

Institutional Animal Care and Use Committee
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Memorandum

To:

From: Institutional Animal Care and Use Committee

Subject: Semi-Annual Report of the Program Review and Facility Inspection

Date: Dec 9, 2019

This report summarizes the IACUC's results of its most recent program review and facility inspection, as required by the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Policy), Section IV.B.1.-3., the *Guide for the Care and Use of Laboratory Animals (Guide)*, and the Animal Welfare Act (AWA) regulations, as applicable. Submission of semi-annual reports to the Institutional Official is a condition of this institution's Animal Welfare Assurance with the NIH Office of Laboratory Animal Welfare (OLAW).

IACUC Concerns:

Findings from the recent AAALAC site visit demonstrate that additional continuing education and oversight for research personnel and decentralized locations are required.

- Insufficient resources available to conduct the necessary level of continuing education and oversight for research staff, as evidenced by inadequate recordkeeping and protocol drift observed in numerous decentralized animal use locations.
- Insufficient oversight of PI-managed lab-specific procedural training and training recordkeeping.
- Numerous issues identified by AAALAC in peripheral labs suggest that research staff are not receiving adequate training in approved procedures, recordkeeping requirements, and IACUC standards for conduct of animal activities.
- Research staff are not receiving adequate continuing education, resulting in failures to uphold programmatic standards for animal activities and negative effects on animal welfare, specifically as to appropriate euthanasia of rodents in labs.
- Training records are inconsistent in peripheral labs and do not meet IACUC and/or NIH Guide standards.

Given the scope of these deficiencies, the IACUC will take the next 6 months to fully investigate and draft a plan to resolve them. The analysis and plan of action will be presented at the next semi-annual meeting on May 7, 2020.

Since the last review, the following changes have occurred in the institution's program for animal care and use (PHS Policy IV.A.1.a.-i.):

The **Spring 2019 Semi Annual Review Meeting Minutes** (*attachment 1*) detail the IACUC's review of the Animal Care and Use Program. The meeting minutes were approved by the IACUC on Dec 9, 2019. Each aspect of the Program is summarized below.

The **University Animal Care Program Description** (*attachment 2*) describes the current UAC Program. Items of note include:

- Staffing changes at multiple levels are a challenge, and upcoming UCAP program changes to wages and classifications may present additional challenges
 - The veterinary team has stepped up with a recent veterinarian vacancy; request submitted to RII and Provost office to refill this position
- Cage census keeps increasing
 - Primarily mice
 - ~14000 cages now, vs ~5000 five years ago. At this rate of increase, vivarium will likely run out room within the next three to four years.
 - Increase in "special housing" for mice and rats
 - More racks are on order that will allow for 1280 additional mouse cages

The following **IACUC programmatic changes** were implemented during the review period (April-October 2019):

- A new Guidance document has been published:
 - a. **IACUC Guidance 307 Evaluation of Sanitation Effectiveness.** To provide researchers with guidance on the IACUC's expectations for the evaluation of sanitation effectiveness for reusable specialized caging and research equipment used on a repeated basis for live animal activities when the items are not disinfected by University Animal Care (UAC) or autoclaved prior to each use.
- Expansion of IACUC inspections to include non-surgical decentralized locations on an annual basis. Decided Oct 14, 2019, full implementation pending.

The **IACUC Program Statistics** document (*attachment 3*) summarizes IACUC activity for the current year to date and compares it to historical data.

- The total number of active participants and PIs have increased as compared to the same period in Fall 2018.
- The total number of approved protocols has increased as compared to the same period in Fall 2018.
- Slight increases in total review time across all types of submissions are attributable to increasing scope and complexity of amendments.

The **MOU Summary** document (*attachment 4*) lists animal research performed with University funds at external institutions covered by a Memorandum of Understanding. No reports of non-compliance were received over the past six months.

Description of the Nature and Extent of the Institution's Adherence to the PHS Policy, the *Guide*, and the AWA

Departures from the PHS Policy, the *Guide*, and the AWA.

- ☐ There were no departures during this reporting period.
- ☒ The **Departures and Exceptions Checklist** (*attachment 5*) lists both existing and new departures to the *Guide*. No departures were approved for either the PHS Policy or AWAR. Of note:

Must:

- 1 new protocol was approved with a departure from the requirement that animals can express natural postures and turn around (*Guide*, p. 56)

Should:

- 2 renewal protocols were approved with a departure from the requirement that training of animals to adapt to restraint is provided (*Guide*, p. 29)
- 37 renewals and 14 new protocols were approved with a departure from the requirement to use pharmaceutical-grade compounds (*Guide*, p. 31).
- 3 new protocols and 1 renewal protocol with a departure from ventilation and air quality requirements (*Guide*, p. 45).
- 1 renewal protocol with a departure from illumination requirements (*Guide*, p. 47).
- 3 renewal protocols were approved with a departure from adequate bedding use (*Guide*, p. 52).
- 1 renewal protocol with a departure from the requirement that socially housed animals can escape or hide to avoid aggression (*Guide*, p. 55)
- 1 renewal protocol was approved with a departure from housing space not based on performance indices (*Guide*, p. 56).
- 2 renewal protocols were approved with a departure from providing additional enrichment for single-housed animals (*Guide* p. 64)
- 3 renewal protocols were approved with a departure from providing Ad libitum water (*Guide* p. 67-68)
- 3 renewal protocol were approved with a departure from cleaning and disinfection standards (*Guide*, pp. 70-71).

Deficiencies in the Institution's Animal Care and Use Program

Animal Care and Use Program Review Date: **November 7, 2019**

- ☐ There were no deficiencies in the program during this reporting period.

<input checked="" type="checkbox"/>	<p>The Semi-annual Program Review Checklist (<i>attachment 6</i>) identifies programmatic deficiencies for the IACUC and UAC. Of note:</p> <ul style="list-style-type: none"> • Insufficient resources available to conduct the necessary level of continuing education and oversight for research staff, as evidenced by inadequate recordkeeping and protocol drift observed in numerous decentralized animal use locations. • Insufficient oversight of PI-managed lab-specific procedural training and training recordkeeping. • Numerous issues identified by AAALAC in peripheral labs suggest that research staff are not receiving adequate training in approved procedures, recordkeeping requirements, and IACUC standards for conduct of animal activities. • Research staff are not receiving adequate continuing education, resulting in failures to uphold programmatic standards for animal activities and negative effects on animal welfare, specifically as to appropriate euthanasia of rodents in labs. • Training records are inconsistent in peripheral labs and do not meet IACUC and/or NIH Guide standards. <p>Given the scope of these deficiencies, the IACUC will take the next 6 months to fully investigate and draft a plan to resolve them. The analysis and plan of action will be presented at the next semi-annual meeting on May 7, 2020</p> <p>Otherwise, the overall adherence of the Animal Care and Use Program to federal regulations is excellent.</p> <p>Interactions between the various aspects of the Animal Care and Use Program and investigators continue to be favorable. We strive to ensure compliance by emphasizing the positive, educational aspects of the Program, providing resources, standardizing procedures, and being responsive to investigator needs, all within our regulatory framework.</p>
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Deficiencies in the Institution's Animal Facility

Animal Facility Inspection Dates: July 22 - August 2, 2019 (animal facilities); September 30 - October 18, 2019 (PI labs)	
<input type="checkbox"/>	There were no deficiencies in the animal facility during this reporting period.
<input checked="" type="checkbox"/>	<p>The IACUC Semi-Annual Inspection Documents outline the 7 UAC facilities () and 282 unique investigator animal laboratory or farm locations inspected in July/August and/or September/October 2019.</p> <p>The types of findings described on the Inspection Metrics document (<i>attachment 7</i>) are typical of previous inspections and generally represent personnel turn over, misinterpretation of IACUC policies and procedures, and/or normal wear and tear of facilities.</p> <p>The Inspection – No Findings document (<i>attachment 8</i>) lists locations where no deficiencies were noted (90% - UAC; 78% - PIs).</p> <p>Location and surgical records reviewed with resolved findings or deficiencies are described on the Minor (<i>attachment 9</i>) and Significant (<i>attachment 10</i>) documents.</p>



	<p>Locations with unresolved findings or deficiencies are described on the Unresolved Findings document (<i>attachment 11</i>).</p> <p>Most findings were classified by the IACUC as Minor or suggestions for improvement (8% - UAC; 16% - PIs). Significant findings were reported at similar or lower rates as in past inspection cycles (0.0% - UAC; 2.8% - PI).</p>
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Minority Views

<input checked="" type="checkbox"/>	No minority views were submitted or expressed.
<input type="checkbox"/>	The following minority view was expressed:

Status of AAALAC Accreditation

<p>Continuing full AAALAC accreditation was received on March 27, 2017.</p> <p>Council review pending for re-accreditation following October 2019 site visit. Post site visit communication indicated at least one likely mandatory item for correction in order to maintain accreditation. Site visit findings are currently being addressed.</p>
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THE UNIVERSITY OF ARIZONA

Research

Innovation & Impact

Institutional Animal Care and Use Committee

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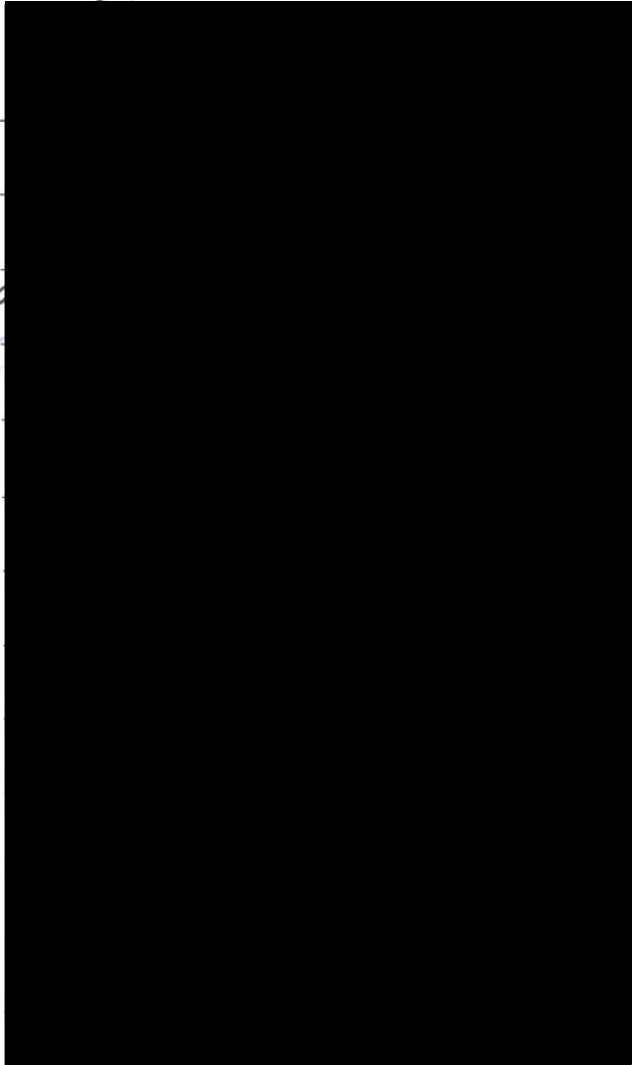
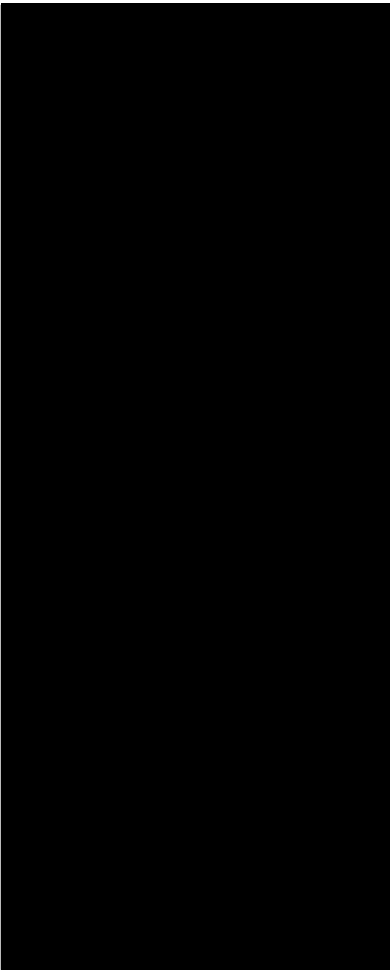
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Signatures

IACUC Member

Signature



IACUC Semi-Annual Meeting Minutes

8:30 am, Nov 7th, 2019
[REDACTED]

Attendees

Voting Members Present: Vice-Chair (serving as Chair); [REDACTED] (arrived @ 9:45, left @ 10:57); [REDACTED] (arrived @ 8:38); [REDACTED]

Voting Members Absent: [REDACTED] Chair; [REDACTED]

Alternate Members Present [non-voting]: [REDACTED] (arrived @ 8:48); [REDACTED] (arrived @ 8:43); [REDACTED]

Alternate Members Absent: [REDACTED]

Visitors Present [non-voting]: [REDACTED]
[REDACTED]

The meeting was brought to order at 8:32 am and quorum confirmed with 11 of 18 members present.

Welcome and Introductions

1. The committee was thanked for their work and dedication to the IACUC program

Announcements

1. Dates of the next IACUC monthly meeting and semi-annual meeting were announced

A. IACUC, UAC Management Team and Occupational Health

1. Review of UAC Program Description

- a. The AV reviewed the changes and status of the UAC program description. Of note:
 - i. Staffing changes at multiple levels are a challenge, and upcoming UCAP program changes to wages and classifications may present additional challenges
 1. The veterinary team has stepped up with a recent veterinarian vacancy; vacancy will likely be filled
 2. The husbandry, management, and veterinary teams were thanked for their hard work during challenging staff transitions
 - ii. Cage census keeps increasing
 1. Primarily mice
 2. ~14000 cages now, vs ~5000 five years ago. At this rate of increase, vivarium will likely run out room within the next three to five years.
 3. Increase in "special needs" mice
 4. More racks are on order that will allow for 1280 additional cages
 - iii. AV has presented budgetary and staff challenges to previous IO's and new AVPR of Operations

2. Occupational Health Update

- a. Update on status of Occupational Health program was presented by the Occupational Health Program Manager. Of note:
 - i. Program has experienced exponential growth, including in [REDACTED], and other outside locations. Additional programs and locations have been added to scope and reach of work
 - ii. Staffing is a challenge
 - iii. In-house laboratory services are still in process and nearer to completion
 - iv. Occ Health may move to another site, logistical concerns are being weighed.

- v. Due to staffing challenge and program growth, processes are slower than normal, and patience is requested
- b. NHP group had 2 recent environmental exposure incidents within last week
 - i. Lab has undergone safety briefing
 - ii. Because of after-hours exposure, challenges arose with [REDACTED] staff and appropriate post-exposure protocol and treatment
 - iii. Occ Health and Veterinarians are working with [REDACTED] and infectious diseases representatives to ensure future needs are met
 - 1. One exposed individual received the incorrect treatment from [REDACTED] which highlighted the need for additional training in hazard exposure for [REDACTED] staff
 - iv. Second exposure was able to use Campus Health, which had no issues with post-exposure protocol and treatment
 - v. It was suggested that Occupational Health and Veterinary team see what other infectious disease protocols are in use at other institutions
- c. Statistics from the Occupational Health program were presented

B. IACUC Executive Session

1. Amendment Review:

- a. [REDACTED]* - An amendment was returned to Full Committee Review. Of note:
 - i. Requirement from previous FCR included either using anesthesia to euthanize or have UAC perform euthanasia
 - 1. PI added acceptable justification for not inducing general anesthesia prior to euthanasia injection, topical anesthetic will be applied
 - 2. PI will make a maximum of 2 injection attempts, if unsuccessful UAC Veterinary staff will be consulted for a 3rd attempt. After a maximum of 3 unsuccessful attempts, animal will have a two-week rest before trying to euthanize again
 - ii. Lab is sufficiently trained and proficient in method, and all euthanasia is performed in UAC facility.
 - iii. It was noted that of 37 animals, there were three adverse events, so their failure rate is low
 - iv. **Approved**
- b. [REDACTED] – An amendment was brought to Full Committee Review. Of note:
 - i. [REDACTED] recused themselves from voting due to conflict of interest. Quorum was maintained.
 - ii. Brought to FCR as the additional 29 strains and 41 test compounds creates a very large jump in animal numbers, ~100,000 additional mice
 - iii. The need for 5 vehicle groups was questioned, and suggestion of using a vehicle study to determine solubility and control needs – only 2 vehicles may be needed
 - iv. PI was available to answer questions, and indicated that for the amendment (and subsequent grant application), all possibilities were accounted for, but for immediate plans, not all compounds and/or strains will be tested. PI is willing to refine request to include fewer animals and amend as needed at a later date.
 - v. **Modifications required to secure approval:**
 - 1. Provide vehicle study to reduce number of animals requested and/or
 - 2. Reduce numbers overall to what will realistically be done in first studies
 - 3. Final review by DMR

2. Protocol Review:

- a. [REDACTED] – The deNovo renewal of the protocol was brought to Full Committee Review. Of note:
 - i. Protocol was brought to FCR due to AAALACi site visit findings regarding the environmental chamber used for ~7 hour exposure to 50% humidity and up to 33° C for mice and rats
 - ii. Cabinet in use is not designed to be used as an environmental chamber. It is a refrigerator that is mostly air-tight that was retrofitted by the PI
 - 1. Location has been inspected several times, but chamber was not viewed as anything but a lab refrigerator, so evaluation not previously performed by IACUC
 - 2. EMSR has a temperature control mouse chamber, however rat chambers are not available. Environmental chambers designed for lab animal use are available for purchase commercially
 - iii. PI indicates that CO2 levels have been monitored and/or studied and are appropriate
 - iv. It is strongly suggested that the PI use the EMSR for mouse environmental chamber work
 - v. **Modifications required to secure approval:**
 - 1. With the goal of acquiring an environmental chamber designed for animal use, with the appropriate controls and monitoring capability, to continue use of this chamber, PI must either (a or b):
 - a. Bring up to the standard of a chamber designed specifically for animal use with the appropriate controls and monitoring
 - i. Monitor and record O2 and CO2 levels continuously
 - ii. Add ventilation to chamber
 - b. Purchase a commercial unit designed for this purpose
 - 2. Final review by DMR

3. IACUC Program Statistics

- a. IACUC program statistics were presented and reviewed. Of note:
 - i. Submissions continue to steadily increase
 - ii. Adequate staffing for the level of demand for services is a significant challenge

4. Review of AAALACi Post Site Visit Communication

- a. The post site visit document as sent to AAALACi was presented as the document includes information for the programmatic checklist

5. Program Checklist

- a. The IACUC program review checklist was presented and reviewed. Of note:
 - i. Deficiencies are informed by the AAALACi site visit
 - ii. 1d was indicated as a minor deficiency:
 - 1. Insufficient resources available to conduct the necessary level of continuing education and oversight for research staff, as evidenced by inadequate recordkeeping and protocol drift observed in numerous decentralized animal use locations
 - iii. 3d was indicated as a minor deficiency:
 - 1. Insufficient oversight of PI-managed lab-specific procedural training and training recordkeeping
 - iv. 9a and 9d were indicated as minor deficiencies, with 9b as a significant deficiency:

1. Numerous issues identified by AAALAC in peripheral labs suggest that research staff are not receiving adequate training in approved procedures, recordkeeping requirements, and IACUC standards for conduct of animal activities.
2. Training records are inconsistent in peripheral labs and do not meet IACUC and/or NIH Guide standards.
3. Research staff are not receiving adequate continuing education, resulting in failures to uphold programmatic standards for animal activities and negative effects on animal welfare, specifically as to appropriate euthanasia of rodents in labs
- v. Ideas were presented to assist labs in documenting training:
 1. Scientific member has a training log that has been sent to Veterinarians for review, and will be sent to IACUC office for PI use
 2. As part of personnel process, labs will be provided with completed personnel form (to be modified) and information (to be developed) on the importance of training documentation. Sample forms (to be developed) will also be provided
- vi. Visiting all sites will help address this in the coming year, and it will likely take a year to develop and implement a working solution
- vii. To assist committee in quantifying the training deficiencies, a checklist is suggested to be developed and sent on upcoming inspections
- viii. Single deficiency from last review has been resolved – [REDACTED] personnel space renovation is complete

b. Approved:

- i. Accept the report as written, with minor and significant deficiencies as above.
- ii. Within the next six months (to present at next semi-annual meeting on May 7, 2020), use current peripheral lab project and inspections to establish baseline assessment of the level of challenges and needs, to draft a plan of action and solution

6. New IO

- a. [REDACTED], is the IO as of last week

7. Departures Checklist

- a. Departures checklist was presented – any new departures are new instances of departures already described within program.

b. Approved

8. IACUC Semi-annual Inspections

- a. Semi-annual inspections were reviewed with follow up and determination and review of plans of action were discussed. Findings were verified as “minor” or “significant” and non-compliance was verified by the committee. Of note:
 - i. Inspection metrics were presented and discussed
 1. Most “other” were PI locations that should not be listed on the protocol
 - ii. Summer 2019 – UAC locations were reviewed.
 1. 3 locations with unresolved findings were reviewed
 - a. [REDACTED] cage wash ceiling tiles: Humidifier is leaking on to tiles, work is not yet complete and tiles have not yet been replaced. 4 weeks for plan of resolution

b. Approved:

- i. Accept report as written with 4 weeks for [REDACTED] cage wash to present plan of action, and 2 weeks from notification for PI labs
 - 2. 41 resolved minor findings and suggestions for improvement were reviewed and corrective actions already taken to be sufficient
 - a. **Approved:**
 - i. Accepted as written, no additional changes
 - 3. 244 locations with no findings were reviewed
 - a. **Approved:**
 - i. Accepted as written, no additional changes
- iii. Fall 2019 – UAC & PI Locations (AAALACi) were reviewed
 - 1. 43 locations with unresolved findings, SFI, and potential instances of non-compliance were reviewed and evaluated to be minor or significant
 - a. Most minor findings/SFI regarding listing of unused rooms have been addressed since printing of list
 - b. Majority of findings were for use of alcohol as cleaning agent in cluster of behavior labs
 - i. Send IACUC Guidance 307 and UAC SOP *Sanitation of Research Items Used with Animals* for LSN alcohol cleaning with finding results
 - c. It was noted that minor finding regarding expired drugs in controlled drug box can be resolved with labeling drugs as expired and RLSS/RMS to be notified for disposal
 - d. Finding regarding tail tipping within unapproved space to be updated from significant to minor
 - i. Space is approved, just not for specific activity, and protocol is using older version of breeding form that describes tail tipping for genetic testing
 - ii. PI to be reminded that if collecting blood via tail tipping, can also use for genetic testing
 - e. Significant finding regarding inappropriate/unapproved use of urethane for euthanasia reaches threshold of non-compliance
 - i. PI to cease activity and work with veterinarians to explore other options for euthanasia
 - ii. Breeding packet to be reprinted to address minor finding of incorrect protocol numbers on cage cards
 - f. Significant finding regarding unapproved use of ket/xyl for anesthesia and euthanasia reaches threshold of non-compliance
 - i. PI has ceased activity and non-compliance process is being initiated
 - ii. PI did not intend to use unapproved anesthesia and lab staff has been retrained on approved procedures
 - g. 2 significant findings regarding incorrect/improper use of gas euthanasia drugs on rodents were determined to reach threshold for non-compliance
 - i. Finding is part of mandatory correction for AAALACi accreditation
 - ii. PIs to be notified to immediately cease activity as follow up of notification during inspection

- iii. PIs to follow AVMA and PHS guidelines for use of CO2 for euthanasia, and guidances and references to be sent to PIs
 - iv. PIs must have flow meter between CO2 source and euthanasia chamber
 - h. **Approved:**
 - i. Minor findings to be given 2 weeks from date of notification to respond
 - ii. Significant findings and incidences of non-compliance to be initiated as above; PIs to be reminded to cease activity as noted, and responses will be tracked
- 2. 2 resolved minor findings and suggestions for improvement were reviewed and corrective action determined to be sufficient
 - a. **Approved:**
 - i. Accepted as written, no additional changes
- 3. 221 locations with no findings were reviewed
 - a. **Approved:**
 - i. Accepted as written, no additional changes

9. IACUC Programmatic Changes

- a. 2 programmatic changes made in the last six months were reviewed. Of note:
 - i. New guidance document 307 was developed and approved
 - ii. Inspection yearly for every location will be implemented

10. MOU Activity Reports

- a. MOU activity was presented, with 26 UArizona MOUs and 9 non-UArizona MOUs active

11. Incident, Non-compliance, and Adverse Events

- a. Summary of incident, non-compliance and adverse event reporting since last programmatic review was presented. Of note:
 - i. All have been addressed and closed but one non-compliance. The PI has had no time for required [REDACTED] training. IACUC staff will continue to follow up
 - ii. There has been a huge uptick in FOIA and state records requests due to increased efforts of national animal rights activists and organizations.

- 1. [REDACTED]
- 2. [REDACTED]

12. Items from the Floor

- a. The IACUC Officer is leaving the role, and was thanked for his service

Meeting was adjourned at 11:07 and quorum was maintained for the duration.

*Asterisk indicates protocols with USDA-covered species

Minutes compiled and distributed by the IACUC Associate and IACUC Officer

This document is confidential and intended solely for the use of the individual or entity to whom it was addressed. If it is necessary to disseminate any of this information for official purposes, the non-essential information should be redacted.

University Animal Care Program Description

MISSION STATEMENT

UAC provides investigators with high quality care and management of animals in accordance with the teaching and research objectives of the University of Arizona and in compliance with animal welfare policies and regulations.

STRATEGIC OBJECTIVES

- A. Provide high quality, cost-efficient animal care and service.
- B. Comply with applicable laws, regulations, and policies.
- C. Contribute to the University's mission of research, teaching, and service.
- D. Build understanding and acceptance of the necessity of humane animal care and use.
- E. Encourage employee satisfaction and productivity.

INTRODUCTION: The animal care program of The University of Arizona is centralized under University Animal Care (UAC). [REDACTED] is the Director, UAC and University Attending Veterinarian. [REDACTED] is the Institutional Official. UAC is composed of multiple service units that include:

HUSBANDRY SERVICES

Animal Husbandry: A veterinarian and manager (Animal Care Manager Senior, Animal Care Manager, or Animal Technologist Senior) oversee each UAC animal facility. They are assisted by multiple husbandry staff assigned to each facility, who report to the manager. As needed, staff may be temporarily assigned to a different facility to ensure stable operation of all facilities. Managers meet with investigators to accommodate research-related needs and provide facility access. All veterinarians and managers meet regularly to ensure facility operations are adhering to standard operating procedures established for the campus-wide program and to ensure adequate staffing levels for each facility.

Four levels of staff are employed to work directly with the animals: Animal Technician, Animal Technician Senior, Animal Technologist, and Animal Technologist Senior. These individuals feed, water, and care for all animals as well as observe health conditions and behavior. Other duties include reporting injuries, disease or abnormal behavior, and administering medical treatment according to prescribed instructions from veterinarians or veterinary paraprofessionals. They may also assist investigators with research procedures, euthanize animals, or maintenance of rodent breeding colonies, which includes setting up breeding pairs, culling old/non-productive animals, weaning offspring, and record keeping. Animal Technician Senior and higher level husbandry staff members work with non-human primates and animals which have been exposed to biological or radiation hazards, and perform quality assurance testing.

Husbandry staff members service the animal rooms daily and rooms are disinfected between species or upon room break down. They monitor room conditions/environments such as temperature, humidity, lighting, etc. Husbandry personnel stay current with new technologies in feeding, watering, housing, and

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caring for various types of animals. All laboratory rodents are maintained specific pathogen free (SPF), except for certain ABSL-2 studies that involve multi-pathogen infected mice. In addition, mice and rats are required to be housed in micro isolator cages or individually ventilated caging systems; with some exceptions for animals on approved protocols that require different accommodations for the study. Animal Technologists and Animal Technologist Seniors are responsible for training new husbandry employees as well as newly promoted husbandry employees, and also perform advanced technical services. This section ensures that all federal, local, university, and departmental standards are being met regarding the care and housing of laboratory animals. Husbandry also maintains files and records on animals, facility environments, and animal care staff.

Cage Wash: Personnel are responsible for the cleaning, autoclaving, and set-up of cages and equipment used to house the animals. The Animal Care Manager for Cage Wash oversees the training and supervises the Animal Technician Senior, Animal Technicians, Animal Cage Wash Technicians, and students who work in these areas. The Animal Technician Senior devotes substantial time to training entry level personnel in cage wash procedures. Animal Technicians rotate between [REDACTED] [REDACTED] and [REDACTED] cage wash areas, and begin training in the performance of husbandry procedures in animal rooms. Animal Cage Wash Technicians are entry level and work only in the case wash areas until fully trained. Student workers work primarily in cage wash areas and occasionally assist with weekend husbandry care; primarily at the [REDACTED] animal facility.

Monitoring of sanitization/sterilization procedures is routinely performed. Autoclaves are monitored each cycle with autoclave tape, digital print-outs, and steam integrators, monthly by use of bacterial spore sterilization indicators, and quarterly by [REDACTED] for proper function. Vaporized hydrogen peroxide sterilization is verified by chemical indicators, computerized print outs, and monthly use of an ATP Luminometer. Cage wash temperature is monitored weekly with temperature strips and cage washers are evaluated quarterly for proper function by [REDACTED]. ATP Luminometer swabs are applied quarterly to recently sanitized caging and equipment. Samples of drinking water are taken from [REDACTED] supply sources every other week at [REDACTED] and weekly at [REDACTED] and tested for bacteria, and the [REDACTED] water supply is checked at least once per week for chlorine level. Pre-filled Innovive water bottles used at [REDACTED] are produced by the vendor using a highly regulated process with quality tests performed on each batch and strict adherence to quality standards. Room pressurization is checked weekly. Vermin monitoring/control is overseen. [REDACTED] provides oversight and maintains centralized records for these quality assurance procedures.

VETERINARY SERVICES

Clinical: Quality clinical veterinary medical care is provided by veterinarians and veterinary paraprofessionals to ensure the health and well-being of all UA research animals. This includes animal health rounds, medical surveillance, treatments, postoperative support, management of USDA records for regulated species and oversight of the UAC pharmacy and clinical areas to ensure adequate availability of drugs and medical supplies that are not expired. Animal care staff are trained by veterinarians to recognize sick or injured animals, to check all animals daily, and to report sick/injured animals to the UAC Clinical e-mail and/or contact a veterinarian or other clinical staff. Veterinarians and/or veterinary paraprofessionals perform clinical rounds at least weekly. Veterinary staff responds to the clinical cases for their facility, follow up with researchers, and establish a case plan. Animal care staff perform most

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routine treatments, under the direction of the facility veterinarian, while veterinary staff performs more complex treatments. On weekends and holidays, animal husbandry technicians assist in performing treatments and observing animals. Veterinarians are on-call weekends, evenings, and holidays and are immediately available by cell phone to manage emergency situations.

Small Animals: Veterinarians assist researchers with the preparation of their IACUC protocols and experimental design, and investigate unexpected outcomes related to experimental manipulations or new rodent phenotypes. Training is provided to enhance skill development for technicians and researchers, and includes rodent handling, technical procedures (blood draw, oral gavage, administration of experimental agents), colony and breeding management, rederivation services, and rodent surgery training and peri-operative support. Technical and scientific support services for researchers are provided for research projects on a fee-for-service basis. A germ-free/gnotobiotic service is based within the [REDACTED] barrier facility and provides germfree and flora-defined mice for experimental use. It maintains a germ-free breeding colony to facilitate rederivation of transgenic mice into the germ-free status as well as for purchase by investigators. Quality assurance to demonstrate the defined microbiological status of the animals is a core aspect of the service.

Large Animals: Veterinarians and veterinary paraprofessionals provide anesthesia, imaging, surgical, technical and other procedural support and training to help investigators accomplish their research goals with large animal models, primarily pigs, sheep and NHP. Services include investigator consultation, scheduling of surgery and radiology suites, surgical room and instrument preparation, anesthetic induction, monitoring, and recovery, maintenance of anesthesia and surgical equipment, and operation of the fluoroscopy, x-ray, and ultrasound imaging units. Training is provided to enhance skill development and ensure proficiency in the areas of anesthesia, surgery, and radiology for technicians and researchers. Technical support for research projects is available on a fee-for-service basis.

Agricultural Animals: Husbandry for animals maintained at Agricultural Centers is provided through the School of Animal and Comparative Biomedical Sciences. UAC provides oversight of the farms through inspections, visual health checks, and communication with the personnel operating the various units. A UAC veterinarian and veterinary paraprofessional are assigned to oversee the agricultural animal care program, and visit each of the Tucson Agricultural centers at least once weekly. Routine and emergency farm animal veterinary care is provided by UAC Veterinarians. Private practice veterinarians and specialists are utilized for emergency response, advanced procedures, or complex cases.

Pathology: Diagnostic pathology support is routinely provided for any research animals that become moribund or die unexpectedly. Detection of infectious disease in the animal facility allows expedient use of preventive and/or therapeutic measures to prevent disease transmission to other research animals. Identification of the cause of experimentally induced morbidity/mortality ensures animal welfare and improves research productivity. Anatomic and clinical pathology support for research projects are provided on a fee-for-service basis. Intramural testing includes hematology, blood chemistry, serology, microbiology, parasitology, urinalysis, necropsy, histopathology, and PCR. Samples are processed and submitted to outside laboratories for confirmation of test results or when intramural testing is unavailable. Quality assurance testing includes animal health monitoring and the environmental monitoring programs. All rodent rooms contain sentinel rodents which are tested three times a year for viruses, pathogenic bacteria, and endo- and ectoparasites. Finches and zebrafish are monitored for

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common zoonoses. Dependent on study length, rabbits are tested three times a year for common pathogens (ecto- and endoparasites, *Encephalitozoon cuniculi*, *Pasteurella*) and large animals may be tested by hematology, serum chemistry, parasite exams, serology, and/or culture for microbial pathogens.

BUSINESS SERVICES

Procurement: Procurement staff order all animals used for biomedical research at the University, schedule and transport animals between husbandry facilities and investigator laboratories, and procure animals from non-approved sources. IACUC-approved animal usage is monitored through the [REDACTED] animal management system. This system allows direct comparison of animal numbers, pain categories and personnel approved for IACUC protocols against animal orders. If a discrepancy is discovered, the Buyer contacts the Principal Investigator (cc: IACUC Officer) and requests they take appropriate action to bring the order forms into compliance with the protocol, i.e. submission of an amendment. Health reports from approved vendors and institutions are reviewed by procurement staff to ensure that the vendor and institution complies with the University's disease-free conditions. If at any time the vendor or institution does not meet University requirements, any or all of the vendor's or institution's production facilities may be changed to unapproved status. Vendors and institutions remain on the approved list until a health or legal problem arises. Husbandry staff receive animals into the main animal facilities, matching the incoming animals to the animals that were ordered and placing animals into their respective rooms. Animals requested from non-commercial vendors, such as other universities, are considered non-approved sources (NAS). Health reports from the other institution are reviewed for compliance with University standards prior to animals being shipped. If the order is accepted, the animals are maintained in UAC quarantine facilities until they are determined to be free of excluded pathogens. Embryo transfer rederivation in collaboration with the [REDACTED] is required for all non-approved source vendor mice that enter the [REDACTED] animal facility, and may be required for animal entry into other UAC facilities, depending on prior health reports and end of quarantine health assessment results.

Procurement staff purchase all general supplies (feed, bedding, and husbandry supplies) used by husbandry and cage wash staff in UAC animal facilities. Supplies are inventoried on a weekly, bi-weekly, or monthly basis as appropriate, and all discrepancies are reported to the animal care managers. Supplies are purchased according to the departmental, University, state, and federal regulations using either a purchasing card, purchase order, University bulk order mechanisms, or by requesting a University check to be issued. Food, water, and bedding are provided for all animals under the care of UAC personnel. Individual investigators who care for animals housed in satellite facilities must be recharged for animal-related supplies as they are not being inventoried. Food, water, and bedding costs are factored into per diem rates. Additionally, UAC direct bills researchers for items such as sheets to cover animals, clothing (other than special clothing required by specific animal rooms), drugs, reagents, chemicals, blood collection, etc.

Billing: Business Services is responsible for reconciling the [REDACTED] cage card database monthly and generating associated per diem charges. They enter invoices against animal orders placed and during monthly closing activities add these charges and per diem to iLab, RII's Core facility management and billing software. Special service charges are imported into this system as well, once received from services provided for surgery or pathology, and miscellaneous departmental charges that arise outside of animal ordering and per diem care charges. All of the above charges are reconciled against internal reports prior

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to the issuing of invoices for PI and departmental review to ensure accuracy and internal billing consistency. Invoices are sent out ten days prior to the posting of charges to the University of Arizona UAccess Financials system and in the interim business office staff process account changes and updates to the accounting file when requested by investigators and their departmental staff.

Financial Management: Business Services is responsible for reviewing and approving all invoices for payment. Business Services is responsible for the monthly review of all accounting entries to post to UAC accounts for business purpose, accuracy, classification, appropriateness, and to ensure supporting documentation is available for subsequent review. Account balances, spending, and revenue trends are monitored monthly and reported to management to ensure departmental funds are being spent according to plan and within budgetary and policy restrictions. Annual budgets are prepared and submitted for all auxiliary/recharge accounts and annual state and locally allocated budgets are reviewed and spending plans are established in conjunction with management. Business Services assists in the preparation of pre- and post-award sponsored project budgets and application supplemental documents and reviews expenditures and budgets of sponsored awards according to award terms. Business Services maintains and reviews fixed asset inventory and depreciation schedules and provides periodic audits or reports to FSO Capital Management as well as prepares and submits periodic space inventory reports to Real Estate Administration. An account is maintained to cover loss of research animals due to infection or animal care equipment failure, and other circumstances not covered by institutional property insurance. The balance in this account is replenished annually to a maximum \$100,000 per the IACUC.

Rate Study & Cost Accounting: Business Services is responsible for designing and applying cost-coding fields for use in the financial system to include subaccounts for later use in analysis and compilation of per diem, animal ordering, and special service rates. RII Core business staff work with UAC to prepare standard costing methodologies to be used in the application of costs related to various cost centers, such as cage wash, bedding, and various labor pools. RII Core business staff prepares an annual rate study proposal for department and University review and approval in conjunction with FSO Financial Management that updates rates to reflect changes in underlying unit sales and cost structures and allocations prepare an annual rate study proposal.

Administrative Support: Assistance is provided to all UAC veterinarians and managers with presentations, word processing, reports, travel arrangements, etc. Front desk reception is provided at [REDACTED] and [REDACTED]

Human Resources: Payroll and timesheet information is reviewed on a bi-weekly basis for accuracy and to ensure proper and timely payment of employees and proper accrual of leave benefits. All new hires, terminations, benefits, performance management direction, personnel files, and leave paperwork are managed through the [REDACTED] Employee Services unit.

Information Technology: UAC contracts with [REDACTED] within University [REDACTED] to provide full-service desktop support along with file server storage and backup services on an annual basis. UAC data is backed up on a regular schedule and the data backups are stored offsite according to good practices for disaster recovery preparedness. UITS hosts [REDACTED] which is a web-based application that allows Principal Investigators and their staff to submit and review protocol information, order animals and track cage census. PIs can access historical information that dates back to April 2009, when [REDACTED] was implemented at the University of Arizona. System security includes NetID authentication and encrypted connections (HTTPS). Individuals must be

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on the campus network or use a campus VPN connection to access this site.

FACILITIES MAINTENANCE AND CONSTRUCTION

This section is in charge of maintenance of the laboratory animal facilities and assists university and outside contractors who work toward the construction or renovation of our animal facilities. Personnel perform general painting, plumbing, electrical, and carpentry repairs in all the animal facilities as well as perform preventative maintenance on most equipment. This section maintains files and records on all animal related equipment and caging. The Facilities Project Manager determines material and labor estimates, requisitions material(s), supplies, and equipment needed to perform general maintenance and repairs to all facilities. The Facilities Project Manager also acts as the UAC liaison to Facilities Management and the Planning, Design, and Construction departments.

