Mototrak Protocol

# Acclimation to chamber

Day prior to acclimation, remove pellets from home cage.

## Day 1

* Place mouse in reach chamber with water for 1 hr, no food or nesting material.
* Drop peanut oil on handle until mouse associates handle with oil (10x).

# Shaping

Mice were trained using automated sessions to pull the handle with a force greater than 20 g.

* Deliver peanut oil to feeding needle by pushing button on liquid dispenser. After acclimation to the reach chamber, they received random deliveries of peanut oil every3–8 min until they responded to the sound of the pinch valve by approaching the feeding needle.
* The handle was then introduced through the slit in the chamber wall, baited at first with a small drop of peanut oil.
* Start **Shaping** program on Mototrak. At first, any detectable force exerted on the handle triggered delivery of peanut oil.
* When **Shaping** complete, start **XXX** program. In this program, the handle was slowly removed from the chamber until located at its final position relative to the opening, at which point the force criteria for peanut oil delivery slowly increased until it reached 20 g.
* Start **Baseline** program. Baseline sessions then began and continued until three consecutive sessions showed stability in all measures; stability was defined as a variance that was equal to or less than the average variance of the final three sessions of three mice who had run for 2–3 months and no longer showed any performance trends.
* Overall, this procedure takes ∼10–20 sessions (one session/day) for training.

# Testing—static

* To begin testing, start the **XXX** program.

# Testing—linear

* To begin testing, start the **XXX** program.

# Testing—median

* To begin testing, start the **XXX** program.