

Colorado State University

Institutional Animal Care and Use Committee

Policy on Investigator Managed Care of Animals

Purpose

This policy clarifies the expectations for the care of animals in Investigator Managed Animal Facilities (IMAF).

Background

Colorado State University is committed to the highest ethical standards of animal care and use. This policy outlines the expectations for humane animal husbandry, ensures compliance with external regulations and establishes roles and responsibilities for IMAFs.

All housing areas must follow, as applicable, the standards set forth in:

- Guide for the Care and Use of Laboratory Animals¹
- Guide for the Care and Use of Agriculture Animals in Research and Teaching²
- Animal Welfare Act and Regulations³
- CSU Institutional Animal Care and Use Committee's (IACUC) Policies and Guidelines⁴
- Applicable Laboratory Animal Resources (LAR) Policies

Federal regulations require that animal care be provided by qualified personnel, and that the Attending Veterinarian (AV)⁵ has the authority to ensure adequate veterinary care and oversee all aspects of animal care and use including access to all animals at any time. Some groups of vertebrate animals, including fish and amphibians are often maintained by research staff. To ensure consistency and documentation, the IACUC requires that qualified, trained animal care staff oversee all animal care at CSU, even when care is provided in facilities outside of LAR managed areas.

Policy

The Laboratory Point of Contact (POC)

Accountability for the care of animals housed in an IMAF is established through protocol review. The Principal Investigator (PI) is always considered the primary point of contact (POC) and holds ultimate responsibility for the conduct of all personnel involved in the activity, particularly regarding animal care and use.

To ensure continuity of care and emergency preparedness, secondary POCs must also be designated. If both the primary and secondary POC will be off campus for more than a day, an alternate POC must be assigned, and the AV must be notified in advanced.

¹ [Guide for the Care and Use of Laboratory Animals](#)

² [Guide for the care and use of Agricultural Animals in Research and Teaching](#)

³ [Animal Welfare Act Regulations, CFR, Title 9, Chapter 1, Subchapter A, parts 1-4.](#)

⁴ [CSU IACUC Policies](#)

⁵ AV: Attending Veterinarian, and/or their delegates

Facilities

All IMAF must be reviewed and approved by the IACUC prior to use, must be inspected by the IACUC semi-annually, and are subject to inspection by other internal and external agencies. The IACUC protocol for IMAFs must include justification for why the study cannot be conducted by the centralized unit (LAR).

In cases where there is rigorous scientific justification for the exception, and the appropriate environment, housing, care and oversight can be provided according to federal standards, CSU may approve exceptional circumstances.

1. The facility must be maintained within the temperature and humidity ranges defined for the species in *The Guide*, unless a deviation is approved by the IACUC. In general, this is 72°F (+/- 5°F) for terrestrial animals housed in conditioned space. The indoor humidity should be maintained within the range of 20%-70% RH. Facilities Management must be contacted to resolve the problem if any deviations from the set points occur. The air handling must be assessed at least every three years which includes air changes per hour and pressure gradients. Water quality records for aquatic species need to be maintained that minimally include water temperature, pH, and conductivity. It is the PIs responsibility to maintain documentation and provide it to the IACUC upon request.
2. When animals are not housed in the IMAF, records must indicate the date the animals were removed (no animals were held). Records are not required when animals are housed for 12 hours or less. When animals are returned to the IMAF holding room, the monitoring records must indicate the date the animals were returned, after which daily monitoring is required.
3. Personnel entry into the IMAF should safeguard colony health management and protect personnel safety. The PI is responsible for maintaining and ensuring the security of the IMAF.
4. If the IMAF will not be used for six or more months, the IMAF POC shall contact the IACUC and place the IMAF on an 'Inactive Status.' Reactivation requires an IACUC inspection.
5. Each IMAF will have a determined maximum housing density. Density is defined as the number of animals that can thrive in the space allotted under the conditions provided. Aquatic species density is defined as appropriate water quality and general minimal volume per animal for the species being housed. All deviations from published standards must be approved by the IACUC.
6. Any new or renovated IMAF must be operated by LAR to ensure consistent application of the regulations, guidelines and CSU policies, unless otherwise approved. The AV shall be included in the design and operation of the IMAF. There may be instances in which LAR personnel may require specific training by the PI to provide appropriate husbandry.

