

**Memorandum to:** Lisa A. Cassis Ph.D.

**From:** Institutional Animal Care and Use Committee

**Subject:** Semiannual Report of the Program Review and Facility Inspection

**Date:** January 20, 2021

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 semiannual reports to the Institutional Official is a condition of this institution's Animal Welfare Assurance with the NIH Office of Laboratory Animal Welfare (OLAW).

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

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

Select A or B:

- ☐ A. There were no departures during this reporting period.
- ☒ B. The following departures have been reviewed and approved by the IACUC

Please refer to Attachment # 1 (Protocols with Departures).

**II. Deficiencies in the Institution's Animal Care and Use Program**

Animal Care and Use Program Review Date(s): Program review was conducted during regularly scheduled IACUC meetings from August to December 2020 (except on the month of October). See attachment #2 for specifics.

Select A or B:

- ☐ A. There were no deficiencies in the program during this reporting period.
- ☒ B. The following deficiencies have been identified:

Please refer to attachment # 2 (Semiannual Program Review Checklist).

**III. Deficiencies in the Institution's Animal Facility**

Animal Facility Inspection Date(s): Facility Inspections were conducted from October to December 2020. See attachments # 3 and # 4 for specifics. (Details are maintained in the Inspection Records database). Due to the COVID-19 pandemic, on April 24, 2020 the University of Kentucky officially requested a waiver from OLAW to the PHS section IV.B.2: (inspect at least once every six months all of the institution's animal facilities (including satellite facilities) using the Guide as a basis for evaluation). This waiver was approved on April 24, 2020.

Select A or B:

- ☐ A. There were no deficiencies in the animal facility during this reporting period.
- ☒ B. The following deficiencies have been identified:

Please refer to Attachments # 3 (Current Outstanding Minor or Significant Deficiencies Report) and # 4 (Facilities Inspection Report).

#### IV. Minority Views

Select A or B:

- [X] A. No minority views were submitted or expressed.  
[ ] B. The following minority views were expressed: *[insert minority views here or attach]*

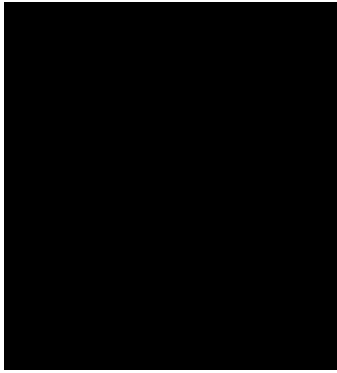
No minority views were expressed during the reporting period.

**V. Status of AAALAC Accreditation** [*identify accredited facilities, if applicable*]

University of Kentucky Albert B. Chandler Medical Center, Lexington, Kentucky hosted the most recent AAALAC site visitors in October 2020. Continued Full Accreditation is expected based upon exit briefing comments offered by the site visitors.
---

**VI. Signatures** *[signatures of a majority of the IACUC members required by AWAR (§2.31,c,3), if applicable]*

[illegible]




\* Alternates

\*\* Due to the current COVID-19 pandemic and the required social distancing, hand-written signatures were not collected. All members received a copy of this report and reviewed it as required. The report was presented and discussed at a convened meeting of a quorum of the IACUC. In lieu of digital or scanned signatures, an email from the IACUC members will serve as acknowledgement of their acceptance of the semiannual report. These emails will be retained for the record by the IACUC.

Attachment # 1 Protocols with Departures									
Protocol #	Species		Water Restriction	Light Cycle	Prolonged Restraint	Cleaning	Enrichment	Other	Comments
2020 2nd Semester IACUC Report									
2020-3536	Mice		X						Some of the transgenic and knockout mice will be housed in light boxes with varying light:dark cycles including 24 hour constant darkness and 24 hour constant light. To identify if the circadian rhythm disruption in diabetes or other genetically modified mice is caused by disruption of an intrinsic clock gene, or by a disruption in the entrainment responses to light, it is necessary to test whether the observed circadian rhythm disruption remain in the absence of light cycle (i.e., constant darkness) or in response to altered light cycles. The chronic phase advance paradigm is to mimic chronic shift work or jet lag.
2020-3629	Rats					X			Rats must be single housed with no enrichment. These animals are a continuation of previous experimental designs which are examining behavioral measures in response to novelty exposure and social interaction.
2020-3432	Mice			X					In the Scireq InExposure unit, connected to the e-cigarette extension, the nose-only exposure tower provides individual air-flow to each individual mouse. 2h total, two 1h sessions with a 30min break between sessions.
2019-3379	Mice		X						Our hypothesis is that aneurysm severity, and more importantly rupture, which is associated with significant mortality in humans, is influenced by circadian cues and mechanisms. To test this hypothesis, we will place animals in one cycle (e.g., all light), and examine its influence on AAA severity and rupture.
2018-2967	Mice	X							If we only keep mice for 3 hours or less, no food and water will be supplied to mice. Mice are housed in a special holding cage (described in the methods). LabSand may be used to collect urine during experiments at baseline, and then every 2 or 4 weeks, but no more than 4 times/mouse. Water and food are restricted because this could cause contamination of the urine, which beads up on top of the sand for easy collection.
2018-3023	Mice			X					the length of time that the mice undergo whole body restraint during use of the nebulizer is 1h.
2015-2050	Mice	X						X	If we only keep mice for 3 hours or less, no food and water will be supplied to mice. Mice are housed in a special holding cage (described in the methods). LabSand may be used to collect urine during experiments at baseline, and then every 2 or 4 weeks, but no more than 4 times/mouse. Water and food are restricted because this could cause contamination of the urine, which beads up on top of the sand for easy collection. Acute cold exposure (~ 4 C) cause white adipose tissue "browning" as a mechanism that contributes to metabolism disorders including obesity. This method is important to explore "brown adipose"-mediated mechanisms of metabolic disorders in mice and critical for the studies we proposed in Exp #22 to understand how AGT regulates metabolism.
2017-2742	Rats	X							Water deprivation is necessary for motivation in order for animals to perform digging maze test.
2016-2525	Mice		X						Mice will be maintained in light:tight chambers with clock controlled lighting. Behavior will be continuously monitored. We will then collect feces from these mice every 4 hours for 2 days in light :dark cycle and 2 days in constant darkness (DD). The rationale is that reviewers rightfully want to know if the bacteria are rhythmic in the gut due to cell division or to changes in bioluminescence.