OTHER ACTIVITIES AND PROGRAMS

Satellite Facility Oversight: IACUC Policy 300 was established to clarify oversight and responsibilities for satellite facilities (where animals are housed 24 hours or more). A Memorandum of Understanding and Agreement (MUA) is developed jointly by UAC and the satellite to establish appropriate animal care and oversight: SOPs are created; animal observations and environmental assessment sheets are completed daily; UAC veterinary (or alternate veterinary) care is determined; UAC veterinarian and manager contact information for assistance during evening/weekend/holiday hours are distributed to satellites each week; and all satellites are included in the Emergency Contingency Plan. Regular inspections are made by IACUC and UAC representatives to ensure the welfare of the animals.

Surgical Training: UAC veterinarians administer a general rodent surgical training course (available on-line) that covers the following topics: surgeon preparation, instrument handling, wound closure, anesthesia, analgesia, patient monitoring, and surgical/peri-operative record keeping. UAC veterinary care staff must be involved in surgeries performed on USDA-regulated large animal species. The level of UAC veterinary involvement (surgical assistance, monitoring anesthesia, immediate availability for emergency care, etc.) is determined during pre-procedure planning and is dependent on the surgeon's experience level and proficiency. UAC veterinarians directly observe surgical procedures performed on small animal species (as required) to ensure personnel are adequately trained to perform the IACUC approved surgical procedure(s). The latter requirement is imposed at the discretion of the IACUC and/or the Attending Veterinarian (or designee) whenever the surgical proficiency of an individual for a surgical procedure is in question.

AALAS Certification: UAC has study materials available for check out and periodically establishes study groups to help prepare technicians for the AALAS ALAT LAT, and LATG certification exams. Salary incentives are in place to encourage AALAS certification.

Seminar Series: UAC's seminar series provides continuing education and fosters improved morale among UAC staff. This monthly series is year round, except during weeks that contain a University holiday. Topics include orientation to UAC, customer service, code of conduct, research animal biology/disease, laws and regulations, research presentations from investigators, training, and other topics that are pertinent to the use of animals in research.

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Employee Recognition: A department-wide appreciation event is held annually to celebrate individual and departmental accomplishments. A “UAC Feedback Form” is located on our website and provides employees and researchers with an avenue to acknowledge appreciation for individual employees or UAC, and also to submit suggestions, concerns, or complaints about the program.

Occupational Health and Safety: University employees who have significant research animal contact are subject to the Occupational Health and Safety component of the Animal Care and Use Program, which is called the Animal Hazards Program. Medical surveillance is administered through the Occupational Health Department of Campus Health Services. Depending upon species exposure, employees are administered appropriate vaccinations (e.g. tetanus, rabies, influenza) and tests (e.g. TST, Q-fever). Training and information on occupational health and safety is conveyed through medical surveillance, IACUC certification, UAC seminars, Risk Management and hazard (chemical, radiation and biological) training, and AALAS certification training. When human pathogens or hazardous substances are used, appropriate signage and instructions are posted. Federal and state regulations and guidelines for biologic, chemical, and radiation hazard use are administered by Research Laboratory and Safety Services.

UAC personnel wear surgical scrubs and/or lab coats purchased by UAC when working in the animal facilities. Scrubs and lab coats are laundered by UAC personnel as needed to maintain an adequate supply. Employees are provided an allowance for approved footwear (tennis shoes) that are used only in the animal facilities. Personal protective equipment (PPE) is provided and worn as prescribed by risk assessment in each area in the facilities (e.g. hazard, sterile, surgery, NHP, etc.). Disposable PPE include gowns, gloves, bonnets, masks, shoe covers, and surgical hoods. Tyvek coveralls, N-95 respirator masks, PAPR respirators, and boots are also used. Locker and shower rooms are available in all main animal facilities. Eating, drinking, smoking, and applying cosmetics are not allowed in the animal facilities. Animal care personnel are permitted to eat and drink in the employee lounges and offices of each facility. Smoking is not allowed on University property. Employees are referred to the Occupational Health Clinic or Emergency Medicine, [REDACTED] Tucson for emergency, job-related injuries.

UAC has detailed standard operating procedures and special training programs for personnel working with non-human primates to mitigate exposure to Macacine herpesvirus 1 (Herpes B). Emergency procedures are in place for potential exposures that could occur through monkey scratches or bites. Safety precautions and the plan of action for what to do following an exposure are available in all primate rooms and labs where primates are taken. All personnel, whether members of UAC or not, are required to follow posted safety guidelines for working with nonhuman primates.

Animal Environmental Enrichment: University Animal Care is committed to ensuring the humane care and use of all animals associated with its research and teaching programs. Addressing the directive of humane care involves the development and correct implementation of environmental enrichment and enhancement. Environmental enrichment is designed to positively increase and encourage time spent on species-specific behaviors, and to decrease, or eliminate, maladaptive behaviors. The following table serves as a basic set of standard operating procedures as well as a catalog of enrichment options. It is important to note that not all standard enrichment will benefit all intended individuals. Each individual primary investigator/protocol animal colony requires the clearance of both the specific PI and UAC veterinarian [REDACTED] to begin any enrichment program. Once approved, the catalog below will serve as a useful resource in planning individual programs. Table 1 shows a basic list of positive species-specific

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behaviors that should be encouraged through enrichment; and, maladaptive behaviors to eliminate. There are three subsets to environmental enrichment: Social, Structural, and Activity. The development and refinement of this program meets the requirements of the National Research Council, *Guide for the Care and Use of Laboratory Animals* and the Animal Welfare Act and Regulations, specifically The Improved Standards for Laboratory Animal Act <http://www.nal.usda.gov/awic/legislat/awa.htm>

Table 1: Natural Behavior and Habitat of Species Housed in the Animal Facility		
Species	Normal Behaviors Exhibited in Captivity	Abnormal/Maladaptive Behaviors
Cats	Investigative, social, allogrooming and allorubbing	Excessive vocalization, excessive grooming, pacing, paw shaking, staring
Chickens	Roosting, foraging, pecking	Feather pecking, aggression, cannibalism, excessive fearfulness
Dogs	Exploratory, social	Excessive aggression, excessive barking, pacing, self-biting, excessive grooming, coprophagia
Hamsters	Nocturnal, exploratory, hoarding food, foraging, burrowing, gnawing, and escape artists	Cannibalism, fighting.
Gerbils	Exploratory, gentle, burrowing, gnawing, jumping, and hind limb thumping.	Scratching at the cage corners
Guinea Pigs	Social, vocalizing, foraging, gnawing, coprophagic	Fighting, stampeding.
Mice	Nocturnal, nest building, and burrowing, thigmotaxis, foraging, gnawing	Barbering, fighting especially in males, food grinding
Non-human Primates	Social, foraging, exploratory	Pacing, back flipping, rocking, self-biting, head banging, and hair plucking
Rabbits	Crepuscular, non-aggressive, exploratory	Barbering or hair pulling, cage nosing or mouthing, digging, “frisky hopping”, chin rubbing (scent marking)
Rats	Nocturnal, nest building and burrowing, thigmotaxis, foraging, gnawing, coprophagic	Barbering
Ruminants	Social, exploratory,	Excessive aggression, fighting
Swine	Social, foraging, exploratory, investigative	Excessive aggression, fighting

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Species	Enrichment
	<ol style="list-style-type: none"> 1. UAC base enrichment 2. Additional enrichment provided as needed/requested
Cat	Toys, human and other cat play and socialization, exercise, open room environment and soft bedding
Dog	Walks, human and other dog play and socialization, chew toys, grooming, treats/canned food and music
Guinea Pig	Social housing, plastic tunnels, toys, fruits and vegetables 3x weekly
Farm animals	Stallions are signally housed in areas where there is a lot of human activity and traffic. Stalls are also situated so that animals are able to see pastures. Some enrichment material (ropes, balls) are also provided. All other animals are socially housed.
Fish	House in compatible groups Fake plants in breeding tanks
Mouse	<ol style="list-style-type: none"> 1. Social housing 2. Nestlets, diamond twists, enriched bedding (such as AlphaDri+) 3. Mouse houses
NHP	A variety of unprocessed fruits, vegetables, nuts, seeds, and other foods placed on cage tops, in puzzle feeders, or hidden in various toys and containers with and without additional foraging substrates. Whole coconuts, popcorn, and juice sprayed onto the cage or on toys, pans of water, cardboard boxes, and phone books, buckets of water and treats are hung outside the cage, videos, music, social housing and/or visual contact.
Pig	Toys, hanging chains, shavings, fence mounted brushes for rubbing/scratching, balls, enrichment bags filled with hay, fruit/vegetables and music
Rabbit	<ol style="list-style-type: none"> 1. Toys, social housing, vegetable treat tubes and bags 2. Mirrors, pool play, plastic shelves to climb on
Rat/Hamster/Gerbil	<ol style="list-style-type: none"> 1. Social housing and diamond twists 2. Plastic tunnels/tubes and chew blocks
Sheep/Calves	House in compatible groups and salt licks

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Standards

- Items used in enrichment need to be evaluated for use by taking into account the following:
 1. The species of animal (its needs, habits, and capabilities)
 2. Type of enrichment device (treat, exercise, toys)
 3. Utility of the device (its ability to stimulate the animal's interest)
 4. Safety of the device (not injurious to the animal, and its ability to be sanitized for future use)
 5. Nature of the research being done (research will not be compromised due to placement of an enrichment device)
- Specific needs and requirements should be directed to facility managers and the Clinical Veterinarian.
- Unless specifically justified by the primary investigator in their protocol, all animals will receive enrichment.
- It is recognized that animal enrichment can be a research variable.
- Enrichment is an integral part of daily husbandry and care of animals
- Positive non-husbandry interaction with humans should be offered as applicable
- For social species, housing compatible co-specifics offers a high level of enrichment and psychological well-being. Every effort should be made to socially house animals as the enrichment technique of first choice.

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University Animal Care Personnel:

[REDACTED]

[REDACTED]

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IACUC PROGRAM STATISTICS

As of: 10/29/2019

I. Active personnel: 1345 total individuals [↑ 86]

II. Active animal census (cages): 14,071 total cages [↑ 1894]

- 5941 [↑ 864] - 5312 [↑ 727] - 10 [↑ 2]
 - 1897 [↑ 276] - 911 [↑ 25]

III. Total Number of PIs [all classifications]: 232 [↑11]

IV. Total Number of Protocols [all classifications]: 314 [↑19]

V. Full Protocol Statistics:

a. Number of PIs: 197 [↑ 12]

b. Total number of protocols = 264 [↑ 24]

1. Number with Approved status = 235
2. Number on hold [administrative] = 0
3. Number Pending = 29 [3 renewals]

Protocols submitted by year

*Figures do not include abbreviated protocol or MOUs.

Year	Renewals	New	Total	Year	Renewals	New	Total	Year	Renewals	New	Total	Ave Review [Days] IACUC / Total
1990	81	214	295	2000	63	119	182	2010*	58	94	152	N/A / N/A
1991	62	162	224	2001	67	140	207	2011*	61	72	133	N/A / N/A
1992	142	158	300	2002	72	133	205	2012*	45	74	119	N/A / N/A
1993	89	163	252	2003	63	131	194	2013*	42	52	94	51 / 64
1994	87	142	226	2004	70	152	222	2014*	43	48	91	18 / 30
1995	89	146	235	2005	59	131	190	2015*	35	63	98	20 / 31
1996	65	124	189	2006	58	129	187	2016*	35	54	89	20 / 28
1997	73	137	210	2007	66	133	169	2017*	50	54	104	23 / 36
1998	60	132	192	2008	39	119	158	2018*	48	60	108	19 / 37
1999	63	120	183	2009	65	112	177	2019*	45	46	91	21 / 39

VI. Abbreviated Protocol Statistics:

a. Number of PIs: 47 [↓ 2]

b. Total number of abbreviated protocols = 50 [↓ 1]

1. Number with Approved status = 47
2. Number on hold [administrative] = 2
3. Number Pending = 1

VII. MOU Statistics:

a. Number of PIs: 20

b. Total number of UA subawards = 26

1. Number with Approved status = 26
2. Number Pending = 0

c. Total number of non-UA subawards = 9

VIII. Amendment Statistics: Amendments submitted by year

Year	# Submitted	Year	# Submitted	Year	# Submitted	Ave Review [Days]	Year	# Submitted	Ave Review [Days]
2007	161	2011	147	2015	218	12	2019	207	25
2008	135	2012	313	2016	183	15			
2009	135	2013	247	2017	236	19			
2010	156	2014	220	2018	230	23			

IX. Request for Change [RFC] Statistics: RFC submitted by year

Year	#	Ave Verification [Days]	Year	#	Ave Verification [Days]	Year	#	Ave Verification [Days]
2015	72	2	2017	131	6	2019	91	4
2016	145	4	2018	134	3			

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No reports of non-compliance or adverse events submitted by outside institutions

Active UA Memoranda of Understanding (MOU)

MOU #	UA PI	External Institution
		Canine Companions for Independence
		Duke
		Beckman Research Institute, City of Hope National Medical Center
		UCSF
		UCSF
		Memorial Sloan-Kettering Cancer Center
		Fred Hutchinson Cancer Research Center
		MD Anderson Cancer Center
		Massachusetts General Hospital [Harvard Medical School]
		University of Texas - Austin.
		University of Georgia
		Northeastern University
		Colorado State University
		University of Georgia
		Texas Tech University Health Sciences Center
		UC Davis
		La Jolla Institute for Allergy and Immunology
		UCSF
		Lawrence Livermore National Laboratory
		SUNY Albany
		UC Davis
		Jackson Labs
		Eastern Virginia Medical School
		UC Davis
		UC Davis
		Texas Tech University Health Sciences Center

Active Non-UA MOUs

Protocol #	UA PI	External Institution
		University of Arkansas
		University of Arkansas
		Wayne State University
		BNI
		Duke
		SAVAMC
		University of Michigan
		St. Louis University
		University of Chicago

I. Departures and Exceptions Checklist

The Departures and Exceptions Checklist is provided to assist the IACUC in identifying IACUC-approved departures from the *Guide for the Care and Use of Laboratory Animal* as well as exceptions from specific USDA regulatory requirements that differ from or are in addition to the PHS Policy.

A. MUSTSⁱ

i. Institutional Policies and Responsibilities

E= Existing IACUC Approved Departure

N= New IACUC Approved Departure (include in semiannual report to IO)

NA= not applicable

1.	Animal Care and Use Program	E	N	NA
1a	Responsibility for animal well-being is assumed by all members of the program (<i>Guide, p 1</i>) [must]			X
Comments:				
1b	Resources necessary to manage program of veterinary care are provided (<i>Guide, p 14</i>) [must]			X
Comments:				
1c	Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (<i>Guide, p 14</i>) [must]			X
Comments:				

2.	Disaster Planning and Emergency Preparedness	E	N	NA
2a	Disaster plans for each facility to include satellite locations are in place (<i>Guide, p 35, p 75</i>) [must]			X
Comments:				
2b	Plans include provisions for euthanasia (<i>Guide, p 35</i>) [must]			X
Comments:				

3.	IACUC	E	N	NA
3a	Meets as necessary to fulfill responsibilities (<i>Guide, p 25</i>) [must]			X
Comments:				
3b	IACUC Members named in protocols or with conflicts rescue themselves from protocol decisions (<i>Guide, p 26</i>) [must]			X
Comments:				

4.	IACUC Protocol Review – Special Considerations	E	N	NA
4a	Restraint devices are justified in the animal use protocols (<i>Guide, p 29</i>) [must]			X
Comments:				
4b	Veterinary care is provided if lesions or illness result from restraint (<i>Guide, p 30</i>) [must]			X
Comments:				

5.	IACUC Membership and Functions	E	N	NA
5a	Methods for reporting and investigating animal welfare concerns are in place (<i>Guide, p 23</i>) [must]			X
Comments:				

6.	Veterinary Care (see also next section – Veterinary Care)	E	N	NA
6a	Veterinary Access to all animals is provided (<i>Guide, p 14</i>) [must]			X
Comments:				
6b	Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (<i>Guide, p 14</i>) [must]			X
Comments:				
6c	Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (<i>Guide, p 5</i>) [must]			X
Comments:				
6d	Veterinarian provides consultation when interventional control is not possible (<i>Guide, p 5</i>) [must]			X

Comments:				
6e	Veterinarian(s) have experience and training in species used (<i>Guide</i> , p 15) [must]			X
Comments:				
7.	Personnel Qualifications and Training	E	N	NA
7a	All laboratory personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]			
7a.1	Veterinary/ other professional staff (<i>Guide</i> , p 15-16)			X
Comments:				
7a.2	IACUC members (<i>Guide</i> , p 17)			X
Comments:				
7a.3	Animal care personnel (<i>Guide</i> , p 16)			X
Comments:				
7a.4	Research investigators, instructors, technicians, trainees, and students (<i>Guide</i> , p 16-17)			X
Comments:				

8.	Occupational Health and Safety of Personnel	E	N	NA
8a	Program is in place and is consistent with federal, state, and local regulations (<i>Guide</i> , p 17) [must]			X
Comments:				
8b	Program for medical evaluation and preventative medicine for personnel includes:			
8b.1	Considers confidentiality and other legal factors as required by federal, state, and local regulations (<i>Guide</i> , p 22) [must]			X
Comments:				
8b.2	If serum samples are collected, the purpose is consistent with federal and state laws (<i>Guide</i> , p 22) [must]			X
Comments:				

9.	Investigating & Reporting Animal Welfare Concerns	E	N	NA
9a	Methods for investigating and reporting animal welfare concerns are established (<i>Guide</i> , p 23) [must]			X
Comments:				

ii. Veterinary Care

E= Existing IACUC Approved Departure

N= New IACUC Approved Departure (include in semiannual report to IO)

NA= not applicable

1.	Clinical Care and Management	E	N	NA
1a	Veterinary program offers high quality of care and ethical standards (<i>Guide</i> , p 105) [must]			X
Comments:				
1b	Procedures established for timely reporting of animal injury, illness, or disease (<i>Guide</i> , p 114) [must]			X
Comments:				
1c	Procedures established for veterinary assessment, treatment, or euthanasia (<i>Guide</i> , p 114) [must]			X
Comments:				
1d	Veterinarian is authorized to treat, relieve pain, and/or euthanize (<i>Guide</i> , p 114) [must]			X
Comments:				

2.	Animal Procurement and Transportation/ Preventative Medicine	E	N	NA
2a	Procedures for lawful animal procurement are in place (<i>Guide</i> , p 106) [must]			X
Comments:				
2b	Procedures for compliance with animal transportation regulations, including international requirements, are in place (<i>Guide</i> , p 107) [must]			X
Comments:				

3.	Surgery	E	N	NA
3a	Researchers have appropriate training to ensure good techniques (<i>Guide, p 115</i>) [must]			X
Comments:				

4.	Pain, Distress, Anesthesia and Analgesia	E	N	NA
4a	Procedures are in place to assure antinociception before surgery begins (<i>Guide, p 122</i>) [must]			X
Comments:				

5.	Euthanasia	E	N	NA
5a	Procedures and training are in place to ensure death is confirmed (<i>Guide, p 124</i>) [must]			X
Comments:				

6.	Drug Storage and Control	E	N	NA
6a	Program complies with federal regulations for human and veterinary drugs (<i>Guide, p 115</i>) [must]			X
Comments:				
6b	Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide, p 122</i>) [must]			X
Comments:				

iii. Terrestrial Animal Housing and Support Areas

E= Existing IACUC Approved Departure

N= New IACUC Approved Departure (include in semiannual report to IO)

NA= not applicable

1.	Primary Enclosure: (<i>Protocol Exception 10</i>)	E	N	NA
1a	Animals express natural postures, can turn around, access food and water, and rest away from urine and feces (<i>Guide, p 56</i>) [must]	X	X	
Comments: 1 new protocol with post-op recovery in a stanchion (sheep)				

