



Institutional Animal Care and Use Committee

Policy on Environmental Enrichment

Background

Compliance with *The Guide for the Care and Use of Laboratory Animals (the Guide)* requires Animal Care and Use Programs to develop animal enrichment programs for animals used in research, teaching and testing. The purpose of environment enrichment is to enhance physical and psychological well-being by providing them with sensory and motor stimulation that will facilitate species specific behaviors. Appropriate environmental enrichment provides animals with choices and a degree of control over their environment, thereby decreasing stress and promoting better and more consistent experimental outcomes.

Policy

Environmental enrichment includes, but is not limited to providing the opportunity for physical exercise, manipulative activities, and cognitive challenges that are unique to a particular species. Examples include the addition of manipulable and novel objects and toys, chew sticks and nesting materials to the standard animal housing environment. Environmental enrichment should be tailored to the species and the goals of the research, should not interfere with research results, and is expected to be implemented for every protocol that uses animals in research, teaching and testing unless there is IACUC approved scientific justification that would exclude it. Social housing is expected for all species unless an exception is approved by the IACUC or the housing needs fall under one of the program wide exceptions outlined in the Oakland University IACUC's Policy on Social Housing. Where an exemption to social housing is necessary animals must still be provided with enrichment. Social enrichment may be enhanced through interaction with investigators or the Biomedical Research Support Facility (BRSF) husbandry staff.

The IACUC has provided examples of standard species-specific methods of environmental enrichment in Table 1. These standard enrichment methods will be reviewed by the IACUC and the Attending Veterinarian on a regular basis to ensure they are beneficial to animal well-being for animals used in the BRSF. Researchers may propose alternative methods of enrichment, however, these alternative methods must be described in the AUVA and reviewed and approved by the IACUC prior to implementation. In all cases, environmental enrichment should be appropriate for the species and consistent with the goals of the research.

Table 1 provides options for environmental enrichment based on species commonly employed in research, teaching and testing at Oakland University.

Species	Examples of Standard Enrichment Provided by BRSF	Examples of Alternatives to Standard Enrichment
Mice	Contact bedding Iso-blox Cereal treats	Disposable cardboard mouse houses Plastic mouse nesting huts – must be cage washer safe Cereal treats
Rats	Contact bedding Iso-blox Nylabones PVC piping	Cereal treats
Guinea Pigs	Contact bedding Timothy hay Alfalfa hay cubes Dried fruit treats	Plastic guinea pig houses – must be cage washer safe Disposable paper guinea pig houses PVC piping Dried fruit treats
Rabbits	PVC piping Plastic dumb bells Timothy hay, other grass hay, Alfalfa hay cubes	Small amounts of dried banana chips, apples or pineapple Certain leafy green vegetable such as spinach and lettuce
Xenopus	Plastic tubes Plastic plants	Small amounts of dietary supplements such as blood worms, chopped beef heart, and chopped liver

The BRSF Manager, the Principal Investigator, and the Attending Veterinarian will be notified as deemed appropriate for any species demonstrating abnormal behavior to determine if changes in environmental enrichment are necessary.

References

1. University of California Irvine IACUC Policy on Animal Housing and Enrichment
2. University of Cincinnati IACUC Policy on Environment Enrichment and Social Housing, #030