2011-0841	Mice		X				We expect that the 5 HT2C splicing patterns change due to the light cycle. To determine if this is a real circadian rhythm, we will keep animals in complete darkness for 48 hrs and sacrifice animals after 0, 6, 12, 18, 24, 30, 36, 42, 48 hrs. This allows to discriminate between a real circadian rhythm that is internally controlled, vs. a rhythm that is generated by light.
2009-0472	Rats	X				X	For water restriction, we will use the method published by Hayton et al. (2012) Alcoholism: Clinical and Experimental Research 36:594-603. A 3-day acclimatization period will be used to habituate rats to the novel taste of ethanol in the home cage during the regular work week (Mon-Fri) to insure close monitoring. Some rats housed in isolation (wire bottom cage) with no enrichment upon arrival (21 days old) until completion of study as the effect of enrichment on performance in behavioral tasks is one of the conditions being evaluated
2019-3168	Rats	X				X	The purpose of housing rats individually is to conduct an experiment on whether rats housed in isolation prefer a place where they receive a social encounter or a place where they receive treatment (e.g.; amphetamine, fentanyl). Rats may be water restricted for 18 hours (4pm-10am) for a maximum of 7 consecutive days. Rats may be water restricted to induce thirst motivation to readily induce drinking during brief test (30 min)
2019-3223	Mice					X	Environmental enrichment has been shown to improve histological and behavioral outcomes in CNS injury. Since we are examining the effects of TBI adding an additional variable may confound our results.
2016-2498	Spiny Mice/Rats	X					Experiments in multiple Aims will use 24 h water deprivation (and one experiment uses 48 h deprivation) as the stimulus for fluid intake. For this manipulation water will be removed for 24 or 48 h. At the end of the deprivation periods animals will have water bottles returned or will be euthanized. 24/48 h fluid deprivation will occur no more than once per week and after animals have regained their pre-deprivation body weights. A subset of spiny mice will be water restricted for up to 5 days.
2020-3438	Rats					X	No enrichment such as toys and other animals will be used because these are treatment conditions that are used as protective factors against drug addiction (see Gipson et al, 2011; Stairs and Bardo, 2009), and these are not questions proposed in the current grant funding source.
2019-3235	Mice/Rats		X				In order to examine the expression of activity rhythms during photic entrainment and re-entrainment, and in the absence of a daily photic time signal, animals will be exposed sequentially to the following conditions (7-14 days each): 1) standard light (L):dark (D) cycle , 2) shifted LD cycle (lights off and on 6 hours earlier than in condition 1), and 3) constant light (LL).
2020-3647	Rats			X		X	The purpose of some experiments is to determine the role of raising rats in different environments on drug self-administration. To test our hypothesis, we must provide maximally different environmental experiences during development. Thus, some rats will be raised in an "enriched" social condition (multiple rats in a large housing cage with or without external enrichment provided by lab) and others will be raised in an "isolated" social condition with no enrichment (single-housed in wire bottom cages). We are using single prolonged stress (cold water swim and restraint stress) which is needed to induce a stress state that produces PTSD.

2018-2958	Mice/Rats	X	X				Animals will be held in the plethysmography chamber without food or water for four hours. Measuring gas volume changes in the plethysmography chamber from animal inhalation and exhalation requires controlled conditions, and constant humidity. Urination and defecation alter the conditions inside the chamber, so minimizing food and drink reduces this possibility. To induce respiratory changes, gas delivery will be programmed to reduce O2 levels in the chamber after an interval of sleep has been detected, for a five-minute period of hypoxia (10% O2), followed by rapid return to room air or to 100% O2. This will be repeated over a designated period (2-3 hours during the light period) as sleep is detected.
2007-0147	Mice			X			Head restraint is necessary because movements of any kind can greatly interfere with imaging dynamics (especially rapid events in very small locations, like dendritic spines or astrocyte endfeet).
2020-3637	Rats					X	The purpose of these studies is to determine the effect of enriching experiences during development on vulnerability to drug abuse later in life. As a comparison group, we apply the impoverishment from 21 days of age until adulthood. The wire bottom cages provide social isolation (visual and tactile) and allow for changing bedding below the cage floor with minimal handling of the rat. Since the effects of enrichment and impoverishment are reversible [e.g., Rosenzweig et al. (1962) J Comp Physiol Psychol 55:1092&#8722;1095], it is necessary to maintain the impoverishment as strict as possible until behavioral testing begins.
2019-3419	Rats					X	The type of environmental enrichment does not interfere with our study per se. However, it will be critical to make sure that the enrichment does not provoke injuries during seizures (during seizures animals can jump around the cage). A small amount of nesting material (e.g., default DLAR enrichment) is acceptable. However, we will communicate with DLAR staff to provide appropriate enrichment for the rats in the CE study (aim 3).
2013-1109	Mice	X					To test whether water deprivation further exacerbate blood pressure changes mediated by sPRR, mice will be water deprived no more than 24 hours as described previously
2018-3132	Rats	X					Water restriction: required to motivate drinking behavior as part of an evaluation of anhedonic effects of fentanyl exposure and withdrawal.
2015-2211	Mice	X	X			X	To study the effects of fluid intake on daily rhythms water availability will be ad libitum, or will be restricted to 12-h/day, 8-h/day, or 4-h/day (during the daytime or nighttime). To assess the endogenous characteristics of the circadian clock, we will perform some experiments in constant darkness or constant light in the light-tight boxes. Mice will be housed in LL or DD for up to 1 year. In some cases, the effects of non-standard light-dark cycles (e.g. long days 16L:8D, short days 8L:16D; or compressed 10L:10D or extended days 14L:14D) on behavior and metabolism will be assessed. Mice will be housed in non-standard LD cycles for up to 1 year. Since the scientific goals of our experiments are to assess the relationship between circadian rhythms and metabolism, we do not want to introduce variables that will confound metabolism. Mice will receive standard DLAR enrichment during breeding, nursing and just after weaning (at least 3-5 weeks old). When mice are single-housed in the light-tight boxes, enrichment will be removed.
2019-3293	Mice	X					Mice undergoing sucrose preference testing will be deprived of water overnight (max 16 hr) prior to the testing period to encourage consumption of water from both water bottles.