2.	Sheltered or Outdoor Housing: (e.g., barns corrals, pastures, islands) (<i>Protocol Methodology, Exception 10</i>)	E	N	NA
2a	Weather protection and opportunity to retreat (<i>Guide, p 54</i>) [must]			X
Comments:				

3.	Waste Disposal:	E	N	NA
3a	Hazardous wastes are rendered safe before removal from facility (<i>Guide, p 73- 74</i>) [must]			X
Comments:				

4.	Emergency, Weekend, and Holiday Animal Care:	E	N	NA
4a	Veterinary care available after hours, weekends, and holidays (<i>Guide, pp 74, 114</i>) [must]			X
Comments:				

iv. Aquatic Animal Housing and Support Areas

E= Existing IACUC Approved Departure

N= New IACUC Approved Departure (include in semiannual report to IO)

NA= not applicable

1.	Water Quality:	E	N	NA
1a	Chlorine, chloramines, chemical, and reactive bioproducts are removed or neutralized prior to use in aquatic systems (<i>Guide, pp 78, 86</i>) [must]			X
Comments:				

2.	Life Support System:	E	N	NA
2a	Biofilter is of sufficient size to process bioload (<i>Guide</i> , p 80 [must])			X
Comments:				

3.	Waste Disposal:	E	N	NA
3a	Hazardous wastes are rendered safe before removal from facility (<i>Guide</i> , p 73- 74) [must]			X
Comments:				

4.	Emergency, Weekend, and Holiday Animal Care:	E	N	NA
4a	Veterinary care available after hours, weekends, and holidays (<i>Guide</i> , pp 74, 114) [must]			X
Comments:				

v. Special Facilities: Procedure Area, Non-Survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Contamination, Behavioral Studies

E* = Existing IACUC Approved Departure

N = New IACUC Approved Departure (include in semiannual report to IO)

NA = not applicable

1.	Imaging/Whole Body Irradiation:	E	N	NA
1a	Appropriate sensors and ventilation are provided for cryogen gases (<i>Guide</i> , p 147) [must]			X
Comments:				

2.	Hazardous Agent Containment:	E	N	NA
2a	Facility adheres to APHIS, USDA, and CDC Select Agent Regulations and other federal, state, and local regulations including security measures (<i>Guide</i> , p 148) [must]			X
Comments:				

B. SHOULDⁱⁱ

i. Institutional Policies and Responsibilities

E = Existing IACUC Approved Departure

N = New IACUC Approved Departure (include in semiannual report to IO)

NA = not applicable

1.	IACUC Protocol Review – Special Considerations	E	N	NA
1a	Training of animals to adapt to restraint is provided (<i>Guide</i> , p 29) (AAALAC Report)	X	X	
Comments: 2 renewal protocols without acclimation to restraint (restraint stress)				
1b	Body weight of food/fluid restricted animals are recorded at least weekly (<i>Guide</i> , p 31) (Protocol Exception 3)	X		
Comments:				
1c	Daily written records are maintained for food/fluid restricted animals (<i>Guide</i> , p 31) (Protocol Exception 3)			X
Comments:				
1d	Pharmaceutical-grade chemicals and other substances should be used, when available, for all animal-related procedures (<i>Guide</i> , p 31) (Protocol Exception 1)	X	X	
Comments: 37 renewals and 14 new protocols with Non-Pharma compounds				
1e	Use of expired medical materials is reviewed and approved by the IACUC. (OLAW FAQ F.5 , USDA APHIS Animal Care Policy #3) (Protocol Exception 12)			X
Comments:				

2.	Personnel Qualifications and Training	E	N	NA
2a	Training is available prior to starting animal activity (<i>Guide</i> , p 17)			X

Comments:

3.	Occupational Health and Safety Personnel	E	N	NA
3a	Program covers all personnel who work in laboratory animal facilities (<i>Guide, p 18</i>)			X
Comments:				

ii. Terrestrial Animal Housing and Support Areas

E= Existing IACUC Approved Departure

N= New IACUC Approved Departure (include in semiannual report to IO)

NA= not applicable

1.	Location:	E	N	NA
1a	Animal areas separate from personnel areas (<i>Guide, p 134</i>)			X
Comments:				
1b	Separation of species (<i>Guide, p 111</i>)			X
Comments:				
1c	Separation by disease status (<i>Guide, p 111</i>)			X
Comments:				
1d	Security and access control (<i>Guide, p 151</i>)			X
Comments:				

2.	Construction:	E	N	NA
2a	Corridors (<i>Guide, p 136</i>)			X
Comments:				
2b	Animal room doors (<i>Guide, p 137</i>)			X
Comments:				
2c	Exterior windows (<i>Guide, p 137</i>)			X
Comments:				
2d	Floors (<i>Guide, p 137</i>)			X
Comments:				
2e	Drainage (<i>Guide, p 138</i>)			X
Comments:				
2f	Walls and ceilings (<i>Guide, p 138</i>)			X
Comments:				
2g	Heating ventilation and air conditioning (<i>Guide, p 139</i>)			X
Comments:				
2h	Power and lighting (<i>Guide, p 141</i>)			X
Comments:				
2i	Noise control (<i>Guide, p 142</i>)			X
Comments:				
2j	Vibration control (<i>Guide, p 142</i>)			X
Comments:				
2k	Environmental monitoring (<i>Guide, p 143</i>)			X
Comments:				

3.	Room/Cage: (<i>Protocol Exception 10</i>)	E	N	NA
3a	Temperature and humidity (<i>Guide, p 43</i>)	X		
Comments:				
3b	Ventilation and air quality (<i>Guide, p 45</i>)	X	X	

Comments: 3 new protocols and 1 renewal protocol utilizing hypoxia chambers				
3c	Illumination (<i>Guide</i> , p 47)	X	X	
Comments: 1 renewal protocol using experimental manipulation of photoperiod				
3d	Noise and vibration (<i>Guide</i> , p 49)	X		
Comments:				

4.	Primary Enclosure: (Protocol Exceptions 5 & 10)	E	N	NA
4a	Space meets physiologic, behavioral ⁱⁱⁱ , and social ^{iv} needs (<i>Guide</i> , pp 51, 55-63)			X
Comments:				
4b	Secure environment provided (<i>Guide</i> , p 51)			X
Comments:				
4c	Durable, nontoxic materials in good repair and no risk of injury (<i>Guide</i> , p 51)			X
Comments:				
4d	Flooring is safe and appropriate for species (<i>Guide</i> , p 51)			X
Comments:				
4e	Adequate bedding and structures for resting, sleeping, and breeding (<i>Guide</i> , p 52)	X	X	
Comments: 3 renewal protocol where animals are housed without bedding [metabolic caging]				
4f	Objective assessments of housing and management are made (<i>Guide</i> , p 52)			X
Comments:				
4g	Procedures for routine husbandry are documented (<i>Guide</i> , p 52)			X
Comments:				
4h	Socially housed animals can escape or hide to avoid aggression (<i>Guide</i> , p 55)	X	X	
Comments: 1 renewal protocol using special caging specifically to prevent avoidance of aggression for social defeat				
4i	Cage height provides adequate clearance (<i>Guide</i> , p 56)			X
Comments:				
4j	Rationale ^v for <i>Guide</i> /USDA space exceptions approved by IACUC and based on performance indices (<i>Guide</i> , p 56) (Protocol Exceptions 2, 5, & 10)	X	X	
Comments: 1 renewal protocol with space exception not based on performance indices				
4k	Dogs and cats allowed to exercise and provided human interaction (<i>Guide</i> , p 58)			X
Comments:				
4l	Nonhuman primates are socially housed except for scientific, veterinary, or behavioral reasons (<i>Guide</i> , p 58-59)			X
Comments:				
4m	Single housing of nonhuman primates is for shortest duration possible (<i>Guide</i> , p 60)			X
Comments:				
4n	Opportunities for release in larger enclosures is considered for single caged nonhuman primates (<i>Guide</i> , p 60)			X
Comments:				
4o	Agricultural animals are housed socially (<i>Guide</i> , p 60)	X		
Comments:				
4p	Foods troughs and water devices for agricultural animals allow access for all animals (<i>Guide</i> , p 60)			X
Comments:				

5.	Environmental Enrichment, Behavioral and Social Management: (Protocol Exception 11)	E	N	NA
5a	Structures and resources promote species typical behavior (<i>Guide</i> , pp 52-54)			X
Comments:				
5b	Novelty of enrichment is considered (<i>Guide</i> , p 53)			X
Comments:				
5c	Specific species plans for housing including enrichment, behavior, and activity are developed and reviewed regularly by IACUC, researchers, and veterinarian (<i>Guide</i> , pp 53, 58, 60, 63)			X

Comments:				
5d	Animal care personnel receive training to identify abnormal animal behaviors (<i>Guide, p 53</i>)			X
Comments:				
5e	Stability of pairs or groups is monitored for incompatibility (<i>Guide, p 64</i>)			X
Comments:				
5f	Single housing is justified, for social species (<i>Guide, p 64</i>)			X
Comments:				
5g	Single housing is limited to the minimum period necessary (<i>Guide, p 64</i>)			X
Comments:				
5h	Additional enrichment for single housed animals is provided (<i>Guide, p 64</i>)	X	X	
Comments: 2 renewal protocols without enrichment for single housed animals				
5i	Single housing is reviewed regularly by IACUC and veterinarian (<i>Guide, p 64</i>)			X
Comments:				
5j	Habituation and training of animal to routine procedures is performed (<i>Guide, p 64</i>)			X
Comments:				

6.	Sheltered or Outdoor Housing: (e.g., barns, corrals, pastures, islands)	E	N	NA
6a	Appropriate size (<i>Guide, p 54</i>)			X
Comments:				
6b	Ventilation and sanitation of shelter (no waste/moisture build-up) (<i>Guide, p 54</i>)			X
Comments:				
6c	Animal acclimation (<i>Guide, p 55</i>)			X
Comments:				
6d	Social compatibility (<i>Guide, p 55</i>)			X
Comments:				
6e	Roundup/restraint procedures (<i>Guide, p 55</i>)			X
Comments:				
6f	Appropriate security (<i>Guide, p 55</i>)			X
Comments:				

7.	Naturalistic Environments:	E	N	NA
7a	Animals added/removed with consideration of effect on group (<i>Guide, p 55</i>)			X
Comments:				
7b	Adequate food, fresh water, and shelter ensured (<i>Guide, p 55</i>)			X
Comments:				

8.	Food:	E	N	NA
8a	Feeding schedule and procedures including caloric intake management (<i>Guide, pp 65-67</i>)			X
Comments:				
8b	Contamination prevention (<i>Guide, p 65</i>)			X
Comments:				
8c	Vendor quality control (<i>Guide, p 66</i>)			X
Comments:				
8d	Storage in sealed containers (<i>Guide, p 66</i>)			X
Comments:				
8e	Expiration date labeling (<i>Guide, p 66</i>)			X
Comments:				
8f	Vermin control (<i>Guide, p 66</i>)			X

Comments:			
8g	Rotation of stocks (<i>Guide</i> , p 66)		X
Comments:			

9. Water:		E	N	NA
9a	Ad libitum (<i>Guide</i> , pp 67-68) (<i>Protocol Exception 3</i>)	X	X	
Comments: 3 renewal protocols with water restriction				
9b	QC procedures (<i>Guide</i> , pp 67-68)			X
Comments:				

10. Bedding and Nesting Materials:		E	N	NA
10a	Species appropriate (<i>Guide</i> , pp 68-69) (<i>Protocol Exception 10</i>)	X		
Comments:				
10b	Keep animals dry (<i>Guide</i> , pp 68-69) (<i>Protocol Exception 10</i>)	X		
Comments:				
10c	QC procedures (<i>Guide</i> , pp 68-69)			X
Comments:				
10d	Minimizes scientific variables (<i>Guide</i> , pp 68-69)			X
Comments:				

11. Sanitation: (<i>Protocol Exception 6</i>)		E	N	NA
11a	Frequency of bedding/substrate change (<i>Guide</i> , p 70)	X	X	
Comments: 3 renewal protocols with extended cage change intervals				
11b	Cleaning and disinfection of microenvironment (<i>Guide</i> , pp 70-71) (<i>Protocol Exceptions 6 & 7</i>)	X	X	
Comments: 3 renewal protocols with extended cage change intervals				
11c	Cleaning and disinfection of macroenvironment (<i>Guide</i> , p 72)			X
Comments:				
11d	Assessing effectiveness (<i>Guide</i> , p 73)			X
Comments:				

12. Waste Disposal:		E	N	NA
12a	Procedures for collection (<i>Guide</i> , pp 73-74)			X
Comments:				
12b	Procedures for storage and disposal (<i>Guide</i> , pp 73-74)			X
Comments:				
12c	Animal carcasses (<i>Guide</i> , pp 73-74)			X
Comments:				

13. Pest Control:		E	N	NA
13a	Regularly scheduled (<i>Guide</i> , p 74)			X
Comments:				
13b	Documented program including control of rodent pests and insecticide use (<i>Guide</i> , p 74)			X
Comments:				

14. Emergency, Weekend, and Holiday Animal Care:		E	N	NA
14a	Care provided by qualified personnel every day (<i>Guide</i> , p 74)			X
Comments:				
14b	Provision for accessible contact information (<i>Guide</i> , p 74)			X

Comments:			
14c	Monitoring of backup systems (<i>Guide</i> , p 143)		X
Comments:			
14d	A disaster plan that takes into account both personnel and animals (<i>Guide</i> , p 75)		X
Comments:			

15. Identification:		E	N	NA
15a	Cage/rack cards contain required information (<i>Guide</i> , p 75)			X
Comments:				
15b	Genotype information included, and standardized nomenclature used when applicable (<i>Guide</i> , p 75)			X
Comments:				

16. Recordkeeping:		E	N	NA
16a	Clinical records accessible and contain appropriate information (<i>Guide</i> , pp 75-76)			X
Comments:				
16b	Records are provided when animals are transferred between institutions (<i>Guide</i> , p 75)			X
Comments:				

17. Breeding Genetics and Nomenclature:		E	N	NA
17a	Appropriate genetic records, management, and monitoring procedures (<i>Guide</i> , p 76)			X
Comments:				
17b	Phenotypes that affect wellbeing are reported to IACUC and effectively managed (<i>Guide</i> , p 77)			X
Comments:				

18. Storage:		E	N	NA
18a	Adequate space for equipment, supplies, food, bedding, and refuse (<i>Guide</i> , p 141)			X
Comments:				
18b	Bedding in vermin-free area and protected from contamination (<i>Guide</i> , p 141)			X
Comments:				
18c	Food in vermin-free, temperature, and humidity controlled area and protected from contamination (<i>Guide</i> , p 141)			X
Comments:				
18d	Refuse storage is separate (<i>Guide</i> , p 141)			X
Comments:				
18e	Carcass and animal tissue storage is separate, refrigerated below 7° C and cleanable (<i>Guide</i> , p 142)			X
Comments:				

19. Personnel:		E	N	NA
19a	Adequate space for locker rooms, administration, and training (<i>Guide</i> , p 135)			X
Comments:				

iii. Aquatic Animal Housing and Support Areas

E= Existing IACUC approved departure

N= New IACUC approved departure (include in semiannual report to IO)

NA= not applicable

1. Location:		E	N	NA
1a	Animal areas separate from personnel areas (<i>Guide</i> , p 134)			X
Comments:				

1b	Separation of species (<i>Guide</i> , p 111)			X
Comments:				
1c	Separation by disease state (<i>Guide</i> , p 111)			X
Comments:				
1d	Security and access control (<i>Guide</i> , p 111)			X
Comments:				

2.	Construction:	E	N	NA
2a	Corridors (<i>Guide</i> , p 136)			X
Comments:				
2b	Animal room doors (<i>Guide</i> , pp 137, 150)			X
Comments:				
2c	Exterior windows (<i>Guide</i> , p 137)			X
Comments:				
2d	Floors (<i>Guide</i> , pp 137, 150)			X
Comments:				
2e	Drainage (<i>Guide</i> , pp 138, 150)			X
Comments:				
2f	Walls and ceilings (<i>Guide</i> , pp 138, 150)			X
Comments:				
2g	Heating ventilation and air conditioning (<i>Guide</i> , pp 139, 150-151)			X
Comments:				
2h	Power and lighting (<i>Guide</i> , pp 141, 150)			X
Comments:				
2i	Noise control (<i>Guide</i> , p 142)			X
Comments:				
2j	Vibration control (<i>Guide</i> , p 142)			X
Comments:				
2k	Environmental monitoring (<i>Guide</i> , p 143)			X
Comments:				

3.	Water Quality:	E	N	NA
3a	Standards for acceptable quality are established (<i>Guide</i> , p 78)			X
Comments:				

4.	Life Support System:	E	N	NA
4a	Water source is based on appropriate controls and research requirements (<i>Guide</i> , p 79)			X
Comments:				

5.	Temperature, Humidity, and Ventilation/Illumination/Noise and Vibration:	E	N	NA
5a	Temperature and humidity (<i>Guide</i> , pp 43, 80-81)			X
Comments:				
5b	Ventilation and air quality (<i>Guide</i> , pp 45, 81)			X
Comments:				
5c	Illumination (<i>Guide</i> , pp 47, 81)			X
Comments:				
5d	Noise and vibration (<i>Guide</i> , pp 49, 81)			X
Comments:				

6.	Primary Enclosure:	E	N	NA
6a	Allows for normal physiological and behavioral needs (<i>Guide, p 82</i>)			X
Comments:				
6b	Allows social interaction for social species (<i>Guide, p 82</i>)			X
Comments:				
6c	Provides a balanced, stable environment (<i>Guide, p 82</i>)			X
Comments:				
6d	Provides appropriate water quality and monitoring (<i>Guide, p 82</i>)			X
Comments:				
6e	Allows access to food and waste removal (<i>Guide, p 82</i>)			X
Comments:				
6f	Restricts escape and entrapment (<i>Guide, p 82</i>)			X
Comments:				
6g	Allows undisturbed observation (<i>Guide, p 82</i>)			X
Comments:				
6h	Constructed of nontoxic materials (<i>Guide, p 82</i>)			X
Comments:				
6i	Prevents electrical hazards (<i>Guide, p 82</i>)			X
Comments:				
6j	Space needs of species are evaluated by IACUC during program evaluations and facility inspections (<i>Guide, p 83</i>)			X
Comments:				

7.	Environmental Enrichment, Social Housing, Behavioral and Social Management:	E	N	NA
7a	Enrichment elicits appropriate behaviors and is safe (<i>Guide, p 83</i>)			X
Comments:				
7b	Semi-aquatic reptiles are provided terrestrial terrain (<i>Guide, p 83</i>)			X
Comments:				
7c	Handling is kept to a minimum and appropriate techniques are in place at facility or protocol level (<i>Guide, p 84</i>)			X
Comments:				
7d	Nets are cleaned, disinfected, and managed to avoid contamination of systems (<i>Guide, p 84</i>)			X
Comments:				

8.	Food:	E	N	NA
8a	Storage to prevent contamination, preserve nutrients, and prevent pests (<i>Guide, p 84</i>)			X
Comments:				
8b	Delivery ensures access to all, minimizing aggression and nutrient loss (<i>Guide, p 84</i>)			X
Comments:				
8c	Storage times are based on manufacturer recommendations or accepted practice (<i>Guide, p 84</i>)			X
Comments:				
8d	A nutritionally complete diet is provided (<i>Guide, p 84</i>)			X
Comments:				

9.	Substrate:	E	N	NA
9a	Amount, type, and presentation of substrate is appropriate for the system and the species (<i>Guide, p 85</i>)			X
Comments:				

10.	Sanitation, Cleaning, and Disinfection:	E	N	NA
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10a	Frequency of tank/cage cleaning and disinfection is determined by water quality, permits adequate viewing and health monitoring (<i>Guide, p 86</i>)			X
Comments:				
10b	Cleaning and disinfection of macroenvironment (<i>Guide, p 86</i>)			X
Comments:				

