

## WVU IACUC POLICY: Social Housing of Research and Teaching Animals

### Purpose

The purpose of this policy is to define housing standards for social species of research and teaching animals at West Virginia University. Social housing of animals involves the housing of social animal species in pairs or groups in order to provide visual, auditory, olfactory, and/or tactile contact and facilitate natural species-typical, social behaviors. Social species are those known to naturally live and interact with conspecifics, including most rodents, rabbits, companion animals, sheep, goats, pigs, nonhuman primates, and aquatics. When properly managed, social housing of animals can significantly enhance their overall welfare.

### Regulations and Guidelines

The *Guide for the Care and Use of Laboratory Animals*, 8<sup>th</sup> ed. states that “Appropriate social interactions among members of the same species (conspecifics) are essential to normal development and well-being. When selecting a suitable social environment, attention should be given to whether the animals are naturally territorial or communal and whether they should be housed singly, in pairs, or in groups. An understanding of species-typical natural social behavior (e.g., natural social composition, population density, ability to disperse, familiarity, and social ranking) is key to successful social housing.” (p64)

*Guide for the Care and Use of Agricultural Animals in Research and Teaching* states that “agricultural animals are social by nature and social isolation is a stressor. Agricultural animals that normally live in herds or flocks under natural conditions that are used in research and teaching should be housed in pairs or groups when possible. Considerations involved in implementing social housing for agricultural animals are discussed by Mench et al. (1992).” (p21-22)

The AAALAC Position Statement on this topic is: “The *Guide* states that single housing of social species should be the exception. Social housing will be considered by AAALAC International as the default method of housing unless otherwise justified based on social incompatibility resulting from inappropriate behavior, veterinary concerns regarding animal well-being, or scientific necessity approved by the IACUC. When necessary, single housing of social animals should be limited to the minimum period necessary and, where possible, visual, auditory, olfactory and, depending on the species, protected tactile contact with compatible conspecifics should be provided. In the absence of other animals, additional enrichment should be offered, such as safe and positive interaction with the animal care staff, as appropriate to the species of concern; periodic release into larger enclosures; supplemental enrichment items; and/or the addition of a companion animal in the room or housing area. The institution's policy and exceptions for single housing should be reviewed on a regular basis and approved by the IACUC and/or veterinarian.”

### Policy

- Full time social housing is the preferred and expected method of housing social animal species at WVU.
- Single housing of social animals should be used only when necessary and for the minimum period required, and it should include visual, auditory, olfactory, and tactile contact with conspecifics whenever possible.

- Single housing that excludes contact with other animals **requires** the provision of additional enrichment, such as interaction with animal care staff, periodic supervised access to a larger enclosure, or supplemental enrichment items unless scientifically justified in the animal use protocol.
- All single housed animals used in biomedical research **must** have a card (Figure 1) placed on their cages. The appropriate box should be marked to correlate with the reason for single housing. An extra form of enrichment should be provided when animals are single housed for any reason (unless justified in protocol).

### **Exemptions**

- Protocol-related (scientific necessity) exemptions from social housing **require** scientific justification described in the protocol and approved by the IACUC.
- The Attending Veterinarian or designee may exempt animals from social housing on an individual basis for veterinary or social incompatibility reasons. Veterinary exemptions for USDA-covered species **must** be documented in the animal's clinical record every 30 days unless the exemption is permanent.
- Program-wide exemptions to social housing approved by the IACUC, include the single housing of the following situations, when applicable:
  - breeder males
  - peri-parturient females
  - single-sex littermate at weaning, when another litter of similar age is not available for co-housing.
  - animals fasted pre-anesthesia
  - animals during post-operative recovery
  - animals lacking socially compatible cage-mate due to attrition of cage mates or uneven experimental group sizes
- Other program-wide exemptions may be approved by the IACUC as warranted.

### **Species Considerations**

While this document is applicable to **ALL** species, here are some considerations to keep in mind for certain species:

#### MICE

- Male mice may be housed together only when co-housing occurs at weaning age with animals of the same age.
- Once a male mouse is removed from a group housing cage, for breeding or permanent single housing, it cannot be returned to the cage.

#### RATS

- Unfamiliar male rats should not be combined unless overseen by veterinary staff.

#### RABBITS

- Male rabbits >4 months should be single housed due to social incompatibility.
- Female rabbits >4 months should be single housed if not paired prior to sexual maturity. Pair housing adult female rabbits **requires** veterinary oversight.

## HAMSTERS

- Hamsters may be housed together if co-housing occurs at weaning age with animals of the same age OR if hamsters arrive in established groups from vendor.
- Sexually mature female hamsters can be aggressive and may require single housing to prevent fighting.
- Once a hamster is removed from a group housing cage, for breeding or permanent single housing, it cannot be returned to the cage.

Figure 1.

### Single Housing

Date: \_\_\_\_\_

Reason:

Protocol

Veterinary

IACUC Policy Exceptions

Other: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Extra Enrichment Provided

## References

1. [Animal Welfare Act and Animal Welfare Regulations](#), United States Department of Agriculture, 2017.
2. [Guide for the Care and Use of Laboratory Animals](#), National Research Council, 2011.
3. [Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching](#), Federation of Animal Science Societies, 2010.
4. [AAALAC International's Position Statement on Social Housing](#)
5. [AAALAC FAQ on Social Housing and Social Experience](#)