2020-3719	Chicken					X	The experiment may yield information on useful ways to alleviate heat stress for birds (and possibly other species) under commercial and research conditions.
-----------	---------	--	--	--	--	---	---

## Attachment # 2

### Semiannual Program Review and Facility Inspection Checklist

#### About the checklist

The Semiannual Program Review and Facility Inspection Checklist is provided to assist institutions in conducting their semiannual reviews of programs and facilities for the care and use of animals. The Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals ([Policy](#)), section [IV.B.1.-2.](#), requires the Institutional Animal Care and Use Committee (IACUC) to review the institution's program for humane care and use of animals and inspect all of the institution's animal facilities at least once every 6 months using the *Guide for the Care and Use of Laboratory Animals: Eighth Edition* ([Guide](#)) as a basis for evaluation.

#### How to use the checklist

This checklist is a tool to assist IACUCs in conducting thorough semiannual reviews. IACUCs are not required to use this checklist but are encouraged to amend it as necessary to reflect institutional programs and needs, or to develop their own checklist. If the checklist is modified, periodic review of the checklist is recommended to ensure relevant topics are considered as the animal care and use program changes.

The checklist covers the major topics of the *Guide* and the requirements of the PHS Policy. The checklist does not replace the *Guide*, but should be utilized in conjunction with the *Guide*. The *Guide* provides the standards, recommendations, and descriptions of desired outcomes necessary to evaluate and inspect an animal care and use program. Relevant references for the *Guide* and the PHS Policy are noted. Endnotes are included to reference specific U.S. Department of Agriculture (USDA) regulatory requirements that differ from the PHS Policy. Topics that are new to this version of the checklist or identified as a "must" in the *Guide* are highlighted. A column to identify changes that have occurred in the institution's program for animal care and use (PHS Policy [IV.A.1.a.-i.](#)) since the last review is also a new feature.

The checklist consists of the following sections:

- I. Semiannual Program Review Checklist
  - Institutional Policies and Responsibilities
  - Veterinary Care
- II. Semiannual Facility Inspection Checklist
  - Terrestrial Animal Housing and Support Areas
  - Aquatic Animal Housing and Support Areas
  - Cagewash
  - Special Facilities: Aseptic Surgery
  - Special Facilities: Procedure Areas, Non-survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Containment, Behavioral Studies
- III. Semiannual Program Review and Facility Inspection Report
- IV. Endnotes

It is recommended that the Program Review section be completed during an IACUC meeting. Because physical aspects of a program require visual observation to evaluate, it is recommended that the Facility Inspection section be completed during an inspection of the facilities, including satellite facilities.

A table is provided, "Semiannual Program Review and Facility Inspection Report," as a format for the IACUC to organize and track information regarding deficiencies, and plans and schedules for correction. IACUCs may choose to attach the table to the Semiannual Report to the Institutional Official.

#### Questions or comments?

Suggestions or comments about this checklist should be e-mailed to: [olawdpe@mail.nih.gov](mailto:olawdpe@mail.nih.gov).



## I. Semiannual Program Review Checklist <sup>1</sup>

### Institutional Policies and Responsibilities

1. Animal Care and Use Program <b>NEW 9-16-2020</b>		A*	M	S	C	NA
• Responsibility for animal well-being is assumed by all members of the program ( <i>Guide, p 1</i> ) <b>[must]</b>	X					
• IO has authority to allocate needed resources ( <i>Guide, p 13</i> )	X					
• Resources necessary to manage program of veterinary care are provided ( <i>Guide, p 14</i> ) <b>[must]</b>	X					
• Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> ( <i>Guide, pp 11, 15</i> )	X					
• Program needs are regularly communicated to IO by AV and/or IACUC ( <i>Guide, p 13</i> )	X					
• Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site ( <i>Guide, p 14</i> ) <b>[must]</b>						X
• Inter-institutional collaborations are described in formal written agreements ( <i>Guide, p 15</i> )	X					
• Written agreements address responsibilities, animal ownership, and IACUC oversight ( <i>Guide, p 15</i> )	X					
2. Disaster Planning and Emergency Preparedness <b>NEW 11-11-2020</b>		A*	M	S	C	NA
• Disaster plans for each facility to include satellite locations are in place ( <i>Guide, p 35, p 75</i> ) <b>[must]</b>	X					
• Plans include provisions for euthanasia ( <i>Guide, p 35</i> ) <b>[must]</b>	X					
• Plans include triage plans to meet institutional and investigators' needs ( <i>Guide, p 35</i> )	X					
• Plans define actions to prevent animal injury or death due to HVAC or other failures ( <i>Guide, p 35</i> )	X					
• Plans describe preservation of critical or irreplaceable animals ( <i>Guide, p 35</i> )	X					
• Plans include essential personnel and their training ( <i>Guide, p 35</i> )	X					
• Animal facility plans are approved by the institution and incorporated into overall response plan ( <i>Guide, p 35</i> )	X					
• Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place ( <i>Guide, p 35</i> )	X					
3. IACUC <b>NEW 8/19/2020</b>		A*	M	S	C	NA
• Meets as necessary to fulfill responsibilities ( <i>Guide, p 25</i> ) <b>[must]</b>	X					
• IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions ( <i>Guide, p 26</i> ) <b>[must]</b>	X					
• Continuing IACUC oversight after initial protocol approval is in place ( <i>Guide, p 33</i> )	X					
• IACUC evaluates the effectiveness of training programs ( <i>Guide, p 15</i> )	X					
4. IACUC Protocol Review - Special Considerations <b>8/19/2020</b>		A*	M	S	C	NA
• Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock ( <i>Guide, p 27</i> )	X					
• For pilot studies, a system to communicate with the IACUC is in place ( <i>Guide, p 28</i> )	X					
• For genetically modified animals, enhanced monitoring and reporting is in place ( <i>Guide, p 28</i> )	X					
• Restraint devices are justified in the animal use protocols ( <i>Guide, p 29</i> ) <b>[must]</b>	X					
• Alternatives to physical restraint are considered ( <i>Guide, p 29</i> )	X					
• Period of restraint is the minimum to meet scientific objectives ( <i>Guide, p 29</i> )	X					
• Training of animals to adapt to restraint is provided ( <i>Guide, p 29</i> )	X					
• Animals that fail to adapt are removed from study ( <i>Guide, p 29</i> )	X					
• Appropriate observation intervals of restrained animals are provided ( <i>Guide, p 29</i> )	X					
• Veterinary care is provided if lesions or illness result from restraint ( <i>Guide, p 30</i> ) <b>[must]</b>	X					
• Explanations of purpose and duration of restraint are provided to study personnel ( <i>Guide, p 30</i> )	X					
• Multiple surgical procedures on a single animal are justified and outcomes evaluated ( <i>Guide, p 30</i> )	X					



