

Equipment Available at the Behavioral Unit of the Institute for Translational Neuroscience

Behavioral Testing Apparatus

- T-maze: Used to assess spatial learning and memory in rodents.
- Morris Water maze: Evaluates spatial navigation and memory through a water-based task.
- Novel object recognition: Tests recognition memory by exposing rodents to familiar and novel objects.
- Lever press: Measures operant conditioning and reward-based learning.
- Barnes maze: A dry-land alternative to the water maze for testing spatial learning and memory.
- Elevated plus maze: Assesses anxiety-like behavior through open and closed arm exploration.
- S-R Lab apparatus: Used for stimulus-response and associative learning experiments.
- Shuttle box: Measures avoidance learning and conditioned responses.
- Fear conditioning system: Tests associative learning related to fear responses.
- 3-chamber social interaction apparatus: Analyzes social behavior and preference.
- Open field apparatus: Assesses general activity, exploration, and anxiety-like behavior.
- Tube dominance testing apparatus: Used for assessing social hierarchy and dominance.
- Strength meter: Measures grip strength and muscle function.
- Balance beam: Tests motor coordination and balance.
- Any-maze video tracker with computer: Tracks and analyzes rodent movement in various behavioral tasks.
- Circadian rhythm wheels with computer tracker: Monitors circadian activity and wheel-running behavior.
- Several VonFrey boxes sets for rats and mice: Allows for the testing of allodynia on more than 12 animals at the same time.
- Hargreaves' apparatus from Ugo Basile (Plantar test V1.5): Equipped with 2 tables and boxes for rats to test hyperalgesia on 12 animals simultaneously.
- Rodent pincher apparatus from Bioseb: Measures pain thresholds through mechanical stimulation.
- Rat and mice rotarod systems from Bioseb: Evaluates motor coordination and balance.
- Hot/Cold plate for rats and mice from Bioseb: Tests thermal sensitivity and nociception in rodents.
- Conditioned place preference for rats and mice: Assesses reward-related behaviors for pain or addiction.
- Kinetic weight bearing for rats and mice: Evaluates limb weight distribution and motor behavior.

Supporting Laboratory Equipment

- 2 centrifuges
- 2 HPLCs
- Vibratome
- 3 microscopes
- 2 balances.
- 3 scales: Used for weighing animals.
- 3 stereotaxic instruments: Allows precise placement of devices or injections into the brain.
- Anesthesia machine
- Gamma counter
- Beta counter.
- Western blot equipment
- Water bath

Housing and Monitoring Systems

- 40-cage monitoring system with exercise wheels: Tracks activity and exercise levels of housed mice.
- Satellite housing facility for mice: Provides additional housing space for experiments.

Dedicated Behavioral Testing Spaces Available to Members of the ITN

- 7 behavioral testing spaces for mice
- 4 behavioral testing spaces for rats