University of California, Berkeley – Animal Care and Use Program

Version: 2.1

Effective Date: 11/1/2024

FASTING ANIMALS, SPECIAL/REGULATED DIETS/WATER/HOUSING POLICY

Supercedes Document Dated: 10/1/2018

Last Revised: 9/17/2024

I. Background

The *Guide for the Care and Use of Laboratory Animals* indicates that topics to be considered in the animal use protocol include nonstandard housing and husbandry requirements. Some studies require temporary husbandry procedures that fall outside of standard procedures and are overseen by investigators rather than animal care staff.

II. Policy

This policy ensures the welfare of research animals undergoing nonstandard husbandry procedures (e.g., fasting, feeding/watering, or special housing conditions) when husbandry is provided by investigators.

III. Definitions

- A. Special diets: any diet or water offered ad libitum that replaces the standard OLAC diet or plain water (e.g., high fat diet, tamoxifen water).
- B. Regulated diets: diet or water that deviates from OLAC Working Instructions in that it is offered in a specified amount or at a particular time of day. If there is any portion of the day where food or water is not available, it is considered regulated.
- C. Fasting: a period of time when the animal does not have ad libitum access to food or water, usually a one-time period of ≤ 24-hours.
- D. Special housing conditions: conditions that replace standard housing conditions, such as extended exposure to cold to induce torpor, exposure to nonstandard temperatures for the study of thermoregulation, or housing of animals in metabolic cages.

IV. Responsibilities

- A. Principal Investigator (PI) The PI is responsible for ensuring that all laboratory personnel who oversee nonstandard husbandry procedures for animals understand and abide by this policy, and is responsible for reporting health issues to OLAC and unexpected outcomes/phenotypes to the ACUC.
- B. Office of Laboratory Animal Care (OLAC) OLAC personnel are responsible for communicating to the PI any problems with the monitoring or documentation of care (e.g., cage cards or daily log) for animals undergoing nonstandard husbandry procedures within OLAC spaces and, if deemed necessary for animal welfare, returning animals to standard husbandry conditions.
- C. Animal Care and Use Committee (ACUC) Nonstandard husbandry procedures for animals must be described and justified in the Animal Use Protocol (AUP) and approved by the ACUC before implementation.

V. Procedures

- A. Each cage of animals that is being fasted or that is provided with special or regulated diets or water must be clearly marked with a yellow "Investigator Will" card (see Appendix 1). For fasting or regulation less than 24 hours in duration, the "Investigator Will Fast/Regulate (Less than 24-hours)" sticky note may be used instead (see Appendix 2).
 - 1. This card/sticky note must clearly indicate the start and end dates/times for the diet or water procedure.
 - 2. An emergency contact phone number and email address must be included on this card.
 - Cards for this purpose can be obtained from OLAC by completing the <u>Special Services Request (SSR) form</u> on the OLAC website. A description of the acceptable amount of food/water (e.g., food hopper may only contain several pieces of food or might be empty at times) should be included with the request.
 - 4. Note: For certain larger species, such as bats and non-human primates, the Investigator Will card is not used. Instead, these cages are marked by a "No Food" or "No Water" tag, which is only present when these animals are fasted or on regulated water regimens (see Appendix 3). It is the PI's responsibility to ensure that these tags are applied and removed at appropriate intervals in accordance with their AUP.
- B. If special procedures are complex and/or entail more than simple dietary changes, a daily checklist, as outlined in the PI's AUP, must be maintained and posted in the animal housing area. Please refer to ACUC Guidelines on Investigator Care of Vertebrate Animals for additional information.
- C. When returning care to OLAC, the PI must do all of the following:
 - 1. Supply all cages with standard diet and/or water.
 - 2. Remove "Investigator Will" cards from all cages and maintain the cards/sticky notes with lab records.
 - 3. Communicate the return to OLAC care to OLAC staff by removing the Investigator Will card or sticky and storing it in the lab's records.
- D. Special diets/water: due to the unstable nature of many special diets, the level of food available to each animal must be checked a minimum of three times a week. All animals should be checked by responsible laboratory personnel at the end of the week to ensure that enough diet/water is present for weekends and/or extended holiday periods.
 - This monitoring must be documented by recording the date of each check and the initials of the responsible individual on the back of the "Investigator Will" card.
 - Stored special diets or supplements must be in a sealed container and clearly labeled, noting contents, responsible investigator, and expiration date. These items must be stored within OLAC-maintained food storage or ACUCapproved storage space.

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- E. Regulated diets/water: animals that are on regulated diets/water or in special housing conditions must be checked daily, including weekends. For days on which food/water is available *ad libitum*, this should be indicated on the "Investigator Will" card (i.e., there should be no blank spaces on the back of the card for regulated food/water).
- F. Regulated diets/water: if animals are found without food or water and the cage card or log for those animals has not been initialed during the past 24 hours, OLAC will make every reasonable effort to contact the responsible parties listed on the cage card or log. However, if a contact number is not listed, or if arrangements to feed/water the animals have not been made by the end of the work day of the same day, OLAC will feed/water the animals. In this case, the animals will be fed a standard diet appropriate for the species involved.
- G. If an entire room of animals will be under the same special feed/water/regulation, a SSR may be requested for the entire room. A log sheet may be posted on the door instead of having individual 'Investigator Will' cards on each cage. In these cases, the log sheet must include a list of all affected cages, as well as space to sign off/indicate that each cage was checked at an appropriate monitoring frequency. It is the PI's responsibility to sign off to indicate that someone has been in the room to check the food/water levels and health of the animals.

VI. References

- A. Institute of Laboratory Animal Research (ILAR). National Research Council (2011). *Guide for the Care and Use of Laboratory Animals* (8th edition). Washington, D.C.: The National Academies Press.
- B. ACUC Guideline on Investigator Care of Vertebrate Animals

APPENDIX 1: "Investigator Will" Cage Card

FRONT:

☐ Feed (Additive:		
☐ Water (Additive: _		3
☐ Fast/Regulation	☐ Feed	□ Water
☐ Change Cage (OL	AC Frequency)	
Time Period:		
Cage #:	Start:	End:
Responsible Person Ph	one:	
Alternate Phone & Em	ail:	

BACK:

C	•	cked and (Date & Initials	Changed	
All animals on regulated diets and/or receiving special water must be initialed every 24 hours including weekends and holidays. All animals on special diets must be checked at least three times per week.				
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Investigator Will Fast/Regulate (Less than 24-hours)			
Food □	Water □		
Start Date/Time: _ End Date/Time: _			
Lab Contact/Phon	e:		

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APPENDIX 3: "NO FOOD" and "NO WATER" Tags for Bats and Non-human Primates

