

MEMORANDUM OF UNDERSTANDING
Regarding Assumption of the Feeding, Watering and/or Cage Change of Rodents
under ULAM care by Investigative Personnel

By your signature below, you, as Principal Investigator (PI), agree to the following stipulations and possible outcomes based on your laboratory's decision to provide food, water, and/or perform cage changes for the rodents used in your research project(s) yourself, and to not use ULAM for these husbandry services. See [SOP for Laboratory Assumption of the Feeding, Watering and/or Cage Changing of Rodents](#).

1. You have requested to provide food, water, and/or perform cage changes for your rodents independent of the ULAM husbandry system. You have chosen this option because feeding, watering, and/or cage changing are important variables that you must control within the design of your experiment. Such changes in procedure must be detailed in your Application to Use Animals, and approved by the Institutional Animal Care and Use Committee (IACUC).
 - a. Adequate food and water **must** be provided to the animals to ensure their health and to comply with regulations.
 - b. Cage changing must occur within appropriate time frames to ensure animals are housed in humane conditions and to comply with regulations.
 - c. Failure to provide food, water and appropriate cage changing can result in a non-compliance report to the IACUC.

2. You must submit a [request for a Special Treatment or Procedure \(SToP\)](#), which details the changes in feeding, watering, and/or cage changing, as well as any environmental hazards that will be used, to initiate this change in husbandry practices. A list of responsible investigative personnel and the best method of reaching them during and after work hours, (i.e., **work, home, and cellular** telephone numbers, or email addresses) must be provided on the SToP form.
 - a. This form also needs to detail:
 - i. **What** special water or diet must be provided
 - ii. **What** types of food and water **cannot** be provided, if applicable.
 - iii. **Where** a supply of that water or diet will be located **case of an emergency**.
 - b. You must identify each cage you intend to provide care for using a yellow acetate with a Lab Will Care label affixed.
 - i. Indicate on label which aspects of care you will be responsible for (i.e., Feed, Water, Cage Change), and if feed/water will be restricted or ad lib.
 - c. You are responsible for initialing the Lab Will Care log provided by ULAM that you have fed or watered your animals if you are providing the food or water.
 - i. Feed must be checked/added at least **once every 2 weeks**, or more frequently as needed.
 - For those feeding/watering in limited quantities (i.e., a restricted diet), ULAM will use the initial as indication of feeding/watering within the past 24 hours if a cage is found without food or water.
 - Those not feeding/watering in limited quantities are responsible for initialing the Lab Will Care log when animals are fed/watered.
 - ii. Water bottles must be replaced with clean, sanitized bottles at least **weekly** and record on the Lab Will Care log.
 - iii. Failure to initial the Lab Will Care log will result in ULAM contacting the lab (see section 3 below) and providing fresh water or the standard rodent diet per the procedures outlined in section 4.

