IACUC Policy/Guideline: IACUC Guideline on Social Housing

Purpose/Scope/Application: The purpose of this guideline is to set the expectations for social housing of animals used in research and teaching activities at the University of Minnesota.

References: Guide for the Care and Use of Laboratory Animals, 8th edition, page 64; RAR Enrichment Program

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Associated SOP:

Procedure:

• Pair or group housing of social animals will be considered 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.

• Definition of “Social Animal” – within the context of use at the University of Minnesota, the following species are defined as being potentially social: nonhuman primates, dogs, cats, pigs, sheep, goats, cows, horses, rabbits, rodents (excluding adult male mice and female hamsters), chickens, turkeys, and songbirds.

• Social animals will be housed in unisex compatible pairs or groups, rather than individually, unless a single housing exception has been approved in the relevant protocol or social housing poses an undue risk to the animals in question as determined by RAR veterinary staff.

• 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.

• Single housing of social animals post-operatively will be the norm and does not need specific exception approval in the relevant protocol. Single housing must be for the minimum amount of time post-operatively necessary for recovery and/or healing, as determined upon advice and oversight of the RAR Area Veterinarian.

• When social animals must be housed singly, con-specifics will be housed in visual, olfactory, and/or tactile range whenever possible.

• 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.

• When animals are left singly housed due to attrition of cage mates on study, consideration should be given to re-housing with other con-specifics when possible and with consideration given to the expected duration of the study.
• If primary enclosures currently available do not allow for social housing, provisions for regular
group socialization outside of the primary enclosure shall be provided where possible.
• If primary enclosures currently available do not allow for social housing, budgeting must be
instituted to allow for purchasing of social housing enclosures by the end of FY14 (June, 2014).
• RAR veterinarians have the authority to exempt specific animals from social housing for reasons
related to health, condition or well-being. The exemption and rationale must be documented in
an exemption log and/or the animal’s medical record. The status of the exemption must be
reviewed by a RAR veterinarian at least every 30 days and renewed or voided as appropriate.
• Husbandry and veterinary staff are expected to monitor for single housing instances and ensure
that single housing is approved in the relevant protocol, approved by the RAR veterinarian via
documented exemption, is covered by the single housing post-operatively guideline, or meets
an exception category included in the species specific guidelines below.
• For animals that have been single housed for prolonged periods prior to the implementation of
these guidelines, behavioral assessment and monitored pairing by veterinary staff will take
place in order to deem social housing safe and appropriate and to match compatible animals
with one another.
• These guidelines should be revised with the addition of new species to the census or in the case
where significant new information emerges or new approaches to enrichment come to be the
norm.

Social Housing Expectations for Specific Species:

• Nonhuman Primates: Nonhuman primates must be housed in rooms with visual, olfactory
and/or tactile contact with other nonhuman primates. An active pair/social housing program
must be maintained by the veterinary and/or research staff to maximize social housing of
nonhuman primates when not precluded by the scientific objectives of the study.
• Dogs: Canines should be socially housed in compatible pairs or small groups. If dogs cannot be
compatibly housed continuously, intermittent socialization with other dogs of 20-30 minutes
per day, 5 days per week should be provided. Dogs housed individually must be within sight of
other dogs. Those kept singly should be given extra human interaction daily.
• Cats: Behaviorally compatible cats must be socially housed. Group enclosures should have
sufficient resting places off the floor to accommodate every cat. Scratching posts and visual
barriers (“hiding places”) should be provided. Multiple litter boxes, feed and water bowls
should be distributed around the enclosure with at least one station for every two to three cats.
• Humane Society and Shelter dogs and cats brought in for a period of 10 days or less as part of
the CVM spay/neuter instructional program are specifically exempted from the social housing
guidelines.
• Rabbits: Rabbits less than 4 months of age and all females should be housed in groups. Because
of the high risk for aggression between male rabbits after puberty (Quinn, 2012), unless
previously socially housed and shown to be compatible, adult male rabbits (>4 months of age)
should be housed singly with the ability for visual, auditory and olfactory association with conspecífics. Rabbits housed singly must be provided a toy or other manipulanda on a regular basis
to allow for exploratory behavior.
Rodents: Behaviorally compatible rodents should be housed socially in unisex groups with nesting material. Social housing of male mice requires additional consideration, and may not be possible in all situations. See Appendix 1 (at the end of this document) for guidelines regarding social housing of male mice. However, unfamiliar males should not be combined. Female hamsters are not considered social animals and are not required to be group housed.

Sheep, Goats, Pigs: Ruminants and pigs should be socially housed in compatible pairs or small groups, unless exempted for experimental reasons by the IACUC, or for health or behavioral reasons by the attending veterinarian. Where there is likelihood of a single animal remaining after all others have been used on a study, experimental plans should include the timely use of the remaining animal. Sheep are particularly susceptible to isolation stress and every attempt should be made to minimize time spent housed without con-specifics.

Horses, Cows: Cows should be group housed in loafing pens or individually housed in adjacent stanchion lines. Horses should be individually housed in box or tie stalls or, as needed, outside in a pole barn shelter with attached corral. Horses and cows should be given group exercise periods daily where social interactions may occur.

Songbirds and chickens: Birds should be housed in socially compatible groups with perches, feeders, watering devices, and cuttlebone as appropriate for the species.


Appendix 1: Guidelines for Social Housing of Male Mice

Adults:
- Adult male mice (older than 5 weeks) should NEVER be combined. This is especially true if the males have been used as breeders. This does not apply to littermates that have been cage mates since birth.

Weanlings:
- Weaned males should ideally be group-housed with their littermates.
- If weanling males will be grouped with males from different litters they should be combined within 1 week of weaning, and only with males that are 1 week apart in age or less.
- When combining males from different litters, a clean cage should be used to prevent territorial behavior.
- When weanling male mice from different litters are combined, they should be watched closely for fighting, and separated immediately if fighting occurs.
- Some strains of mice are more aggressive than others, and will fight regardless of the age at which they are combined. If there is no suitable cage-mate, males should be housed individually. Singly-housing male mice in this situation is an approved exception to the social housing guideline.