• Major versus minor surgical procedures are evaluated on a case-by-case basis ( <i>Guide</i> , <a href="#">p 30</a> )	X				
• Multiple survival procedure justifications in non-regulated species conform to regulated species standards ( <i>Guide</i> , <a href="#">p 30</a> )	X				
• Animals on food/fluid restriction are monitored to ensure nutritional needs are met ( <i>Guide</i> , <a href="#">p 31</a> )	X				
• Body weights for food/fluid restricted animals are recorded at least weekly ( <i>Guide</i> , <a href="#">p 31</a> )	X				
• Daily written records are maintained for food/fluid restricted animals ( <i>Guide</i> , <a href="#">p 31</a> )	X				
• Pharmaceutical grade chemicals are used , when available, for animal-related procedures ( <i>Guide</i> , <a href="#">p 31</a> )	X				
• Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC ( <i>Guide</i> , <a href="#">p 31</a> )	X				
• Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area ( <i>Guide</i> , <a href="#">p 32</a> )	X				
• Disposition plans are considered for species removed from the wild ( <i>Guide</i> , <a href="#">p 32</a> )	X				
• Toe-clipping only used when no alternative, performed aseptically and with pain relief ( <i>Guide</i> , <a href="#">p 75</a> )					X

#### 5. IACUC Membership and Functions 8/19/2020

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

#### 6. IACUC Training NEW 8/19/2020

	A*	M	S	C	NA
• All IACUC members should receive:					
o Formal orientation to institution's program ( <i>Guide</i> , <a href="#">p 17</a> )	X				
o Training on legislation, regulations, guidelines, and policies ( <i>Guide</i> , <a href="#">p 17</a> )	X				
o Training on how to inspect facilities and labs where animal use or housing occurs ( <i>Guide</i> , <a href="#">p 17</a> )	X				
o Training on how to review protocols as well as evaluate the program ( <i>Guide</i> , <a href="#">p 17</a> )	X				
o Ongoing training/education ( <i>Guide</i> , <a href="#">p 17</a> )	X				

#### 7. IACUC Records and Reporting Requirements<sup>vi</sup> 8/19/2020

	A*	M	S	C	NA
• Semiannual report to the IO (PHS Policy, <a href="#">IV.B.</a> )					
o Submitted to IO every 6 months	X				
o Compiles program review and facility inspection(s) results (includes all program and facility deficiencies)	X				
o Includes minority IACUC views	X				
o Describes IACUC-approved departures from the <i>Guide</i> or PHS Policy and the reasons for each departure <sup>vii</sup>	X				
o Distinguishes significant from minor deficiencies	X				



○ Includes a plan and schedule for correction for each deficiency identified <sup>viii</sup>	X				
• Reports to OLAW (PHS Policy, <a href="#">IV.F.</a> )					
○ Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	X				
○ Promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or PHS Policy noncompliance ( <a href="#">NOT-OD-05-034</a> )	X				
○ Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC ( <a href="#">NOT-OD-05-034</a> )	X				
• Reports to U.S. Department of Agriculture (USDA) or Federal funding agency <sup>ix</sup>					
○ Annual report to USDA contains required information including all exceptions/exemptions	X				
○ Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	X				
○ Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	X				
○ Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	X				
• Records (PHS Policy, <a href="#">IV.E.</a> )					
○ IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	X				
○ Records of IACUC reviews of animal activities include all required information <sup>x</sup>	X				
○ Records of IACUC reviews are maintained for 3 years after the completion of the study	X				

#### 8. Veterinary Care (See also next section - Veterinary Care) 9-16-2020

A\* M S C NA

• An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care <sup>xi</sup>	X				
• Veterinary access to all animals is provided ( <i>Guide</i> , <a href="#">p 14</a> ) [must]	X				
• Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use ( <i>Guide</i> , <a href="#">p 14</a> ) [must]	X				
• Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol ( <i>Guide</i> , <a href="#">p 5</a> ) [must]	X				
• Veterinarian provides consultation when interventional control is not possible ( <i>Guide</i> , <a href="#">p 5</a> ) [must]	X				
• If part time /consulting veterinarian, visits meet programmatic needs ( <i>Guide</i> , <a href="#">p 14</a> )					X
• Regular communication occurs between veterinarian and IACUC ( <i>Guide</i> , <a href="#">p 14</a> )	X				
• Veterinarian(s) have experience and training in species used ( <i>Guide</i> , <a href="#">p 15</a> ) [must]	X				
• Veterinarian(s) have experience in facility administration/management ( <i>Guide</i> , <a href="#">p 15</a> )	X				