- d. You are responsible for initialing the Lab Will Care log provided by ULAM that cage changing has been completed if you are performing the cage changes. Part of your responsibilities for performing cage changing is changing out the other cage components (e.g., rear or wire feeder, water bottle, and Micro-isolator top).
 - i. Cage changing must occur within appropriate time frames, which are dependent on cage style. Examples include:
 - Ventilated cages must be changed at least once every 2 weeks vs. non-ventilated “static” cages must be changed at least weekly.
 - Rear or wire feeders must be replaced with clean, sanitized feeders at least once every 2 weeks.
 - Micro-isolator tops on ventilated mouse cages must be replaced with clean, sanitized tops at least:
 - Monthly for racks not fully supplied by EcoFlow blowers or building air systems.
 - Every 3 months for racks that are fully supplied and exhausted by EcoFlow blowers or building air systems.
 - Micro-isolator tops on rat cages must be replaced with clean, sanitized tops at least every 2 weeks.
 - ii. ULAM uses this initial as an indication of cage change completion.
 - iii. Failure to initial Lab Will Care log and perform cage changes will result in ULAM contacting the lab (see section 3 below) and performing cage changes per the procedures outlined in section 4.
3. Because ULAM is the entity at the University of Michigan responsible for laboratory animal care, the ULAM husbandry personnel will evaluate the health and well-being of your animals just as they do for all of the animals under their direct care. ULAM contact the laboratory as listed on the SToP form and Lab Will Care log in order to reach individuals that can provide the food, water and/or perform cage change if the animals are found:
 - a. Without food or water when on an unrestricted intake regimen.
 - b. Without food or water and no initials within the last 24 hours when on a restricted intake regimen.
 - c. In an excessively wet cage.
 - d. The time taken to place the call(s) or email(s) will be recharged to the laboratory (see section 4.f. below).
4. If the laboratory cannot be reached by 2:00 PM Monday-Friday or 10:30 AM on Saturday, Sunday, and on holidays, the following procedures will occur:
 - a. If the rodents need **water**: ULAM husbandry personnel will provide the special water if it can be readily identified before the end of the work day.
 - i. Standard drinking water will be provided to the rodents if the special water cannot be located.
 - ii. No rodent at the University of Michigan is to be left overnight without water unless specifically approved by the IACUC and identified as such on the SToP form and Lab Will Care log. The high metabolic rate of laboratory rodents makes them susceptible to dehydration if they are without water overnight.
 - b. If the rodents need **food**: ULAM husbandry personnel will provide the special food if it can readily identify the special food before the end of the workday.
 - i. Commercial rodent chow will be provided to the rodents if the special food cannot be located (currently Lab Diet 5LOD).
 - ii. No rodent at the University of Michigan will be left overnight without food unless specifically approved by the IACUC and identified as such on the SToP form and Lab Will Care log. The high metabolic rate of laboratory rodents makes them more sensitive to the effects of an overnight fast.
 - c. If the rodents need **clean cages**: ULAM husbandry personnel will perform a cage change before the end of the workday.

- i. No rodent at the University of Michigan will be left overnight in excessively wet cage (1/4 wet or more) unless specifically approved by the IACUC and identified as such on the SToP form and Lab Will Care log. Exposure to high levels of NH₃ and wet fur have been known to cause adverse health effects for laboratory rodents.
 - d. If ULAM husbandry personnel provide food and/or water and/or perform cage changes, they will label the cage(s) with a yellow acetate placed in the vertical (“up”) position in the cage card holder.
 - i. The acetate will be labeled “ULAM watered (or fed or performed cage change) at [date/time].” and will remain on the cage for 72 hours.
 - ii. A notation will also be made on the Lab Will Care log.
 - e. Understanding of these consequences is important for **all** of your investigative personnel that will be engaged in providing food, water and/or cage changes. This is especially important as your investigative personnel may elect to provide this care **after** the regular working hours of ULAM husbandry personnel. Thus, you need to be aware that if no investigative personnel can be reached, rodents found without water/food or housed in an excessively wet cage will be accommodated as deemed necessary by the end of the workday by ULAM husbandry personnel.
 - f. Services provided by ULAM husbandry personnel (e.g., telephone calls, emails, extra time necessary to provide food/water and/or perform cage change to affected animals) will be charged to the laboratories.
 - i. ULAM will charge a fee each day a call or email is made.
 - ii. Labor to provide water, food, and/or perform cage change will be charged at the rate approved for ULAM animal technician services (Tech Time).
- 5. Suggested tips for **Fridays** to avoid involvement of ULAM husbandry personnel:
 - a. Ensure that animals fed ad libitum have enough food and/or water to last at least two full days (or more if preceding a holiday weekend). A full feed hopper is recommended.
 - b. Ensure extra food and/or water is available in the animal room (or a readily identified location) so that ULAM can find it when necessary. If special water is stored in the animal room, it must be labeled with the name of the lab, the additive(s) and the expiration date (if applicable).
 - c. Make sure animal cages have been changed according to the appropriate change frequency based on cage style. Changing is recommended when 2 cage corners are wet.
- 6. Failure to comply with these agreed-upon responsibilities will result in the issuance of an Animal Incident Report with the Institutional Animal Care and Use Committee (IACUC), with possible sanctions as determined by the IACUC.

By my signature, I understand this memorandum and its implications to my research animals and research studies.

(Print Name)

(Signature)

(Name of Lab)

(Date)