

Memorandum

To:

From:

Institutional Animal Care and Use Committee

Subject:

Semi-Annual Report of the Program Review and Facility Inspection

Date:

May 13, 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:

While the IACUC feels the program is satisfactory, the committee is concerned about critical infrastructure needs in the animal facilities:

• The growth in personnel, both University Animal Care (UAC) and research, utilizing the animal facility has exceeded the available personnel space within the barrier portion of the facility. The existing small office and lounge are inadequate to accommodate the ~30 personnel working in the facility daily. Internalizing the offices and conference room from the exterior portion of the facility would allow for adequate expansion of the existing personnel space within the barrier. It is estimated that ~\$100,000 will be needed for the remodel.

As significant resources will be required to correct these critical needs, the IACUC has set a 6-month deadline for UAC to present management plans to address this issue to the IACUC for review.

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 May 13, 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:

- Mouse cage census has been steady for about a year.
- Rate adjustment, based upon rate study performed in 2018, went live 4/1/2019.
- The animal suite in the

building, which opened in 2018, is functioning well.





•	The damage to flooring in		which	was	a result	of	construction	activities	and	was	previously
	documented as an inspection	n findi	ng, is be	ing a	ddressed	. '	•				

- Renovated space in building will be opening soon.
- 2 Cage washers to replace the units in and and which are nearing the end of their useful life as described in the Fall 2018 semiannual report, are in the works they will be purchased on capital equipment reserve, and the bid process is started.
- Renovation plans to address insufficient personnel space are finalized, waiting for engineering drawings to determine actual costs move forward.
- Updates to autowater and environmental monitoring systems are being worked on.

The following IACUC programmatic changes were implemented during the review period (April-October 2018):

- New Guidance documents have been published:
 - a. IACUC **Guidance 216** *Rodent Identification*. Provides investigators with guidance on the IACUC's requirements for identification of rodents and suitable non-invasive identification options.
 - b. IACUC **Guidance 217** *Transporting Animals in Personal Vehicles*. Describes the IACUC's expectations and standards for the transportation of animals in vehicles not operated by UAC personnel. This document does not apply to animals used for agricultural purposes.
- General Rodent Surgery Training has transitioned from live in-person class to on-demand video training.

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 spring 2018
- The total number of protocol and amendment submissions has decreased as compared to the same period in spring 2018; though the total number of approved full and abbreviated protocols has increased.
- Total review time is holding steady across all types of submissions.

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 reported 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

Depart	ures from the PHS Policy, the <i>Guide</i> , 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 <i>Guide</i> . No departures were approved for either the PHS Policy or AWAR. Of note:
	Should:
	• 7 renewals and 13 new protocols were approved with a departure from the requirement to use pharmaceutical-grade compounds (<i>Guide</i> , p. 31).
	• 1 renewal protocol was approved with a departure from adequate bedding use (Guide, p. 52).
	• 1 renewal protocol was approved with a departure from housing space not based on performance
	indices (<i>Guide</i> , p. 56).



- 2 renewal protocols were approved with a departure from providing additional enrichment for single-housed animals (*Guide* p. 64)
- 1 renewal protocol was approved with a departure from cleaning and disinfection standards (*Guide*, pp. 70-71).

Deficiencies in the Institution's Animal Care and Use Program

Anima	Care and Use Program Review Date: November 1, 2018
	There were no deficiencies in the program during this reporting period.
X	The Semi-annual Program Review Checklist (attachment 6) identifies programmatic deficiencies for the IACUC and UAC. Of note:
	 Current office/personnel space in animal facility categorized as a Minor finding as space is available, though inadequate. 6-month deadline for plan to address inadequate personnel space to be presented to IACUC for review.
	Otherwise, the overall adherence of the Animal Care and Use Program to federal regulations is excellent.
	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.

Deficiencies in the Institution's Animal Facility

Animal	Facility Inspection Dates: July 26 - August 2, 2018 (animal facilities); October 1-24, 2018 (PI labs)
	There were no deficiencies in the animal facility during this reporting period.
X	The IACUC Semi-Annual Inspection Documents outline the surgical records reviewed (2 PIs) as well as the seven UAC facilities and Iacu Iacu Iacu Iacu Iacu Iacu Iacu Iacu
	The types of findings described on the Inspection Metrics document (attachment 7) 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.
	The Inspection – No Findings document <i>(attachment 8)</i> lists locations where no deficiencies were noted (78% - UAC; 53% - PIs; 0% - records).
	Location and surgical records reviewed with resolved findings or deficiencies are described on the Minor (attachment 9) and Significant (attachment 10) documents.
	Locations with unresolved findings or deficiencies are described on the Unresolved Findings document (attachment 11).



Most findings were classified by the IACUC as Minor or suggestions for improvement (22% - UAC	; 46% - Pls;
100% - records). Significant findings were reported at similar or lower rates than in past inspection of	ycles (0.4%
- UAC; 1.1% - PI; 0% - records).	

Minority Views

\boxtimes	No minority views were submitted or expressed.
	The following minority view was expressed:

Status of AAALAC Accreditation

Continuing full AAALAC accreditation was received on March 27, 2017.



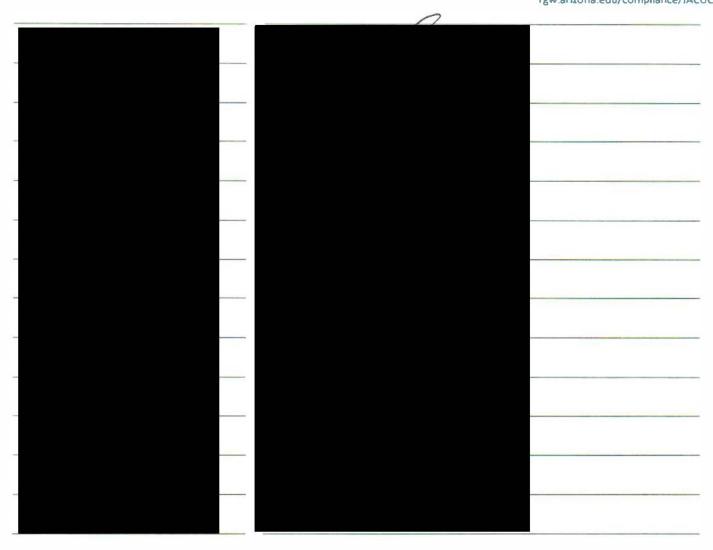


Signatures

IACUC Member Signature









Enclosures

- 1. May 2nd, 2019 Meeting Minutes
- 2. UAC Program Description
- 3. IACUC Program Statistics
- 4. Memoranda of Understanding Summary
- 5. Departures and Exceptions Checklist
- 6. Semi-Annual Program Review Checklist
- 7. IACUC Semi-Annual Inspection Metrics
- 8. IACUC Semi-Annual Inspection Document No findings
- 9. IACUC Semi-Annual Inspection Document Resolved findings (SFI/Minor)
- 10. IACUC Semi-Annual Inspection Document Resolved findings (Significant)
- 11. IACUC Semi-Annual Inspection Document Unresolved findings

IACUC Semi-Annual Meeting Minutes

8:30 am, May 2nd, 2019

<u>Attendees</u>	
Voting Members Present: Chair;	(arr @ 9:11am);
Voting Members Absent:	
Alternate Members Present [non-voting]:	(left @ 9:45am);
Alternate Members Absent:	
Visitors Present [non-voting]: UA UAC Facility Manager -	UA IACUC Associate; UA Quality Assurance Officer
UA Interim Assistant VP for Research; UA UAC Facility Ma	anager – UA Biological Safety Officer (ad hoc)

Meeting was brought to order at 08:36 and quorum confirmed with 12 of 18 members present.

Welcome and Introductions

- 1. The committee and visitors were introduced
- 2. The committee was thanked for their work for and dedication to the IACUC program

Announcement

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. reviewed the changes and status of the UAC program description. Of note:
 - i. The new facility manager of the Phoenix vivarium was introduced.
 - ii. Other staff changes for UAC program were presented.
 - iii. Mouse census has been steady for about a year.
 - iv. AAALACi program description due is due 8/1, with the visit happening in Sept or Oct
 - v. Rate adjustment went live 4/1
 - vi. facility is functioning well. The damage to flooring in is being addressed.
 - vii. Renovated space in building will be opening soon
 - viii. 2 Cage washers are in the works they will be purchased on capital equipment reserve, and bid process is started
 - ix. personnel space is finalized, waiting for engineering drawings to move forward
 - x. Updates to autowater and environmental systems are being worked on

2. Occupational health update

- a. Update on status of Occupational Health program was provided by . Of note:
 - i. Changes to the Occupational Health program are going well. Space has been secured and by Rise equipment in place. Funding is in place.
 - ii. Occ Health will be taking over and adapting the hearing protection program
 - iii. Processes are being streamlined to reduce investigator burden, streamline the animal hazards process, and standardize the non-compliance and declination process.
 - iv. CDC inspections are upcoming, which is impacting response times.
 - v. New medical assistant coming in
- b. Statistics from the Occupational Health program:
 - i. Statistics were presented.

3. IACUC program staff activities update

a. provided an update on IACUC program staff activities. Of note:

- i. With the rapid departure of former IACUC Officer, maintaining the business side of the IACUC office has been the focus, which has been successful.
- ii. New IACUC office staff member was introduced.
- b. The committee thanked the IACUC staff

B. IACUC Executive Session

1. Amendment review:

- * Amendment submitted for full committee review (FCR). Of note:
 - i. Additional activity of collecting additional fluids/tissues at time of euthanasia, which would not impact animal pain and distress.

b. Approved

2. Review of IACUC Program statistics

- - i. There has been slight growth in number of submissions over last six months. Submissions have increased since the same time in 2018.
 - ii. Total time for DMR review is slowly decreasing, with total submission time holding steady
 - iii. Streamlining process has been a positive change overall, and it is expected that the total submission time will continue to trend downward as research staff gets used to new protocol format.

3. The Semiannual Program Review Checklist

- a. The Semiannual Program Review Checklist was reviewed and discussed. Of note:
- b. Members were reminded of categories
- c. Approved:
 - i. Accept report as written, leaving single minor deficiency for update at next meeting

4. The Departures and Exceptions checklist

- a. The Departures and Exceptions checklist was reviewed and discussed.
- b. Approved:
 - i. Accept report as written, no additional changes

5. 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. More UAC locations from previous inspection cycle, and fewer PI locations were inspected.
 - 2. More locations with no findings, in comparison to previous inspection cycle Obtained by Rise
 - Record review. Surgical records were inspected as part of PAM process. PIs are generally following recordkeeping requirements and are implementing suggestions. Additional records will be requested for review in upcoming months.
 - 4. Main trend seemed to be that biosafety cabinets and hoods were out of date this may have been due to lack of available certification service
 - ii. The committee discussed options for removing unused locations from inspection lists, as inspecting locations that haven't seen animal activity and likely won't, is not a good use of time for inspectors or research staff.
 - 1. Brief description of process for determining an inspection location was provided, including attempts to remove unused PI locations, and unwillingness on part of research staff to do so.

- 2. Ease in removing and adding non-UAC locations is key to ensure PIs are willing to make changes.
 - a. Suggestions were offered:
 - i. Ability to change location in to "active" or "inactive" without having to do amendment process
 - ii. Removal and addition of surgical locations by office staff, with the promise that pre-use inspections can happen within 5 days of adding a location back on to protocol
 - iii. If a room isn't used for 6 months, it will be removed from the protocol "automatically" and PI will contact office to add it back on
 - iv. Develop an SOP made widely available to research staff, with details on how and when to contact office to add and remove rooms
 - b. Office staff will develop a plan and present to the committee at a later meeting.
- iii. Winter 2019 inspections of UAC locations were reviewed.
 - 1. 1 location with "Unresolved Findings" was reviewed.
 - a. Approved:
 - i. Accept report as written with work in progress for update at next semi-annual will have
 - 2 locations with resolved findings with significant and potential noncompliance were reviewed. Neither were determined to meet the threshold of noncompliance.
 - a. Approved:
 - i. Accept report as written, no additional changes
 - 3. 64 locations with resolved minor findings and suggestions for improvement were reviewed. Actions already taken to resolve were determined to be sufficient.
 - a. **Approved:**
 - i. Accept report as written, no additional changes
 - 4. 181 locations had no findings
 - a. **Approved**:
 - i. Accept report as written, no additional changes
- iv. Spring 2019 inspections of PI Locations were reviewed.
 - 1. 2 locations with "Unresolved Findings" were reviewed.
 - a. Approved with the following modifications:
 - i. Finding is significant and reaches threshold of non-compliance. PI to respond to findings by 5/10, and reports to the appropriate officials to be submitted.
 - ii. LSN: 325: Minor finding, PI to respond by 5/10
 - 2. 27 locations with resolved minor findings and suggestions for improvement were reviewed.
 - a. It was noted that for guillotine maintenance, labs generally conside Obtained by Rise usage, not performance. In the future, members are asked to look at blade and note if blade is in need of service.
 - b. **Approved**:
 - i. Accept as written, no additional changes.
 - 3. 45 locations had no findings
 - a. **Approved**:
 - i. Accept as written, no additional changes.
- 6. IACUC programmatic changes
 - a. Programmatic changes made in the past six months were reviewed. Of note:
 - i. Online, on-demand, video GRST will be live soon
 - ii. Guidances for rodent identification and transportation of animals were developed and approved

7. Memoranda of Understanding (MOU)

- a. MOUs for sub-awarded activities were reviewed. Of note:
 - i. Explained definition of MOU
 - ii. There are currently 26 UA MOUs and 8 non-UA MOUs active

8. Incidents, Non-Compliance, Adverse Events

- a. A summary of incident, non-compliance and adverse event reporting since last programmatic review was presented.
- b. Approved:
 - i. Accept as written, no additional changes

9. Items from the floor

- a. A requested amendment was discussed. Of note:
 - i. Published CBDL model reports include acute mortality post op, with a 50% mortality rate overall expected.
 - ii. Surgical procedure optimization experiments were performed on 20 SW mice by new surgeon, with 80% of mice surviving to day 21.
 - iii. Based on this success, PI would like to change initial model timeline to a 21 day model for proposed studies that involve C57BL/6 background mice.
 - iv. Discussion focused on surgical outcomes for SW mice not being predictive of outcomes for C57BL/6 mice. The SW mice were overweight/obese at the start of the pilot and lost 3 body condition scores (from 5 to 2). If normal weight C57BL +/- genetic mutations are subjected to same study, the outcomes could be more pronounced and detrimental.
- b. **Approved with the following modifications**: 40 mice approved for CBDL surgery and 21 day survival to start, with weekly reports for 3 weeks after surgery. If C57BL/6 mortality doesn't exceed expected 50% rate, cap can be lifted.

