1. PURPOSE

The intent of this Standard Operating Procedure (SOP) is to describe an appropriate environmental enrichment program for mice.

2. RESPONSIBILITY

Facility Animal Care Committees (FACCs), principal investigators (PIs), animal care staff.

3. PROCEDURES

3.1. The purpose of environmental enrichment is to provide mice with opportunities to express basic behavior needs, to promote species-typical, non-injurious behavior and to promote physical and mental health thus enhancing animal welfare. The environmental enrichment should be biologically relevant (ie: hiding, socializing, searching) so that it does not lose its enriching value over time.

3.2. Social Contact:
   3.2.1. Pair or group house mice.
   3.2.2. Mice may be singly housed in some cases:
      3.2.2.1. Incompatibility.
      3.2.2.2. Medical reasons.
      3.2.2.3. Specific protocol approved by FACC.

3.3. Housing System:
   3.3.1. Animals should be housed with the goal of maximizing species-specific behaviors and minimizing stress-induced behaviors.
   3.3.2. House mice in solid-bottom cages with contact bedding, unless specifically described in a protocol and approved by the FACC.
   3.3.3. Housing system should exceed the minimal space recommendations for a standard mouse cage (~70 sq. inches):
      3.3.3.1. Trio-breeding: 2 females, 1 male, and up to two litters until weaning.
      3.3.3.2. After weaning: 8 mice if <10 g; 7 mice if 10–15 g; 5 mice if 15–25 g

3.4. Dietary Enrichment:
   3.4.1. No dietary enrichment is routinely provided.
   3.4.2. Provide mice with dietary supplementation as allowed by the PI for positive reinforcement (e.g. sunflower seeds).

3.5. Objects:
   3.5.1. Nesting material:
      3.5.1.1. Provide nesting material (e.g., loose paper strands such as Enviro-Dri®, NESTLET®, corn husk, shredded aspen) in every cage.
      3.5.1.2. Transfer the nest to the clean cage with the animals during cage change, add additional nesting material and provide a new shelter if necessary.
   3.5.2. Shelter:
      3.5.2.1. Provide a cellulose-based (preferable) or plastic shelter.
      3.5.2.2. Shelter should provide enough protected space for all cage occupants.

3.6. Exemption:
   3.6.1. Exemption from this environmental enrichment program must be justified and approved by the FACC, or prescribed for medical reasons.