11. Waste Disposal:		E	N	NA
11a	Procedures for collection: (<i>Guide, pp 73-74</i>)			X
Comments:				
11b	Animal carcasses (<i>Guide, pp 73-74</i>)			X
Comments:				

12. Pest Control:		E	N	NA
12a	Regularly scheduled (<i>Guide, p 74</i>)			X
Comments:				
12b	Documented program including control of pests and insecticide use (<i>Guide, p 74</i>)			X
Comments:				

13. Emergency, Weekend, and Holiday Animal Care:		E	N	NA
13a	Care provided by qualified personnel every day (<i>Guide, pp 74, 87</i>)			X
Comments:				
13b	Provision for accessible contact information (<i>Guide, pp 74, 87</i>)			X
Comments:				
13c	Emergency response plans in place to address major system failures (<i>Guide, p 87</i>)			X
Comments:				

14. Identification:		E	N	NA
14a	Cage/tank cards contain required information (<i>Guide, pp 75, 87</i>)			X
Comments:				
14b	Genotype information included and standardized nomenclature used when applicable (<i>Guide, pp 75, 87</i>)			X
Comments:				

15. Recordkeeping:		E	N	NA
15a	Water quality parameters and frequency of testing recorded (<i>Guide, p 88</i>)			X
Comments:				
15b	Records kept on feeding, nonexpired food supplies, substrate, and refuse (<i>Guide, p 88</i>)			X
Comments:				

16. Storage:		E	N	NA
16a	Adequate space for equipment, supplies, food, substrate, and refuse (<i>Guide, p 141</i>)			X
Comments:				
16b	Substrate protected from contamination (<i>Guide, p 141</i>)			X
Comments:				
16c	Food in vermin-free, temperature, and humidity-controlled area protected from contamination (<i>Guide, p 141</i>)			X
Comments:				
16d	Refuse storage is separate (<i>Guide, p 141</i>)			X
Comments:				
16e	Carcass and animal tissue storage is separate, refrigerated below 7° C and cleanable (<i>Guide, p 141</i>)			X

Comments:

17.	Personnel:	E	N	NA
17a	Adequate space for locker rooms, administration, and training (<i>Guide, p 135</i>)			X
Comments:				

iv. Cagewash

E= Existing IACUC approved departure

N= New IACUC approved departure (include in semiannual report to IO)

NA= not applicable

1.	Construction and Operation:	E	N	NA
1a	Dedicated central area for sanitizing cages and equipment is provided (<i>Guide, p 143</i>)			X
Comments:				
1b	Cage-washing equipment meets need (<i>Guide, p 143</i>)			X
Comments:				
1c	Doors, windows, floors, drainage, walls, and ceilings (<i>Guide, pp 136-138</i>)			X
Comments:				
1d	Convenient to animal area areas/ waste disposal (<i>Guide, p 143</i>)			X
Comments:				
1e	Ease of access (including door size) facilitates use (<i>Guide, p 143</i>)			X
Comments:				
1f	Sufficient space for staging and maneuvering (<i>Guide, p 143</i>)			X
Comments:				
1g	Safety precautions/clothing/equipment used for waste disposal/prewash/acid wash (<i>Guide, p 143</i>)			X
Comments:				
1h	Traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (<i>Guide, p 143</i>)			X
Comments:				
1i	Insulation and/or sound attenuation present as needed (<i>Guide, p 143</i>)			X
Comments:				
1j	Utilities are appropriate (<i>Guide, p 143</i>)			X
Comments:				
1k	Ventilation meets heat and humidity load (<i>Guide, p 143</i>)			X
Comments:				
1l	Safety features (e.g., SOPs, warning signs, eyewash stations) are in use (<i>Guide, p 143</i>)			X
Comments:				
1m	Functioning safety devices to prevent entrapment in washer/sterilizers (<i>Guide, p 143</i>)			X
Comments:				
1n	Cage wash temperatures are monitored and records are available (<i>Guide, p 73</i>)			X
Comments:				
1o	Appropriate clean cage storage (<i>Guide, p 141</i>)			X
Comments:				

v. Special Facilities: Aseptic Surgery

E= Existing IACUC approved departure

N= New IACUC approved departure (include in semiannual report to IO)

NA= not applicable

1.	General Considerations:	E	N	NA
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1a	Location minimizes traffic/contamination (<i>Guide</i> , p 144)			X
Comments:				
1b	Functional components (surgical support, animal preparation, surgeon scrub, operating room, postoperative recovery) are designed and separated (physically or otherwise) (<i>Guide</i> , p 144)			X
Comments:				
1c	Appropriate drug storage, control, expiration date monitoring (<i>Guide</i> , pp 115, 122)			X
Comments:				
1d	Safe sharps disposal system (<i>Guide</i> , p 74)			X
Comments:				
1e	Adequate records of anesthesia and perioperative care (<i>Guide</i> , p 122)			X
Comments:				
1f	Aseptic procedures in use for all survival surgery (<i>Guide</i> , pp 118-119)			X
Comments:				

2.	Operating Room:	E	N	NA
2a	Effective contamination control procedures (<i>Guide</i> , p 144)			X
Comments:				
2b	Effective cleaning procedures/dedicated tools (<i>Guide</i> , p 145)			X
Comments:				
2c	Interior surfaces smooth and impervious to moisture (<i>Guide</i> , p 145)			X
Comments:				
2d	HVAC system meets <i>Guide</i> requirements (<i>Guide</i> , p 145)			X
Comments:				
2e	Lighting safe and appropriate (<i>Guide</i> , p 145)			X
Comments:				
2f	Outlets safe and appropriate (<i>Guide</i> , p 145)			X
Comments:				
2g	Scavenging of anesthetic gases implemented (<i>Guide</i> , p 145)			X
Comments:				

3.	Surgical Support:	E	N	NA
3a	Facility for washing, sterilizing, storing instruments, and supplies (<i>Guide</i> , p 145)			X
Comments:				
3b	Autoclave monitoring procedures are implemented (<i>Guide</i> , pp 119, 145)			X
Comments:				
3c	Storage of autoclaved materials maintains sterility (<i>Guide</i> , p 145)			X
Comments:				
3d	Cold sterilization procedures are appropriate (<i>Guide</i> , p 119)			X
Comments:				

4.	Animal Preparation:	E	N	NA
4a	Contains large sink to facilitate cleaning of animal and operative site (<i>Guide</i> , p 145)			X
Comments:				

5.	Surgeon Scrub:	E	N	NA
5a	Outside operating room, non-hand-operated sink (<i>Guide</i> , p 145)			X
Comments:				

6.	Postoperative Recovery:	E	N	NA
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6a	Allows adequate observation, easily cleaned, supports physiologic functions, and minimizes risk of injury (Guide, p 145)			X
Comments:				

7.	Dressing Area:	E	N	NA
7a	Place for personnel to change (Guide, p 145)			X
Comments:				

vi. Special Facilities: Procedure Areas, Non-survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Containment, Behavioral Studies

E= Existing IACUC approved departure

N= New IACUC approved departure (include in semiannual report to IO)

NA= not applicable

1.	General Considerations:	E	N	NA
1a	Labs used to house animals only when scientifically required and limited to minimum period necessary (Guide, p 134) (Access Satellite Housing)	X	X	
Comments: 1 new and 2 renewal protocols with satellite housing				
1b	Drug storage, control, and expiration dates (Guide, pp 115, 122)			X
Comments:				
1c	Sharps disposal (Guide, p 74)			X
Comments:				
1d	Anesthetic monitoring (Guide, p 120)			X
Comments:				
1e	Scavenging of anesthetic gases (Guide, p 21)			X
Comments:				
1f	Safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders) are in place (Guide, p 19)			X
Comments:				
1g	Carcass disposal (Guide, pp 73-74)			X
Comments:				

2.	Additional Concerns for Survival Strategy: (rodent and minor procedures only)	E	N	NA
2a	Rodent survival surgery clean and uncluttered, not used for anything else during surgery (Guide, p 144)			X
Comments:				
2b	Records of peri-operative care (Guide, p 120)			X
Comments:				
2c	Aseptic procedures (Guide, pp 118-119)			X
Comments:				
2d	Autoclave monitoring procedures (Guide, pp 119, 145)			X
Comments:				
2e	Storage of autoclaved materials (Guide, p 145)			X
Comments:				
2f	Cold sterilization procedures are appropriate (Guide, p 119)			X
Comments:				

3.	Imaging/Whole Body Irradiation:	E	N	NA
3a	Location of resource limits contamination risk (Guide, p 147)			X
Comments:				
3b	Appropriate transportation methods are in place (Guide, p 147)			X
Comments:				

3c	Gas anesthesia provision, scavenging, and monitoring are appropriate (<i>Guide</i> , p 147)			X
Comments:				
3d	Imaging console is located away from radiation source (<i>Guide</i> , p 147)			X
Comments:				

4.	Behavioral Studies:	E	N	NA
4a	Facility minimizes airborne transmission of noise and ground-borne transmission of vibration (<i>Guide</i> , p 149)			X
Comments:				
4b	Floor covering reduce sound transmission (<i>Guide</i> , p 149)			X
Comments:				
4c	Testing equipment allows for surface disinfection (<i>Guide</i> , p 150)			X
Comments:				
4d	Components that cannot be cleaned are not in ready contact with animals and kept covered when not in use (<i>Guide</i> , p 150)			X
Comments:				
4e	Housing areas are contiguous with testing areas when appropriate (<i>Guide</i> , p 150)			X
Comments:				

II. Endnotes

^{i, ii} The PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A – Animal Welfare.

ⁱⁱⁱ Part 3 Subpart A 3.8 – “...research facilities must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition the plan must be approved by the attending veterinarian. The plan must provide written standard procedures...”

^{iv} Part 3 Subpart D 3.81 – “...research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates.”

^v Part 3 Subpart A 3.6(c)(1) – “Each dog housed in a primary enclosure must be provided with a minimum amount of floor space, calculated as follows: (length of dog in inches + 6)² /144 = required floor space in square feet.”

-Part 3 Subpart D 3.80 (b) – “Primary enclosures [for nonhuman primates] must meet the minimum space requirements provided in this subpart.”

-In situations where the USDA regulations and the *Guide* differ with respect to space requirements, the larger of the two must be followed.

I. Semiannual Program Review Checklist ⁱ

Institutional Policies and Responsibilities

A = acceptable

M = minor deficiency

S = significant deficiency (is or may be a threat to animal health or safety)

C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)

R = Repeat

NA = not applicable

1.	Animal Care and Use Program	A	M	S	C	R	NA
1a	Responsibility for animal well-being is assumed by all members of the program (Guide, p 1) [must]	x					
Comments:							
1b	IO has authority to allocate needed resources (Guide, p 13)	x					
Comments:							
1c	Resources necessary to manage program of veterinary care are provided (Guide, p 14) [must]	x					
Comments:							
1d	Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> (Guide, pp 11, 15)		x				
Comments: Insufficient resources available to conduct the necessary level of continuing education and oversight for research staff, as evidenced by inadequate recordkeeping and protocol drift observed in numerous decentralized animal use locations.							
1e	Program needs are regularly communicated to IO by AV and/or IACUC (Guide, p 13)	x					
Comments:							
1f	Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (Guide, p 14) [must]	x					
Comments:							
1g	Inter-institutional collaborations are described in formal written agreements (Guide, p 15)	x					
Comments:							
1h	Written agreements address responsibilities, animal ownership, and IACUC oversight (Guide, p 15)	x					
Comments:							
2.	Disaster Planning and Emergency Preparedness	A	M	S	C	R	NA
2a	Disaster plans for each facility to include satellite locations are in place (Guide, p 35, p 75) [must]	x					
Comments:							
2b	Plans include provisions for euthanasia (Guide, p 35) [must]	x					
Comments:							
2c	Plans include triage plans to meet institutional and investigators' needs (Guide, p 35)	x					
Comments:							
2d	Plans define actions to prevent animal injury or death due to HVAC or other failures (Guide, p 35)	x					
Comments:							
2e	Plans describe preservation of critical or irreplaceable animals (Guide, p 35)	x					
Comments:							
2f	Plans include essential personnel and their training (Guide, p 35)	x					
Comments:							
2g	Animal facility plans are approved by the institution and incorporated into overall response plan (Guide, p 35)	x					
Comments:							
2h	Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (Guide, p 35)	x					
Comments:							
3.	IACUC	A	M	S	C	R	NA
3a	Meets as necessary to fulfill responsibilities (Guide, p 25) [must]	x					
Comments:							
3b	IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (Guide, p 26) [must]	x					
Comments:							

3c	Continuing IACUC oversight after initial protocol approval is in place (Guide, p 33)	x					
Comments:							
3d	IACUC evaluates the effectiveness of training programs (Guide, p 15)		x				
Comments: Insufficient oversight of PI-managed lab-specific procedural training and training recordkeeping.							

4.	IACUC Protocol Review – Special Considerations	A	M	S	C	R	NA
4a	Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock (Guide, p 27)	x					
Comments:							
4b	For pilot studies, a system to communicate with the IACUC is in place (Guide, p 28)	x					
Comments:							
4c	For genetically modified animals, enhanced monitoring and reporting is in place (Guide, p 28)	x					
Comments:							
4d	Restraint devices are justified in the animal use protocols (Guide, p 29) [must]	x					
Comments:							
4e	Alternatives to physical restraint are considered (Guide, p 29)	x					
Comments:							
4f	Period of restraint is the minimum to meet scientific objectives (Guide, p 29)	x					
Comments:							
4g	Training of animals to adapt to restraint is provided (Guide, p 29)	x					
Comments:							
4h	Animals that fail to adapt are removed from study (Guide, p 29)	x					
Comments:							
4i	Appropriate observation intervals of restrained animals are provided (Guide, p 29)	x					
Comments:							
4j	Veterinary care is provided if lesions or illness result from restraint (Guide, p 30) [must]	x					
Comments:							
4k	Explanations of purpose and duration of restraint are provided to study personnel (Guide, p 30)	x					
Comments:							
4l	Multiple surgical procedures on a single animal are justified and outcomes evaluated (Guide, p 30)	x					
Comments:							
4m	Major versus minor surgical procedures are evaluated on a case-by-case basis (Guide, p 30)	x					
Comments:							
4n	Multiple survival procedure justifications in non-regulated species conform to regulated species standards (Guide, p 30)	x					
Comments:							
4o	Animals on food/fluid restriction are monitored to ensure nutritional needs are met (Guide, p 31)	x					
Comments:							
4p	Body weights for food/fluid restricted animals are recorded at least weekly (Guide, p 31)	x					
Comments:							
4q	Daily written records are maintained for food/fluid restricted animals (Guide, p 31)	x					
Comments:							
4r	Pharmaceutical grade chemicals are used , when available, for animal-related procedures (Guide, p 31)	x					
Comments:							
4s	Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC (Guide, p 31)	x					
Comments:							
4t	Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area (Guide, p 32)	x					
Comments:							
4u	Disposition plans are considered for species removed from the wild (Guide, p 32)	x					
Comments:							
4v	Toe-clipping only used when no alternative, performed aseptically and with pain relief (Guide, p 75)	x					
Comments:							

5.	IACUC Membership and Functions	A	M	S	C	R	NA
5a	IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, IV.A.3.)	x					
Comments:							
5b	Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab animal user (<i>Guide</i> , p 24) ⁱⁱ	x					
Comments:							
5c	IACUC authority and resources for oversight and evaluation of institution's program are provided (<i>Guide</i> , p 14)	x					
Comments:							
5d	IACUC conducts semiannual evaluations of institutional animal care and use program (PHS Policy, IV.B.)	x					
Comments:							
5e	Conducts semiannual inspections of institutional animal facilities (PHS Policy, IV.B.)	x					
Comments:							
5f	IACUC organizationally reports to the Institutional Official (PHS Policy, IV.A.1.b.)	x					
Comments:							
5g	Methods for reporting and investigating animal welfare concerns are in place (<i>Guide</i> , p 23) [must]	x					
Comments:							
5h	Reviews and investigates concerns about animal care and use at institution ⁱⁱⁱ (PHS Policy, IV.B.)	x					
Comments:							
5i	Procedures are in place for review, approval, and suspension of animal activities ^{iv} (PHS Policy, IV.B.)	x					
Comments:							
5j	Procedures are in place for review and approval of significant changes to approved activities (PHS Policy, IV.B.)	x					
Comments:							
5k	Policies are in place for special procedures (e.g., genetically modified animals, restraint, multiple survival surgery, food and fluid regulation, field investigations, agricultural animals) (<i>Guide</i> , p 27-32)	x					
Comments:							
5l	Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS ^v (<i>Guide</i> , p 30) [must]	x					
Comments:							

6.	IACUC Training	A	M	S	C	R	NA
6a	All IACUC members should receive:						
6a1	Formal orientation to institution's program (<i>Guide</i> , p 17)	x					
Comments:							
6a2	Training on legislation, regulations, guidelines, and policies (<i>Guide</i> , p 17)	x					
Comments:							
6a3	Training on how to inspect facilities and labs where animal use or housing occurs (<i>Guide</i> , p 17)	x					
Comments:							
6a4	Training on how to review protocols as well as evaluate the program (<i>Guide</i> , p 17)	x					
Comments:							
6a5	Ongoing training/education (<i>Guide</i> , p 17)	x					
Comments:							

7.	IACUC Records and Reporting Requirements ^{vi}	A	M	S	C	R	NA
7a	Semiannual report to the IO (PHS Policy, IV.B.):						
7a.1	Submitted to IO every 6 months	x					
Comments:							
7a.2	Promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or PHS Policy noncompliance (NOT-OD-05-034)	x					
Comments:							
7a.3	Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)	x					

Comments:							
7a.4	Describes IACUC-approved departures from the <i>Guide</i> or PHS Policy and the reasons for each departure ^{vii}	x					
Comments:							
7a.5	Distinguishes significant from minor deficiencies	x					
Comments:							
7a.6	Includes a plan and schedule for correction for each deficiency identified ^{viii}	x					
Comments:							
7b	Reports to OLAW (PHS Policy, IV.F.):						
7b.1	Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	x					
Comments:							
7b.2	Promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or PHS Policy noncompliance (NOT-OD-05-034)	x					
Comments:							
7b.3	Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)	x					
Comments:							
7c	Reports to U.S. Department of Agriculture (USDA) or Federal funding agency^{ix}:						
7c.1	Annual report to USDA contains required information including all exceptions/exemptions	x					
Comments:							
7c.2	Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	x					
Comments:							
7c.3	Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	x					
Comments:							
7c.4	Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	x					
Comments:							
7d	Records:						
7d.1	IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	x					
Comments:							
7d.2	Records of IACUC reviews of animal activities include all required information ^x	x					
Comments:							
7d.3	Records of IACUC reviews are maintained for 3 years after the completion of the study	x					
Comments:							
8.	Veterinary Care (See also next section – Veterinary Care)	A	M	S	C	R	NA
8a	An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care ^{xi}	x					
Comments:							
8b	Veterinary access to all animals is provided (Guide, p 14) [must]	x					
Comments:							
8c	Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (Guide, p 14) [must]	x					
Comments:							
8d	Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (Guide, p 5) [must]	x					
Comments:							
8e	Veterinarian provides consultation when interventional control is not possible (Guide, p 5) [must]	x					
Comments:							
8f	If part time /consulting veterinarian, visits meet programmatic needs (Guide, p 14)						x
Comments:							
8g	Regular communication occurs between veterinarian and IACUC (Guide, p 14)	x					
Comments:							
8h	Veterinarian(s) have experience and training in species used (Guide, p 15) [must]	x					
Comments:							

8i	Veterinarian(s) have experience in facility administration/management (<i>Guide, p 15</i>)	x					
Comments:							

