Guidelines on Food and/or Fluid Restriction

At times, an experimental design requires the use of food and/or fluid restriction to create a physiological state that is consistent with the experimental hypothesis. The IACUC is required to approve these restrictions and ensure that they are scientifically justified, that restriction is minimized, and that criteria are in place to monitor the health of animals on studies requiring these restrictions.

For the purpose of these guidelines, food and/or fluid restriction will include any deviation from normal husbandry procedures, with the exception of fasting for surgical procedures. Pre-surgical fasting is generally for a period of less than 12 hours and these guidelines do not apply.

It is the responsibility of the IACUC to evaluate all research and teaching protocols for the potential to cause pain and/or distress in vertebrate animals. The IACUC also must assess the steps that are to be taken to eliminate or minimize the potential for pain and distress and ensure that alternatives to these procedures have been considered. Because food and/or fluid restriction of animals can be associated with pain and/or distress, the IACUC must have sufficient information to evaluate protocols that include these restrictions.

Protocols involving the use of food and/or fluid restriction, other than pre-surgical fasting, should include the following provisions:

- Food/water restriction for research purposes must be scientifically justified, and a program to monitor physiologic and behavioral indexes should be established.
- The investigator should have plans in place to monitor parameters such as body weight, hydration status, body condition, and food and fluid consumption. Body weight should be recorded at least weekly.
- Specific criteria indicating an animal’s early removal from the study must be clearly defined.
- For protocols involving food restriction, special attention should be given to ensure that food/fluid intake meets the animal’s nutritional needs.
- The objective should be to use the least amount of restriction necessary to obtain the scientific objective while maintaining animal well-being.
- Written records should be maintained for each animal to document daily food and fluid consumption, hydration status, and any behavioral and clinical changes used as criteria for temporary or permanent removal of animals from a protocol.

Veterinary Monitoring

1. The Attending Veterinarian (AV) or their designee will examine all animals on food and water restriction on a periodic basis, as well as examining weight records for weight gain or loss.
2. If there is a concern about an individual animal’s health, especially regarding acute dehydration or chronic fluid deficiency, the veterinarian may require that other tests be performed, such as BUN/creatinine, packed cell volume and total protein.
3. Following evaluation, a veterinarian will make appropriate recommendations to the principal investigator and/or the IACUC.

*Note: As stated in The Guide for the Care and Use of Laboratory Animals, “when experimental situations require food or fluid restriction, at least minimal quantities of food and fluid should be available to provide for development of young animals and to maintain long-term well-being of animals.”

References