Meeting was adjourned at 10:25 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).

Attending Veterinarian.

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 the procedures of 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

caring for various types of animals. All laboratory rodents are maintained specific pathogen free (SPF), except for certain 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 and 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 cage wash areas until fully trained. Student workers work primarily in cage wash areas and occasionally assist with weekend husbandry care; primarily at the 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 . 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 . ATP Luminometer swabs are applied quarterly to recently sanitized caging and equipment. Samples of drinking water are taken from supply sources every other week at and weekly at and tested for bacteria, and the water supply is checked at least once per week for chlorine level. Pre-filled Innovive water bottles used at 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. 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 animals to 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

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 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

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 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 forwards a memo to the Principal Investigator (cc: IACUC Manager) and requests the PI 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 is required for all non-approved source vendor mice that enter the 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, a purchase order number, 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 cage card database monthly and generating associated invoices for per diem charges. They enter invoices against animal orders placed and during monthly closing activities add these charges and per diem to the invoices using iLab software. Special service charges are imported into the invoicing 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

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 and project codes for later use in analysis and compilation of per diem, animal ordering, and special service rates. RDI Business Services 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. RDI Business Services 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 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 information, personnel files, and leave paperwork and approvals are managed through the central unit. Obtained by Rise **Information Technology:** UAC contracts with) from 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 which is a web-based application that allows Principal Investigators and their staff to view protocol information and order animals. Pls can access historical information that dates back to April 2009, when was implemented at the University of Arizona. System security includes NetID authentication and encrypted connections (HTTPS). Individuals must be on the campus network or using 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 provided by UAC veterinarians 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.

Obtained by Rise

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.

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

Revised April 2019

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,

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 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 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

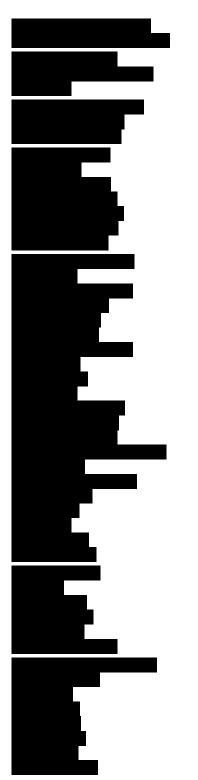
Table 1: Naturai	l Behavior and Habitat of Species Housed in t	the Animal Facility	
Species	Normal Behaviors Exhibited in Captivity	Abnormal/Maladaptive Behaviors	
Cats	Investigative, social, allogrooming and allorubbing	Excessive vocalization, excessive grooming, pacing, paw shaking, staring	
Chickens	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 Ob	tained by f
Ruminants	Social, exploratory,	Excessive aggression, fighting	l
Swine	Social, foraging, exploratory, investigative	Excessive aggression, fighting	

Species	Enrichment			
	 UAC base enrichment 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	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	 Toys, social housing, vegetable treat tubes and bags Mirrors, pool play, plastic shelves to climb on 			
Rat/Hamster/Gerbil	 Social housing and diamond twists Plastic tunnels/tubes and chew blocks 			
Sheep/Calves	House in compatible groups and salt licks			

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.

University Animal Care Personnel:





IACUC PROGRAM STATISTICS

As of: 04/23/2019

I. Active personnel: 1259 total individuals [个 36]

II. Active animal census (cages): 12,177 total cages [个 89]

- 5077 [↑ 178] - 4585 [↓ 199] - 1621 [↑ 29] - 886 [↑ 78]

III. Total Number of PIs [all classifications]: 221 [\uparrow 2] IV. Total Number of Protocols [all classifications]: 295 [\uparrow 11]

V. Full Protocol Statistics:

a. Number of PIs: 185 [个 3]

b. Total number of protocols = 240 [↑8]

1. Number with Approved status = 220

2. Number on hold [administrative] = 0

3. Number Pending = 20 [6 renewals]

Protocols submitted by year

*Figures do not include abbreviated protocol or MOUs.

Psych: 8 [个 3]

Year	Renewals	New	Total	Year	Renewals	New	Total		Year	Renewals	New	Total	Ave Revi	ew [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*	13	18	31	17	37

VI. Abbreviated Protocol Statistics:

- a. Number of PIs: 49
- b. Total number of abbreviated protocols = 54 [\downarrow 1]
 - 1. Number with Approved status = 51
 - 2. Number on hold [administrative] = 1
 - 3. Number Pending = 2

VII. MOU Statistics:

- a. Number of PIs: 15
- b. Total number of UA subawards = $26 \left[\downarrow 4 \right]$
 - 1. Number with Approved status = 26
 - 2. Number Pending = 0
- c. Total number of non-UA subawards = 8

VIII. Amendment Statistics: Amendments submitted by year

Year	#	Year	# Submitted	Year	#	Ave Review	Year	#	Ave Review
	Submitted				Submitted	[Days]		Submitted	[Days]
2007	161	2011	147	2015	218	12	2019	75	21
2008	135	2012	313	2016	183	15			
2009	135	2013	247	2017	236	19			
2010	156	2014	220	2018	230	23			

Obtained by Rise

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	42	3
2016	145	4	2018	134	3			

Spring 2019 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
		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

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	Obtained by Rise

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	Е	N	NA
1a	Responsibility for animal well-being is assumed by all members of the program (Guide, p1) [must]			X
Com	ments:			
1b	Resources necessary to manage program of veterinary care are provided (Guide, p 14) [must]			X
Com	ments:			
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 (Guide, p 14) [must]			Х
Com	ments:			

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

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

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

5.	IACUC Membership and Functions	E	N	NA
5a	Methods for reporting and investigating animal welfare concerns are in place (Guide, p 23) [must]	Ok	otaine	ed by
Com	iments:			

Rise

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

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

8.	Occupational Health and Safety of Personnel	E	N	NA
8a	Program is in place and is consistent with federal, state, and local regulations (Guide, p 17) [must]			Х
Com	ments:			
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> , <u>p 22</u>) [must]			х
Com	ments:			
8b.2	If serum samples are collected, the purpose is consistent with federal and state laws (Guide, p 22) [must]			Х
Com	ments:	•	•	

9.	Investigating & Reporting Animal Welfare Concerns	E	N	NA
9a	Methods for investigating and reporting animal welfare concerns are established (Guide, p 23) [must]			Х
Com	ments:			

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	Ε	N	NA
1a	Veterinary program offers high quality of care and ethical standards (Guide, p 105) [must]			Х
Com	ments:			
1b	Procedures established for timely reporting of animal injury, illness, or disease (Guide, p 114) [must]			Х
Com	ments:	Ob	otain	ed by
1c	Procedures established for veterinary assessment, treatment, or euthanasia (Guide, p 114) [must]			Х
Com	ments:			
1d	Veterinarian is authorized to treat, relieve pain, and/or euthanize (Guide, p 114) [must]			х
Com	ments:			

Rise

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

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3.	Surgery	E	N	NA			
3a	Researchers have appropriate training to ensure good techniques (Guide, p 115) [must]			Х			
Com	Comments:						

4.	Pain, Distress, Anesthesia and Analgesia	Ε	N	NA		
4a	Procedures are in place to assure antinoception before surgery begins (Guide, p 122) [must]			Х		
Com	Comments:					

5.	Euthanasia	E	N	NA
5a	Procedures and training are in place to ensure death is confirmed (Guide, p 124) [must]			Х
Com	ments:			

6.	Drug Storage and Control	Ε	N	NA		
6a	Program complies with federal regulations for human and veterinary drugs (Guide, p 115) [must]			X		
Com	Comments:					
6b	Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide</i> , <u>p 122</u>) [must]			х		
Com	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: (Protocol Exception 10)	E	N	NA			
1a	Animals express natural postures, can turn around, access food and water, and rest away from urine and feces (Guide, p 56) [must]	X					
Com	Comments:						

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

3.	Waste Disposal:	Е	N	NA
3a	Hazardous wastes are rendered safe before removal from facility (Guide, p 73-74) [must]			Х
Comments:				

4.	Emergency, Weekend, and Holiday Animal Care:	EOŁ	taline	edlay	Rise
4a	Veterinary care available after hours, weekends, and holidays (Guide, pp 74, 114) [must]			Х	
Comments:					ī

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			
בוו	Chlorine, chloramines, chemical, and reactive bioproducts are removed or neutralized prior to use in aquatic systems (<i>Guide</i> , pp 78, 86) [must]			х			
Com	Comments:						

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2.	Life Support System:	E	N	NA	
2a	Biofilter is of sufficient size to process bioload (Guide, p 80 [must]			Х	
Comments:					

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

4.	Emergency, Weekend, and Holiday Animal Care:	Ε	N	NA
4a	Veterinary care available after hours, weekends, and holidays (Guide, pp 74, 114) [must]			Х
Com	ments:			

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:	Е	N	NA
1a	Appropriate sensors and ventilation are provided for cryogen gases (Guide, p 147) [must]			Х
Com	ments:			

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> , <u>p 148</u>) [must]			Х		
Com	Comments:					

B. SHOULDSⁱⁱ

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 (Guide, p 29) (AAALAC Report)	Х		
Com	ments:			
1b	Body weight of food/fluid restricted animals are recorded at least weekly (Guide, p 31) (Protocol Exception 3)	Х	4-:	د ما ام
Com	ments:	Ot	itaini	ea by
1c	Daily written records are maintained for food/fluid restricted animals (Guide, p 31) (Protocol Exception 3)			Х
Com	ments:			
1d	Pharmaceutical-grade chemicals and other substances should be used, when available, for all animal-related procedures (<i>Guide</i> , <u>p 31</u>) (<i>Protocol Exception 1</i>)	х	х	
Com	ments: 7 renewals and 13 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)	х		
Com	ments:			

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

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Comments:

3.	Occupational Health and Safety Personnel	E	N	NA	
3a	Program covers all personnel who work in laboratory animal facilities (Guide, p 18)			X	
Com	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 (Guide, p 134)			Х		
Com	ments:					
1b	Separation of species (Guide, p 111)			Х		
Com	ments:					
1c	Separation by disease status (Guide, p 111)			Х		
Com	ments:					
1d	Security and access control (Guide, p 151)			Х		
Com	Comments:					

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

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

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Comi	ments:		
3c	Illumination (Guide, p 47)	Х	
Comi	ments:		
3d	Noise and vibration (<i>Guide</i> , p 49)	Х	
Comi	ments:		

space meets physiologic, behavioral ^{III} , and social ^{IV} needs (<i>Guide</i> , pp.51, 55-63) X comments: Secure environment provided (<i>Guide</i> , p.51) X comments: Id Secure environment provided (<i>Guide</i> , p.51) X comments: Id Flooring is safe and appropriate for species (<i>Guide</i> , p.51) X comments: Id Flooring is safe and appropriate for species (<i>Guide</i> , p.51) X comments: Id Adequate bedding and structures for resting, sleeping, and breeding (<i>Guide</i> , p.52) X X x comments: If Objective assessments of housing and management are made (<i>Guide</i> , p.52) X X comments: Id Socially housed animals can escape or hide to avoid aggression (<i>Guide</i> , p.52) X x comments: If Cage height provides adequate clearance (<i>Guide</i> , p.56) X x x comments: If Rationale ^V for <i>Guide</i> /USDA space exceptions approved by IACUC and based on performance indices (<i>Guide</i> , p. x x x scomments: If Rationale of the Guide of the space exception has based on performance indices (<i>Guide</i> , p. x x x scomments: If Nonhuman primates are socially housed except for scientific, veterinary, or behavioral reasons (<i>Guide</i> , p.58-59) X x x comments: In Nonhuman primates are socially housed except for scientific, veterinary, or behavioral reasons (<i>Guide</i> , p.58-59) X x comments: In Opportunities for release in larger enclosures is considered for single caged nonhuman primates (<i>Guide</i> , p.60) X betained by comments:					
Comments:	4.	Primary Enclosure: (Protocol Exceptions 5 & 10)	Ε	N	NA
b Secure environment provided (Guide, p_51) X Comments: Comments	4a	Space meets physiologic, behavioraliii, and socialiv needs (Guide, pp 51, 55-63)			X
Comments: 10. Durable, nontoxic materials in good repair and no risk of injury (Guide, p.51) 10. X Comments: 10. Adequate bedding and structures for resting, sleeping, and breeding (Guide, p.52) 10. X Comments: 10. Adequate bedding and structures for resting, sleeping, and breeding (Guide, p.52) 10. X Comments: 1 renewal protocol where animals are housed without bedding [metabolic caging] 10. Objective assessments of housing and management are made (Guide, p.52) 10. X Comments: 10. Socially housed animals can escape or hide to avoid aggression (Guide, p.55) 10. X Comments: 1 renewal protocol using special caging specifically to prevent avoidance of aggression for social defeat 10. Cage height provides adequate clearance (Guide, p.56) 10. X Comments: 11. Rationale* for Guide/USDA space exceptions approved by IACUC and based on performance indices (Guide, p. S) 12. So) 13. Rationale* for Guide/USDA space exception not based on performance indices (Guide, p. S) 14. Domments: 1 renewal protocol with space exception not based on performance indices 15. So) (Protocol Exceptions 2, 5, & 10) 16. Nonhuman primates are socially housed except for scientific, veterinary, or behavioral reasons (Guide_p. 58-59) 17. X 18. Nonhuman primates are socially housed except for scientific, veterinary, or behavioral reasons (Guide_p. 58-59) 18. Single housing of nonhuman primates is for shortest duration possible (Guide, p. 60) 18. X Comments: 19. Single housing of nonhuman primates is for shortest duration possible (Guide, p. 60) 18. X Comments: 19. Opportunities for release in larger enclosures is considered for single caged nonhuman primates (Guide, p. 60) 18. X Comments: 19. Agricultural animals are housed socially (Guide, p. 60) 18. X Comments: 19. Agricultural animals are housed socially (Guide, p. 60) 18. X To object the sextendary of the sextend	Com	ments:			
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Flooring is safe and appropriate for species (<i>Guide</i> , p_51) Flooring is safe and appropriate for species (<i>Guide</i> , p_51)	Com	ments:			
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	Com	ments:			
Comments:	4р	Foods troughs and water devices for agricultural animals allow access for all animals (Guide, p 60)			X
	Com	ments:			

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)			х
Com	ments:			
5b	Novelty of enrichment is considered (<i>Guide</i> , p 53)	Х		
Com	ments:			
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)			х

