



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.

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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.