



Testing for Cognitive Function

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24. 09. 2018

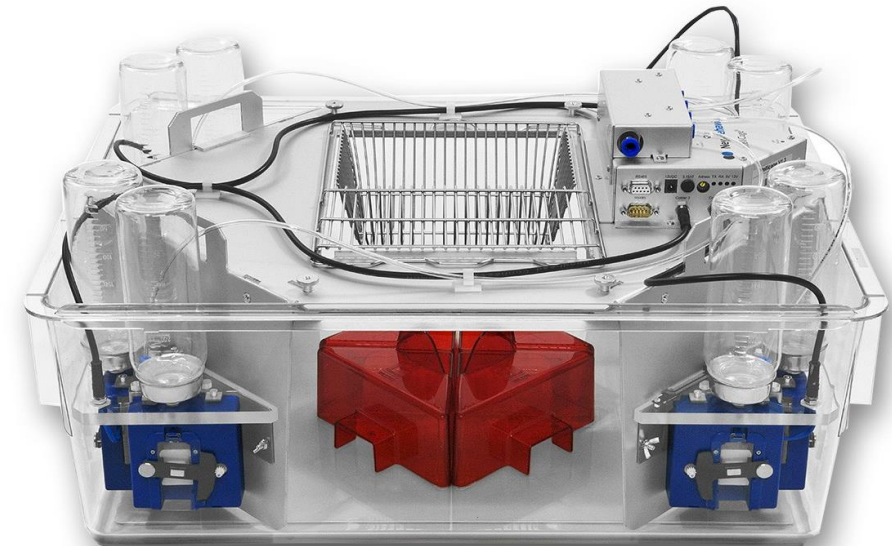
Pilot project introduction



- *Project partners:*



- *Basic project idea:*
Quality benchmarking for mouse behavioral testing
- *Complementary equipment used for the project:*
Intellicage (TSE, Germany)
- *Project goal:*
 - **the improvement of the methodology and reproducibility of pre-clinical data**
- *Potential end-users:* **pharma companies, academic users**



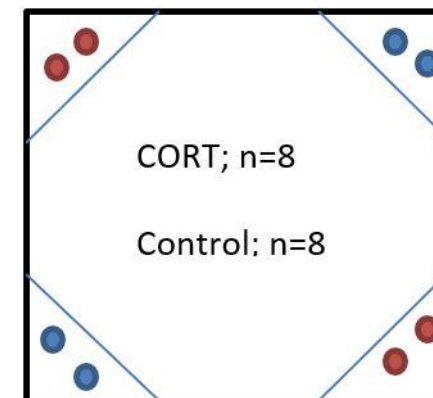
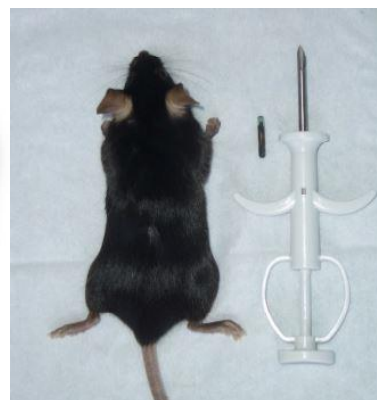
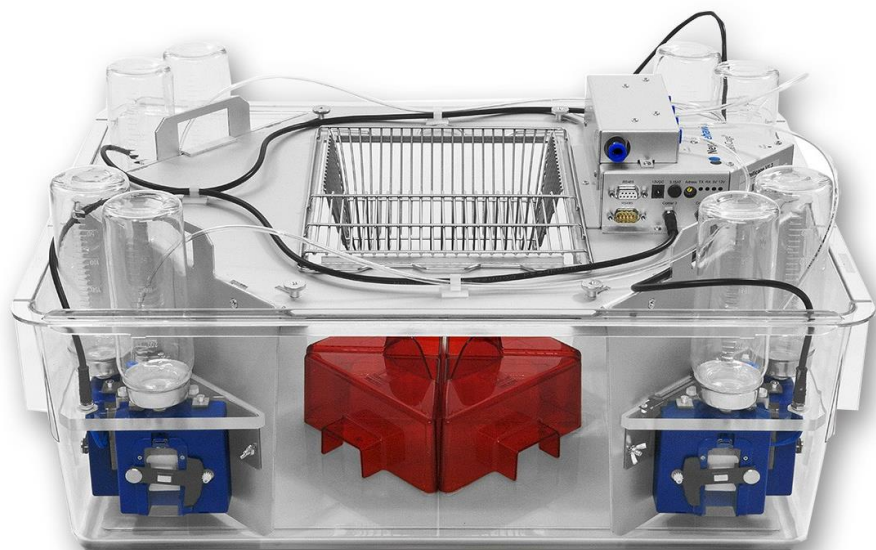


Project implementation

- *Methodology:*

Mouse model: wild type mice (commercial breeder) under corticosterone treatment (in drinking water) and normal drinking water for controls; idea: corticosterone causes chronic stress, leading to cognitive deficits

Learning tests using the Intellicage system:



- Corticosteroid
- No - corticosteroid

<https://www.tse-systems.com/product-details/intellicage>



Project implementation

- *Methodology:*

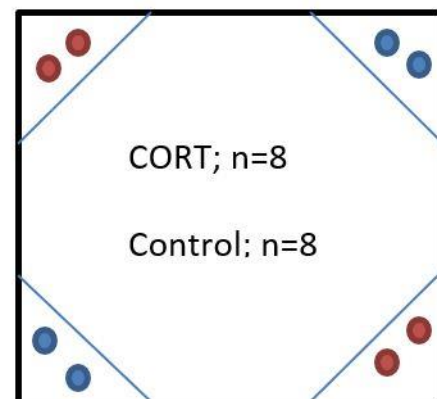
doors allow access to water only during 2 drinking session per dark phase

Corner preference task: doors open only in one corner

Reversal learning task: doors open only in opposite corner

Serial reversal learning task: doors open only in 1 corner during each drinking session, but in a random order (always open in the same corner per drinking session, but random switch between each drinking session)

This is a test for learning abilities and behavioural flexibility.



- Corticosteroid

- No - corticosteroid

Project implementation

- *The way, how we worked on it jointly :*
 - Design of the procedures (one out of 3 pilot projects)
 - Staff exchange - VBCF (26th Aug-19th Sep 2018)
 - Workshop in ICRC – AC/OL ‘*Best practice in the use of TSE Intellicage system*’ (15th -18th May 2018)

Practical workshops on the TSE systems: IntelliCage, PhenoMaster & MotoRater

Tuesday May 15 – Friday May 18

Dear Colleagues, it is our pleasure to invite you to AC Workshop 2018. This Workshop gives us an opportunity to learn from each other's experiences, share knowledge and start or revive collaborations. We are looking forward to seeing you in Olomouc!

Best,
Václav Galigowski, DVM PhD
Animal Center Director
FNUSA-ICRC

Agata Miska-Schramm, PhD
Staff scientist in charge of rodent experiments
FNUSA-ICRC

15th May 2018
→ 9:30 – 18:00 CEST
Emrah Birinci
IntelliCage training:
- Hardware
- Software
- Practical application

16th May 2018
→ 9:30 – 18:00 CEST
Emrah Birinci
Evaluation of the overnight test with the use of IntelliCage
PhenoMaster training

17th May 2018
→ 9:30 – 18:00 CEST
Emrah Birinci and Gerhard Vornholt
PhenoMaster training – continuation
MotoRater training

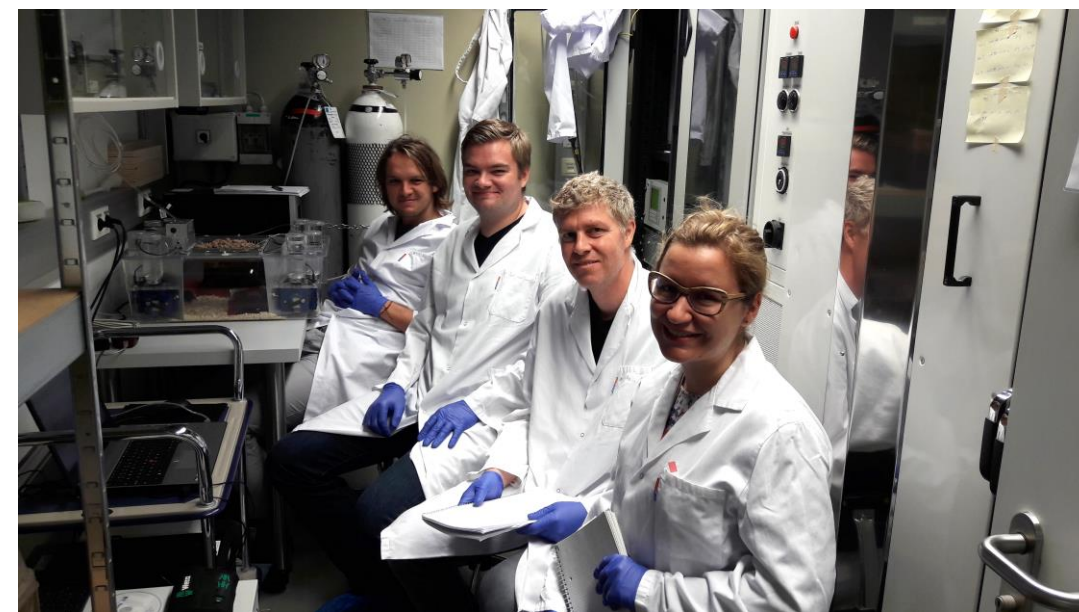
18th May 2018
→ 9:30 – 12:00 CEST
Emrah Birinci and Gerhard Vornholt
Summary of the IntelliCage, PhenoMaster and MotoRater trainings
Individual consultations

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Project results



- No results yet.
- ICRC animal facility in Olomouc, instead of animal facility in Brno → 1 year delay in the project
- lack of the procedures approvals from both Ethical Committees