Rise

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

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

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

Rise

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

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Com	ments:			
8g	Rotation of stocks (Guide, p 66)			Х
Com	ments:			
9.	Water:	E	N	NA
9a	Ad libitum (Guide, pp 67-68) (Protocol Exception 3)	X		
Com	ments:			
9b	QC procedures (<i>Guide</i> , pp 67-68)			X
Com	ments:			
	T			
	Bedding and Nesting Materials:	E	N	NA
	Species appropriate (Guide, pp 68-69) (Protocol Exception 10)	X	<u> </u>	<u></u>
	ments:			
10b	Keep animals dry (Guide, pp 68-69) (Protocol Exception 10)	X	<u> </u>	
	ments:			
10c	QC procedures (<i>Guide</i> , pp 68-69)		<u> </u>	X
	ments:			
10d	Minimizes scientific variables (<i>Guide</i> , pp 68-69)			X
Com	ments:			
		E	N	NA
11a	Frequency of bedding/substrate change (Guide, p 70)	X		
	ments:			
	Cleaning and disinfection of microenvironment (<i>Guide</i> , pp 70-71) (Protocol Exceptions 6 & 7)	X	X	
	ments: 1 renewal protocol with extended period of microenvironment cleaning			
11c	Cleaning and disinfection of macroenvironment (Guide, p.72)		$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	X
Com	ments:			
11d	Assessing effectiveness (Guide, p 73)		$oldsymbol{ol}}}}}}}}}}}}}}}}}}$	X
Com	ments:			
12.	Waste Disposal:	E	N	NA
	Procedures for collection (<i>Guide</i> , pp 73-74)		<u> </u>	X
	ments:			
	Procedures for storage and disposal (Guide, pp 73-74)			X
	ments:			
	Animal carcasses (Guide, pp 73-74)			X
Com	ments:	O l	b tain	ed b
13.	Pest Control:	E	N	NA
	Regularly scheduled (<i>Guide</i> , <u>p 74</u>)		<u> </u>	X
	ments:			
	Documented program including control of rodent pests and insecticide use (Guide, p 74)		<u></u>	X
Com	ments:			
14.	Emergency, Weekend, and Holiday Animal Care:	E	N	NA
	Care provided by qualified personnel every day (<i>Guide</i> , p 74)			X
	ments:			
14b	Provision for accessible contact information (<i>Guide</i> , p. 74)			Х

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

15.	Identification:	E	N	NA
15a	Cage/rack cards contain required information (Guide, p 75)			Х
Com	ments:			
15b	Genotype information included, and standardized nomenclature used when applicable (Guide, p 75)			Х
Com	ments:			

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

17.	Breeding Genetics and Nomenclature:	Ε	N	NA
17a	Appropriate genetic records, management, and monitoring procedures (Guide, p 76)			X
Com	ments:			
17b	Phenotypes that affect wellbeing are reported to IACUC and effectively managed (Guide, p 77)			X
Com	ments:			

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

19.	Personnel:	FO	btain	ed by	Rise
19a	Adequate space for locker rooms, administration, and training (Guide, p 135)			х	
Comi	ments:				

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:	Ε	N	NA
1a	Animal areas separate from personnel areas (Guide, p 134)			X
Com	ments:			

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1b	Separation of species (Guide, p 111)			Х	
Com	Comments:				
1c	Separation by disease state (Guide, p 111)			Х	
Com	ments:				
1d	Security and access control (Guide, p 111)			Х	
Com	Comments:				

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

3.	Water Quality:	E	N	NA
3a	Standards for acceptable quality are established (Guide, p 78)			X
Com	ments:			

4.	Life Support System:	E	N	NA	
4a	Water source is based on appropriate controls and research requirements (Guide, p 79)	OŁ	taine	X	Rise
Com	Comments:			50 15 y	Misc

5.	Temperature, Humidity, and Ventilation/Illumination/Noise and Vibration:	Ε	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, <u>81</u>)			Х			
Comments:							
5c	Illumination (Guide, pp 47, 81)			Х			
Com	Comments:						
5d	Noise and vibration (<i>Guide</i> , pp 49, 81)			Х			
Com	Comments:						

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

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

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

Rise

9.	Substrate:	E	N	NA
9a	Amount, type, and presentation of substrate is appropriate for the system and the species (Guide, p.85)			Х
Со	mments:			

1	10. Sanitation, Cleaning, and Disinfection:	E	N	NA

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	Frequency of tank/cage cleaning and disinfection is determined by water quality, permits adequate viewing and health monitoring (<i>Guide</i> , <u>p 86</u>)		х				
Com	Comments:						
10b	Cleaning and disinfection of macroenvironment (Guide, p.86)		Х				
Com	Comments:						

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

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

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

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

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

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

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Comments:

17.	Personnel:	E	N	NA		
17a	Adequate space for locker rooms, administration, and training (Guide, p 135)			X		
Com	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 (Guide, p 143)			Х
Com	nments:	•		•
1b	Cage-washing equipment meets need (Guide, p 143)			Х
Com	nments:	•		
1c	Doors, windows, floors, drainage, walls, and ceilings (Guide, pp 136-138)			Х
Com	nments:			
1d	Convenient to animal area areas/ waste disposal (Guide, p 143)			Х
Com	nments:			
1e	Ease of access (including door size) facilitates use (Guide, p 143)			Х
Com	nments:			
1f	Sufficient space for staging and maneuvering (Guide, p 143)			Х
Con	nments:			
1g	Safety precautions/clothing/equipment used for waste disposal/prewash/acid wash (Guide, p 143)			Х
Com	nments:			
1h	Traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (<i>Guide</i> , <u>p 143</u>)			х
Com	nments:			
1i	Insulation and/or sound attenuation present as needed (Guide, p 143)			Х
Con	nments:			
1j	Utilities are appropriate (<i>Guide</i> , <u>p 143</u>)			Х
Com	nments:			
1k	Ventilation meets heat and humidity load (<i>Guide</i> , <u>p 143</u>)			Х
Com	nments:			
11	Safety features (e.g., SOPs, warning signs, eyewash stations) are in use (Guide, p 143)			Х
Com	nments:			
1m	Functioning safety devices to prevent entrapment in washer/sterilizers (Guide, p 143)		منون	Х
Com	nments:		otain	eu D
1n	Cage wash temperatures are monitored and records are available (Guide, p 73)			Х
Com	nments:			
10	Appropriate clean cage storage (Guide, p 141)			Х
Com	nments:			

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 (Guide, p 144)		x
Com	ments:		
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)		х
Com	ments:		
1c	Appropriate drug storage, control, expiration date monitoring (Guide, pp 115, 122)		Х
Com	ments:		
1d	Safe sharps disposal system (Guide, p 74)		Х
Com	ments:		
1e	Adequate records of anesthesia and perioperative care (Guide, p 122)		Х
Com	ments:		
1f	Aseptic procedures in use for all survival surgery (Guide, pp 118-119)		Х
Com	ments:	•	•

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

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

4.	Animal Preparation:	E	N	NA
4a	Contains large sink to facilitate cleaning of animal and operative site (Guide, p 145)			X
Com	ments:			

5.	Surgeon Scrub:	Ε	N	NA
5a	Outside operating room, non-hand-operated sink (Guide, p 145)			Х
Com	ments:			

6.	Postoperative Recovery:	E	N	NA	

6a	Allows adequate observation, easily cleaned, supports physiologic functions, and minimizes risk of injury (Guide, p 145)		X
Com	nments:		

7.	Dressing Area:	Е	N	NA		
7a	Place for personnel to change (Guide, p 145)			Х		
Com	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 (<i>Guide</i> , p 134) (Access Satellite Housing)	х		
Com	ments:			
1b	Drug storage, control, and expiration dates (Guide, pp 115, 122)			Х
Com	ments:			
1c	Sharps disposal (Guide, p 74)			Х
Com	ments:			
1d	Anesthetic monitoring (Guide, p 120)			Х
Com	ments:			
1e	Scavenging of anesthetic gases (Guide, p 21)			Х
Com	ments:			
1f	Safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders) are in place (Guide, p 19)			Х
Com	ments:			
1g	Carcass disposal (<i>Guide</i> , pp 73-74)			х
Com	ments:			

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)			Х
Com	iments:			
2b	Records of peri-operative care (<i>Guide</i> , <u>p 120</u>)			Х
Com	nments:			
2c	Aseptic procedures (<i>Guide</i> , pp 118-119)			Х
Com	iments:	•		
2d	Autoclave monitoring procedures (<i>Guide</i> , pp 119, 145)	Ol	tain	ed ^X by
Com	iments:			
2e	Storage of autoclaved materials (<i>Guide</i> , p 145)			Х
Com	nments:			
2f	Cold sterilization procedures are appropriate (Guide, p 119)			Х
Com	iments:			

Rise

3.	Imaging/Whole Body Irradiation:	Ε	N	NA
3a	Location of resource limits contamination risk (<i>Guide</i> , <u>p 147</u>)			X
Com	ments:			
3b	Appropriate transportation methods are in place (Guide, p 147)			X
Com	ments:			

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3c	Gas anesthesia provision, scavenging, and monitoring are appropriate (Guide, p 147)		х
Com	ments:		
3d	Imaging console is located away from radiation source (Guide, p 147)		Х
Com	ments:		

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

II. Endnotes

- -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.

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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.

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..."

Part 3 Subpart D 3.81 – "...research facilities must develop, document, and follow and 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)."

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	Α	М	S	С	R	NA
1a	Responsibility for animal well-being is assumed by all members of the program (Guide, p1) [must]	х					
Comr	nents:						
1b	IO has authority to allocate needed resources (Guide, p 13)	х					
Comr	nents:						
1c	Resources necessary to manage program of veterinary care are provided (Guide, p 14) [must]	х					
Comr	nents:						
1d	Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> (<i>Guide</i> , pp 11, 15)		x			х	
	ent office/personnel space in animal facility categorized as a minor finding as space is available, Response for Spring 2019:	tho	ugh ii	nade	quat	e.	,
1	e projects/needs were conveyed to VPR/IO in December 2018 with rough cost estimates. She asked Led capital depreciation and other funds available to UAC.	JAC ¹	to de	vise	a pla	n th	at
thoso	UAC is awaiting engineering plans and final renovation estimate from FM. Informed today t in 3 weeks. Can fund from UAC auxiliary (recharge) account if project cost <\$100,000.	hat	we sh	noul	d exp	ect	
1e	Program needs are regularly communicated to IO by AV and/or IACUC (<i>Guide</i> , p 13)	х					
Comr	nents:						-
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 (<i>Guide</i> , <u>p 14</u>) [must]	х					
Comr	nents:						
1g	Inter-institutional collaborations are described in formal written agreements (Guide, p 15)	х					
Comr	nents:						
1h	Written agreements address responsibilities, animal ownership, and IACUC oversight (Guide, p 15)	х					
Comr	nents:						

2.	Disaster Planning and Emergency Preparedness	Α	М	S	С	R	NA
2a	Disaster plans for each facility to include satellite locations are in place (Guide, p 35, p 75) [must]	х					
Com	ments:						
2b	Plans include provisions for euthanasia (Guide, p 35) [must]	х					
Com	ments:						
2c	Plans include triage plans to meet institutional and investigators' needs (Guide, p 35)	x					
Com	ments:						
2d	Plans define actions to prevent animal injury or death due to HVAC or other failures (Guide, p 35)	x					
Com	ments:						
2 e	Plans describe preservation of critical or irreplaceable animals (<i>Guide</i> , <u>p 35</u>)	x					
Com	ments:				Ol	otaiı	ned l
2f	Plans include essential personnel and their training (Guide, p 35)	x					
Com	ments:						
2g	Animal facility plans are approved by the institution and incorporated into overall response plan (<i>Guide</i> , <u>p 35</u>)	x					
Com	ments:						
2h	Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (<i>Guide</i> , <u>p 35</u>)	x					
Com	ments:						

3.	IACUC	Α	М	S	С	R	NA
3a	Meets as necessary to fulfill responsibilities (Guide, p 25) [must]	х					
Comr	ments:						

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3b	IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (Guide, p 26) [must]	х					
Com	ments:						
3c		\ \ \					=
	Continuing IACUC oversight after initial protocol approval is in place (<i>Guide</i> , <u>p 33</u>) ments:	Х					
3 d	IACUC evaluates the effectiveness of training programs (Guide, p 15)	х	1	Т			
	ments:	_ ^					
COIII	ments.						
4.	IACUC Protocol Review – Special Considerations	Α	М	S	С	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	x					
	toxicologic effects, organ or system failure, and models of cardiovascular shock (Guide, p 27)						
Com	ments:						
4b	For pilot studies, a system to communicate with the IACUC is in place (Guide, <u>p 28</u>)	Х					
Com	ments:						
4c	For genetically modified animals, enhanced monitoring and reporting is in place (Guide, p 28)	Х					
Com	ments:						
4d	Restraint devices are justified in the animal use protocols (Guide, p 29) [must]	Х					
Com	ments:						
4e	Alternatives to physical restraint are considered (Guide, <u>p 29</u>)	Х					
	ments:						
4f	Period of restraint is the minimum to meet scientific objectives (<i>Guide</i> , <u>p 29</u>)	Х					
	ments:			1			
4g	Training of animals to adapt to restraint is provided (Guide, p 29)	Х					
	ments:			1			
4h	Animals that fail to adapt are removed from study (<i>Guide</i> , <u>p 29</u>)	Х					
	ments:		_	1			
4i	Appropriate observation intervals of restrained animals are provided (Guide, p 29)	Х					
	ments:	1	_	1			
4 <u>j</u>	Veterinary care is provided if lesions or illness result from restraint (<i>Guide</i> , <u>p 30</u>) [must]	Х					
	ments:	l		1	1		
4k	Explanations of purpose and duration of restraint are provided to study personnel (Guide, p 30)	Х					
_	ments:	T		1			
41 Com	Multiple surgical procedures on a single animal are justified and outcomes evaluated (<i>Guide</i> , p 30)	X					
	ments: Major versus minor surgical procedures are evaluated on a case-by-case basis (<i>Guide</i> , <u>p 30</u>)	V					
4m	ments:	X					
4n	Multiple survival procedure justifications in non-regulated species conform to regulated species						
	standards (Guide, p 30)	х					
	ments:						
40	Animals on food/fluid restriction are monitored to ensure nutritional needs are met (Guide, p 31)	Х					
	ments:				1	1	
4p	Body weights for food/fluid restricted animals are recorded at least weekly (Guide, p 31)	Х					
_	ments:	1	_				
4q	Daily written records are maintained for food/fluid restricted animals (Guide, p 31)	Х	<u> </u>		Ol	otain	<u>ed</u>
	ments:	1	1	l		1	
4r	Pharmaceutical grade chemicals are used , when available, for animal-related procedures (Guide, p	١.,	1			1 1	ļ

4v	Toe-clipping only used when no alternative, performed aseptically and with pain relief ($Guide, \underline{p}$ 75)	х			
Comn	nents:				