#### 9. Personnel Qualifications and Training 11-11-2020

A\* M S C NA

• All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]					
○ Veterinary/other professional staff ( <i>Guide</i> , <a href="#">p 15-16</a> )	X				
○ IACUC members ( <i>Guide</i> , <a href="#">p 17</a> )	X				
○ Animal care personnel ( <i>Guide</i> , <a href="#">p 16</a> )	X				
○ Research investigators, instructors, technicians, trainees, and students ( <i>Guide</i> , <a href="#">pp 16-17</a> )	X				
• Continuing education for program and research staff provided to ensure high quality care and reinforce training ( <i>Guide</i> , <a href="#">pp 16-17</a> )	X				
• Training is available prior to starting animal activity ( <i>Guide</i> , <a href="#">p 17</a> )	X				
• Training is documented ( <i>Guide</i> , <a href="#">p 15</a> )	X				
• Training program content includes: ( <i>Guide</i> , <a href="#">p 17</a> )					
○ Methods for reporting concerns ( <i>Guide</i> , <a href="#">p 17</a> )	X				
○ Humane practices of animal care (e.g., housing, husbandry, handling) <sup>xii</sup>	X				
○ 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> , <a href="#">p 17</a> ) <sup>xiii</sup>	X				
○ Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, <a href="#">IV.A.1.g.</a> )	X				
○ Research/testing methods that minimize animal pain or distress (PHS Policy, <a href="#">IV.A.1.g.</a> )	X				
○ Use of hazardous agents, including access to OSHA chemical hazard notices where applicable ( <i>Guide</i> , <a href="#">p 20</a> )	X				
○ Animal care and use legislation ( <i>Guide</i> , <a href="#">p 17</a> )	X				



o IACUC function ( <i>Guide, p 17</i> )	X				
o Ethics of animal use and Three R's ( <i>Guide, p 17</i> )	X				
<b>10. Occupational Health and Safety of Personnel DEC 9th</b>	<b>A*</b>	<b>M</b>	<b>S</b>	<b>C</b>	<b>NA</b>
• Program is in place and is consistent with federal, state, and local regulations ( <i>Guide, p 17</i> ) <b>[must]</b>	X				
• Program covers <i>all</i> personnel who work in laboratory animal facilities ( <i>Guide, p 18</i> )	X				
• Changing, washing, and showering facilities are available as appropriate ( <i>Guide, p 19</i> )	X				
• Hazardous facilities are separated from other areas and identified as limited access ( <i>Guide, p 19</i> )	X				
• Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) ( <i>Guide, p 20</i> )	X				
• Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) ( <i>Guide, p 20</i> )	X				
• Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place ( <i>Guide, p 21</i> )	X				
• Personal Protective Equipment for the work area is appropriate and available ( <i>Guide, p 21</i> )	X				
• Program for medical evaluation and preventive medicine for personnel includes:					
o Pre-employment evaluation including health history ( <i>Guide, p 22</i> )	X				
o Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate ( <i>Guide, p 22</i> )	X				
o Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) ( <i>Guide, p 23</i> )	X				
o Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. ( <i>Guide, p 23</i> )	X				
o Promotes early diagnosis of allergies including preexisting conditions ( <i>Guide, p 22</i> )	X				
o Considers confidentiality and other legal factors as required by federal, state and local regulations ( <i>Guide, p 22</i> ) <b>[must]</b>	X				
o If serum samples are collected, the purpose is consistent with federal and state laws ( <i>Guide, p 22</i> ) <b>[must]</b>	X				
• Waste anesthetic gases are scavenged ( <i>Guide, p 21</i> )	X				
• Hearing protection is provided in high noise areas ( <i>Guide, p 22</i> )	X				
• Respiratory protection is available when performing airborne particulate work ( <i>Guide, p 22</i> )	X				
• Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
o Tuberculosis screening provided for all exposed personnel ( <i>Guide, p 23</i> )	X				
o Training and implementation of procedures for bites, scratches, or injuries associated with macaques ( <i>Guide, p 23</i> )	X				
o PPE is provided including gloves, arm protection, face masks, face shields, or goggles ( <i>Guide, p 21</i> )	X				
o Injuries associated with macaques are carefully evaluated and treatment implemented ( <i>Guide, p 23</i> )	X				
• Occupational safety and health of field studies is reviewed by OSH committee or office ( <i>Guide, p 32</i> )	X				
<b>11. Personnel Security NEW 11-11-2020</b>	<b>A*</b>	<b>M</b>	<b>S</b>	<b>C</b>	<b>NA</b>
• Preventive measures in place include pre-employment screening, and physical and IT security ( <i>Guide, p 23</i> )	X				
<b>12. Investigating &amp; Reporting Animal Welfare Concerns NEW 11-11-2020</b>	<b>A*</b>	<b>M</b>	<b>S</b>	<b>C</b>	<b>NA</b>
• Methods for investigating and reporting animal welfare concerns are established ( <i>Guide, p 23</i> ) <b>[must]</b>	X				
• Reported concerns and corrective actions are documented ( <i>Guide, p 24</i> )	X				
• Mechanisms for reporting concerns are posted in facility and at applicable website with instructions ( <i>Guide, p 24</i> )	X				
o Includes multiple contacts ( <i>Guide, p 24</i> )	X				
o Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection ( <i>Guide, p 24</i> )	X				



