Acclimation Periods for Newly-Received Animals

Policy: The UofL Institutional Animal Care and Use Committee (IACUC) requires an acclimation and stabilization period for all animals arriving at the university prior to experimental manipulations. All newly received laboratory animals must be held for a minimum number of days (depending on the species and intended use) without any experimental manipulation for acclimation, observation, and potential treatment. Exceptions to this policy must be requested in an IACUC proposal describing the rationale for the exception, and must be approved by the IACUC.

Rationale: The Guide states, “Regardless of whether the animals are quarantined, newly received animals should be given a period for physiologic, behavioral, and nutritional acclimation before their use.” The Agricultural Guide states, “Newly received animals require a period of acclimation. Acclimation refers to a stabilization period, before animal use, which permits physiological and behavioral adaptation to the new environment.” Transportation causes stress in animals and subsequently changes an animal’s physiological status during transportation and for some period thereafter. Stress associated with transportation has been shown to have changes on the cardiovascular, endocrine, immune, central nervous and reproductive systems. These effects can adversely impact research results. New housing conditions, changes in social groupings, new feed, and new care staff are all additional stressors to newly received laboratory animals. An acclimation period allows animals time to adapt to a new environment, for physiological changes to stabilize, and promotes both animal welfare and reproducible experimental results. Based on current literature, the UofL IACUC has adopted the following guidelines.

Procedures, Guidelines, and Exceptions:

1. Definitions:
   a. **Acclimation**: The period during which newly arrived research animals are allowed to recover from the physiologic and psychological stress of shipping prior to being used in research, teaching, or testing proposals. Nutritional stabilization and adjustments to new surroundings, feed, light/dark cycles, cage/pen mates, and personnel also take place during this time period.
   
   b. **Quarantine**: The separation of newly received animals from those already in the facility until the health and possibly the microbial status of the newly received animals have been determined with the goal of minimizing the chance for introduction of pathogens into an established colony. Quarantine periods for animals may vary in duration based on the species, the source and health status of the incoming animals, and regulatory requirements. This policy does not address quarantine and researchers should contact an RRF veterinarian for further information on quarantine requirements for specific situations.

2. **Rodent Species**
   a. Researchers are advised to consider the effect that shipping stress may have on experimental data based on individual research needs.
   b. For euthanasia and tissue harvest only, animals may be used the day of arrival.
c. For all other uses, a minimum of 72 hours is required; this includes following internal transfer between building requiring outdoor routes during temperature extremes.

3. **Non-Rodent Species (dogs, cats, ferrets, rabbits, birds, pigs, calves, goats, sheep)**
   a. For euthanasia and tissue harvest only, animals may be used the day of arrival.
   b. To reduce the chance of stress-induced diseased, including anesthetic death, a minimum of 1 week (7 days) is recommended for non-survival surgery or other procedures; however, a minimum of 3 days (72 hours) is required.
   c. A minimum of 1 week (7 days) is required for survival surgery or long-term experiments.

**References:**
5. Everitt JI, Schapiro SJ. The art and science of introducing animals to the research environment. ILAR J. 2006; 47(4):281-2.