5.	IACUC Membership and Functions	Α	М	S	С	R	NA
5a	IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, IV.A.3.)	х					
Com	ments:						•
5b	Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab animal user	x					
	(Guide, <u>p 24</u>) ⁱⁱ	X					
Com	ments:						
5c	IACUC authority and resources for oversight and evaluation of institution's program are provided	x					
	(Guide, <u>p 14</u>)						
Com	ments:						
5d	IACUC conducts semiannual evaluations of institutional animal care and use program (PHS Policy,	x					
	<u>IV.B.</u>)						
Com	ments:						
5e	Conducts semiannual inspections of institutional animal facilities (PHS Policy, IV.B.)	Х					
	ments:						
5f	IACUC organizationally reports to the Institutional Official (PHS Policy, IV.A.1.b.)	Х					
Com	ments:						
5g	Methods for reporting and investigating animal welfare concerns are in place (Guide, p 23) [must]	Х					
Com	ments:						
5h	Reviews and investigates concerns about animal care and use at institution (PHS Policy, IV.B.)	Х					
Com	ments:						
5i	Procedures are in place for review, approval, and suspension of animal activities (PHS Policy,	x					
	IV.B.)						
Com	ments:						
5j	Procedures are in place for review and approval of significant changes to approved activities (PHS	x					
	Policy, <u>IV.B.</u>)						
Com	ments:						
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) (Guide, p 27-	x					
	<u>32</u>)						
Com	ments:					•	
51	Requests for exemptions from major survival surgical procedure restrictions are made to	x					
	USDA/APHIS ^v (<i>Guide</i> , <u>p 30</u>) <mark>[must]</mark>						
Com	ments:						

6.	IACUC Training	Α	М	S	С	R	NA	
6a	All IACUC members should receive:							
6a1	Formal orientation to institution's program (Guide, p 17)	Х						
Comn	nents:							
6a2	Training on legislation, regulations, guidelines, and policies (Guide, p 17)	Х						
Comn	nents:				٥ŀ	stoi:	5 00	by Ri
6a3	Training on how to inspect facilities and labs where animal use or housing occurs (Guide, p 17)	Х			O	ıan	leu	oy Ki
Comn	nents:							
6a4	Training on how to review protocols as well as evaluate the program (Guide, p 17)	Х						
Comn	nents:						•	
6a5	Ongoing training/education (Guide, p 17)	Х						
Comn	nents:						•	

7.	IACUC Records and Reporting Requirements ^{vi}	Α	M	S	С	R	NA
7a	Semiannual report to the IO (PHS Policy, IV.B.):						
7a.1	Submitted to IO every 6 months	Х					
Comme	ents:						

7a.3	Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT- OD-05-034)	x						
Comm	ents:							
7a.4	Describes IACUC-approved departures from the <i>Guide</i> or PHS Policy and the reasons for each departure ^{vii}	х						
Comm	ents:							
7a.5	Distinguishes significant from minor deficiencies	х						
Comm	ents:							
7a.6	Includes a plan and schedule for correction for each deficiency identified viii	х						
Comm	ents:						•	1
7b	Reports to OLAW (PHS Policy, IV.F.):							1
7b.1	Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	х						
Comm								
7b.2	Promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or PHS Policy noncompliance (NOT-OD-05-034)	х						
Comm	ents:						•	
7b.3	Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT- OD-05-034)	х						
Comm	ents:							
7c	Reports to U.S. Department of Agriculture (USDA) or Federal funding agency ^{ix} :							1
7c.1	Annual report to USDA contains required information including all exceptions/exemptions	х						
Comm	ents:						•	1
7c.2	Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	х						
Comm	ents:							
7c.3	Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	х						
Comm	ents:							
7c.4	Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	х						
Comm	ents:							
7d	Records:							
7d.1	IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	х						
Comm	ents:							
7d.2	Records of IACUC reviews of animal activities include all required information ^x	х						
Comm	ents:							
7d.3	Records of IACUC reviews are maintained for 3 years after the completion of the study	х						
Comm	ents:						•	
8.	Veterinary Care (See also next section – Veterinary Care)	Α	M	S	С	R	NA	1
8a	An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place							d
-	including backup veterinary care ^{xi}	X					l	
Comm					<u> </u>	otaiı	10 0	by
8b	Veterinary access to all animals is provided (Guide, p 14) [must]	х						•
Comm				1		L		
8c	Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (<i>Guide</i> , p 14) [must]	х						•
Comm			1	1	1			1
8d	Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (Guide, <u>p 5</u>) [must]	х						
Comm				ı				
8e	Veterinarian provides consultation when interventional control is not possible (Guide, p 5) [must]	х						
Comm	ents:							

Promptly advises OLAW of serious/ongoing Guide deviations or PHS Policy noncompliance (NOT-

Х

7a.2

8f

Comments:

OD-05-034)

If part time /consulting veterinarian, visits meet programmatic needs (Guide, p 14)

Comme	ents:				
8g	Regular communication occurs between veterinarian and IACUC (Guide, p 14)	х			
Comme	ents:				
8h	Veterinarian(s) have experience and training in species used (Guide, p 15) [must]	х			
Comme	ents:				
8i	Veterinarian(s) have experience in facility administration/management (Guide, p 15)	х			
Comme	ents:				

9.	Personnel Qualifications and Training	Α	M	S	С	R	NA	
9a	All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory a included: [must]	anim	al sci	ence.	. Per	sonn	el	
9a.1	Veterinary/other professional staff (<i>Guide</i> , p 15-16)	х						
Comm								
9a.2	IACUC members (Guide, p 17)	х						
Comm		_						
9a.3	Animal care personnel (<i>Guide</i> , <u>p 16</u>)	х						
Comm	ents:							
9a.4	Research investigators, instructors, technicians, trainees, and students (<i>Guide</i> , pp 16-17)	х						
Comm	ents:							
9b	Continuing education for program and research staff provided to ensure high quality care and reinforce training (<i>Guide</i> , pp 16-17)	х						
Comm	ents:							
9с	Training is available prior to starting animal activity (Guide, p 17)	х						
Comm	ents:							
9d	Training is documented (<i>Guide</i> , <u>p 15</u>)	х						
Comm	ents:							
9e	Training program content includes: (Guide, p 17)							
9e.1	Methods for reporting concerns (Guide, p 17)	х						
Comm	ents:							
9e.2	Humane practices of animal care (e.g., housing, husbandry, handling) xii	х						
Comm								
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</i> , p 17) ^{xiii}	x						
Comm								
9e.4	Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)	х						
Comm								
9e.5	Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)	х						
Comm								
9e.6	Use of hazardous agents, including access to OSHA chemical hazard notices where applicable (Guide, p 20)	x						
Comm			1				\neg	
9e.7	Animal care and use legislation (<i>Guide</i> , p 17)	х						
Comm		-	1	ıl				
9e.8	IACUC function (<i>Guide</i> , <u>p 17</u>)	х			OF	otain	ed h	v P
Comm			1	ıl		, call	Ju	יו עי
9e.9	Ethics of animal use and Three R's (Guide, p 17)	х						
Comm		-						

10.	Occupational Health and Safety of Personnel	Α	М	S	С	R	NA
10 a	Program is in place and is consistent with federal, state, and local regulations (Guide, p 17) [must]	Х					
Comm	ents:						
10b	Program covers all personnel who work in laboratory animal facilities (Guide, p 18)	Х					
Comm	ents:						
10c	Changing, washing, and showering facilities are available as appropriate (Guide, p 19)	Х					
Comm	ents:						
10d	Hazardous facilities are separated from other areas and identified as limited access (Guide, p 19)	Х					

Comm	ents:]
10e	Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special							1
	precautions, animal allergies) (<i>Guide</i> , p 20)	X						
Comm	ents:							
10f	Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are							
	in place (Guide, p 21)	X						
Comm	ents:							
10g	Personal Protective Equipment for the work area is appropriate and available (Guide, p 21)	Х						
Comm	ents:							
10h	Program for medical evaluation and preventive medicine for personnel includes:							
10h.1	Pre-employment evaluation including health history (Guide, p 22)						Х	
Comm	ents:							
10h.2	Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (Guide, p 22)	х						
Comm	ents:							
10h.3	Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (Guide, p 23)	х						
Comm	-							
10h.4	Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (Guide, p	,,						
	23)	Х						
Comm	ents:							
10h.5	Promotes early diagnosis of allergies including preexisting conditions (Guide, p 22)	х						
Comm	ents:							
10h.6	Considers confidentiality and other legal factors as required by federal, state and local	l ,						
	regulations (Guide, p 22) [must]	Х						
Comm	nents:							
10h.7	If serum samples are collected, the purpose is consistent with federal and state laws (Guide, p	×						
	22) [must]	^						
Comm	ents:							
10i	Waste anesthetic gases are scavenged (Guide, p 21)	Х						_
Comm	ents:							
10j	Hearing protection is provided in high noise areas (Guide, p 22)	Х						
Comm	ents:							
10k	Respiratory protection is available when performing airborne particulate work (Guide, p 22)	Х						
Comm								
10l	Special precautions for personnel who work with nonhuman primates, their tissues or body fluid	ls in	clude	e:				
101.1	Tuberculosis screening provided for all exposed personnel (Guide, p 23)	Х						
Comm								
101.2	Training and implementation of procedures for bites, scratches, or injuries associated with	×						
	macaques (Guide, p 23)							
Comm								
101.3	PPE is provided including gloves, arm protection, face masks, face shields, or goggles (<i>Guide</i> , <u>p</u>	×						
	<u>21</u>)							
Comm								
101.4	Injuries associated with macaques are carefully evaluated and treatment implemented (Guide, p	×						
	<u>23</u>)							
Comm					-Oł	tair	ned-	bv
10m	Occupational safety and health of field studies is reviewed by OSH committee or office (<i>Guide</i> , <u>p</u> 32)	х						- 1
Comm			1					
2011111	CITO.							1
11.	Personnel Security	Α	M	S	С	R	NA	ı
	•		IVI	3		IX	IVA	1
11 a	Preventive measures in place include pre-employment screening, and physical, and IT security	v				1	l	1

11.	Personnel Security	Α	М	S	O	R	NA
11a	Preventive measures in place include pre-employment screening, and physical, and IT security (<i>Guide</i> , <u>p 23</u>)	х					
Comm	ents:						

12.	Investigating & Reporting Animal Welfare Concerns	Α	М	S	С	R	NA
	Preventive measures in place include pre-employment screening, and physical and IT security	х					
	(Guide, <u>p 23)</u>						

Comm	nents:					
12b	Reported concerns and corrective actions are documented (Guide, p 24)	х				
Comm	nents:					
12c	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (<i>Guide</i> , p 24)	х				
Comm	nents:					
12c.1	Includes multiple contacts (Guide, p 24)	х				
Comm	nents:					
12c.2	Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (<i>Guide</i> , <u>p</u> <u>24</u>)	x				
Comm	nents:	•	•	•		

A = acceptable

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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

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R = Repeat

NA = not applicable

1.	Clinical Care and Management	Α	М	S	С	R	NA
1a	Veterinary program offers high quality of care and ethical standards (Guide, p 105) [must]	Х					
Comm	ents:						
1b	Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling,						
	treatment, anesthesia, analgesia, and euthanasia (Guide, p 106)	Х					
Comm	ents:						
1c	Veterinarian provides oversight to surgery and perioperative care (Guide, p 106)	х					
Comm	ents:						
1d	Veterinary care program is appropriate for program requirements (Guide, pp 113-114)	х					
Comm	ents:						
1e	Veterinarian(s) is familiar with species and use of animals and has access to medical and	l					
	experimental treatment records (Guide, p 114)	X					
Comm	ents:						
1f	Procedures to triage and prioritize incident reports are in place (Guide, p 114)	х					
Comm	ents:						
1g	Procedures are in place to address:						
1g.1	Problems with experiments to determine course of treatment in consultation with	l					
	investigator(Guide, p 114)	X					
Comm	ents:						
1g.2	Recurrent or significant health problems with the IACUC and documentation of treatments and	١.,					
	outcomes (Guide, p 114)	X					
Comm	ents:						
1g.3	Veterinary review and oversight of medical and animal use records (Guide, p 115)	х					
Comm	ents:						
1h	Procedures established for timely reporting of animal injury, illness, or disease (Guide, p 114)	١.,					
	[must]	X					
Comm	ents:						
1i	Procedures established for veterinary assessment, treatment, or euthanasia (Guide, p 114)						
	[must]	Х					
Comm	ents:						
1j	Veterinarian is authorized to treat, relieve pain, and/or euthanize (Guide, p 114) [must]	х					
Comm	ents:						

2.	Animal Procurement and Transportation/Preventive Medicine	Α	М	S	С	R	NA	
2a	Procedures for lawful animal procurement are in place (Guide, p 106) [must]	Х						
Comme	ents:							
2b	Sufficient facilities and expertise are confirmed prior to procurement (Guide, p 106)	Х						
Comme	ents:				OŁ	ıtair	hed	by Rise
2c	Procurement is linked to IACUC review and approval (Guide, p 106)	х			•	, tan		Jy Mico
Comme	ents:							
2d	Random source dogs and cats are inspected for identification (<i>Guide</i> , <u>p 106</u>)						Х	
Comme	ents:							
2 e	Population status of wildlife species is considered prior to procurement (<i>Guide</i> , <u>p 106</u>)	Х						
Comme	ents:							
2f	Appropriate records are maintained on animal acquisition (Guide, p 106)	х						
Comme	ents:							
2g	Animal vendors are evaluated to meet program needs and quality (Guide, p 106)	х						
Comme	ents:							
2h	Breeding colonies are based on need and managed to minimize numbers (Guide, p 107)	Х						
Comme	ents:							

2i	Procedures for compliance with animal transportation regulations, including international	х					
	requirements, are in place (Guide, p 107) [must]						
	nents:						
2j	Transportation is planned to ensure safety, security and minimize risk (Guide, p 107)	Х					
Comn	nents:						
2k	Movement of animals is planned to minimize transit time and deliveries are planned to ensure	×					
	receiving personnel are available (Guide, pp 107-108)	^					
Comn	nents:						
21	Appropriate loading and unloading facilities are available (Guide, p 109)	Х					
Comn	nents:						
2m	Environment at receiving site is appropriate (Guide, p 109)	Х					
Comn	nents:						
2n	Policies in place on separation by species, source, and health status (Guide, pp 109, 111-112)	Х					
Comn	nents:						
2o	Procedures in place for quarantine to include zoonoses prevention (Guide, p 110)	х					
Comn	nents:						
2р	Quarantined animals from different shipments are handled separately or physically separated						
	(Guide, p 110)	X					
Comn	nents:						
2q	Procedures in place for stabilization/acclimation (Guide, pp 110-111)	х					
Comn	nents:			•			
2r	Policies in place for isolation of sick animals (Guide, p 112)	х					
Comn	nents:			•		•	•
2 s	Program is in place for surveillance, diagnosis, treatment and control of disease to include daily						
	observation (<i>Guide</i> , p 112)	X					
Comn	nents:			•		•	
2t	Diagnostic resources are available for preventive health program (Guide, p 112)	х					
Comn	nents:						
3.	Surgery	Α	M	S	С	R	NA
3a	Surgical outcomes are assessed and corrective changes instituted (<i>Guide</i> , p 115	х					
	nents:		1	1	1		-
3b	Researchers have appropriate training to ensure good technique (Guide, p 115) [must]	х					
	nents:			1			
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)	х					
Comn				1			
3d	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and						
Ju	IACUC approved (<i>Guide</i> , p 116	х					
_	Incoc approved (daide, p 110			1		l	<u> </u>

