



University of Maryland College Park Animal Care and Use Standard

Environmental Enrichment

Purpose: This standard describes the environmental enrichment program for animals.

Background: The Animal Welfare Regulations, *Guide for the Care and Use of Laboratory Animals*, and *Guide for the Care and Use of Agricultural Animals in Research and Teaching* detail basic behavioral management expectations in the broad areas of structural environment, social environment, and activity. General laboratory animal assumptions are that animals that are relaxed and comfortable and able to express species-specific behaviors are a more stable research platform and provide more accurate research data. Enrichment programs enhance well-being by providing sensory and motor stimulation through structures, resources and conditions that facilitate species typical behaviors and promote psychological well-being. Appropriate housing spaces or enclosures should also account for the animals' social needs.

Standards: Animals housed at University of Maryland-College Park facilities will be provided with species-appropriate enrichment and opportunities to express species-specific behaviors that meet or exceed regulatory requirements. Enriched animal environments are considered normal animal housing conditions. Environmental enrichment exemptions may be considered for physical or physiological incompatibility, veterinary health concerns, or scientific necessity as approved by the IACUC. If a specific form of enrichment is contraindicated, alternate forms will be provided as appropriate for the animal/study/etc/. The IACUC and/or AV will reassess exemptions at least twice a year during the semiannual facility inspection and program reviews.

Methodology:

1. Program. The enrichment program will be implemented according to Animal Care Standard Operating Procedures for Environmental Enrichment for Multiple Species and will include opportunities for physical exercise, manipulative activities, cognitive challenges, novel or natural foodstuffs (e.g., forage), species-specific behaviors, etc. The enrichment program will be in addition to social housing. If animals are exempt from social housing, additional species-appropriate enrichment should be offered, to include positive interaction with animal care staff, periodic release into larger enclosures, supplemental enrichment items, and/or additional companion animals in the room or housing area.

2. Review and Update. Research personnel, veterinarians and the IACUC should regularly review the enrichment program to ensure it is meeting the goals of enhanced well-being and benefit to the animals as well as the scientific goals of the research. Periodic review should also include consideration of current knowledge.

3. Training. Personnel responsible for animal care and husbandry should receive training in the behavioral biology of the species they work with to appropriately monitor the effects of enrichment, as well as identify the development of adverse or abnormal behaviors.

4. Reporting. Feedback regarding the success of particular program elements is important in ensuring the most effective enrichment program. In addition to reporting enrichment elements that appear to best enhance well-being, personnel responsible for animal care and husbandry should promptly report any adverse health or behavioral effects (e.g., fear, social stress, dominance aggression related to resources, etc.) associated with the enrichment program to the facility veterinarian and/or university attending veterinarian for assessment.