Policy # AW-10-2018

Policy Title: Environmental Enrichment

Policy: According to the Guide for the Care and Use of Laboratory Animals (Guide), “The primary aim of environmental enrichment is to enhance animal well-being by providing animals with sensory and motor stimulation, through structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges according to species-specific characteristics (NRC 1998a; Young 2003). Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors (Newberry 1995).” (Guide 2011) Here at UConn, the provision of enrichment is the default condition and any exception must be justified and approved by the IACUC.

This policy provides an overview of the Environmental Enrichment Program and provides examples of three types of enrichment (social, manipulada/structural, housing) that will be provided by Animal Care Services at the University of Connecticut. The three types of enrichment will be utilized to enhance animal well-being in a manner consistent with the goals of the research and/or teaching endeavor.

Environmental Enrichment Program

1. Social Enrichment:

Except where specified in IACUC Policy AW -06-2011, social housing for social species is the default condition at UConn. Social animals (e.g., rodents, frogs, zebrafish, swine, poultry, sheep, cattle) will be group housed with conspecifics to provide a social environment, unless an exception has been granted by the IACUC.

The IACUC acknowledges that rabbits are a social species, but notes that previous attempts to co-house this species in our program have been unsuccessful. Therefore, in order to support their social enrichment, rabbits are provided with playtime and/or socialization for at least 30 minutes once per week.

2. Manipulada/Structural Enrichment:

All animals will be provided with industry-standard structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges that
enhance their well-being and are consistent with the goals of animal use. This could include food enrichment, structures and hides, roosts, running wheels, toys, nestlets, etc. Commonly used types of enrichment methods that may be used for animals are described in ACS SOP 4-005.

All rodents, guinea pigs, rabbits, swine and poultry should be provided some form of manipulada/structural enrichment unless an exception has been granted by the IACUC. As there are many different types of manipulada/structural enrichment a PI may request that ACS not use a specific type of enrichment (example: food enrichment, plastic tube) but the animals will still receive some enrichment type. Note that the IACUC considers it to be a form of enrichment when rodents are used in behavioral studies where they receive time out of their primary enclosure and receive study related exercise or work for water or food based rewards.

Fish, reptiles and amphibians will be housed in environments that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise; this could include unimpeded tanks with silt for pelagic species, opportunities for shoaling behaviors, areas for resting, heated rocks, areas of cover, etc.

Agricultural species housed in accordance with the Ag Guide (2010) may be provided with time on pasture, foraging opportunities, nest boxes and roosts, toys, positive human-animal interaction, exercise, etc.

3. Housing Enrichment:

All rodents and guinea pigs are housed in solid bottom cages with direct contact bedding, which provides a substrate for foraging, digging and nest building. Mice and rats are housed with stainless steel wire bar lids or feeders that provide a large surface area for the animals to climb on, promoting motor activity.

Rabbits will be housed in stainless steel racks with plastic cages with slatted floors.

Swine will housed on contact bedding and a substrate to promote rooting behavior.

Poultry will be housed on contact bedding; brooders and isolation chambers are described in protocols.

Fish, reptiles and amphibians will be housed in environments appropriate for their species that facilitate the expression of species-typical behaviors and promote psychological well-being.

Agricultural species are housed in accordance with the Ag Guide (2010), and are provided with contact bedding and housed in enclosures that facilitate the expression of species-typical behaviors and promote psychological well-being.
Exceptions to the Environmental Enrichment Program

1. IACUC Policy AW-06-2011: The IACUC has approved a number of routine circumstances in which social animals may be housed singly; those circumstances are described in AW-06-2011.

2. Scientific justification: If a PI wishes to request an exception to the environmental enrichment program, scientific justification must be provided in the context of the IACUC protocol. The justification should explain why the use of a specific environmental enrichment method(s) would be contraindicated for that specific protocol. The IACUC will approve exceptions to the program on a case by case basis.

3. For animal health and/or behavioral reasons, as determined by the Attending Veterinarian.