	9 , ,					
Comn	nents:					
3b	Researchers have appropriate training to ensure good technique (Guide, p 115) [must]	х				
Comn	nents:		•			1
3c	Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (<i>Guide</i> , p 116)	х				
Comn	nents:		•			1
3d	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (<i>Guide</i> , <u>p 116</u>	х				
Comn	nents:					
3e	Surgical procedures including laparoscopic procedures are categorized as major or minor (<i>Guide</i> , pp 117-118	х				
Comn	nents:					
3f	For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean (<i>Guide</i> , p 118)	х		Oh	tained	by E
Comn	nents:		•	UU	l anıou	-Uy i
3g	Aseptic technique is followed for survival surgical procedures (Guide, pp 118-119)	х				
Comn	nents:				•	
3h	Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place (<i>Guide</i> , <u>p 119</u>)	х				
Comn	nents:					
3i	Procedures for monitoring surgical anesthesia and analgesia are in place (Guide, p 119)	Х				
Comn	nents:					
3j	For aquatic species, skin surfaces are kept moist during surgical procedures (Guide, p 119)	х				
Comn	nents:					

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> ,	x			
	pp 119-120)				
Comme	nts:				

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

5.	Euthanasia	Α	М	S	С	R	NA
5a	Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC (Guide, p 123)	х					
Comme	ents:						
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)	х					
Comme	ents:						
5c	Training is provided on appropriate methods for each species and considers psychological stress to personnel (<i>Guide</i> , p 124)	х					
Comme	ents:						
5d	Procedures and training are in place to ensure death is confirmed (Guide, p 124) [must]	х					
Comme	ents:						

6.	Drug Storage and Control	Α	М	S	С	R	NA	
6a	Program complies with federal regulations for human and veterinary drugs(Guide, p 115) [must]	х						
Comme	nts:							
6b	Drug records and storage procedures are reviewed during facility inspections (<i>Guide</i> , <u>p 115</u>)	Х						
Comme	ints:							
6с	Procedures are in place to ensure analgesics and anesthetics are used within expiration date (Guide, p 122) [must]	х			Ç	ntair	ber	by Rise
Comme	nts:					, , , , , , , , , , , , , , , , , , , 	100	by itise
6d	Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely (<i>Guide</i> , p 122)	х						
Comme	nts:							

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 ${\bf S}$ = significant deficiency (is or may be a threat to animal health or safety)

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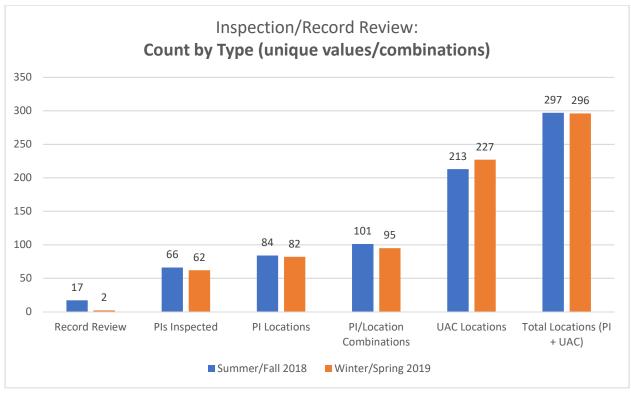
II. Endnotes

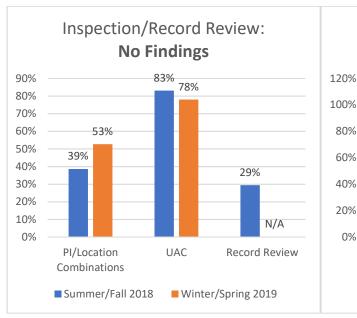
¹ The PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A - Animal Welfare.

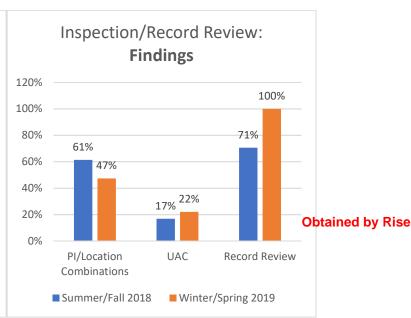
- ii Part 2 Subpart C Research Facilities
- 2.31(b)(2) "The Committee shall be composed of a Chairman and at least two additional members;... at least one shall not be affiliated in any way with the facility...such person will provide representation for general community interests in the proper care 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*]
- ^{1x} 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]
- * 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, problem 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].
- x^{iv} 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."

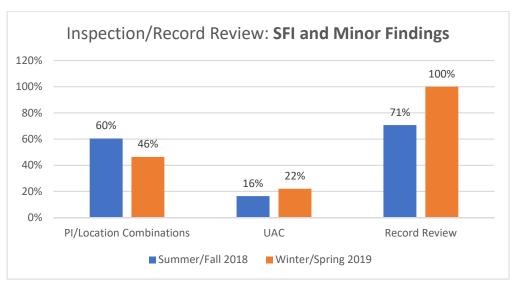
Inspection Metrics

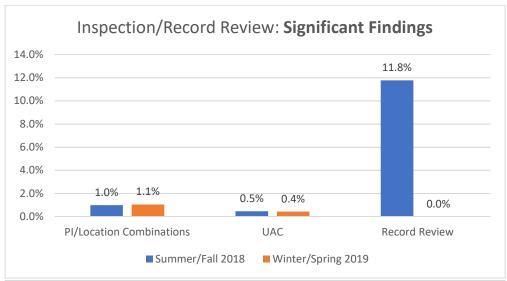
Winter/Spring 2019

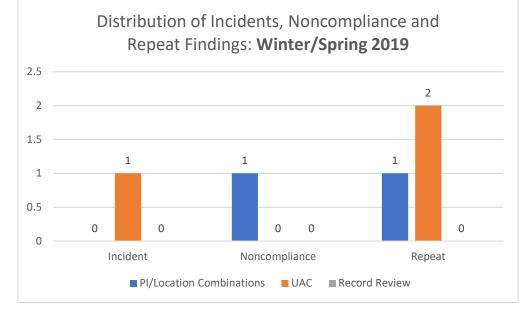


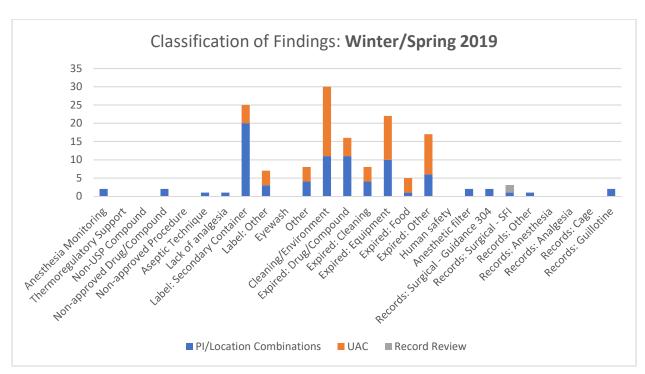


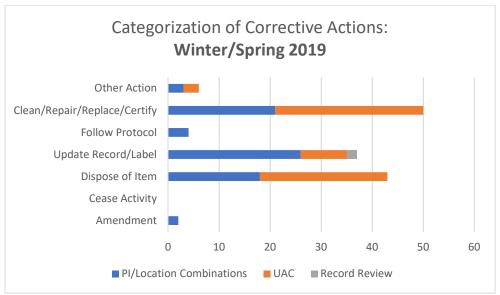












Locations with No Findings

Total: 226

Principal Investigator	Inspection Location	 	
	_		
			_
			Obtained by Die
			Obtained by Ris

Total: 226

Principal Investigator Inspection Location Obtained by Rise



Semi-Annual	Inspection - Locations with Resolved Findi	ings [SFI/Min	or]	Total: 92				
PI:	Location:	□ _{SFI} ✓	Minor \square Significant \square Inciden	t Non-compliance Repeat				
		F	unding Source*	USDA? UAC				
Observations	Date Inspected**: 1/22/2019	PI Response Date Corrected: 2/5/2019						
One water tops (taps?)) out of date - removed on request	From 2/5/2019: This was a pan of empty water bottles and sipper tubes. I removed the pan from the room that day.						
PI:	Location:	SFI Minor Significant Incident Non-complia						
		F	unding Source*	USDA? UAC				
Observations	Date Inspected**: 1/22/2019	PI Response	Date Corrected: 2/5	5/19				
Washer is leaking (58)		From 2/5/19	e: Per it is normal for the ind down the panel.	e cage wash machine to have water				
PI:	Location:	□ _{SFI} ✓	Minor \square Significant \square Inciden	t Non-compliance Repeat				
		F	unding Source*	USDA? No				
Observations	Date Inspected**: 1/22/2019	PI Response	Date Corrected: 3/2	21/2019				
1] Several solutions we appropriate	ere expired, removed during inspection; 2] Label for Tamoxifen not	away expired agent meeting.after expir 3/20/2019 Items di		-				
PI:	Location:	□ SFI ✓	Minor \Box Significant \Box Inciden	t Non-compliance Repeat				
		F	unding Source*	USDA? No				
Observations	Date Inspected**: 1/22/2019	PI Response	Date Corrected: 2/2	1/2019				
Gloves out of date by y	years. One labeled expired, but whole drawer	from 2 I am surprised that	/1/2019: These gloves were not being this was even a valid finding since got best) and not an animal welfare is	loves being expired is a biosafety or				
PI:	Location:	□ _{SFI} ✓	Minor \square Significant \square Inciden	t Non-compliance Repeat				
		F	unding Source*	USDA? UAC				
Observations	Date Inspected**: 1/22/2019	PI Response	Date Corrected:					
Crack in floor - schedul	led for repair	Slated for repair						
PI:	Location:	□ SFI ✓	Minor \square Significant \square Inciden	t Non-compliance Repeat				
		F	unding Source*	USDA? UAC				
Observations	Date Inspected**: 1/23/2019	PI Response	Date Corrected: 2/5	5/2019				
CO2 chamber needs flo	ow meter - not used yet		119: C02 chamber replaced on 1/29/	19 with one that has a proper flow				

PI:	Location:	□ S	SFI 🗹 Minor 🗆 Significant 🗀 Incide	ent U Non-compliance U Repeat
			Funding Source*	USDA? No
Observations	Date Inspected**: 1/23/2019	PI Response	e Date Corrected: 2	/5/19
Ethanol in second for lab)	ary container not labeled with exp date (located on supply rack labeled	near our con We do use et person from removed our when one of and assigned no identify ir Thus, we sus belongs. So, proceed. If th on it that say identify the co	2/1/19: We think the spray bottle that wantainer. Can you let me know how this botton but only on post-euthanasia corpses the Lab who was in Room prior to bottle of etoh. Of note, our bottle has a fithe lab members went to investigate who do us, she found an etoh bottle that look information on it. Spect we have been incorrectly identified if you can provide some clarifying inform the bottle in question is the one we found ys Lab", then this is NOT our bottle correct lab and work with them on the iss Not sure who it belongs to 2/5/2019; but the sure who it	ttle was concluded to be ours? (never on live animals). The last to the inspection made sure to label that says "Lab". Today, nat might have been found in Room ks different than our bottles and has as the lab to whom this bottle nation, then we will be happy to I today which does not have a label e and so we will assume that you will sues below.
PI:	Location:		SFI 🗹 Minor 🗆 Significant 🗀 Incide	nt Non-compliance Repeat
			Funding Source*	USDA? UAC
Observations	Date Inspected**: 1/23/2019	PI Response	e Date Corrected: 2	/5/2019
No date on trash o	can	From	2/5/2019: Trash can properly labeled 1/3	31/19
PI:	Location:		SFI 🗹 Minor 🗆 Significant 🗀 <mark>Incide</mark>	ent Non-compliance Repeat
			Funding Source*	USDA? UAC
Observations	Date Inspected**: 1/23/2019	PI Response	e Date Corrected: 2	/5/2019
Trashcan delta da	ted 9/29/16	change date		
PI:	Location:		SFI 🗹 Minor 🗆 Significant 🗀 Incide	ent Non-compliance Repeat
			Funding Source*	USDA? UAC
Observations	Date Inspected**: 1/23/2019	PI Response	e Date Corrected: 2	/5/2019
	ta date missing, added while inspectors were present; 2] Expired food ill date (expired 1/17/19)	1] added whi	ile inspectors present; 2] Food removed a	at time of inspection

PI:	Location:	□ SF	I ✓ Minor ☐ S	ignificant Incident	Non-compliance Repeat
			Funding Sou	rce*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response		Date Corrected: 2/1	3/2019
1] Battery in temp	control needs to be changed; 2] Fluid resistant face masked exp 01/2018	management I 2] •Item was d monthly for ex in case items a animals.	has been notified discarded during in xpired materials; a are missed during	and 2) all materials check monthly inspection. Ste	proach –1) all areas inspected ked at time of use to ensure in date ep 2 ensures not used in live
PI:	Location:	□ SF	I Minor S	ignificant \Box Incident	Non-compliance Repeat
			Funding Sou	rce*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response		Date Corrected: 2/1	3/2019
BSC certification o	ut of date (exp date not noted)			v hood has been recertif n department has been r	ried as of 2/12/19. Paperwork resolved.
PI:	Location: (clean and and necropsy	dirty) SF			Non-compliance Repeat
	T		Funding Sou		USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response		Date Corrected: 2/1	
Clean side: peeling currently working	paint on ceiling. indicates it's already been noted, on repairs to equipment	working on thi Update 3/12/2 3/12/2019: Ha 3/14/2019: Th a sealed coat a	is. We notify IACL 2019 from Will as been repainted be access panels h	IC when done. I verify target completion . ave been scraped, sande the requirement of IACU	ed and primed, which is in actuality
PI:	Location:	□ SF	I ✓ Minor ☐ S	ignificant 🗆 Incident	Non-compliance Repeat
-			Funding Sou	rce*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response		Date Corrected: 2/1	3/2019
Some expired sutu	res & other items. Removed during inspection	inspection. Tw 2) all materials	2/13/2019: •Some yo phase approach s checked at time	n -1) all areas inspected	ritems. Removed during monthly for expired materials; and in case items are missed during mals.

