



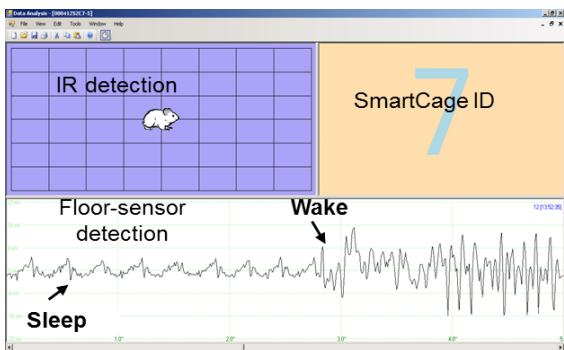
## SmartCage™ System



### FEATURES:

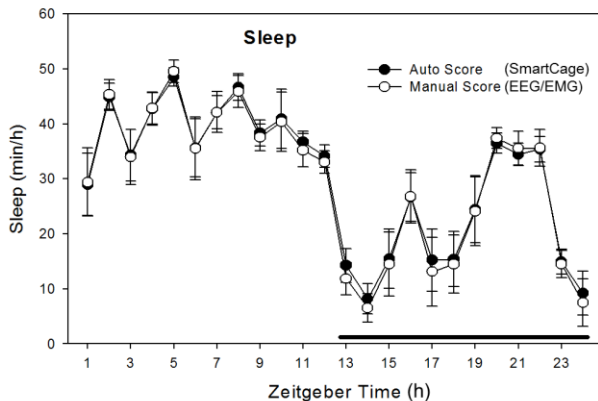
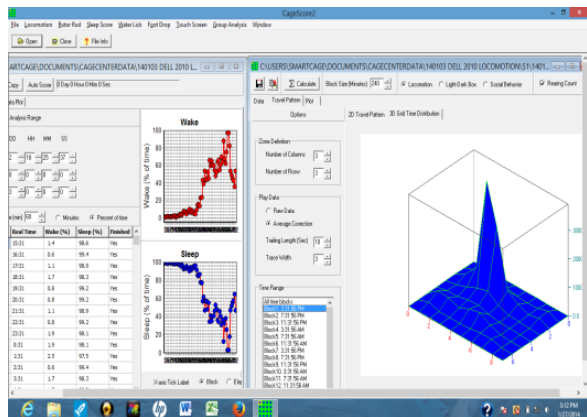
- Noninvasive multi-biosensors
- One system – multiple tests
- Up to 16 units of SmartCage run simultaneously by 1 PC
- Window based software
- Provide training and protocols

### CageCenter™ - data acquisition



## APPLICATIONS

- Higher throughput behavioral phenotyping and *in vivo* drug screening
  - In combination with EEG/EMG and video recordings
  - Neurobehavioral toxicity study
- CageCenter™** - data analysis



## 12 Behavioral tests by 1 SmartCage™

### Behavioral Tests

1. **Locomotion:** active time, travel distance, velocity and rearing (stand up). Position, and moving paths
2. **Noninvasive total sleep/wake monitoring**
3. **Light/dark** place preference and anxiety test
4. **Social interaction** (and social memory test)
5. **Rotarod test** in homecage
6. **Foot drop/fault** (with locomotion)
7. **Feeding behavior** (using a food gate)
8. **Drinking behavior and conflict drinking** (with locomotion)
9. **Step-through passive/active avoidance test**
10. **Tone/contextual conditioned fear test**
11. **Automated sleep deprivation**
12. **Drug (e.g., nicotine) aerosol delivery and self administration**

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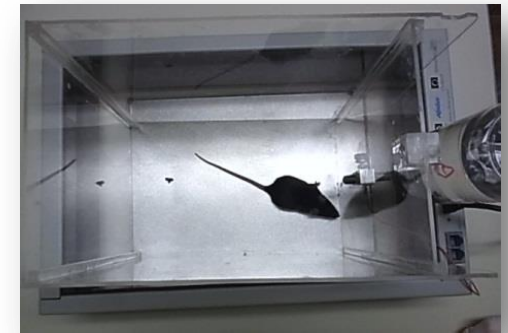
For more information and quotation  
 email: [simonxie@afasci.com](mailto:simonxie@afasci.com)  
 Tel: 650-995-7320



**Activity/Locomotion**



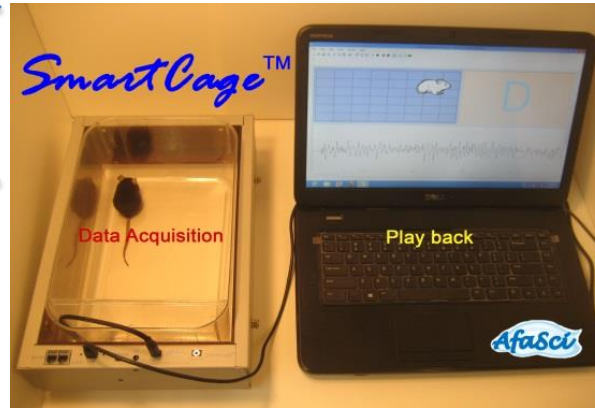
**Sleep/Wake Circadian**  
**One SmartCage™**



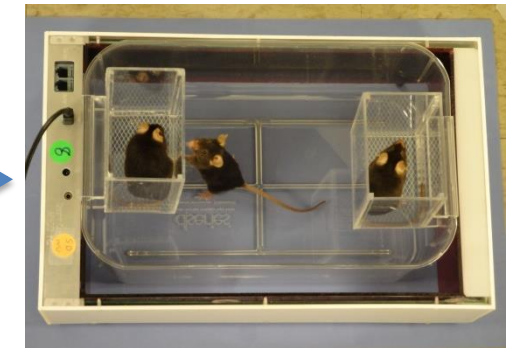
**Drinking / Feeding**  
**Behaviors**



**Light/Dark**  
**Place Preference**



**Multiple Test Modules**



**Social Interaction**



**Rotarod**



**Automated Sleep**  
**Deprivation**



**Step-through avoidance**  
**Tone & contextual Fear**