WVU IACUC Guidelines:
Housing Multiple Species of Laboratory Animals in the Same Room or Area

Purpose
This document provides guidelines for housing more than one species in the same room or area. The request to house different species in the same room should be addressed and justified in the animal use protocol, then submitted to the IACUC for approval.

Background and Regulations
Typically, all animals at WVU are separated by species and pathogen status. Housing different species in the same room may be considered by the IACUC, and approval is based on current standards of best veterinary practice, considering species-specific behaviors, and infectious disease control. Animals should not be housed with or near another species that might compromise the health or welfare of either species.

The Guide for the Care and Use of Laboratory Animals states (p.111): “Physical separation of animals by species is recommended to prevent interspecies disease transmission and to eliminate the potential for anxiety and behavioral changes due to interspecies conflict.”

The Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching states (p.22): “Agricultural animals of different species are typically kept in different enclosures to reduce interspecies conflict, meet the husbandry and environmental needs of the animals, and facilitate research and teaching.”

Animals must have an appropriate level of separation during quarantine and acclimation periods. The following recommendations refer to animals that are considered free of transmissible diseases, unless otherwise specified.

Rodents – Mice and Rats
There are currently no diseases that have been detected in mouse or rat populations that place either species at greater risk of interspecies exposure to a pathogenic organism. The literature on housing mice and rats in the same room is limited. In the wild, rats can be predators of mice. Some studies have shown that mice co-housed with rats can exhibit signs of acute and chronic stress, while other studies have found negligible stress-related effects. Given the potential negative impact on animal welfare associated with co-housing, efforts should be made to house mice and rats in separate rooms.

Guidelines for housing mice and rats in the same room:
- Individually ventilated caging is preferred, along with housing different species on different racks. Direct ducting for ventilated housing racks is recommended to reduce adverse outcomes.
- Consideration should be given to visual separation or barriers between different species.
- All animal manipulations must be conducted within a change station or biosafety cabinet, with proper disinfection between cages.
- If an ABSL-2 study includes both mice and rats, it may be prudent to house the animals in the same room to contain pathogen(s). When this occurs, personnel must follow ABSL-2 practices. (see ABSL-2 Use in Animals)

Farm Animals
Historically, different species of farm animals have been housed in the same pasture and in the same barn, but usually in separate pens. However, mixed species grazing has benefits for both the animals and the environment, co-housing can be used for species enrichment, and guard animals are sometimes helpful to minimize predation.
A precedent has therefore been established for housing different agricultural species together. However, in a biomedical research setting it is recommended that mixing of different species of farm animals be kept to a minimum. The *Ag Guide* states (p.22): “a qualified veterinarian or scientist should recommend appropriate health and biosecurity practices if species are to be co-housed.”

**Guidelines for co-housing farm animals:**

- In a farm-type operation, animals may be housed in pens or pastures adjacent to other species. If any of the animals have a communicable disease, measures should be taken to reduce nose-to-nose interspecies contact by use of a double fence or solid wall.
- All domesticated ungulates may be housed in adjacent indoor or outdoor pens or box stalls, provided animals are free of transmissible disease.
- Poultry should be housed in an area separate from all other animals.
- When possible, farm animals should be housed with a companion of the same species.

**References**

5. *Guidelines for Co-Housing Multiple Species of Laboratory Animals*, NIH Office of Intramural Research, Office of Animal Care and Use.