Veterinary Care

The AV must be provided with full access to all animal housing locations at any time per federal regulatory requirements. The PI is responsible for immediate notification to veterinary staff of health problems. Prompt reporting of any clinical abnormality to the AV is required when it is beyond what is expected as described in the approved protocol.

1. PIs providing their own veterinary care must use the electronic medical records system established by the AV. Access to this system is provided by the AV. The medical records must be completed at the time of the incidents and include the problem and treatment plans in an SOAP format (Subjective, Objective, Assessment, Plan). All cases must be resolved by the veterinarian.
2. The AV is responsible for the care of all university-owned animals used in research, teaching and testing. External veterinary care must be coordinated with the AV to ensure adequate veterinary care is provided. If veterinary care is provided outside of CSU, the POC must notify the AV of all events requiring veterinary care. The regulations and guidelines require a specific reporting structure that veterinarians providing care for PIs must be aware of to maintain compliance.

Standard Operating Procedures

IMAFs must have Standard Operating Procedures (SOPs) covering routine care of animals: daily welfare checks; watering, feeding and storage of feed; sanitation, disinfection and housekeeping; monitoring effectiveness of sanitation; water quality and life support system assessments; identification of animals; environmental monitoring; illumination; pest management; weekend and holiday care; emergency response plans, and staff training. These will be reviewed by the IACUC prior to occupying the holding space and during semiannual inspections.

Animals under range conditions: observations should be frequent enough to ensure animal health, to recognize the need for emergency action, and to ensure continuity of feed and water supplies. The procedures are reviewed by the IACUC at least once every year during the semiannual inspection.

Documentation of animal care procedures is required including:

1. Daily observation of all animals for general health (including weekends and holidays)
2. Daily check of food and water supply
3. Cleaning and sanitization of housing enclosures and accessories (feed and water bowls, environmental enrichment equipment) based on frequency in IACUC approved SOPs. This must be at least every 2 weeks.
 - a. A program to monitor the effectiveness of sanitation every 4 months needs to be in place
4. Daily recording of temperature and humidity in housing with environmental controls
5. Pest management activities

Records must be retained for at least one year and be readily available. If students are used to maintain the IMAF and/or care for the animals, a plan for IMAF operations during student absences must be included in the SOP for the IMAF.

Signage

Standardized, necessary information regarding policies, regulations, risks, and requirements associated with using animals for research, testing and teaching at CSU must be available and easily accessible to all faculty, staff, students and visitors involved in the care and use of animals.

1. Reporting Animal Welfare Concerns
2. Emergency contacts
3. Appropriate safety signs (hazard identification, PPE required)

Training Requirements

The PI of an IMAF is responsible for assuring their personnel are appropriately trained. This includes training in routine husbandry, identification of illness, emergency response, biometrics, disinfection/sanitation, and other relevant areas. To ensure that situations that endanger animal welfare are recognized, all personnel involved in an IMAF are required to consult with the LAR Veterinary Staff⁶ on recognizing animal illness for the species they will be using.

1. The PI is responsible for complying with all CSU Occupational Health requirements as per the CSU Occupational Health and Safety Program (OHSP). This includes assurance that all employees, including students and visiting scientists, who come in contact with animal holding areas are enrolled in this program.
2. All personnel working with animals in an IMAF must be listed on an approved IACUC protocol.
3. Training records for individuals must be documented and easily accessible.

Category D and E protocol management

Many procedures involving research animals may result in pain and distress. Procedures in which anesthetics and analgesics are used fall under USDA pain category D, while those in which anesthetics or analgesics are withheld are considered USDA pain category E. Oversight of animals undergoing these types of procedures requires observation by the AV, regardless of who is the veterinarian. The majority of category D protocols involve surgical procedures followed by a post-operative period. The AV must be notified by the PI to allow a post-operative evaluation by the AV. Animals undergoing pain category E procedures, may be evaluated by the AV daily to provide a non-biased assessment of the animal's well-being and terminate the study if needed.