9.	Personnel Qualifications and Training	A	M	S	C	R	NA
9a	All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]						
9a.1	Veterinary/other professional staff (<i>Guide, p 15-16</i>)	x					
Comments:							
9a.2	IACUC members (<i>Guide, p 17</i>)	x					
Comments:							
9a.3	Animal care personnel (<i>Guide, p 16</i>)	x					
Comments:							
9a.4	Research investigators, instructors, technicians, trainees, and students (<i>Guide, pp 16-17</i>)		x				
Comments: Numerous issues identified by AAALAC in peripheral labs suggest that research staff are not receiving adequate training in approved procedures, recordkeeping requirements, and IACUC standards for conduct of animal activities.							
9b	Continuing education for program and research staff provided to ensure high quality care and reinforce training (<i>Guide, pp 16-17</i>)			x			
Comments: Research staff are not receiving adequate continuing education, resulting in failures to uphold programmatic standards for animal activities and negative effects on animal welfare, specifically as to appropriate euthanasia of rodents in labs							
9c	Training is available prior to starting animal activity (<i>Guide, p 17</i>)	x					
Comments:							
9d	Training is documented (<i>Guide, p 15</i>)		x				
Comments: Training records are inconsistent in peripheral labs and do not meet IACUC and/or NIH Guide standards.							
9e	Training program content includes: (<i>Guide, p 17</i>)						
9e.1	Methods for reporting concerns (<i>Guide, p 17</i>)	x					
Comments:							
9e.2	Humane practices of animal care (e.g., housing, husbandry, handling) ^{xii}	x					
Comments:							
9e.3	Humane practices of animal use (e.g., research procedures, use of anesthesia, pre- and post-operative care, aseptic surgical techniques and euthanasia (<i>Guide, p 17</i>) ^{xiii}	x					
Comments:							
9e.4	Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)	x					
Comments:							
9e.5	Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)	x					
Comments:							
9e.6	Use of hazardous agents, including access to OSHA chemical hazard notices where applicable (<i>Guide, p 20</i>)	x					
Comments:							
9e.7	Animal care and use legislation (<i>Guide, p 17</i>)	x					
Comments:							
9e.8	IACUC function (<i>Guide, p 17</i>)	x					
Comments:							
9e.9	Ethics of animal use and Three R's (<i>Guide, p 17</i>)	x					
Comments:							

10.	Occupational Health and Safety of Personnel	A	M	S	C	R	NA
10a	Program is in place and is consistent with federal, state, and local regulations (<i>Guide, p 17</i>) [must]	x					
Comments:							
10b	Program covers <i>all</i> personnel who work in laboratory animal facilities (<i>Guide, p 18</i>)	x					
Comments:							
10c	Changing, washing, and showering facilities are available as appropriate (<i>Guide, p 19</i>)	x					
Comments:							
10d	Hazardous facilities are separated from other areas and identified as limited access (<i>Guide, p 19</i>)	x					
Comments:							
10e	Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (<i>Guide, p 20</i>)	x					

Comments:							
10f	Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (Guide, p 21)	x					
Comments:							
10g	Personal Protective Equipment for the work area is appropriate and available (Guide, p 21)	x					
Comments:							
10h	Program for medical evaluation and preventive medicine for personnel includes:						
10h.1	Pre-employment evaluation including health history (Guide, p 22)						x
Comments:							
10h.2	Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (Guide, p 22)	x					
Comments:							
10h.3	Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (Guide, p 23)	x					
Comments:							
10h.4	Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (Guide, p 23)	x					
Comments:							
10h.5	Promotes early diagnosis of allergies including preexisting conditions (Guide, p 22)	x					
Comments:							
10h.6	Considers confidentiality and other legal factors as required by federal, state and local regulations (Guide, p 22) [must]	x					
Comments:							
10h.7	If serum samples are collected, the purpose is consistent with federal and state laws (Guide, p 22) [must]	x					
Comments:							
10i	Waste anesthetic gases are scavenged (Guide, p 21)	x					
Comments:							
10j	Hearing protection is provided in high noise areas (Guide, p 22)	x					
Comments:							
10k	Respiratory protection is available when performing airborne particulate work (Guide, p 22)	x					
Comments:							
10l	Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:						
10l.1	Tuberculosis screening provided for all exposed personnel (Guide, p 23)	x					
Comments:							
10l.2	Training and implementation of procedures for bites, scratches, or injuries associated with macaques (Guide, p 23)	x					
Comments:							
10l.3	PPE is provided including gloves, arm protection, face masks, face shields, or goggles (Guide, p 21)	x					
Comments:							
10l.4	Injuries associated with macaques are carefully evaluated and treatment implemented (Guide, p 23)	x					
Comments:							
10m	Occupational safety and health of field studies is reviewed by OSH committee or office (Guide, p 32)	x					
Comments:							

11.	Personnel Security	A	M	S	C	R	NA
11a	Preventive measures in place include pre-employment screening, and physical, and IT security (Guide, p 23)	x					
Comments:							

12.	Investigating & Reporting Animal Welfare Concerns	A	M	S	C	R	NA
12a	Preventive measures in place include pre-employment screening, and physical and IT security (Guide, p 23)	x					
Comments:							
12b	Reported concerns and corrective actions are documented (Guide, p 24)	x					
Comments:							

12c	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (<i>Guide, p 24</i>)	x						
Comments:								
12c.1	Includes multiple contacts (<i>Guide, p 24</i>)	x						
Comments:								
12c.2	Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (<i>Guide, p 24</i>)	x						
Comments:								

A = acceptable

M = minor deficiency

S = significant deficiency (is or may be a threat to animal health or safety)

C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)

R = Repeat

NA = not applicable

Veterinary Care

A = acceptable

M = minor deficiency

S = significant deficiency (is or may be a threat to animal health or safety)

C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)

R = Repeat

NA = not applicable

1.	Clinical Care and Management	A	M	S	C	R	NA
1a	Veterinary program offers high quality of care and ethical standards (Guide, p 105) [must]	x					
Comments:							
1b	Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (Guide, p 106)	x					
Comments:							
1c	Veterinarian provides oversight to surgery and perioperative care (Guide, p 106)	x					
Comments:							
1d	Veterinary care program is appropriate for program requirements (Guide, pp 113-114)	x					
Comments:							
1e	Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (Guide, p 114)	x					
Comments:							
1f	Procedures to triage and prioritize incident reports are in place (Guide, p 114)	x					
Comments:							
1g	Procedures are in place to address:						
1g.1	Problems with experiments to determine course of treatment in consultation with investigator(Guide, p 114)	x					
Comments:							
1g.2	Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (Guide, p 114)	x					
Comments:							
1g.3	Veterinary review and oversight of medical and animal use records (Guide, p 115)	x					
Comments:							
1h	Procedures established for timely reporting of animal injury, illness, or disease (Guide, p 114) [must]	x					
Comments:							
1i	Procedures established for veterinary assessment, treatment, or euthanasia (Guide, p 114) [must]	x					
Comments:							
1j	Veterinarian is authorized to treat, relieve pain, and/or euthanize (Guide, p 114) [must]	x					
Comments:							

2.	Animal Procurement and Transportation/Preventive Medicine	A	M	S	C	R	NA
2a	Procedures for lawful animal procurement are in place (Guide, p 106) [must]	x					
Comments:							
2b	Sufficient facilities and expertise are confirmed prior to procurement (Guide, p 106)	x					
Comments:							
2c	Procurement is linked to IACUC review and approval (Guide, p 106)	x					
Comments:							
2d	Random source dogs and cats are inspected for identification (Guide, p 106)						x
Comments:							
2e	Population status of wildlife species is considered prior to procurement (Guide, p 106)	x					
Comments:							
2f	Appropriate records are maintained on animal acquisition (Guide, p 106)	x					
Comments:							
2g	Animal vendors are evaluated to meet program needs and quality (Guide, p 106)	x					
Comments:							
2h	Breeding colonies are based on need and managed to minimize numbers (Guide, p 107)	x					
Comments:							

2i	Procedures for compliance with animal transportation regulations, including international requirements, are in place (Guide, p 107) [must]	x					
Comments:							
2j	Transportation is planned to ensure safety, security and minimize risk (Guide, p 107)	x					
Comments:							
2k	Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (Guide, pp 107- 108)	x					
Comments:							
2l	Appropriate loading and unloading facilities are available (Guide, p 109)	x					
Comments:							
2m	Environment at receiving site is appropriate (Guide, p 109)	x					
Comments:							
2n	Policies in place on separation by species, source, and health status (Guide, pp 109, 111-112)	x					
Comments:							
2o	Procedures in place for quarantine to include zoonoses prevention (Guide, p 110)	x					
Comments:							
2p	Quarantined animals from different shipments are handled separately or physically separated (Guide, p 110)	x					
Comments:							
2q	Procedures in place for stabilization/acclimation (Guide, pp 110-111)	x					
Comments:							
2r	Policies in place for isolation of sick animals (Guide, p 112)	x					
Comments:							
2s	Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (Guide, p 112)	x					
Comments:							
2t	Diagnostic resources are available for preventive health program (Guide, p 112)	x					
Comments:							

3.	Surgery	A	M	S	C	R	NA
3a	Surgical outcomes are assessed and corrective changes instituted (Guide, p 115)	x					
Comments:							
3b	Researchers have appropriate training to ensure good technique (Guide, p 115) [must]	x					
Comments:							
3c	Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (Guide, p 116)	x					
Comments:							
3d	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (Guide, p 116)	x					
Comments:							
3e	Surgical procedures including laparoscopic procedures are categorized as major or minor (Guide, pp 117-118)	x					
Comments:							
3f	For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean (Guide, p 118)	x					
Comments:							
3g	Aseptic technique is followed for survival surgical procedures (Guide, pp 118-119)	x					
Comments:							
3h	Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place (Guide, p 119)	x					
Comments:							
3i	Procedures for monitoring surgical anesthesia and analgesia are in place (Guide, p 119)	x					
Comments:							
3j	For aquatic species, skin surfaces are kept moist during surgical procedures (Guide, p 119)	x					
Comments:							

3k	Post-operative monitoring and care are provided by trained personnel and documented (e.g., thermoregulation, physiologic function, analgesia, infection, removal of skin closures) (<i>Guide</i> , pp 119-120)	x					
Comments:							

4.	Pain, Distress, Anesthesia, and Analgesia	A	M	S	C	R	NA
4a	Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training (<i>Guide</i> , p 121)	x					
Comments:							
4b	Selection of analgesics and anesthetics is based on professional veterinary judgment (<i>Guide</i> , p 121)	x					
Comments:							
4c	Painful procedures are monitored to ensure appropriate analgesic management (<i>Guide</i> , p 122)	x					
Comments:							
4d	Nonpharmacologic control of pain is considered as an element of postprocedural care (<i>Guide</i> , p 122)	x					
Comments:							
4e	Procedures are in place to assure antinoception before surgery begins (<i>Guide</i> , p 122) [must]	x					
Comments:							
4f	Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (<i>Guide</i> , p 122)	x					
Comments:							
4g	Special precautions for the use of paralytics are in place to ensure anesthesia ^{xiv} (<i>Guide</i> , p 123)	x					
Comments:							

5.	Euthanasia	A	M	S	C	R	NA
5a	Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC (<i>Guide</i> , p 123)	x					
Comments:							
5b	Standardized methods are developed and approved by the veterinarian and IACUC that avoid distress and consider animal age and species (<i>Guide</i> , pp 123-124)	x					
Comments:							
5c	Training is provided on appropriate methods for each species and considers psychological stress to personnel (<i>Guide</i> , p 124)	x					
Comments:							
5d	Procedures and training are in place to ensure death is confirmed (<i>Guide</i> , p 124) [must]	x					
Comments:							

6.	Drug Storage and Control	A	M	S	C	R	NA
6a	Program complies with federal regulations for human and veterinary drugs(<i>Guide</i> , p 115) [must]	x					
Comments:							
6b	Drug records and storage procedures are reviewed during facility inspections (<i>Guide</i> , p 115)	x					
Comments:							
6c	Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide</i> , p 122) [must]	x					
Comments:							
6d	Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely (<i>Guide</i> , p 122)	x					
Comments:							

A = acceptable

M = minor deficiency

S = significant deficiency (is or may be a threat to animal health or safety)

C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)

R = Repeat

NA = not applicable

II. Endnotes

ⁱ The PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A - Animal Welfare.

ⁱⁱ Part 2 Subpart C - Research Facilities

- 2.31(b)(2) - "The Committee shall be composed of a Chairman and at least two additional members;... at least one shall not be affiliated in any way with the facility...such person will provide representation for general community interests in the proper care and treatment of animals." [PHS policy requires 5 members]

ⁱⁱⁱ 2.32(c)(4) - "...No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or standards under the Act." [USDA requirement additional to PHS Policy]

^{iv} 2.31(d)(5) - "...shall conduct continuing reviews of activities...not less than annually." [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]

^v 2.31(d)(1)(x) - "...no animal will be used in more than one major operative procedure from which it is allowed to recover unless...(it is) justified for scientific reasons...(or is) required as routine veterinary procedure...or other special circumstances as determined by the Administrator on an individual basis." [this last point is an additional USDA justification for multiple survival surgeries]

^{vi} 2.36 - "...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year." [The USDA annual report has a list of requirements which differ from PHS annual report]

^{vii} 2.36(b)(3) - "...exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the IACUC. A summary of all such exceptions must be attached to the facility's annual report." [Refers to USDA annual report]

^{viii} 2.31(c)(3) - "...Any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity." [PHS Policy requires prompt reporting to OPRR of serious or continuing noncompliance with the PHS Policy or serious deviations from the provisions of the *Guide*]

^{ix} 2.36 - "...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year." [The USDA annual report has a list of requirements which differ from PHS annual report]

^x In addition to PHS requirements for IACUC review/application for funding, USDA regulations require:

2.31(d)(1)(ii) - "The principal investigator (PI) consider alternatives to procedures that cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources...used to determine that alternatives were not available."

2.31(d)(1)(iii) - "The PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments."

2.31(d)(1)(iv) - "Procedures that may cause more than momentary or slight pain or distress to the animals will:

- involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation]
- not include paralytics without the use of anesthesia;"

2.31(d)(1)(x) - "No animal will be used in more than one major operative procedure from which it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing..."

^{xi} 2.33(a)(1) - "In the case of a part-time attending veterinarian or consultant arrangements, the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the research facility." [USDA requirement additional]

^{xii} 2.32(c) - "Humane methods of animal maintenance and experimentation, including the basic needs of each species, proper handling and care for the various species of animals used by the facility, proper pre-procedural and post-procedural care of animals, and aseptic surgical methods and procedures."

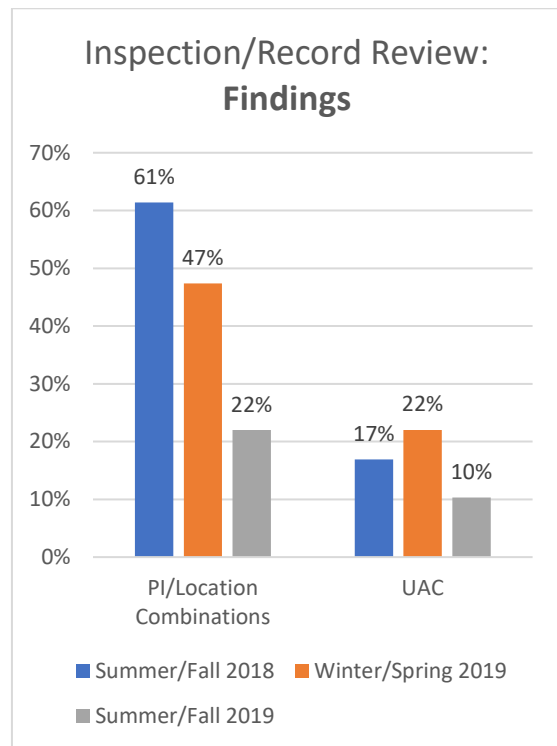
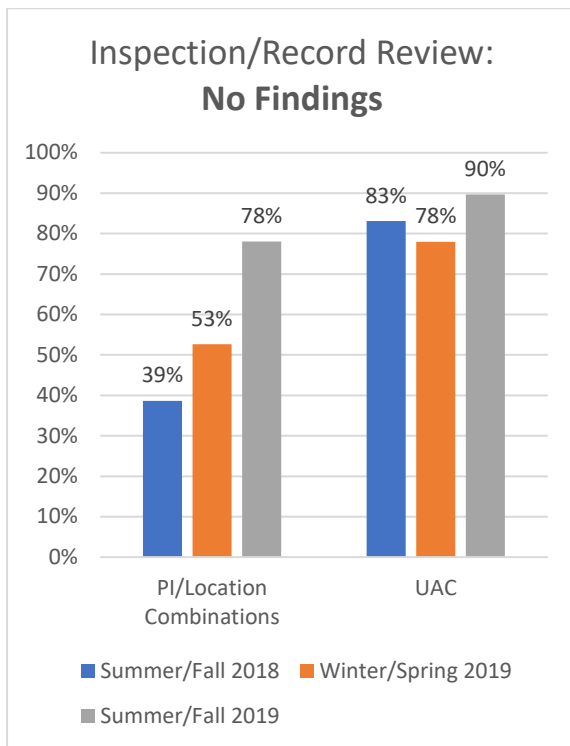
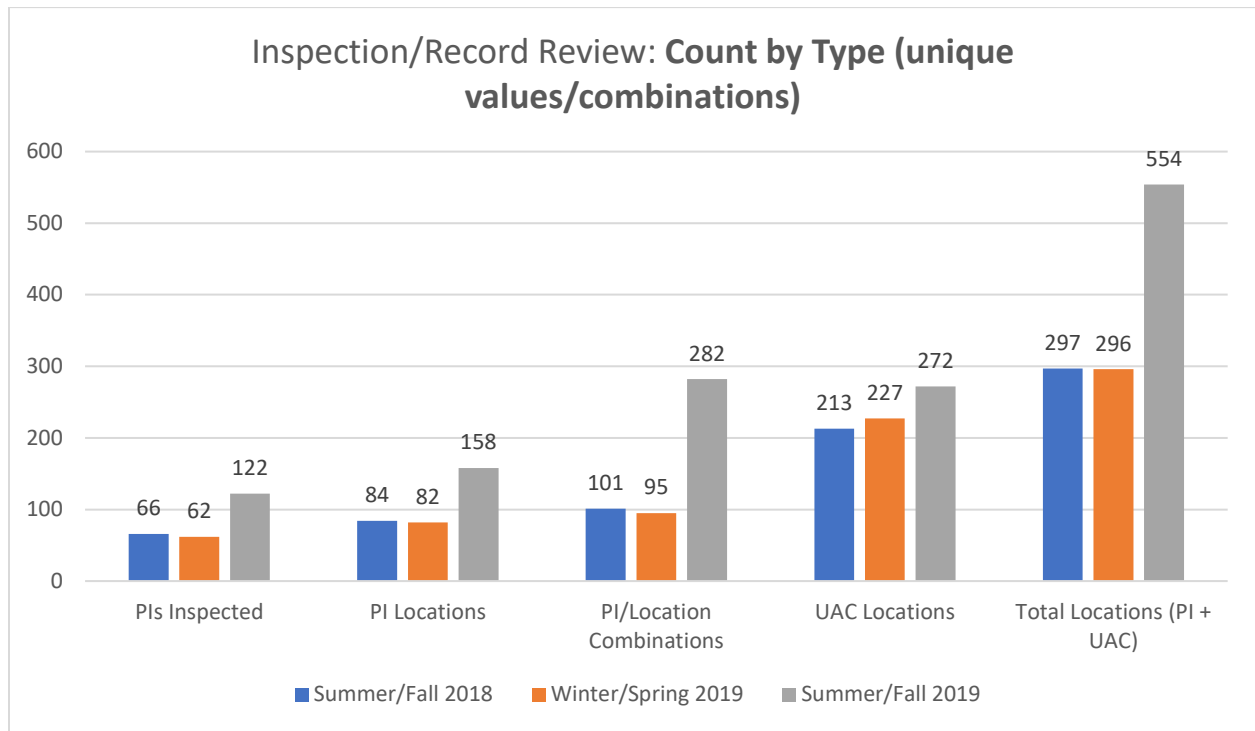
^{xiii} 2.32(c) - additional specifications include:

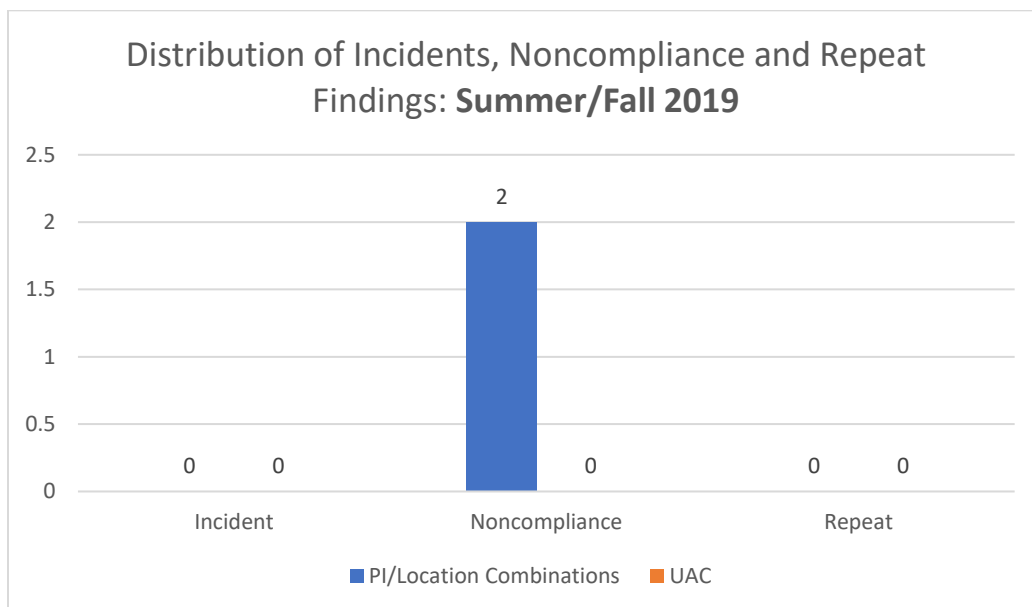
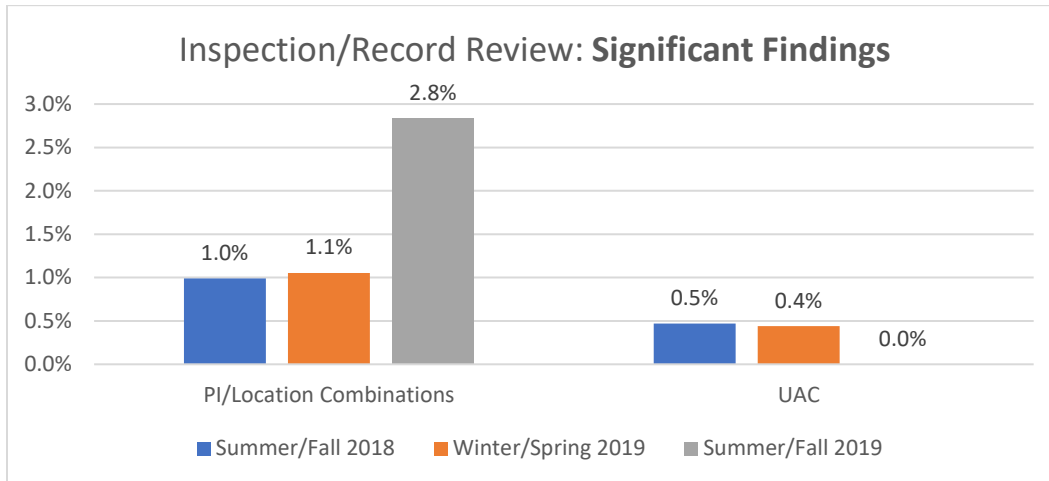
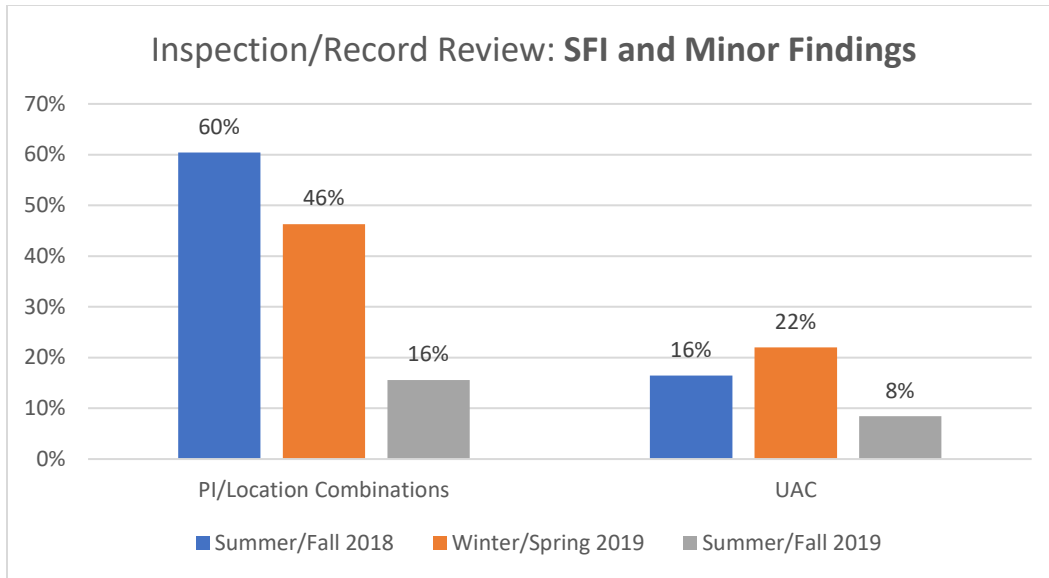
- "proper use of anesthetics, analgesics, and tranquilizers for any species of animals used by the facility"
- "methods whereby deficiencies in animal care and treatment are reported, including deficiencies in animal care and treatment reported by any employee of the facility..."
- "utilization of services (e.g., National Agricultural Library, National Library of Medicine) to provide information on appropriate animal care and use, alternatives to the use of live animals in research, that could prevent unintended and unnecessary duplication of research involving animals, and regarding the intent and requirements of the Act." [USDA training specifications are more detailed than PHS Policy].

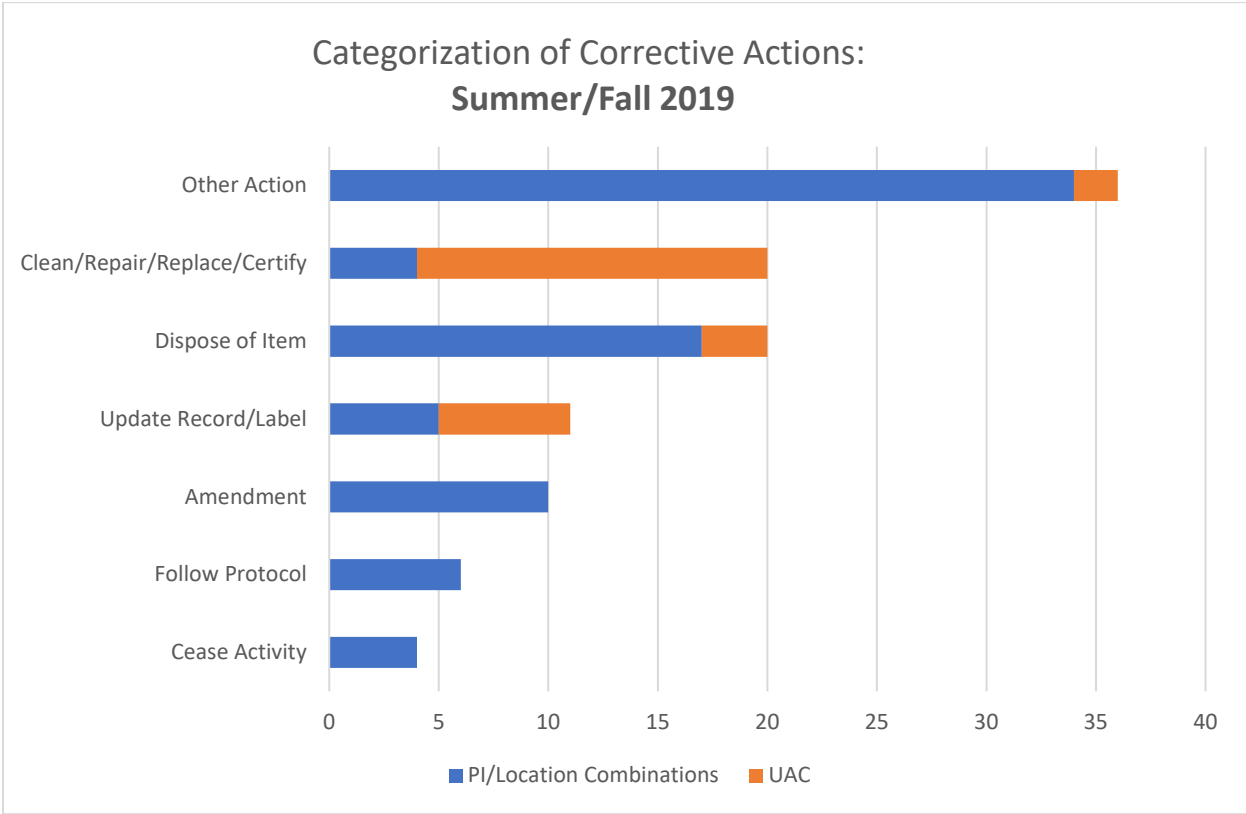
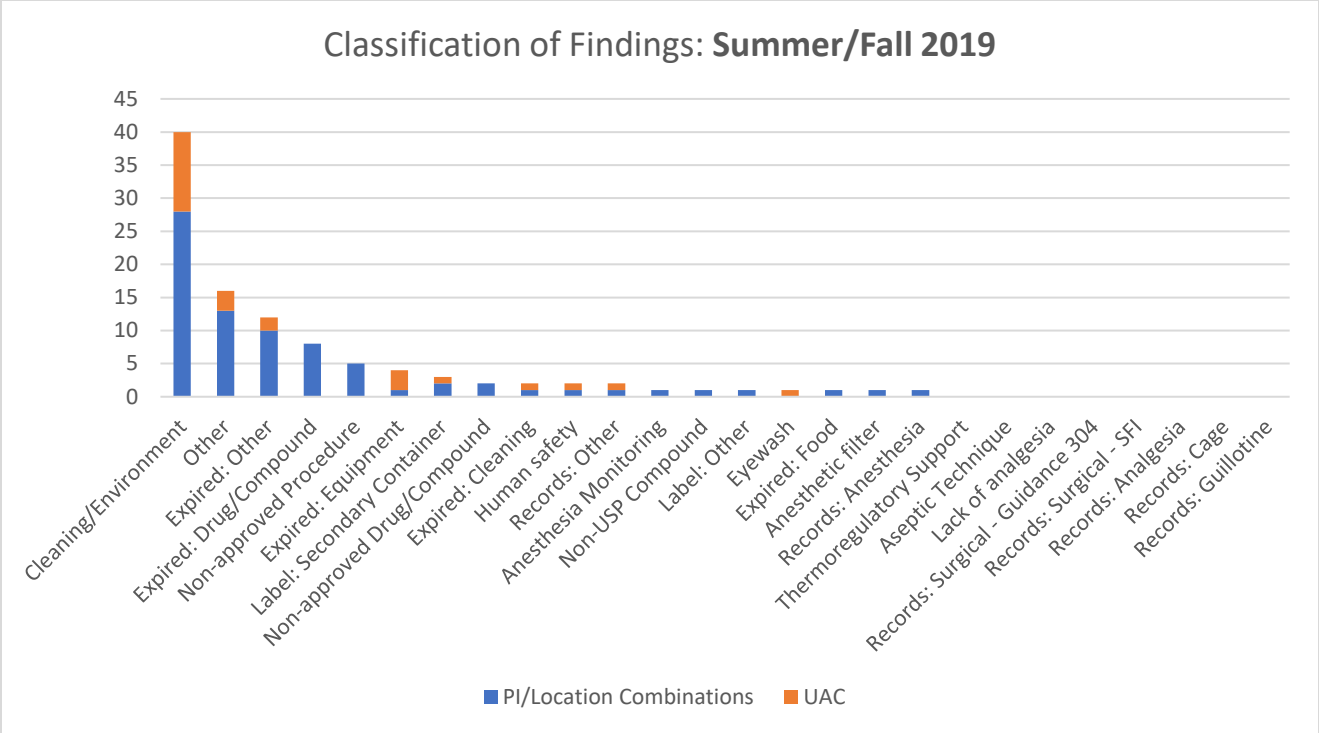
^{xiv} 2.31(d)(iv)(C) - "Procedures that may cause more than momentary or slight pain or distress to the animals will...not include the use of paralytics without anesthesia."

Inspection Metrics

Summer/Fall 2019







Semi-Annual Inspection - Locations with No Findings

Total:	465
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Principal Investigator Inspection Location[illegible]

Semi-Annual Inspection - Locations with No Findings

Total:	465
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[illegible]

Semi-Annual Inspection - Locations with No Findings

Total: 465

Principal Investigator Inspection Location

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Semi-Annual Inspection - Locations with No Findings

Total: 465

[illegible]

Semi-Annual Inspection - Locations with No Findings

Total: 465

[illegible]

Semi-Annual Inspection - Locations with No Findings

Total: 465

Principal Investigator Inspection Location[illegible]

Semi-Annual Inspection - Locations with No Findings

Total: 465

[illegible]

Semi-Annual Inspection - Locations with Resolved Findings [SFI/Minor]

Total: 74

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source* _____ USDA? No

Observations Date Inspected**: 7/23/2019

2 female cages without food [PI will feed]

PI Response

Date Corrected: 8/22/19

From [REDACTED] 8/22/19: Animals on protocol [REDACTED] are on food restriction and are fed once daily by PI staff. UAC confirms daily feeding by monitoring the "PI Feed" card during room servicing and reports any missed feedings. In this case, the rats were fed once daily per protocol (confirmed by checking documentation) although at the time of observations, no food was present in the cage. The protocol contains an approved exception from Free Choice feeding.

PI: [REDACTED] Location: [REDACTED] ☒ SFI ☐ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source* _____ USDA? Yes

Observations Date Inspected**: 7/23/2019

SFI: Logbooks: remove any 3 years old or older

PI Response

Date Corrected:

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source* _____ USDA? Yes

Observations Date Inspected**: 7/23/2019

1] Ceiling tiles lifted

PI Response

Date Corrected: 11/8/19

We have placed a request to fix the ceiling tiles in the room. Will send completion date as soon as it is done. UAC will monitor tiles in the room for future occurrence.
From [REDACTED] 11/8/19: The ceiling tiles were displaced by UAC after they got wet due to a leak in the reheat coil in the HVAC system. The reheat coil is scheduled to be fixed by FM by the end of November, at which time the ceiling tiles will be replaced.

PI: [REDACTED] Location: [REDACTED] ☒ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source* _____ USDA? Yes

Observations Date Inspected**: 7/23/2019

Expired N95 above sink
Eyewash tag missing

PI Response

Date Corrected: 8/22/19

Expired N95 masks have been removed and replace as of 8/19/19. We will look closer at stocked PPE to check for expiration dates on those that have it.
As this eye wash station is monitored by UAC, documentation of eye wash check is kept on the room EA sheet and not via tag.

PI: [REDACTED] Location: [REDACTED] ☒ SFI ☐ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source* _____ USDA? Yes

Observations Date Inspected**: 7/23/2019

Interroom: Isoflurane expiring soon (8/10/19)

PI Response

Date Corrected:

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? Yes
Observations	Date Inspected**: 7/23/2019	PI Response Date Corrected:
SFI: Med supplies drawer will expire 7/2019		

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? Yes
Observations	Date Inspected**: 7/23/2019	PI Response Date Corrected: 8/22/19
Restroom out of order SFI: Dirty Side: Autoclave maintenance due soon (8/23/19)		From [REDACTED] 8/22/19: The restroom located in [REDACTED] was out of order for repairs at the time of inspection. Repairs were completed on 7/29/19. During the period of repair, there were alternative bathrooms located immediately outside the vivarium on every floor of the Psychology building. Staff break rooms (rms [REDACTED] [REDACTED] locker room with shower (rm [REDACTED] and multiple hand wash areas (rms [REDACTED] [REDACTED] etc.) were also available for use.

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? Yes
Observations	Date Inspected**: 7/23/2019	PI Response Date Corrected: 8/22/2019
Expired cleaning chemical: Envirocide, exp 2/1/19		This bottle of Envirocide was last used in 2018. The expired Environcide has been properly disposed of.

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? Yes
Observations	Date Inspected**: 7/23/2019	PI Response Date Corrected: 8/22/2019
Currently in use as UAC storage - remove from protocol		Has been removed from protocol

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* ONR; NSF		USDA? No
Observations	Date Inspected**: 7/23/2019	PI Response Date Corrected: 8/29/19
Printed protocol serves as protocol record Osmotic pumps expired [inspector did not indicate expiration date] Some consumables expired [inspector did not indicate expiration date or specific items] Expired saline: exp 3/2019		From [REDACTED] 8/29/19: 1)OK 2)Marked expired, and removed from the surgery room 3)Expired supplies discarded 4)Saline was discarded

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/25/2019	PI Response
Daily records are ok, but weekly checks (hardness of water, etc) not done/recorded for July		From [REDACTED] 8/22/19: Technician in the room has been retrained to continually do weekly checks going forward. Animal care manager will also check logs weekly at a minimum even if parameters have not been flagged as out of range.
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/25/2019	PI Response
Hood expired 2/2019		From [REDACTED] 8/22/19: Hood recertified
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/25/2019	PI Response
Hood expired 3/19		From [REDACTED] 8/22/19: The hood has been certified. New expiration date: 2/28/20. We are working with the hood certification section of FM to make sure that all hoods in the facilities are on their list to certify
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] No [REDACTED]
Observations	Date Inspected**: 7/29/2019	PI Response
Conical tube w/cotton on bottom not labeled		From [REDACTED] 8/19: Thanks for bringing this to our attention. Here is what we did to correct it: 1) The lack of labeling was a result of negligence by a technician. 2) The tube along with the cotton was dry so it was discarded into a biohazardous waste bin. 3) We have re-trained (and emphasized) all staff to label all containers (tubes included) with name of content and expiration date.
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/29/2019	PI Response
Cages of rats seem to have moist bedding (3 rats/cage, under 7 days since last change)		

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* [REDACTED]		USDA? No			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/20/19	
1] In [REDACTED] lab fridge: secondary container: sterile vials exp 1/4/18, all dated w/month & day, no year - no indication whether mix date or exp date; 2] broken glass in cardboard box - should be in sharps container.		From [REDACTED] 8/16/2019: The vials in the fridge are from the [REDACTED] lab, not ours. I will remove the broken glass 8/20/19.; From [REDACTED] 8/20: The glass has been removed. Thank you, [REDACTED]					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* [REDACTED]		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
Lots of mouse feed below stainless steel surface of BSC		From [REDACTED] 8/21/19: inspection took place before UAC room tech serviced the room. Researchers utilize use of the hood daily and will be instructed to clean debris. The room was serviced later that day as planned.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* [REDACTED]		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
Surface rust on light fixtures		From [REDACTED] 8/21/19: work order to be submitted to paint frames; will monitor to determine if needs to be repainted					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* [REDACTED]		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
[REDACTED] and floor dirty with shavings, etc;		From [REDACTED] 8/21/19: inspection took place before [REDACTED] room tech serviced the room. Researchers utilize use of the hood daily and will be instructed to clean debris. The room was serviced later in the day, as planned.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* NIH/NINDS		USDA? No			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/22/2019	
Expired alcohol pads (inspector did not indicate expiration date)		From [REDACTED] 8/22/2019: expired alcohol pads were left in room 34; Expiration dates on alcohol pad will be checked every 3 months. A log will be kept to indicate when expiration dates on alcohol pad were checked. Were expired materials and/or compounds used on live animals: No Were expired materials and/or compounds disposed.: Yes					

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* _____		USDA? No			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/16/19	
General cleanliness - bedding material on floor & cart		From [REDACTED] 8/16/2019: For the issue in room [REDACTED]: I will ask people in my lab to clean the room, equipment, cart, etc, every time they finish the experiments.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* _____		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
Floor is dirty - shavings, etc		From [REDACTED] 8/21/19: Inspection took place before [REDACTED] room tech serviced the room. Researchers utilize use of the hood daily and will be instructed to clean debris. The room was serviced later in the day as planned					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* _____		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
[REDACTED] is slightly dirty - bedding, etc		From [REDACTED] 8/21/19: inspection took place before [REDACTED] room tech serviced the room. Researchers utilize use of the hood daily and will be instructed to clean debris. The room was serviced later that day as planned					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* NIH/NIAID		USDA? No			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/16/2019	
Expired betadine 3 small bottles (exp. 2017)		From [REDACTED] 8/16/2019: The expired materials were provided by [REDACTED] for the topical treatment of skin lesions in B6 mice. The expired materials were not used on live mice. They were an oversight in the cabinet where stored from earlier skin issues. The materials were discarded at the time of inspection. In the future, we will make an effort to discard [REDACTED]-dispensed medication at the time of termination of the study that required the treatment.					

