Objective

The purpose of this policy is to outline recommendations set forth for social housing of laboratory animals to comply with housing requirements in the *Guide for the Care and Use of Laboratory Animals, Eighth edition (Guide, NRC, 2011)*. Relevant quotations from sections of the Guide are as follows:

“An appropriate housing space or enclosure should also account for the animals’ social needs. Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility.”

“Appropriate social interactions among members of the same species (conspecifics) are essential to normal development and wellbeing. 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.”

“Single housing of social species should be the exception and justified based on experimental requirements or veterinary-related concerns about animal well-being. In these cases, it should be limited to the minimum period necessary, and where possible, visual, auditory, olfactory, and tactile contact with compatible conspecifics should be provided. In the absence of other animals, enrichment should be offered such as positive interaction with the animal care staff and additional enrichment items or addition of a companion animal in the room or housing area. The need for single housing should be reviewed on a regular basis by the IACUC and veterinarian.”

Overview

USC’s Assurance of Compliance with Public Health Service Policy (on file with the NIH Office of Laboratory Animal Welfare) and AAALAC, International accreditation standards require strict compliance with federal animal welfare regulations and the *Guide*. The aim of this policy, therefore, is to meet the intent of the *Guide* using performance based standards of animal care and use while keeping in mind the special needs of investigators to house animals under certain conditions for experimental reasons and to prevent injury or illness to animals due to aggression from conspecifics when housed under social conditions that are not appropriate for their species.

Policy Statements

Social housing exemptions are allowed for the following animal species and conditions, which may be housed singly without additional justification in the IACUC protocol:

- Male rabbits.
- Male chickens (roosters).
- Male hamsters.
- Male mice or rats that are part of a breeding colony and not currently in cages with females for breeding.
- Female mice or rats that are part of a breeding colony and are separated for up to three weeks prior to giving birth to their litter. Note that non-pregnant female breeder mice or rats must be socially housed.
- Any animal deemed unsuitable for social housing by a DAR veterinarian for health, welfare or other compatibility reasons.

The above exemptions to social housing are allowed without completion of section 2.1.1 of the IACUC protocol to justify single housing. A purple cage card will be placed on the cage with the reason for exemption.

In addition, social housing exemptions are allowed if approved by the IACUC as part of an experimental protocol, with the following guidelines:

- Animals must be assigned to an IACUC approved protocol that requires single housing due to experimental necessity. Examples include behavioral tests that would be abrogated by housing with conspecifics, individual feeding or watering or measurement of food/water intake, metabolic measurements, and surgical procedures in which conspecifics could interfere with incisions or implanted materials such as electrodes or cannulae.
The single housing exemption must be listed on the IACUC protocol section 2.1.1 and the question “Will animals be housed individually for any portion of this project?” must be answered “yes” with an acceptable justification that is approved by the IACUC.

Animals such as breeder male or female mice or rats described above do not require an additional single housing exemption under section 2.1.1 of the IACUC protocol.

Any other requests for exception to this policy must be described in detail in the IACUC protocol and will be considered on a case-by-case basis. The Principal Investigator must have approval from the IACUC before the exemptions to social housing can be implemented.

Adherence to this Policy

The Principal Investigator is responsible for adhering to this policy and must ensure that all research personnel responsible for animal research and colony maintenance are appropriately trained and experienced. Research personnel must provide for social housing when animals are ordered from vendors or added to research populations following weaning from breeding populations. Research staff members must provide sufficient monitoring of the animals to ensure that social housing is implemented, in concert with Department of Animal Resources animal care and veterinary staff members. Lack of adherence to this policy may be reported to the IACUC as a noncompliance.

If a single housed animal is noted in the facility, animal care staff members will place a SINGLE HOUSED card behind the standard cage card and indicate the reason for single housing. If the reason is not clear, the principal investigator or contact person will be contacted for clarification.

- Fighting or non-compatible animals and animals under health and treatment will be evaluated by a DAR veterinarian who will date and initial the card to allow the exemption.
- If the animal is on a breeding protocol, the animal care staff member will check “single breeder” on the card.
- If the animal care staff member or veterinarian sees that there is an experimental exemption on the IACUC protocol, they will check “experimental” on the card.
- If the reason for single housing is that a cage mate was found dead or culled, and there is no other known reason for single housing, the principal investigator or contact person will be contacted to develop a plan to redistribute animals back into social cages with others on the same IACUC protocol, or to order new animals as compatible cage mates. The principal investigator will be allowed a period of one week to place the animal into a social housing cage or to euthanize the animal. This may be extended for an additional week (if for example it takes over one week to receive a cage mate from a vendor).
- Single housed animals will be provided additional cage enrichment and/or unless exempted in the IACUC protocol and/or visual, auditory, olfactory, and tactile contact with compatible conspecifics and/or positive social interactions with animal care staff members.
- The card will be dated and the schedule for rehousing in social housing (if applicable) will be indicated under notes. If the single housing exemption is a permanent condition, this will be indicated under “notes” at the bottom of the card.

References

1. The Guide for the Care and Use of Laboratory Animals, 8th Ed. 2011 NRC, page 57
2. AAALAC interpretation of new Guide policies (http://aaalac.org/about/guidelines.cfm)
3. USDA Animal Welfare Act Regulations, 9CFR Chapter I, subchapter A