITS OF THE TUTORIAL

During this tutorial, the interested novice as well as the researcher already using (parts of) the system, such as the IntelliCage, can benefit from at least:

- The outline of the IntelliMaze that exposes its vast range of experimental designs and research topics.
- The hands-on exemplification of the experimental usage of the system which alludes to its power and flexibility of experimental conduct and analysis.

FEATURES

The tutorial will focus on:

- Overview of the IntelliCage system and its potential as well as already published usages.
- General logic of experimental protocol definition and, hence, range of scientific questions that could be explored.
- Conduct of experimental runs, including hands-on demonstrations and audience-discussion of any aspect of the system.
- Principal data analysis strategy and examples.

AUDIENCE

Anybody who intends to or is conducting standardized behavioral experiments in mice, in the phenotyping context and particularly when interested in cognitive/learning aspects, would profit from an exploration into the IntelliCage/IntelliMaze. The non-novice will certainly also profit from expanding existing knowledge on the system's usability, and particularly from hints at data analysis design - apart from the opportunity to discuss questions of particular interest that will be taken from the audience. There will be no requirement regarding a priori knowledge other than a strong interest in standardized behavioral testing of lab rodents and the motivation of using automated, computerized behavioral tools based on RFID-tagged animals.