Pest Management

All IMAF must have a pest management program to control unwanted vermin and prevent the spread of disease to the research animals. This includes the use of insect traps and wild rodent traps. Live animal traps, such as Victor Tin Traps must be checked at least three times a week. If glue traps or snap traps are used, they should be checked daily, and animals must be euthanized according to CSU policies to prevent undue suffering. The AV should be notified of wild rodents that are captured. Additional precautions may be necessary to assure the health status of the colonies.

Emergency Response Plans

All IMAF must have an Emergency Response Plan, which describes what actions will be taken in the event of an emergency or disaster. Plans should indicate actions taken to mitigate the adverse impacts of a disaster (preventative measures), preparations including training of responsible personnel as well as

⁶ LAR Veterinary Staff: AV and/or their delegates, LAR Residents, LAR Veterinary Technicians

command structure (preparation), actions to be taken during the disaster (response), post-disaster actions (recovery) and after-action reviews. Plans must be accessible to individuals involved in the response. A copy must be provided to the AV. The emergency response plan must be reviewed by personnel within the IMAF upon hire or assignment to care or use animals in research

Animal Acquisition

All animals entering or leaving the IMAF must be approved through the standard animal acquisition process including purchases, importation, internal transfers, and exportation from CSU. All animals must be legally acquired, and their acquisitions entered into the centralized Animal Management System (AMS) and approved prior to acquisition. The AMS tracks animals based on the IACUC approved protocol, and the data is used to aid in annual reports to the USDA and AAALAC. Proactive accounting prevents animals in excess of the IACUC approved limit from arriving on campus. In addition, movement of animals, on and off campus, must be made in accordance with IACUC policies.

Acquisition of animals through the AMS generates a CSU specific animal identification number which is used to track the animal, veterinary records, and census information. These identification numbers are terminated following the disposition of the animals when it has left CSU (euthanasia, adoption). If the animal is transferred to another project, a transfer request must be made in the AMS.

Financial Considerations

IMAF within LAR are charged the full per diem rate. Additional reductions in the per diem rates will not be applied for any reason. Veterinary care for non-protocol related issues is not charged, this includes observation of animals during normal business hours.

Summary of Specific Requirements for Investigator Managed Facilities:

1. A responsible individual, the PI or a designee (POC), must be assigned for each facility.
2. If students are used to maintain the facility and/or care for the animals, a plan for facility operations during student vacations must be included in the SOP for the IMAF.
3. Training records for individuals providing care should be easily accessible.
4. Validation procedures (e.g., RODAC plates, Firefly, etc.) must be performed to validate the effectiveness of sanitation of primary contact areas (e.g., cages) at least every 4 months.
5. Daily monitoring and recording of the indoor minimum/maximum temperatures and humidity. If either falls out of the established ranges, typically 72°F (+/- 5°F) for terrestrial animals housed in conditioned space, and 20-70%RH, Facilities Management must be contacted to resolve the problem.
6. Husbandry practices, including but not limited to provision of food and water, sanitation (primary enclosure, enrichment, receptacles, etc.), and environmental enrichment, must be performed in a manner consistent with the federal requirements, CSU Policies and LAR Procedures. If these standards cannot be met for scientific reasons, an IACUC-approved exception must be in place.
7. Records should include temperature, humidity, feeding, providing water, and sanitation must be maintained. Appropriate sheets can be obtained from LAR.
8. HVAC functionality assessment is required every three years for accreditation.

The IACUC will review any failures to follow the procedures outlined in this policy and may suspend Investigator Managed Care as a result of significant, continuous or recurring failures. In such cases, responsibility for animal care will revert to Laboratory Animal Resources. All costs associated with this change will be borne by the PI.

Institutional Endorsement

The “*Policy on Investigator Managed Care of Animals*” was approved by the IACUC on August 26, 2025 for recommendation to the Institutional Official. This policy supports the research, teaching and service mission of Colorado State University, and ensures that the welfare of animal subjects used therein will be protected. Therefore, as the Institutional Official, I declare the IACUC approved policy to be the institutional policy of the Colorado State University Animal Care and Use Program.



Institutional Official

09/03/2025

Date