PI: Location: SFI				Significant	☐ Incident ☐	\square Non-compliance \square Repea	at
			Funding S	ource*		USDA? UAC	
Observations	Date Inspected**: 1/29/2019	PI Response		Date Cor	rected: 2/13/2	2019	
grate & under gra	te need cleaning					he grate and catch pan as of hed cleaning SOP's, going	
PI:	Location:	□ SF	I ✓ Minor □	Significant	☐ Incident ☐	Non-compliance Repeat	at
			Funding S	ource*		USDA? UAC	
Observations	Date Inspected**: 1/29/2019	PI Response		Date Cor	rected: 2/13/	2019	
	sk expired 1/2018 (discarded by 2] Expired caudril (exp g inspection); 3] unmarked/unlabeled conical tube containing liquid	2] Discarded during inspection by				pection. Two phase approach 2) all materials checked at time onthly inspection. Step 2 n animals since expiration. Two d materials; and 2) all materials missed during monthly sed on animal per investigator. xpired materials; and 2) all	
PI:	Location:	□ SF			☐ Incident	Non-compliance Repea	at
			Funding S			USDA? UAC	
Observations	Date Inspected**: 1/29/2019	PI Response			rected: 2/13/	2019	
1] Battery needs repla (exp 9/18, 3 packages)	management I inspection. Tw 2) all materials monthly inspe	./13/2019: 1]•E has been notifion no phase appro s checked at tire ction. Step 2 e	ed of low hum ach –1) all are me of use to e ensures not us	rometer has bee nidity reading.2] eas inspected mo nsure in date in ed in live animal			
PI:	Location:	□ SF	I ✓ Minor □	Significant	☐ Incident ☐	Non-compliance Repeat	at
			Funding S	ource*		USDA? UAC	
Observations	Date Inspected**: 1/29/2019	PI Response		Date Cor	rected: 2/13/	2019	
Trash can needs to be	From 2/13/2019: •Trash can has been changed out with clean one as of 2/12/19 and Student Worker has been retrained to maintain clean per established cleaning SOP's, going forward.						

PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
		Funding Source* USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response Date Corrected: 2/13/2019
Grate is dirty		From 2/13/2019: •Animal Technician has cleaned the grate as of 2/12/19 and has been retrained to attend to this per established cleaning SOP's, going forward.
PI:	Location:	SFI Minor Significant Incident Non-compliance Repeat
		Funding Source* USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response Date Corrected: 2/13/2019
has a great deal o	of debris below grate & grate is quite dirty	From 2/13/2019: •Animal Technician has cleaned the catch pan as of 2/12/19 and has been retrained to attend to this per established cleaning SOP's, going forward.
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
		Funding Source* USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response Date Corrected: 2/13/2019
cabinet certificati	on out of date (exp date not noted)	From 2/13/2019: •The Laminar Flow hood has been recertified as of 2/12/19. Paperwork issue with the hood certification department has been resolved.
PI:	Location:	SFI Minor Significant Incident Non-compliance Repeat
		Funding Source* USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response Date Corrected: 2/13/2019
Pan to weigh rabbits a	a bit dirty	From 2/13/2019: •Pan has been changed out with clean one as of 2/12/19 and Animal Technician has been retrained to maintain clean per established cleaning SOP's, going forward.
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
		Funding Source* USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response Date Corrected: 3/12/2019
Sign indicates O2 char	mbers last cleaned in 2016	From 2/13/2019: •We will contact Investigator who own this equipment to follow any established cleaning procedures on their protocol. From CJ 3/12/2019: Label has been remvoed as it was not necessary for service or by SOP. Further: "As mentioned yesterday, lab staff is trained to disinfect the chamber prior to initiation of each study. See attached "Hypoxia Chamber Instrument Maintenance Record". I have confirmed that the checklist in the room indicates this task was completed before the start of the most recent study – see documentation attached as well as the updated chamber tag. As there were no animals in the chamber at time of inspection, and we do not require a label on the chamber (just documentation on the checklist), no further action is needed at this time. There is every indication that PI labs are following the instructions provided by UAC. "

PI:	Location:	☑ Minor ☐ Significant ☐ Incident	□ Non-compliance □ Repeat					
			USDA? UAC					
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13	/2019				
Battery in humidity cor	ntrol needs to be changed	From 2/13/2019: •Battery in Hygrometer has been changed. Facilities management has been notified of low humidity reading.						
PI:	Location:	□ SFI •	☑ Minor ☐ Significant ☐ Incident	□ Non-compliance □ Repeat				
		Funding Source* USDA? UAC						
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13	/2019				
certification out of	date (exp date not noted)	•The Laminar Flow hood has been recertified as of 2/12/19. Paperwork issue with the hood certification department has been resolved.						
PI:	Location:	□ SFI S	✓ Minor ☐ Significant ☐ Incident	□ Non-compliance □ Repeat				
			Funding Source*	USDA? UAC				
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13	/2019				
Conical tube (orange ca	ap) containing liquid, not labeled/marked	animal per invest materials; and 2) missed during mo	3/2019: •This Investigator item has been eligator. Two phase approach –1) all areas all materials checked at time of use to elegathly inspection. Step 2 ensures not use	s inspected monthly for expired insure in date in case items are ed in live animals.				
PI:	Location:	☐ SFI •	Minor Significant Incident	☐ Non-compliance ☐ Repeat				
			Funding Source*	USDA? UAC				
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13,	/2019				
1] Syringes exp 2008; 2] handwash exp 2010 - both disposed of by	1, 2] disposed of From 2/13 animal per invest	3/2019: •Items was discarded during insp	pection. Syringes not used on				
PI:	Location:	□ SFI •	☑ Minor ☐ Significant ☐ Incident	□ Non-compliance □ Repeat				
			Funding Source*	USDA? UAC				
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13	/2019				
Outside room: 1] Plasti 2014] - disposed of dui	c case with spill at bottom; 2] Drawer with expired cough drops [expring inspection	spilled in it. It has 2] •Item was disc phase approach - checked at time of	ring inspection 3/2019: •PPE bin bottom drawer had som 5 been cleaned as of 2/12/19. 6 arded during inspection. Item not used o 6-1) all areas inspected monthly for expire 7 ensures not used in live animals	on animal per investigator. Two ed materials; and 2) all materials				

PI:	Location:	□ SFI ✓ Mir	nor \square Significant \square I	ncident Non-compliance Repeat
		Fund	ling Source*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response	Date Correct	ed: 2/13/2019
Expired materials & co (exp 11/18) - all dispos	empounds: Exidine bottle (exp 9/17); syringes (exp 9/18); EXT set sed of by inspectors	inspected monthly for	9: •All disposed of by ins expired materials; and 2)	pectors. Two phase approach –1) all areas all materials checked at time of use to monthly inspection. Step 2 ensures not
PI:	Location:	□ SFI ✓ Mir	nor \Box Significant \Box I	ncident Non-compliance Repeat
		Fund	ling Source*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response	Date Correct	ed: 2/13/2019
Suite is dirty & has sha	vings in it.			s cleaned the room and sink as of 2/12/19 cablished cleaning SOP's, going forward.
PI:	Location:	□ SFI ✓ Mir	nor \Box Significant \Box I	ncident Non-compliance Repeat
		Fund	ling Source*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response	Date Correct	ed: 2/13/2019
NIST Tracable Conduct	civity Standard Sol. exp Apr 2009		9: •Facility Maintenance cked in the Water Ro	Manager has disposed of the solution. om going forward.
PI:	Location:	□ SFI 🗹 Mir	nor \square Significant \square I	ncident Non-compliance Repeat
		Fund	ling Source*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response	Date Correct	ed: 2/13/2019
Bench cert exp Sept 18	3			d has been recertified as of 2/12/19. partment has been resolved.
PI:	Location:	□ SFI 🗹 Mir	nor \square Significant \square I	ncident Non-compliance Repeat
		Fund	ling Source*	USDA? UAC
Observations	Date Inspected**: 1/29/2019	PI Response	Date Correct	ed: 2/13/2019
Ventilated bench cert	expired (date of expiration not given)			od has been recertified as of 2/12/19.

PI:	Location:	✓ _{SFI} □ _{Mi}	nor Significant In	ncident Non-compliance Repeat
		Fund	ding Source*	USDA? No
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/7/2019
Syringes exp 10/2018;	thrown away during inspection	syringe expire on 10/2 multiple investigators, containers (see below) expiration date in thes is used to generate pre expired syringe in the	2018, and my staff was una , and we keep ALL our mate). I did not find any single use se containers. We have one essure during injection. We drawers. (thrown away du	
PI:	Location:	☐ SFI Mi	nor Significant In	ncident Non-compliance Repeat
		Fund	ding Source*	USDA? No
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/6/2019
Ophthalmic gel expire	d 7/18, discarded during inspection	all drawers for any suc	2/6/2019: This item was finch. As it was not ours, it th items and dispose of it.	s used/supplied by the vet staff to treat a was overlooked. In the future, I will check ater in the year, so it was not used after it
PI:	Location:	□ SFI ✓ Mi	nor Significant In	ncident Non-compliance Repeat
		Fund	ding Source*	USDA? UAC
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d : 2/6/2019
PBS expired 4/2017		From inspection. Was not us	2/6/2019: Disposed of du sed in live animals since ins	ring inspection; overlooked during UAC spection
PI:	Location:	□ SFI ✓ Mi	nor \square Significant \square In	ncident Non-compliance Repeat
		Fund	ding Source*	USDA? UAC
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d : 2/6/2019
Peroxide exp 12/23/18	8	-	ctant was correctly labeled	-
PI:	Location:	□ SFI ✓ Mi	nor Significant In	ncident Non-compliance Repeat
		Fund	ding Source*	USDA? UAC
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d : 2/6/2019
/chelator in fridge - exp 1/17/19 From 2/6/2019: Disposed of during inspection; item was the fridge when UAC inspected the fridge; spoke with lab. Was not used after exp				•

PI:	Location:	□ _{SFI} ☑ _{Mi}	nor \Box Significant \Box In	cident Non-compliance Repeat		
		Fund	ding Source*	USDA? No		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/13/19		
1] Etoh secondary con	ntainer no exp date; 2] Ophthalmic ointment exp 12/18	1) 70% ethanol in the bottle is used to wipe down the surface area and other general use, not for live animals. We removed the bottle and will label it correctly with a date in the future. 2) We could not locate the eye ointment in question in the label bin located in We looked in the room but did not find it. It could have been an old tube but we could not confirm. However, we do confirm this eye ointment was not used in procedures in 2019. We have a tube that we carry along with our surgical materials, which has an expiration date 11/2020. Nevertheless, we will continue to be mindful of expiration dates.				
PI:	Location:	n: SFI ✓ Minor □ Significant □ Incident □ Non-compliance □				
		Fund	ding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/15/19		
	not pushed in - room already serviced	From 2/15/19: •Cage re-docked into IVC rack at time noted. All animals in cage examined and appeared within normal limits, adequately hydrated, etc. Room tech notified and retrained on proper docking procedures at time of inspection.				
PI:	Location:	□ SFI ☑ Mi	nor \Box Significant \Box In	cident Non-compliance Repeat		
		Fund	ding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/6/2019		
Dirty side dump statio	lump station hood exp Sept 2018 From 2/6/2019: Hood was certified 2/5/19; this was a result and document procedure changes with the group responsible with certification.					

PI:	Location:	□ SFI ✓ Mi	inor \square Significant \square Incide	ent Non-compliance Repeat		
		Fun	ding Source* National Institu	ute USDA? No		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected: 4	1/1/2019		
1] Ketoprofen exp date listed as 1 year from compounding date.; 2] 1] Iso vaporizer calibrated 4/21/15; - Owned by Surgical Record review: records are not up to new stardards of Guidance 304.		From lab: I have taken pictures of the bottle of ketoprofen that was labeled as a year from compounding date. This was actually just a minor mistake as the true expiration date of the drug is 8/29/19 not 9/29/19 (as shown in the photo of the original container). I have included pictures of all the bottles to help clarify. We have corrected the month "9" to "8" to reflect the correct expiration date. From 2/21/19: 2] The calibration/service lasts for (3) years and came due at the end of 2018. I have been in contact with who services these machines and we will be getting a loner vaporizer very soon and sending this unit in for service. 4/1/2019 from made a mistake and was under the impression that as the drug from the original vial had not expired (drug from which made the dilution), that was okay in using the drug. The drug has been discarded and was not used past the last cohort of animals for which the drug was originally diluted (11/25/18). This will not happen in the future and to correct for the problem, have updated the surgery record to include the expiration of the drug (which will be documented) - (ketoprofen and bupivacaine). have forwarded the surgical records. have also added lidocaine to the surgery record sheet as have been trouble-shooting to hit a very specific coordinate (we have lidocaine in the animal protocol).				
PI:	Location:	☐ SFI ✓ Mi	nor Significant Incide	ent Non-compliance Repeat		
		Fun	ding Source*	USDA? No		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected: 2	2/11/2019		
PI transport cart with h	eavily soiled paper towels	doing sleep studies. The We are not using this I have attached a picture 2/8/2019 Sent to 2/11/2019 From these paper towels are washed. The towels in	he animals housed in this room room at all. ure of the Designation sheet for is the stud : Thank you for bringing on the store caging on the store can be so much soiled.	r this room to this email.		

