



# TEXAS A&M UNIVERSITY- SAN ANTONIO

<b>IACUC SOP:</b>	<b>SOP Social Housing of Social Species</b>	
<b>SOP#205.00</b>	<b>IACUC Approved: 4/12/2024</b>	<b>IO Approval: 4/18/2024</b>

## Purpose

The purpose of this SOP is to define housing standards for social species of research and teaching animals at A&M- San Antonio. Social housing of animals involves the housing of social animal species in pairs or groups 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 and aquatics.

When properly managed, the social housing of animals can significantly enhance their overall welfare. Social housing will be considered the default method of housing for social animals. Single housing for experimental reasons must be described and justified in the IACUC protocol and approved by the IACUC. Each facility housing social animals must develop a Standard Operating Procedure (SOP) for social housing and include a description of the process for determining social incompatibility. Documentation for singly housed social animals must be available for Veterinarians and site visitors.

## Regulations and Guidelines

The Guide for the Care and Use of Laboratory Animals, 8<sup>th</sup> edition 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.” (p.64)

The Guide further notes, “Not all members of a social species are necessarily socially compatible. Social housing of incompatible animals can induce chronic stress, injury, and even death.” (p.64)

Both the Association for Accreditation and Assessment of Laboratory Animal Care (AAALAC) and the Office of Laboratory Animal Welfare (OLAW) have position statements supporting the concept of social housing as the default for social species.

## Procedure

General Procedures:

- Social animals will be housed in compatible pairs or groups, rather than individually, unless a single housing exemption has been approved in the relevant protocol or social



# TEXAS A&M UNIVERSITY- SAN ANTONIO

housing poses an undue risk to the animals in question as determined by the facility manager and/or the area veterinarian. If the protocol-driven need for single housing is necessary only for a portion of the study, the animals should be socially housed before and after that time. The timeframe for single housing should be specified in the protocol.

- Single housing of social animals post-operatively does not require a specific exemption approval in the relevant protocol. However, single housing must be for the minimum amount of time post-operatively necessary for recovery and/or healing as described in the animal care and use protocol.
- Single housing for pre-anesthetic fasting does not require an exemption.
- When social animals must be housed singly, conspecifics should be housed in visual, olfactory, and/or tactile range whenever possible.
- When animals are left single housed due to attrition of cage mates on study, or uneven experimental group sizes, consideration should be given to re-housing with other conspecifics when possible, depending upon the expected duration of the study. When re-pairing is not possible without disrupting the study, single housing is acceptable for the remainder of the study.
- When social animals must be housed singly, environmental and/or food enrichment, exercise/release into larger enclosures, and/or human interaction shall be provided unless scientifically contraindicated.
- Husbandry staff, veterinary staff, and the IACUC are expected to monitor single housing instances and ensure that single housing is approved in the relevant protocol.
- This SOP will be revised with the addition of new species to the census.

## Breeding:

- In many breeding arrangements pregnant females will be housed singly prior to birth. Female breeders may also have periods post weaning when they are singly housed prior to the next breeding. This does not need to be included in the IACUC protocol as an exemption as it is understood that this is a necessary part of maintaining a breeding colony.
- If there are unbalanced litters (e.g., 4 females and 1 male) resulting in an animal not having an appropriate cage mate at weaning, attempts should be made to identify a cage mate. However, if this is not possible, a note should be made in the animal's record/cage card.
- Facility SOPs for colony management should describe the breeding program.

## 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.



# TEXAS A&M UNIVERSITY- SAN ANTONIO

• 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.

### REPTILES

This SOP confirms that special species will be housed together (The Guide-pg. 64). With few exceptions, reptiles are generally solitary and may incur stress when caged in groups. Because of this, multiple animal housing is only used for breeding and should include ample opportunities for individuals to distance themselves from cage mates. This can be achieved by the inclusion of multiple hide boxes and visual and physical barriers within the enclosure.

### **Reference:**

The Guide and Care of Laboratory Animals.

### **History:**

Version 01 - Initial Approval: 4/12/2024

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