

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.

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). Adequate food and water **must** be provided to the animals to ensure their health and to comply with regulations. Cage changing must occur within appropriate time frames to ensure animals are housed in humane conditions and to comply with regulations. Failure to provide food, water and appropriate cage changing can result in a non-compliance report to the IACUC.
2. To initiate this change in husbandry practice, you must submit a request for a Special Treatment or Procedure (SToP) [available at <https://az.research.umich.edu/animalcare/forms/request-special-treatment-or-procedure-stop-form>], which details the changes in feeding and watering practice, as well as any environmental hazards that will be used. A list of responsible laboratory 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. This form also needs to be detailed regarding **what** special water or diet must be provided (and in some cases, **what** types of food and water **cannot** be provided), and **where** a supply of that water or diet will be located **in case of an emergency**.
 - a. You must identify each cage you intend to provide care for using a Lab Will Care label.
 - i. Must indicate on label for which aspects of care you will be responsible (i.e. Feed, Water, Cage Change) and if feed/water will be restricted or ad lib.
 - b. If you are providing the food or water, you are responsible for initialing the Lab Will Care log provided by ULAM that you have fed or watered your animals. For those feeding/watering in limited quantities (i.e. calorie restricted diet) ULAM will use this initial as indication of feeding/watering within the past 24 hours should we find a cage 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. Water bottles must be replaced with clean, sanitized bottles at least **weekly**. Feed must be checked/added at least **once every 2 weeks** (or more frequently as needed). 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.
 - c. If you are performing the cage change(s), you are responsible for initialing the Lab Will Care log provided by ULAM that cage changing has been completed. Cage changing must occur within appropriate time frames, which are dependent on cage style (examples: static (non-ventilated) cages must be changed at least weekly and ventilated auto-water cages must be changed at least once every 2 weeks). Part of your responsibilities for performing cage changing is changing out the other cage components (examples: feeder, rear or wire; water bottle; and Micro-isolator top). ULAM will use this initial as an indication of cage change completion. Water bottles should be replaced with clean, sanitized bottles at least weekly. Feeders, rear or wire, and Micro-isolator tops should be replaced with clean, sanitized feeders and tops at least once every 2 weeks. Failure to initial Lab Will Care log and perform cage change will result in ULAM contacting the lab (see section 3. below) and performing cage change 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 Staff will be evaluating the health and well-being of your animals just as they do all of the animals under their direct care. Should ULAM technicians find animals without food or water, or, in the case of a restricted situation, find no initials for feeding/watering within the past 24 hours, or find an excessively wet cage their first approach will be to contact the laboratory by the requested means provided 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. 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**: Fresh water will be provided by a ULAM husbandry personnel before the end of the workday. If the special water can be readily identified by ULAM husbandry personnel, they will provide it; otherwise they will provide the standard drinking water as routinely provided to University animals. No rodent at the University of Michigan is to be left overnight without water unless specifically approved by the IACUC, and as identified as such by a SToP form in the animal care and use protocol and identified as such on the 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**: Food will be provided by ULAM husbandry personnel before the end of the workday. If ULAM husbandry personnel can readily identify the special food, they will provide it; otherwise they will provide the commercial rodent chow that is routinely provided to University animals (currently Lab Diet 5LOD). No rodent at the University of Michigan will be left overnight without food unless specifically approved by the IACUC, and as identified as such by a SToP form. 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**: Clean cages will be provided by ULAM husbandry personnel before the end of the workday (2:30 PM Monday-Friday; 10:30 AM Saturday, Sunday, and holidays). 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 by a SToP form. 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 provides food and/or water and/or perform cage change, they will label the cage(s) with a yellow acetate placed in the vertical (“up”) position in the cage card holder. The acetate will be labeled “ULAM watered (or fed or performed cage change) at [date/time].” This acetate will remain on the cage for 72 hours.
 - i. A notation will also be made on the Lab Will Care Log
 - e. Understanding of these consequences is important for **all** of your staff members that will be engaged in providing food and/or water. This is especially important as your staff members may elect to provide this care **after** the regular working hours of ULAM husbandry personnel. Thus you need to be aware that if no laboratory 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.
 - f. Services provided by the 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. Make sure 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. Make sure extra food and/or water is available in the animal room (or a readily identified location) so that the ULAM technicians 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)