1. Clinical Care and Management <span style="background-color: yellow;">NEW</span>		A*	M	S	C	NA
• Veterinary program offers high quality of care and ethical standards ( <a href="#">Guide, p 105</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia ( <a href="#">Guide, p 106</a> )	X					
• Veterinarian provides oversight to surgery and perioperative care ( <a href="#">Guide, p 106</a> )	X					
• Veterinary care program is appropriate for program requirements ( <a href="#">Guide, pp 113-114</a> )	X					
• Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records ( <a href="#">Guide, p 114</a> )	X					
• Procedures to triage and prioritize incident reports are in place ( <a href="#">Guide, p 114</a> )	X					
• Procedures are in place to address:						
o Problems with experiments to determine course of treatment in consultation with investigator( <a href="#">Guide, p 114</a> )	X					
o Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes ( <a href="#">Guide, p 114</a> )	X					
o Veterinary review and oversight of medical and animal use records ( <a href="#">Guide, p 115</a> )	X					
• Procedures established for timely reporting of animal injury, illness, or disease ( <a href="#">Guide, p 114</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Procedures established for veterinary assessment, treatment, or euthanasia ( <a href="#">Guide, p 114</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Veterinarian is authorized to treat, relieve pain, and/or euthanize ( <a href="#">Guide, p 114</a> ) <span style="background-color: cyan;">[must]</span>	X					
2. Animal Procurement and Transportation/Preventive Medicine		A*	M	S	C	NA
• Procedures for lawful animal procurement are in place ( <a href="#">Guide, p 106</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Sufficient facilities and expertise are confirmed prior to procurement ( <a href="#">Guide, p 106</a> )	X					
• Procurement is linked to IACUC review and approval ( <a href="#">Guide, p 106</a> )	X					
• Random source dogs and cats are inspected for identification ( <a href="#">Guide, p 106</a> )						X
• Population status of wildlife species is considered prior to procurement ( <a href="#">Guide, p 106</a> )	X					
• Appropriate records are maintained on animal acquisition ( <a href="#">Guide, p 106</a> )	X					
• Animal vendors are evaluated to meet program needs and quality ( <a href="#">Guide, p 106</a> )	X					
• Breeding colonies are based on need and managed to minimize numbers ( <a href="#">Guide, p 107</a> )	X					
• Procedures for compliance with animal transportation regulations, including international requirements, are in place ( <a href="#">Guide, p 107</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Transportation is planned to ensure safety, security and minimize risk ( <a href="#">Guide, p 107</a> )	X					
• Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available ( <a href="#">Guide, pp 107- 108</a> )	X					
• Appropriate loading and unloading facilities are available ( <a href="#">Guide, p 109</a> )	X					
• Environment at receiving site is appropriate ( <a href="#">Guide, p 109</a> )	X					
• Policies in place on separation by species, source, and health status ( <a href="#">Guide, pp 109, 111-112</a> )	X					
• Procedures in place for quarantine to include zoonoses prevention ( <a href="#">Guide, p 110</a> )	X					
• Quarantined animals from different shipments are handled separately or physically separated ( <a href="#">Guide, p 110</a> )	X					
• Procedures in place for stabilization/acclimation ( <a href="#">Guide, pp 110-111</a> )	X					
• Policies in place for isolation of sick animals ( <a href="#">Guide, p 112</a> )	X					
• Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation ( <a href="#">Guide, p 112</a> )	X					
• Diagnostic resources are available for preventive health program ( <a href="#">Guide, p 112</a> )	X					
3. Surgery		A*	M	S	C	NA
• Surgical outcomes are assessed and corrective changes instituted ( <a href="#">Guide, p 115</a> )	X					
• Researchers have appropriate training to ensure good technique ( <a href="#">Guide, p 115</a> ) <span style="background-color: cyan;">[must]</span>	X					
• Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) ( <a href="#">Guide, p 116</a> )	X					
• Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved ( <a href="#">Guide, p 116</a> )	X					
• Surgical procedures including laparoscopic procedures are categorized as major or minor ( <a href="#">Guide, pp 117-118</a> )	X					



• For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean ( <i>Guide</i> , <a href="#">p 118</a> )	X				
• Aseptic technique is followed for survival surgical procedures ( <i>Guide</i> , <a href="#">pp 118-119</a> )	X				
• Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place ( <i>Guide</i> , <a href="#">p 119</a> )	X				
• Procedures for monitoring surgical anesthesia and analgesia are in place ( <i>Guide</i> , <a href="#">p 119</a> )	X				
• For aquatic species, skin surfaces are kept moist during surgical procedures ( <i>Guide</i> , <a href="#">p 119</a> )	X				
• 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> , <a href="#">pp 119-120</a> )	X				

#### 4. Pain, Distress, Anesthesia and Analgesia A\* M S C NA

• Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training ( <i>Guide</i> , <a href="#">p 121</a> )	X				
• Selection of analgesics and anesthetics is based on professional veterinary judgment ( <i>Guide</i> , <a href="#">p 121</a> )	X				
• Painful procedures are monitored to ensure appropriate analgesic management ( <i>Guide</i> , <a href="#">p 122</a> )	X				
• Nonpharmacologic control of pain is considered as an element of postprocedural care ( <i>Guide</i> , <a href="#">p 122</a> )	X				
• Procedures are in place to assure antinociception before surgery begins ( <i>Guide</i> , <a href="#">p 122</a> ) <b>[must]</b>	X				
• Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated ( <i>Guide</i> , <a href="#">p 122</a> )	X				
• Special precautions for the use of paralytics are in place to ensure anesthesia <sup>xiv</sup> ( <i>Guide</i> , <a href="#">p 123</a> )	X				

#### 5. Euthanasia A\* M S C NA

• Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC ( <i>Guide</i> , <a href="#">p 123</a> )	X				
• Standardized methods are developed and approved by the veterinarian and IACUC that avoid distress and consider animal age and species ( <i>Guide</i> , <a href="#">pp 123-124</a> )	X				
• Training is provided on appropriate methods for each species and considers psychological stress to personnel ( <i>Guide</i> , <a href="#">p 124</a> )	X				
• Procedures and training are in place to ensure death is confirmed ( <i>Guide</i> , <a href="#">p 124</a> ) <b>[must]</b>	X				