PI:	Location:	SF	✓ Minor	Significant	☐ Incident [Non-compli	ance Repeat
			Funding S	Source*		USDA? No	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Cor	rected: 2/19/	/2019	
Pads, paper towels,	glove boxes on floor	From 2/19/2019: Room only had the table we use for the informed staff of keeping pads, paper towels and floor. We have ordered a plastic drawer system for that room that decontamination and then be used to store supplies.					
PI:	Location:	□ SF	✓ Minor	Significant	☐ Incident [Non-compli	ance Repeat
			Funding S	Source*		USDA? No	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Cor	rected: 3/12/	/2019	
Ethanol container no	exp date	UAC has correc	ted - expirat	ion date listed	on bottle		
PI:	Location:	□ SF	✓ Minor	Significant	☐ Incident [Non-compli	ance Repeat
			Funding S	Source*		USDA? No	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Cor	rected: 2/19/	/2019	
1] Scalpel blades (on animal use"	cart) exp 10-2012; 2] loose razor blades (on cart) not marked "not for	animal use". Thensure any fut inspection we disposed of an	These razor bl hey have now ure use they a found no scal d intended us ssure proper l	lades were not v been remove are labelled "no pel blades on t se was same as	used on animal d off the cart an ot for animal use the cart so canno with the razor l	ly stored or marl ls but to open bo nd have spoken t e". During our p ot speak to how blades. Again, so al use" and abou	oxes and cut to my staff to post-notification they were
PI:	Location:	✓ SFI	Minor	Significant	☐ Incident 「	Non-compli	ance Repeat
		,	Funding S	Source*		USDA? No	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Cor	rected: 3/1/1	.9	
Surgery room - cardl	poard wrapped in tape on surgery platform	thermal contro surgeon, and n anesthesia nos reconfigured to mouse therma joined with sta	oller, black win nouse head p e cone attach o remove non I support and inless steel so as needed. As	re), clear secon latform for crainment. The threa- n-sanitizable ma I proper ergono crews. Individua always, the pla	ndary platform t nial access (gap ee individual col aterials (tape/ca omics for the sul al components (bination of heati to correct surgica needed for dop mponents have ardboard) while rgeon. All mater can be sanitized overed througho	al height for pler probe) and now been still allowing for rials are plastic easily and

PI:	Location:	✓ SFI	Minor ☐ Significant ☐ In	cident Non-compliance Repeat
		1	Funding Source*	USDA? No
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected	d: 2/6/19
	(SFI)replace soiled foam block pinboard; 2] label drawers with razor blades use in live animals"	the pinblock is onl animal surgery.	y used for intracardial perfusio	on replaced with the clean one. Please note on of PFA, it have never been used on live
				rith razor blades & tools for this sign. ect the PFA-perfused mouse carcases.
PI:	Location:	□ _{SFI} ✓	Minor Significant In	cident Non-compliance Repeat
		1	Funding Source*	USDA? UAC
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected	d: 3/5/2019
1] Alcohol secon	dary container no exp date; 2] Betadine label rubbed off	From CJ 3/5/2019: properly labeled the		expiration date on the alcohol and
PI:	Location:	□ SFI ✓	Minor Significant In	cident Non-compliance Repeat
		1	Funding Source*	USDA? UAC
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected	d: 2/6/2019
Corn oil exp 1/10	D/19 - discarded by inspector	aliquot of corn oil one year expiratio when it was not. T happens at the be check their dates i	Our corn oil aliquots are good, a in the but mislabeled the tube with the n date as 2019 rather than 202 his mistake is not anticipated the ginning of the year.	for one year. On January 10th, laboratory, prepared the referenced he wrong years. Because added the 20, the aliquot appeared as being expired to occur again as this is something that will remind research team to double to beginning of the year when everyone is everything.
PI:	Location:	□ SFI ✓	Minor ☐ Significant ☐ In	cident Non-compliance Repeat
		1	Funding Source*	USDA? No
Observations	Date Inspected**: 1/31/2019	PI Response	Date Corrected	d: 2/6/2019
Sterile alcohol pa	ads expired - discarded during inspection	Discarded during i From error From animals	The lab does	not use . So this must be an been disposed of, was not used on live

PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repea					
		Funding Source* USDA? UAC					
Observations	Date Inspected**: 1/31/2019	PI Response Date Corrected: 2/15/19					
Small trashcan by hoc	od - no date	From 2/15/19: •Small trash cans in per UAC SOP).					
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repea					
		Funding Source* USDA? UAC					
Observations	Date Inspected**: 1/31/2019	PI Response Date Corrected: 2/15/19					
Rescue exp 11/20	From 2/15/19: •Product disposed at time of inspection. All UAC husbandry staff instructed to check expiration dates monthly as per our room servicing SOP which is reinforced by our recently updated work aid that includes a laminated duty checklist organized by task and frequency. Techs retrained to this new aid on 2/15/19.						
PI:	Location:	☐ SFI ☑ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repea					
		Funding Source* USDA? UAC					
Observations	Date Inspected**: 1/31/2019	PI Response Date Corrected: 2/15/19					
Etoh no exp date on s	econdary container;	From 2/15/19: - Updated with expiration date from original bottle.					
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repea					
		Funding Source* USDA? UAC					
Observations	Date Inspected**: 1/31/2019	PI Response Date Corrected: 3/1/19					
1] Isoflurane vaporize	r service date exp or not clear to see;	From 2/21/19: We checked on the expiration date label and it looks that the label has been smeared. We are sorry for not noticing it earlier. We decided to have it reserviced ASAP and make sure the new expiration date will be clearly seen at all times. We have contacted the service provider to come out and perform the service. I will let you know when it is done Serviced 3/1/19					
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repea					
		Funding Source* USDA? UAC					
Observations	Date Inspected**: 1/31/2019	PI Response Date Corrected: 2/15/19					
1] Leaking dawn bottl	e under sink; 2] 2918 exp - mill date 4/9/18	From 2/15/19: 1] Removed and replaced with non-leaky bottle. 2] This is a surgical suite so there is no feed in room. Unable to respond to finding.					

PI:	Location:	SFI	✓ Minor	Significant	☐ Incident [[]	Non-compliance	Repeat
			Funding S	Source*		USDA? UAC	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Corr	rected: 2/15/	19	
1] Exp 60mL syringes, ir under sink leaking	ndicated not for animal use - need to label as such; 2] Betadine jug	From 2/15/19: 1] Exp 60mL syringes, indicated not for animal use - need to la such; - Do we need to notify the lab or will the IACUC? 2] Betadine jug under sink leaking – Container was inspected and there was no leak in Staining from pervious leak possible.					
PI:	Location: UAC:	✓ SFI	✓ Minor	Significant	☐ Incident [[]	Non-compliance	Repeat
			Funding S	Source*		USDA? UAC	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Corr	rected: 2/18/	2019	
does not work - need ke	nsers last calibrated 4/2015; 2] (SFI) Master key to drug cabinet ey; 3] Etoh no exp date on secondary container; 4] - not naintenance; 5] lab? Plastic cabinet needs to be organized	cabinet drawer is difficult to open because of heavy perfusion pumps on the top of plast cabinet, which should be in the close proximity to the hood for making a perfusion. We will find the sturdy item to support the heavy perfusion pumps. 4] We don't have the drug cabinet in the we have wall cabinet with drugs. We go ours keys from UAC, so the master key should work. From 2/28/2019:] Two isoflurane dispensers were serviced on February 18, 20				Plastic p of plastic cion. We s. We got ry 18, 2019. use in our	
PI:	Location:	SFI			☐ Incident [Non-compliance	Repeat
			Funding S			USDA? UAC	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Cori	rected: 2/15/	19	
Expired triple antibiotic	s (no exp date given) - discarded during inspection (instructed to chereinforced by o	15/19: •Produces of the second	on dates month pdated work ai	nly as per our ro id that includes	tion. All UAC husband oom servicing SOP wh a laminated duty che new aid on 2/15/19.	ich is
PI:	Location:	SFI	✓ Minor	Significant	☐ Incident [[]	Non-compliance	Repeat
			Funding S	Source*		USDA? UAC	
Observations	Date Inspected**: 1/31/2019	PI Response		Date Corr	rected: 2/15/	'19	
	er exp 2013, 20mL syringe exp - both discarded during inspection; 3] f isopropyl no exp date;	•2], 3] - Produc check expiratio	15/19: 1] Belo t disposed at n dates mont ed work aid th	time of inspect thly as per our inat includes a la	tion. All UAC hu room servicing aminated duty	usbandry staff instruct SOP which is reinforc checklist organized b	ed by our

PI:	Location:	□ SFI 🗹 N	Minor \square Significant \square In	cident Non-compliance Repeat		
		Fu	inding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/15/19		
7918 mill date 7-9-18	8 - removed during inspection (Removed during inspection From 2/15/19: •Removed and replaced at time of inspection. All UAC hu staff instructed to check expiration dates monthly as per our room servicing SO reinforced by our recently updated work aid that includes a laminated duty che organized by task and frequency. Techs retrained to this new aid on 2/15/19.				
PI:	Location:	□ SFI ✓ N	Minor \square Significant \square In	cident Non-compliance Repeat		
		Fu	inding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/15/19		
Rescue disinfectant e	xp 11/2018 (room not in use?)	instructed to check or reinforced by our re	expiration dates monthly as cently updated work aid tha	of inspection. All UAC husbandry staff per our room servicing SOP which is t includes a laminated duty checklist d to this new aid on 2/15/19.		
PI:	Location:	□ SFI ✓ N	Minor \square Significant \square In	cident Non-compliance Repeat		
		Fu	inding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/15/19		
Sterile vial exp 8/18;	1mL syringes exp 4/18	 Product disposed a expiration dates mo updated work aid th 	nthly as per our room servici	husbandry staff instructed to check ng SOP which is reinforced by our recently checklist organized by task and		
PI:	Location:	□ SFI ✓ N	Minor Dignificant In	cident Non-compliance Repeat		
		Fu	inding Source*	USDA? UAC		
Observations	Date Inspected**: 1/31/2019	PI Response	Date Correcte	d: 2/15/19		
exp (exp) exp (e	5-20-18; 2] alcohol secondary container no exp date; 3] Trash can	reinforced by our re organized by task an	expiration dates monthly as cently updated work aid that and frequency. Techs retraine and tag updated to match U	of inspection. All UAC husbandry staff per our room servicing SOP which is t includes a laminated duty checklist d to this new aid on 2/15/19. AC SOPs.		

PI:	Location	□ SFI ✓ Mino	or \square Significant \square Inc	ident Non-compliance Repeat		
		Fundir	ng Source*	USDA? No		
Observations	Date Inspected**: 3/28/2019	PI Response	Date Corrected:	: 5/6/2019		
	neerios expired [no exp dates given by inspectors]	1, 2] discarded at time of inspection From 5/6/2019: How occurred: Although we had ordered Citrace we had not used it and therefore did not notice the expiration date. The Cheerios do not have an expiration date (only a best used by date). Plan for correcting the finding: Both the Citrace and the Cheerios were disposed of. Plan to prevent in the future: For cleaning materials like Citrace, we will put a large marking on the bottle indicating the expiration date. For Cheerios (and other treats given to animals), we will mark the date of opening of the packaging. We will then dispose after a period of 6 months.				
PI:	Location:	□ SFI ☑ Mino	or \square Significant \square Inc	ident Non-compliance Repeat		
		Fundir	ng Source*	USDA? No		
Observations	Date Inspected**: 4/3/2019	PI Response	Date Corrected	4/16/2019		
Cannulae for perfusion materials not on protoc	are expired and marked as for use in terminal procedures - expired ol.	Amendment submitted to add expired materials.				
PI:	Location:	✓ SFI ☐ Mino	or \square Significant \square Inc	ident Non-compliance Repeat		
		Fundir	ng Source*	USDA? No		
Observations	Date Inspected**: 4/3/2019	PI Response	Date Corrected	: 4/24/2019		
Hood expires April 2019	9 - recommend schedule certification asap	Hood recertified 4/24/19	, hood hadn't been used	in April 2019.		
PI:	Location:	□ SFI ✓ Mino	or Significant Inc	ident Non-compliance Repeat		
		Fundir	ng Source*	USDA? No		
Observations	Date Inspected**: 4/3/2019	PI Response	Date Corrected	: 4/16/2019		
_	infection of surfaces; 2] Ethanol not dated - primary container has ector suggested putting mfg date on secondary container.	I will answer to the follow 1] Using ethanol for disin > We prepared 10% ble 2] Ethanol not dated - pri putting mfg date on seco	nfection of surfaces each solution for a disinfec- rimary container has no ex	ctant. opiration date. Inspector suggested		

PI:	Location:	SFI Minor Significant Incident Non-compliance Repeat			
		Funding Source* USDA? No			
Observations	Date Inspected**: 4/3/2019	PI Response Date Corrected: 4/16/2019			
certification asap;	- discarded by inspector; 2] Hood expired April 2019 (SFI) - schedule 3] Update controlled substance logs (SFI); 4] Anesthesia monitoring nutes - should be every 15.	1] Two expired individually packaged sutures were found inside of a drawer that had been cleaned out yet by a lab member. Expired items were discarded during the inspection; they were still sealed and had not been used on any animals. The lab are been checked again after the inspection to ensure there are no additional expired in the future, expired items will be discarded as soon as the expiration date is reached. Hood expiration dates had not yet been checked by the new lab manager. Facilities Management has been contacted and inspection dates are being arranged; 3] Surguind substance logs were not previously kept with sufficient detail; because of person change some details could not be added at the time of inspection. Going forward to be filled diligently with extreme detail to prevent a lapse in records from occurring 4] Current protocol 15-588 instructs for anesthesia monitoring at least every 15 minutes was an incorrect response given by a person who utilizes live (constant) readings for anesthesia monitoring instead of toe-pinching every 15 minutes. Going forward all staff will be reminded of the correct anesthesia monitoring protocol to compliance.			
PI:	Location:	SFI Minor Significant Incident Non-compliance Repeat			
		Funding Source* USDA? No			
Observations	Date Inspected**: 4/3/2019	PI Response Date Corrected: 4/16/2019			
1] Cracked ceiling t	ile; 2] Crack in floor	1] 4/16/2019 from The cracked ceiling tiles have been fixed. 2] Facilities claims nothing can be done about the crack in the floor.			
PI:	Location:	☐ SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat			
		Funding Source* USDA? No			
Observations	Date Inspected**: 4/3/2019	PI Response Date Corrected: 4/26/2019			
SFI: F/Air canister r	marked with checks but no weights.	Inspector educated on recording weight and following manufacturer recommendations for disposal 4/26/2019 Regarding the inspection finding listed above, we acknowledged that a log for the weight of the F/Air canister was not maintained in our lab records. We also acknowledge the importance of this log to the safety of the personnel and to the efficiency of our anesthesia machine. We procured our new anesthesia machine only few month ago, which explain how the finding occurred. Since the inspection date, we have taken the following measures: 1)We replaced the F/Air canister with a new canister. Its weight was determined, dated and recorded. 2)Weight of the canister is determined, recorded, and dated after each animal use. Consistent with the concept of Refinement, we continued to keep dated logs for materials, compounds and drugs and no expired material, compound or drug has been used in a live animal.			