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI	<input type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* _____		USDA? UAC			
Observations		Date Inspected**: 7/31/2019		PI Response		Date Corrected: 8/21/19	
Broom & dustpan on floor - should be hung up		From [REDACTED] 8/21/19: equipment was hung later that day when [REDACTED] tech service room; informed staff to be sure it is off the floor at all times					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/31/2019	PI Response
1] Dirty side cage wash: Rust on fluorescent light frames; 2] Stucco/plaster drips on floor to left of cage wash; 3] steam scale on stainless steel in cage wash room in general; 4] Drain cover rusted through		From [REDACTED] 8/22/19: 1] work order to be submitted to paint frames; high steam area so will continue to monitor 2] excess plaster wiped off; will make sure future FM repair areas are cleaned at time of repair. 3] Stainless steel will continue to be descaled and cleaned regularly; 4] work order to be submitted to replace cover; high water area so will monitor
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/31/2019	PI Response
Room [REDACTED] Hand soap dried out (unusable); discarded during inspection		From [REDACTED] 8/21/19: Soap was discarded and replaced with new
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/31/2019	PI Response
PreEmpt RTU pump bottle - exp date illegible		From [REDACTED] 8/21/19: bottle was relabeled; staff instructed to check regularly for legible dates
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 7/31/2019	PI Response
Ceiling vents have dust accumulation		From [REDACTED] 8/21/19: room is to be cleaned and painted this week; instructed staff to remember to look up and dust as needed
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NICHHD; NIH/ [REDACTED]		USDA? Yes [REDACTED]
Observations	Date Inspected**: 7/31/2019	PI Response
Peeling paint, rusty scrapers in unlabeled bucket; 2] [REDACTED] expired scalpel blades (xp 2008); 3] expired vacutainer/sebum (exp 2016)		From [REDACTED] 8/16/2019: •1] Peeling paint, rusty scrapers in unlabeled bucket; Removed •2] [REDACTED] expired scalpel blades (xp 2008); Removed •3] expired vacutainer/sebum (exp 2016) Could not find. Only vacutainers found expired 11/30/2019. Searched rooms [REDACTED] and [REDACTED] These items were found during an IACUC inspection. They were "forgotten" items and not used on live animals. Expired items will be removed on a timely basis in the future.

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* USDA; DoD		USDA? UAC
Observations	Date Inspected**: 7/31/2019	PI Response Date Corrected: 11/8/19
Cabinet with (???) parts is dirty inside - shavings, bedding	From [REDACTED] 11/8/19: The hyperthermia chamber has been cleaned and dirty bedding removed (confirmed by [REDACTED] 11/8).	

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*		USDA? UAC
Observations	Date Inspected**: 7/31/2019	PI Response Date Corrected: 8/21/19
Rust stains on floor & wall, peeling paint, rusty scrapers in unlabeled bucket	1] room is scheduled to be repainted this week; 2] This is [REDACTED] lab equipment that was address directly to [REDACTED] by IACUC	

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*		USDA? UAC
Observations	Date Inspected**: 7/31/2019	PI Response Date Corrected: 8/21/19
Surface rust on plumbing chase	From [REDACTED] 8/21/19: will be descaled and regularly monitored	

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*		USDA? UAC
Observations	Date Inspected**: 7/31/2019	PI Response Date Corrected: 8/21/19
1] Rack delta date 7/23/18; 2] Filter delta date 1/16/19	From [REDACTED] 8/21/19: 1] rack one week overdue; was waiting for change out rack to go through cagewash; rack has been changed; 2] filters were change with rack change out; schedule has been clearly laid out for future change outs	

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*		USDA? No
Observations	Date Inspected**: 8/2/2019	PI Response Date Corrected: 8/16/2019
Expired 10cc syringe (3, dated 3/2019; discarded by inspector)	From [REDACTED] 8/16/2019: The syringes that were found were 10 cc. Neither I nor any of my coworkers have used that size of syringe since I have started working here in December. No expired syringes have been used for animal work of any kind. This will not happen again since I have no need to keep syringes in the location in which these were found, which is why they were overlooked. All the syringes that we use for animal work are in a two different specific locations in the surgical area of the lab and in the prep area. This is an artifact from a previous employee.	

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* <u>USDA; DoD</u> <u>USDA?</u> <u>UAC</u>					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/16/2019	
Frozen Diet Freezer: Palm Oil (orange food) exp 6/2019		From [REDACTED] 8/16/2019: The frozen diet was left over from a previous set of studies and was not given to animals after expiration day. The expired batch of diet was disposed of.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* <u>NIH/NHLBI</u> <u>USDA?</u> <u>UAC</u>					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/16/2019	
Expired medical materials: 23G needles (exp 5/2019); 5mL syringes (exp 6/2019)		From [REDACTED] 8/16/2019: [REDACTED] mentioned the syringes + needles had been found. Neither have been used on life animals for +6 months (syringes), I mostly used these to make the ketamine/xylazine mix for the UDD mice. Both syringes and needles have been removed from the UAC facility and will be used for laboratory assays. I have not had many surgeries at the [REDACTED] facility, maybe 3x in the last 6 months, so I have slacked off somewhat in keeping track of supplies in room [REDACTED]. I'll review all the disposables and make a list with expiration dates.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* <u>NIH/NIBLI</u> <u>USDA?</u> <u>UAC</u>					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/19/19	
Expired needles 28G (exp 6/19)		From [REDACTED] 8/19: I looked through our supplies in room [REDACTED] but I cannot locate Expired needles 28G (exp 6/19). The only thing similar were 28 ½ gauge syringes but there is no expiration on them. Could you please clarify what you found?					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* <u>NIH/NIEHS; NIH/NI</u> <u>USDA?</u> <u>UAC</u>					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 11/8/19	
Sterile [REDACTED] not labeled properly (inspector did not indicate what was not correct); 2] Expired 25G needles (exp 6/19); 3] Secondary container [REDACTED] labeled with exp date of 10/30/2020 (should be 30 days from mix date (or provide reference for longer date)		From [REDACTED] 11/8/19; All stored items are labeled properly and expired needles/solutions have been discarded through appropriate means (confirmed by [REDACTED] 11/7)					

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* NIH/NHLBI USDA? UAC					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/16/2019	
1] Expired neosporin (inspector did not indicate exp date; discarded by inspectors); 2] Change by date on trash cans 11/31/19 (date does not exist, not sure why dated with "change by", no other date)		From [REDACTED] 8/16/2019: 1. The expiration date is located on the crimped edge of the neosporin tube as this is a commercial product and that is where the manufacturer places the date. The tube was not expired, as the expiration date has been monitored by PI lab (last check July 2019), and should not have been marked as expired or disposed of. As this expiration date notice is discrepant with our records, and no date was recorded by the inspector, please let us know what course of action is required. 2. Trash cans are changed by UAC, and not by the PI lab.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* USDA? UAC					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/16/2019	
Trash can in necropsy cooler dated 6/2018 - needs to be changed out		From [REDACTED] 8/16/2019: A freshly sanitized trash can has already been placed in the cooler.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* NIH/NIAMSD; NIH/ USDA? UAC					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/22/19	
Labeled with [REDACTED] - who is on several protocols; exp paralube ointment (exp 3/2019)		Per [REDACTED] forwarded to [REDACTED] r lab; Has been disposed of					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Incident	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repeat
		Funding Source* NIH/NIA; NIH/NHL USDA? UAC					
Observations		Date Inspected**: 8/2/2019		PI Response		Date Corrected: 8/16/2019	
Expired materials and veterinary drugs: package of sterile drape (inspector did not indicate exp date); providine-iodine swab sticks - 3 boxes (exp 7/2019); alcohol prep pads - 3 boxes (exp 6/19); skin adhesive (exp 7/19)		From [REDACTED] 8/16/2019: how the finding occurred: The last surgeries performed in the suite took place in January of 2019. We had not inventoried items since then as no surgeries were immediately planned. your plan for correcting the finding: All the items have been discarded except the alcohol wipes which have non-animal uses in the lab. We will confirm this next week. how you will prevent it from happening in the future: We will take more careful notice of expiration dates when stocking the room. Please indicate if the expired materials/compounds were used in live animals since the expiration date, and if the materials were disposed of. None of the items were used on mice after the expiration date.					

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? [REDACTED] UAC [REDACTED]
Observations	Date Inspected**: 8/2/2019	PI Response
Unlabeled bottle in fume hood (discarded by inspector)		From [REDACTED] 8/16/2019: Materials stored in procedure rooms are inspected for appropriate storage and labelling at least monthly by UAC staff. Improperly stored/labeled items are removed/discarded from rooms and brought to the attention of PIs utilizing those procedure rooms to prevent repeat recurrence. Pre-printed labels with the minimum necessary information for appropriate labelling are available to researchers in multiple locations within the facility, including each procedure room to facilitate proper labelling.
Date Corrected: 8/16/2019		
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIEHS		USDA? No
Observations	Date Inspected**: 9/30/2019	PI Response
Room is not set up for use. Remove room from protocol until ready for use.		
Date Corrected:		
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NHLBI		USDA? No
Observations	Date Inspected**: 9/30/2019	PI Response
Lab door has nocite that details what's to be done if animals are kept overnight; it states animals are never to be kept >24 hours, but additional information is needed.		
Date Corrected:		
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		From [REDACTED]: While all general benchtop cleaning in lab [REDACTED] and [REDACTED] is done with 70% Ethanol, all surfaces in contact with animals are sterilized with 10% Bleach for a duration of 10 minutes. Equipment is washed in 1% Versa-Clean (alternative brand to Liquinox) and autoclaved when applicable.
Date Corrected: 12/16/19		
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
Date Corrected: 1/6/20		

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PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat

Funding Source* NIH/NIA USDA? No

Observations

Date Inspected**: 10/1/2019

PI Response

Date Corrected: 1/6/20

Multiple [REDACTED] labs using ethanol as a cleaning product

1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH)
2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email.
3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat

Funding Source* NIH/NIA USDA? No

Observations

Date Inspected**: 10/1/2019

PI Response

Date Corrected: 1/6/20

Multiple [REDACTED] labs using ethanol as a cleaning product

1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH)
2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email.
3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat

Funding Source* USDA? No

Observations

Date Inspected**: 10/1/2019

PI Response

Date Corrected: 1/6/20

Multiple [REDACTED] labs using ethanol as a cleaning product

1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH)
2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email.
3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 12/16/19
Multiple [REDACTED] labs using ethanol as a cleaning product		From [REDACTED] 12/16/19" While all general benchtop cleaning in lab [REDACTED] and [REDACTED] is done with 70% Ethanol, all surfaces in contact with animals are sterilized with 10% Bleach for a duration of 10 minutes. Equipment is washed in 1% Versa-Clean (alternative brand to Liquinox) and autoclaved when applicable.

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		Date Corrected: 1/6/20 1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		Date Corrected: 1/6/20 1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab behavior rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* USDA; DoD		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Not in use for animal work, already removed from protocol		Date Corrected:
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NSF; NIH/NEI		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Lab is taking animals up just to tail tip them for genotype. This is not what the space is approved for. PI should be utilizing centralized UAC space for these activities, particularly because [REDACTED] reported [REDACTED]		Date Corrected:
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NILBI		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
documentation of anesthetic regime used or anesthetic monitoring at 15 min intervals non-survival surgical records; [REDACTED] (surgeon) not available for verification		Date Corrected: 12/16/19 From [REDACTED]: 15 min interval anesthetic monitoring record will be transferred from lab notebook to dedicated electronic record file, and printed version will be stored at the surgery room

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* [REDACTED]		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NHLBI		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Not in use for animal work - already removed from protocol		

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS; NIH/N		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS; NIH/N		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] lab behavior rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the [REDACTED] lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
		Funding Source* NIH/NIMH USDA? Yes
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product; Expired gloves		1. In response to the expired sterile gloves that were found in the laboratory: we will use the stickers provided by the IACUC inspectors and label everything that is expired (sterilized more than 6 months ago). 1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
		Funding Source* NIH/NIMH USDA? Yes
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
		Funding Source* NIH/NINDS USDA? Yes
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 1/6/20
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes

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PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIMH		USDA? Yes
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS; NIH/N		USDA? No
Observations	Date Inspected**: 10/1/2019	PI Response
Multiple [REDACTED] labs using ethanol as a cleaning product		1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes
PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*		USDA? No
Observations	Date Inspected**: 10/2/2019	PI Response
Expired drugs within their controlled drug box		We will dispose any expired or unlabeled drugs. All drugs that we will use in the future will be labeled and disposed if expired.

Semi-Annual Inspection - Locations with Resolved Findings [Significant/Potential Noncompliance]

Total: 6

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☐ Minor ☒ Significant ☐ Incident ☐ Non-compliance ☐ Repeat

Funding Source* [REDACTED] USDA? No

Case Number [Incident/Non-compliance] [REDACTED]

Observations **Date Inspected**:** 7/31/2019

1] Dried blood/betadine (not sure which) on stereotaxis; 2] Non-USP epoxy [not approved - USP dental cement and surgical glue are required]

PI Response **Date Corrected:** 8/16/19

From [REDACTED] 8/16/2019: For the issues in room [REDACTED]
 1] I will ask people in my lab to clean the stereotaxic instrument every time they finish the surgery.
 2] Non-USP epoxy. Do you mean the C&B metabond dental cement? This is the dental cement used to secure the optic fiber in intracranial implantation. As I and my colleagues in [REDACTED] (the lab who invented optogenetics) tried many other dental cement to secure the glass optic fibers onto the mouse skull, the fiber or the cement usually fall off the skull after certain amount of time, we have to use multiple bone screws to secure the implantation, all these procedures will make the animal suffer. The C&B Metabond dental cement from Parkell Inc is the only dental cement successfully used in optogenetics and other implantation, we don't have to use bone screw and they never fall off if used correctly. Please let me know if you have any question about this.
 [REDACTED] told me that he has cleaned the fridge, I will make sure that all the vials/bottles are clearly labelled with an expiration date, and all solution expired will be cleaned.
 Epoxy: [REDACTED] clarified with me about Epoxy. He used the epoxy on one of his equipment but not on mice or surgery. I asked him not to leave the epoxy in the animal facility. Sorry for the confusion.

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☐ Minor ☒ Significant ☐ Incident ☒ Non-compliance ☐ Repeat

Funding Source* NIH/NIEHS USDA? No

Case Number [Incident/Non-compliance] [REDACTED]

Observations **Date Inspected**:** 9/30/2019

Confusion over protocol number. Cage card had [REDACTED] but protocol should be [REDACTED].
 [REDACTED] uses urethane to euthanize. Possible non-compliance as urethane only approved for terminal flexion procedure, not euthanasia pre-sedation; not using chem fume hood to reconstitute urethane into solution; does not want to use controlled substances or CO2 (due to lung harvest); should consider avertin or isofluorane as alternative anesthesia prior to tissue harvest

PI Response **Date Corrected:** 11/8/19

From [REDACTED] 11/8/19: Cage cards for protocol [REDACTED] have been transferred to the new protocol number [REDACTED].

PI: [REDACTED] Location: [REDACTED] ☐ SFI ☒ Minor ☒ Significant ☐ Incident ☒ Non-compliance ☐ Repeat

Funding Source* [REDACTED] USDA? [REDACTED]

Case Number [Incident/Non-compliance] [REDACTED]

Observations

Using K-X for mouse anesthesia/euthanasia. This is not approved on the protocol.
 Pentacin expired - used for cell culture, needs to be labeled "Not for use in live animals."

PI Response **Date Corrected:** 9/30/19

Completed with non-compliance [REDACTED]

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Incident <input checked="" type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIAID	USDA? No	Case Number [Incident/Non-compliance] [REDACTED]
Observations	Date Inspected**: 9/30/2019	PI Response Date Corrected: 11/8/19
Rodents are euthanized by dropping into a prefilled chamber. There is no flow meter for euthanasia drug(s)		11/8/19 - "This will be fixed immediately" - can verify during inspection

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Incident <input checked="" type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*	USDA? No	Case Number [Incident/Non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 11/8/19
CO2 euthanasia flow is not regulated		Flow meter has been installed

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIA	USDA? No	Case Number [Incident/Non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response Date Corrected: 10/30/19
Temp/humidity chamber does not have any air flow and is a sealed container. This places mice and rats in an airtight chamber for 5-6 hours.		From PI on current [REDACTED] We evaluated this possibility when we first obtained the equipment 20 years ago. The manufacturer of the equipment told us this unit is not airtight, but is in fact "leaky" to air. We also have cords for our equipment that enter the chamber when (breaking the rubber seals on the door) allows air to enter around these cords. We also acquired a CO2 monitor and found that the levels were not inappropriate. Finally, there are only a few animals in this chamber for a few hours at a time. We are editing the protocol include the CO2 monitoring once again.

Semi-Annual Inspection - Locations with Unresolved Findings

Total: 9

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* DoD	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
PI has two protocols with varying anesthetic protocols and he described basically using animals assigned to each protocol interchangeably		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* DoD	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
PI has two protocols with varying anesthetic protocols and he described basically using animals assigned to each protocol interchangeably		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source*	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
Needs animal welfare sign posted.		

PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIEHS; NIH/	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
Inhalation system in storage during renovation; no current animal use; suggest remove from protocol until ready to use animals; could put inhalation system in UAC [REDACTED] room [REDACTED] as their mice are in [REDACTED] dedicated to [REDACTED]		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS; NIH/	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
Using [REDACTED] for chemical disinfection/sanitization of behavioral apparatus; needs to verify sanitization efficacy or switch to approved sanitization procedure per IACUC guidance 307; see https://us.vwr.com/assetsvc/asset/en_US/id/20961688/contents/ghs_m-9051-04.pdf for product info		

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PI: [REDACTED]	Location: [REDACTED]	<input checked="" type="checkbox"/> SFI <input type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIAID	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 9/30/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
No documents for training personnel in non-survival surgery		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* DoD	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
Multiple [REDACTED] labs using ethanol as a cleaning product		
1) These findings occurred during a general inspection of all methods of sanitation used in the [REDACTED] rooms (70% ETOH) 2) Our plan for correction is to utilize the new approved solutions for sanitation suggested in the attached document from the IACUC inspection results email. 3) In efforts to prevent this in the future, the lab will continue to follow IACUC recommendations for approved sanitation practices as well as training lab personnel on these changes		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NINDS	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 10/1/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
PI indicated ~25% failure rate for rats exposed to 6% O2 for hypoxia, mostly males; if pass out from hypoxia they are euthanized; need to verify failure rate and humane endpoint for this study are on IACUC protocol, which does not appear to include a failure rate for the hypoxia model and states "In our experience with our H/R model, no animals have ever experienced severe clinical signs (i.e., significant lethargy, syncope, pale/blue mucous membranes) that have necessitated early removal from treatment."		

PI: [REDACTED]	Location: [REDACTED]	<input type="checkbox"/> SFI <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Significant <input type="checkbox"/> Incident <input type="checkbox"/> Non-compliance <input type="checkbox"/> Repeat
Funding Source* NIH/NIAID	USDA? No	Case Number [inspection/non-compliance] [REDACTED]
Observations	Date Inspected**: 9/30/2019	PI Response IACUC Deadline for Correction/Action [REDACTED]
[REDACTED] expired April 2019		

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