

REGISTRANT NAME: Northeast Ohio Medical University
USDA REGISTRATION #: 31-R-0092
CUSTOMER ID #: 255

IACUC-APPROVED EXEMPTIONS TO THE REGULATIONS AND STANDARDS

The following is an explanation from the investigator on controlled water access for Mongolian gerbils:

A total of 49 animals were on controlled water access between 10/01/20 and 09/30/21. Animals were placed on controlled water access (no water in their home cage) for 2 days prior to training or testing, which is necessary in order for animals to drink during experimental sessions. The gerbils obtained their entire water supply inside of a testing cage housed within a soundproof room in the laboratory. At least 4 days per week, animals had access to water to satiety during operant testing sessions; they typically drink 1-3ml per day in this setting. The maximum time animals were water-deprived was 48 hours in the home cage, which occurred on the skipped days when animals were tested 4-5 days per week.

Mongolian gerbils are desert animals and are highly adapted to low levels of water: with ad lib water access, they consume only 0.039g per gram body weight per day, or ~2-3ml/day. Body weight was monitored to insure there was no loss greater than 20%. Animals were weighed and skin turgor was manually assessed each testing day, and a log of their weight maintained in the laboratory.

It is necessary to maintain the animals on controlled water access for the full duration of training and testing, as access to water for any period requires at least two subsequent days of deprivation before the animals will perform the task again. Gerbils are so well-adapted to thriving on low water levels that even access to moisture-containing food such as nuts prevents them from drinking during testing sessions. Even on full water deprivation, gerbils stabilize at ~85% of their standard weight after 1 month deprivation (Winkelmann & Getz '62).

The IACUC discussed and approved the above protocol at a convened meeting.