PI:	Location: SFI ✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repo				
			Funding Source*	USDA? No	
Observations	Date Inspected**: 4/4/2019	PI Response	Date Correcto	ed: 4/16/2019	
TG dated 9/18/18 - What is this? Is it used on live animals? the cloth seats with cleanable search. 2.This was found by the compute			th cleanable seats. by the computer for it is not used on animals.	are made made of cloth. We will replace Is used to calibrate the electrodes for	
PI:	Location:	□ SFI ✓	Minor \square Significant \square I	ncident Non-compliance Repeat	
			Funding Source*	USDA? No	
Observations	Date Inspected**: 4/4/2019	PI Response	Date Correcto	ed: 4/26/2019	
Ophthalmic ointment expired - disposed of during inspection From 4/26/2019: In terms of the opthalmic ointment, it unfortunately that should have been disposed of. The material was not used in a live anim expiration date. New (unexpired) vials were present in the room and at time of inspection. The material has been disposed of and a reminder ser regarding expiration dates and disposal. For future, I am asking my technicial CC'd here) to double check the animal supplies every 6 months as backup to and post-docs.			al was not used in a live animal since the esent in the room and sposed of and a reminder sent to the lab ture, I am asking my technician (
PI:	Location:	□ _{SFI} ✓	Minor Significant I	ncident Non-compliance Repeat	
			Funding Source*	USDA? No	
Observations	Date Inspected**: 4/4/2019	PI Response	Date Correct	ed: 4/16/2019	
· ·	euted) - bottle without label, labeled as expired in 1 year (this is not expiration for compound). Lab will inquire about disposal			were used in live animals. Fresh mpliance. Expired compounds have been	

D		V 0=1 V 0 = 1				
PI:	Location:			cident Non-compliance Repeat		
		Fun	ding Source*	USDA? No		
Observations	Date Inspected**: 4/4/2019	PI Response	Date Corrected	d: 4/18/19		
_	exp date on secondary or primary container [Note from IACUC Office: ling secondary container with manufacture date]; 2] Etoh bottle not is dirty and blade is rough (also	1] Versaclean - no exp date on secondary or primary container [Note from IACUC Office: recommend labeling secondary container with manufacture date]; (1) Primary Versaclean container also does not list a manufacture date. Assigned 30-day expiration from date of dilution IAW guidance #608. Modified labeling template for cleaning/disinfectant secondary containers. 2] Etoh bottle not dated; (2) Primary Ethanol container does not list an expiration date; manufacture date has been included as recommended above. Assigned 30-day expiration from date of dilution IAW guidance #608. Modified labeling template for cleaning/disinfectant secondary containers. 3] is dirty and blade is rough (3) Maintenance records indicated sharpening was not due until after 38 more uses.				
PI:	Location:	☐ SFI ✓ Mi	nor \square Significant \square In	cident Non-compliance Repeat		
		Fun	ding Source*	USDA? No		
Observations	Date Inspected**: 4/4/2019	PI Response	Date Corrected	d: 4/22/2019		
reused UAC beta 3] Dirty dye stain	nine in secondary container, no exp date or mix date; 2] "Training dye" in dine vial - no mix date, no exp date, no "not for use in live animals" label; ed syringe; 4] Expired prolene suture, exp 1/2019; 5] Undated dilute be marked even if not used w/animals or animal surfaces (also					

PI:	Location:	✓ SFI ✓ Mi	nor \square Significant \square Incident	□ Non-compliance □ Repeat	
		Fun	ding Source*	USDA? No	
Observations	Date Inspected**: 4/4/2019	PI Response	Date Corrected: 4/1	8/19	
recommend labeling se	date on secondary or primary container [Note from IACUC Office: econdary container with manufacture date]; 2] Etoh bottle not dirty and blade is rough (also Ibrahim)	1] Versaclean - no exp date on secondary or primary container [Note from IACUC Office: recommend labeling secondary container with manufacture date]; (1) Primary Versaclean container also does not list a manufacture date. Assigned 30-day expiration from date of dilution IAW guidance #608. Modified labeling template for cleaning/disinfectant secondary containers. 2] Etoh bottle not dated; (2) Primary Ethanol container does not list an expiration date; manufacture date has been included as recommended above. Assigned 30-day expiration from date of dilution IAW guidance #608. Modified labeling template for cleaning/disinfectant secondary containers. 3] is dirty and blade is rough (3) Maintenance records indicated sharpening was not due until after 38 more uses. has since been thoroughly cleaned and submitted for sharpening. Instituted most recent Use/Maintenance Log found on IACUC links page.			
PI:	Location:	✓ SFI ✓ Mi	nor Significant Incident	Non-compliance Repeat	
		Fun	ding Source*	USDA? No	
Observations	Date Inspected**: 4/4/2019	PI Response	Date Corrected: 4/1	5/19	
Exp ket/xyl mix - labeled exp during inspection; 4] Overall this lab is messy and disorganized; 5] Large syringes exp, not labeled not for use in live animals; (also		For 616: 1.This particular steriotaxic platform has not been used for about 4 months and was in the back of the bench. It was sprayed and wiped down with versaclean to remove the hairs. We will make sure that unused equipment is cleaned and put away. 2. Suture was found unopened in the very back of the drawer. It was discarded during inspection. I will go through the drawers more frequently and check the dates. 3. Ketamine was found laying in the secondary safe, expired March 31th. It has been properly discarded and was not used in live animals since exipration. I will also check ketamine bottles more frequently. 4. I am disappointed to hear that they thought our lab was messy and unorganized. Our drawers/cabinets that have surgical supplies are labeled with yellow labels, all other drawers have lab personnel items. We will go through and make it more organized. 5. Large syringes were found on the bottom of a cabinet. They are not used on live animals and are only used during tissue collection. We now have the proper stickers to label "not for live animal use" and will continue to use these stickers for these particular syringes.			

PI:	Location:	□ SFI	✓ Minor	\square Significant \square I	ncident	Non-compliance Repeat
			Funding	Source*		USDA? No
Observations	Date Inspected**: 4/9/2019	PI Response		Date Correct	ed: 4/24/	'19
Chem hood exp 1/20	019	that handles he Hood recertifie	ood inspection	ons and asked them	to service o	
PI:	Location:	SFI	Minor	\square Significant \square I	ncident	Non-compliance Repeat
			Funding	Source*		USDA? No
Observations	Date Inspected**: 4/9/2019	PI Response		Date Correct	ed: 4/17/	19
_	vival surgery record dated 11/2017 - verify no survival surgeries done since; 2] In response to the comments on our IACUC inspection: We have not done any survival surgeries since 11-17 And we have submitted a request for getting our hood recertified.			certified.		
PI:	Location:	□ SFI	✓ Minor	\square Significant \square I	ncident	Non-compliance Repeat
			Funding	Source*		USDA? No
Observations	Date Inspected**: 4/9/2019	PI Response		Date Correct	ed: 4/17/	'19
1) Souldin Chloride e	exp 7/17; 2] Has surgical glue - not listed in vet drugs	unaware that i 2.We overlook We have addr 1.The unopene 2.We are amer We plan to pre	spired sodiun t was still in ed the inclus essed the resed ed Sodium ch nding our ani event the find	n chloride was pushe there. ion of surgical glue o sults of the animal ir iloride exp 7/17 was mal protocol to includings from occurring	on our protonspection as discarded. Jude surgical in the futu	s follows:
PI:	Location:	□ SFI	Minor	Significant 🗆	ncident	Non-compliance Repeat
			Funding	Source*		USDA? No
Observations	Date Inspected**: 4/9/2019	PI Response		Date Correct	ed: 4/17/	19
an		and the hood v	was certified	· · · · · · · · · · · · · · · · · · ·		essed. UofA facilities was called the future I will notify UofA
PI:	Location:	SFI	✓ Minor	\square Significant \square	ncident	☐ Non-compliance ☐ Repeat
			Funding	Source*		USDA? No
Observations	Date Inspected**: 4/9/2019			Date Correct	ed: 4/16/	2019
Chem hood exp 1/2019		From 4/16/2019: Completed 4/16/19				

PI:	Location:	✓ _{SFI} □ _M	inor - Significant - I	ncident Non-compliance Repeat	
		Funding Source* USDA? No			
Observations	Date Inspected**: 4/9/2019	PI Response	Date Correcte	ed: 4/17/19	
	t contain BID buprenorphine dose (as approved in protocol) - d/or secondary container label	 1)a) How the finding occurred: during inspection and inspector evaluated the anesthetic logs and found that post-operative injections were only recorded in the DEA log properly and only in SID form on the anesthetic log. b) Your plan for correction the finding: this shall and has been corrected by correlating the BID buprenorphine post-operative injections from the DEA log onto the proper anesthetic logs for each animal that had a surgical procedure as was approved by the IACUC protocol. c) How to prevent this from happening in the future: we shall be changing our anesthetic surgical monitoring sheet to the ones provided by the U of A IACUC that includes multiple animals and a section already delegated for post-operative injections as needed. 			
PI:	Location:	□ SFI ✓ M	inor \square Significant \square I	ncident Non-compliance Repeat	
		Fun	nding Source*	USDA? Yes	
Observations	Date Inspected**: 4/9/2019	PI Response	Date Correcte	ed: 4/26/2019	
1] Hood certification e	xp 1/2019; 2] Check iso canister before and after use	From our end, we alw canister weight) befor certified as well befor	. They have been ways verify the isoflurane core and after our use. We we se use and will notify the fa		
PI:	Location:			ncident Non-compliance Repeat	
		Fun	nding Source*	USDA? No	
	Date Inspected**: 4/11/2019 2015; 2] Expired alcohol wipes - discarded during inspection; 3] secondary container with no labeling	discarded. The betad on any live animals. 2. Expired alcohol wild discarded during the interest the surgery. 3. Alcohol, detergent inspection, the room	ine scrub was an old unus pes - 5-10 expired alcohol inspection. Alcohol wipes in secondary container w	e - the expired betadine scrub has been ed bottle near the sink that was not used wipes were found in a drawer and are never used on the animals or during ith no labeling - As explained during the tigators. Those items belong to the other	
PI:	Location:	□ _{SFI} ✓ _M	inor \square Significant \square I	ncident Non-compliance Repeat	
		Fun	nding Source*	USDA? Yes	
Observations	Date Inspected**: 4/11/2019	PI Response	Date Correcte	ed: 4/23/2019	
Tape on floor		Tape removed			

PI:	Location:	✓ SFI Minor Significant In	cident Non-compliance Repeat		
		Funding Source*	USDA? Yes		
Observations	Date Inspected**: 4/11/2019	PI Response Date Corrected	d: 4/23/2019		
Novalsan secondary	container - no exp date (provided by UAC) - verify exp date	New novalsan ordered with exp date of 2/2020			
PI:	Location:	☐ SFI ☑ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat			
		Funding Source*	USDA? No		
Observations	Date Inspected**: 4/11/2019	PI Response Date Corrected	d: 4/16/2019		
	surgical scrub exp May 2018; 2] No mix date on chlorhexidine; 3] No ry containers (alcohol, other supplies next to sink)	From 4/16/2019: 1) We will dispose of all expired betadine and place a order for a new bottle 2) We will place mix dates on all solutions made 3) Expiration dates will be indicated on all supplies next to the sink			
PI:	Location:	☐ SFI ☑ Minor ☐ Significant ☐ In	cident Non-compliance Repeat		
		Funding Source*	USDA? No		
Observations	Date Inspected**: 4/11/2019	PI Response Date Corrected	d: 4/22/19		
	surgial scrub exp May 2018; 2] No mix date on chlorhexidine; 3] No ry containers (alcohol, other supplies next to sink)	 The old betadiene was replaced with new. We the side so that it is more easily visible thus preve We have added mix/fill dates to chlorohexadin We have added expiration dates to all necessa 	enting this from happening again. le labels.		
PI:	Location:	☐ SFI ☑ Minor ☐ Significant ☐ In	cident Non-compliance Repeat		
		Funding Source*	USDA? No		
Observations	Date Inspected**: 4/11/2019	PI Response Date Corrected	d: 4/22/19		
1] Expired betadine surgial scrub exp May 2018; 2] No mix date on chlorhexidine; 3] No exp date on secondary containers (alcohol, other supplies next to sink)		 The old betadiene was replaced with new. We have also written the expiration date on the side so that it is more easily visible thus preventing this from happening again. We have added mix/fill dates to chlorohexadine labels. We have added expiration dates to all necessary secondary containers. 			
PI:	Location:	SFI Minor Significant In	cident Non-compliance Repeat		
		Funding Source*	USDA? Yes		
Observations	Date Inspected**: 4/23/2019	PI Response Date Corrected	d: 4/26/2019		
1] No emergency contact info is posted; 2] Squeeze bottle with clear liquid, not labeled. Staff indicated is filled with water.		Bottles labeled and emergency contact info posted. Photos on file			

Semi-Annual In	spection - Locations with Resolved Findings [S	ignificant/Potentia	l Noncompliance] Total:	3
PI:	Location:	□ SFI ☑ Mi	nor 🗹 Significant 🗆 Incident 🗹 Non-compliance 🗀	Repeat
Funding Source* Do	DD USDA? No	Case Numb	er [Incident/Non-compliance]	
Observations	Date Inspected**: 4/3/2019	PI Response	Date Corrected: 05/08/2019	
inspection; 3] Survival	xp 1/2019; 2] Opthalmic ointment exp 3/2019, discarded during surgery record dated 8/25 (no year) by stered once every 24 hours for 3 days. Protocol indicates every 12	1)We notified facility management right after the inspection. The hood is now certified		
PI:	Location:	□ SFI □ Mi	nor 🗹 Significant 🗹 Incident 🗀 Non-compliance 🔽	Repeat
Funding Source*	USDA? UAC	Case Numb	er [Incident/Non-compliance]	
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/13/2019	
Found empty water bo	ottle, replaced with full. Animal was not distressed or thirsty.	her on making sure all cages to the lab freque gone too long. They al	9: •I have talked to the Animal Tech that day and have retrain animals have a water source before leaving the room. Lab sently and often leave the water bottles in the room as they also weigh the rats frequently, leaving the bottles on the rack take sure the water bottles go back on their cages.	taff take are not
PI:	Location:	□ SFI □ Mi	nor $lacksquare$ Significant \Box Incident \Box Non-compliance \Box	Repeat
Funding Source*	USDA? No	Case Numb	er [Incident/Non-compliance]	
Observations	Date Inspected**: 1/29/2019	PI Response	Date Corrected: 2/15/19	
1] intra cranial cannulae need to be labeled; 2] Distilled water needs to be labeled; 3] Toe pinch done every 30 minutes - approved for and should be done at least every 15 minutes. Inspector reiterated need for toe pinch 15 min; 4] Not using Press n Seal wrap - this is the only kind & brand approved for rodent surgery. Inspector suggested to purchase correct wrap		From 2/15/19: -Cannulae are no longer in use and were move out of the room -Distilled water was labeled -Toe pinch will be done every 15 minutes -Press and Seal wrap will replace the existing wrap.		

Semi-Annual Inspection - Locations with Unresolved Findings			solved Findings	Total: 1
PI:	Location	1:	□ SFI	✓ Minor ☐ Significant ☐ Incident ☐ Non-compliance ☐ Repeat
Funding Source*	USDA?	UAC		Case Number [inspection/non-compliance]
Observations	Date Inspected**: 1,	/22/2019	PI Response	IACUC Deadline for Correction/Action 9/11/2019
EtOH bottle no expiration date (Crack in floor, behind 1st rack on right as you walk in		From 2/5 for repair		