#### 6. Drug Storage and Control NEW A\* M S C NA

• Program complies with federal regulations for human and veterinary drugs( <i>Guide</i> , <a href="#">p 115</a> ) <b>[must]</b>	X				
• Drug records and storage procedures are reviewed during facility inspections ( <i>Guide</i> , <a href="#">p 115</a> )	X				
• Procedures are in place to ensure analgesics and anesthetics are used within expiration date ( <i>Guide</i> , <a href="#">p 122</a> ) <b>[must]</b>	X				
• Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely ( <i>Guide</i> , <a href="#">p 122</a> )	X				

\* 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)

NA = not applicable

## II. Semiannual Program Review and Facility Inspection Report

Date:

Members in Attendance:

Deficiency Category*	√	Location	Deficiency and Plan for Correction	Responsible Party	Correction Schedule and Interim Status	Date Complete

- \* 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)  
NA = not applicable  
√ Check if repeat deficiency

### III. Endnotes

<sup>i</sup> 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.

<sup>ii</sup> 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]

<sup>iii</sup> 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]

<sup>iv</sup> 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]

<sup>v</sup> 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]

<sup>vi</sup> 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]

<sup>vii</sup> 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]

<sup>viii</sup> 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*]

<sup>ix</sup> 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]

<sup>x</sup> 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..."

<sup>xi</sup> 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]

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

<sup>xiii</sup> 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].

<sup>xiv</sup> 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."



**Attachment #3 Current Outstanding Minor or Significant Deficiencies Report**

Facility	Area	Room	Function	Inspection	Rating	Follow-up Date	Deficiency	Comment	Rx_Corrections	Completion Comment
			Animal Housing	10/16/20	Minor	4/16/21	paint or sealant: chipped, damaged, or missing	Paint is flaking and peeling in several areas including stalls	scrape and paint; continue to paint as funds become available	as per email from veterinarian: Painting is continual problem and fixing it is funding-dependent 12/16/19; as per email from veterinarian, still waiting on funds for painting 6/3/20; extended by chair 6/29/20; extended by inspectors on 10/16/20
			Meats Lab	10/26/20	Minor	4/26/21	door(s): dinged frame or door w/exposed wood or metal	exposed metal on doorway leading into chute area	fix/cover exposed metal on corner of doorway leading to chute area	
			Animal Housing	10/26/20	Minor	4/26/21	safety: eye wash station missing or nonoperational	no eye wash in dishwash area where chemicals are stored; recommend keeping records of sanitation and verification of temps. if not already being done	work with EH&S for recommendations on eyewash options	
			Animal Housing	11/5/20	Minor	2/26/21	Animal Health: access to clean feed/water	water cannister appeared dirty inside	clean the inside of the water reservoir	extended by chair 12/18/20
			Animal Housing	11/5/20	Minor	2/26/21	equipment: rusting or improper sanitation	rusty metal shelving; <b>Guide states: Rusting or oxidized equipment, which threatens the health or safety of animals, needs to be repaired or replaced .</b>	replace with shelving that can be cleaned and sanitized	extended by chair 12/18/20
			Animal Housing	11/5/20	Minor	2/26/21	equipment: rusting or improper sanitation	rusty metal shelving; <b>Guide states: Rusting or oxidized equipment, which threatens the health or safety of animals, needs to be repaired or replaced.</b>	replace with shelving that can be cleaned and sanitized	extended by chair 12/18/20
			PI Lab	11/5/20	Minor	2/26/21	Sanitation: Mold	mold on the fridge and freezer door seals	clean and sanitize prior to animal use	extended by chair 12/18/20
			PI Lab	11/5/20	Minor	2/26/21	Sanitation: Items on floor	Items on the floor; Recommendation: verify that feed is still within date	remove items from the floor; discard any expired food prior to animal use	extended by chair 12/18/20
			Storage Room	11/5/20	Minor	2/26/21	sanitation: cardboard boxes on floor	cardboard boxes on floor	move cardboard boxes off floor	extended by chair 12/16/20
			Storage Room	11/5/20	Minor	2/26/21	sanitation: items on floor	Unpainted wood, bags of concrete, and other items stored on the floor	move and store items off floor	extended by chair 12/16/20

## Attachment #4 Inspection Report

## Animal Housing Report

Facility	Area	Room	Function	Deficiency	Date	Rating	Follow-up Date	Completed	Continuing	Repeat	Comment	Rx_Corrections	Completion Comment	Date Completed			
			Storage	Human Food Improperly Labeled	10/16/20	Minor	11/16/20	Y			Yogurt in fridge needs to be labeled. Recommend update biennial inventory sheet	Label yogurt "not for human consumption"	Biennial inventory sheet updated as per PI email 10/22/20; yogurt appropriately labeled as per personnel email	12/7/20			
			Animal Housing	Pasture, Pen, or Corral broken boards	10/16/20	Minor	4/16/21	Y			Loose and broken boards with exposed nails in barn aisle	Repair or replace loose/broken boards. Remove exposed nails.	Fixed as per personnel email	12/7/20			
			Animal Housing	Pasture, Pen, or Corral exposed metal	10/16/20	Minor	4/16/21	Y			Stall with exposed metal bracket	Remove metal brackets OR repair door/cover in stall. Do not use stall(s) until corrected.	Fixed as per personnel email	12/7/20			
			Drug Storage	Safety full sharps container	10/16/20	Minor	11/16/20	Y			Safety Full sharps containers	dispose of/replace container	Sharps container disposed of and replaced as per PI email	10/24/20			
			Procedure	drug(s) chemical(s), supplies expired	10/22/20	Minor	11/5/20	Y			Inside PI locked cabinet expired suture & expired povidone iodine swabs were found	discard expired items	Expired items discarded per email DLAR contact	12/11/20			
			Animal Housing (Procedure Room)	Sanitation unsealed wood	10/22/20	Minor	11/23/20	Y			Exposed, unfinished wood on edge of door of behavior testing chamber	seal or paint unfinished wood	Exposed wood painted as per personnel email	12/19/20			
			Animal Housing (Behavioral Testing)	equipment rusting or improper sanitation	10/22/20	Minor	11/23/20	Y			Edges of PI's behavior testing platform were rusty/corroded.	Equipment needs to be replaced or painted for sanitizing.	Item removed from space as per DLAR contact email	12/15/20			
			Animal Housing (Procedure Room)	Door exposed wood or metal	10/26/20	Minor	11/26/20	Y			rust on door	Paint/seal door to allow for proper sanitation	Rust on door addressed as per email from ADR	12/16/20			
			Animal Housing (Farrowing)	Safety loose grate	10/26/20	Minor	11/26/20	Y			floor grate is loose	secure grate	Grate secured as per email from ADR	12/16/20			
			Animal Housing (Farrowing)	Water flooding/standing water	10/26/20	Minor	11/26/20	Y			standing water on floor, poses slip hazard to humans/animals	Place signage; squeegee more frequently; possibly use rubber matting	Water pooling was addressed as per email from ADR	12/16/20			
			Sub-Basement	safety unsecured or improperly secured gas cylinder (s)	10/26/20	Minor	11/26/20	Y			unsecured canister of argon; recommend follow up with PPD about leak down wall in stairwell	secure argon canister	Argon gas cylinder removed as per email from facility contact	11/18/20			
			Sub-Basement	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard on the floor	move cardboard boxes off floor	Cardboard moved off floor as per email from facility contact	10/29/20			
			Sub-Basement	vermin inadequate monitoring	10/26/20	Minor	11/26/20	Y			no vermin traps	set at least 2 vermin traps and check monthly	Vermin traps set as per email from facility contact	10/29/20			
			Animal Housing (Grow/Finish)	Water supply leaking	10/26/20	Minor	11/26/20	Y			lixit in back pen continuously running	repair/ replace	Leaky lixit addressed as per email from ADR	12/16/20			
			Feed Storage	vermin inadequate monitoring	10/26/20	Minor	11/26/20	Y			no vermin traps; recommend complete paper for PWS feed (paper label was blank) and clean up spilled feed	set at least 2 vermin traps and/or fly paper and check monthly	Vermin traps set and spilled feed was cleaned up as per email from facility contact	10/29/20; 11/18/20			
			Fridge	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			freezer cardboard boxes on floor	move cardboard boxes off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Freezer	sanitation cardboard boxes/carcass on floor	10/26/20	Minor	11/26/20	Y			fridge carboard boxes and carcass on floor	move cardboard boxes and carcass off floor	Cardboard and carcass moved off the floor as per email from facility contact	10/29/20			
			Procedure Room	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard boxes on floor	move cardboard boxes off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Procedure Room	vermin inadequate monitoring	10/26/20	Minor	11/26/20	Y			no vermin traps in the room	set at least 1 vermin trap and/or fly paper and check monthly	Vermin traps set as per email from facility contact	10/29/20			
			Storage	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard boxes on floor	move cardboard boxes off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Storage	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard boxes on the floor; entry into room difficult-must be able to access location during inspections	move cardboard boxes off floor; clear entry	Cardboard boxes moved off the floor and entry was cleared as per email from facility contact	10/29/20; 11/18/20			
			Mechanical Room	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard box on floor	move cardboard box off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Storage	sanitation cardboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard box on floor	move cardboard box off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Storage	sanitation carboard boxes on floor	10/26/20	Minor	11/26/20	Y			cardboard boxes on floor	move cardboard boxes off floor	Cardboard moved off the floor as per email from facility contact	10/29/20			
			Animal Housing	Equipment certification expired	11/9/20	Minor	2/28/21	Y			Hood certification expired	Label "out of service/do not use" until it is recertified	Hood labeled immediately and subsequently recertified on 11/17/20 as per site contact email	12/18/2020			
			Aseptic Surgery Report														
			Surgery	drug(s) chemical(s), supplies expired	10/22/20	Minor	11/5/20	Y			expired alcohol wipes	discard expired items	Expired items discarded as per email DLAR contact	12/11/20			

	Intensive care	drug(s), chemical(s), supplies (s) expired	11/9/20	Minor	2/28/21	Y		expired items	discard expired items; segregate expired from non-expired items	Expired items segregated or discarded as appropriate as per site contact email	11/13/2020
	Monitoring Room	drug(s), chemical(s), supplies (s) expired	11/9/20	Minor	11/19/20	Y		drugs in locked boxes were not secure; the cabinet where the controlled substances are kept was not locked	secure cabinet	Cabinet locks installed to secure controlled substances as per email from lab personnel	11/20/2020
	Monitoring Room	drug(s), chemical(s), supplies (s) expired	11/9/20	Minor	2/28/21	Y		expired drugs in cabinet; recommend information in drug logs need to be corrected	discard expired items; correct drug log documentation	Expired items discarded as per site contact email; proper drug log documentation will be addressed with vet when personnel return to campus	11/13/2020
	Prep	drug(s), chemical(s), supplies (s) expired	11/9/20	Minor	2/28/21	Y		expired items	discard expired items	Expired items discarded as per site contact email	11/13/2020
	Surgery	drug(s), chemical(s), supplies (s) expired	11/9/20	Minor	2/28/21	Y		multiple expired items; recommend contact DLAR to sanitize surgical area prior to animal work	discard expired items; segregate expired from non-expired items	Expired items segregated or discarded as appropriate as per site contact email	11/13/2020
	PI Lab Report										
	PI Lab	sanitation cardboard boxes on floor	11/5/20	Minor	12/4/20	Y		cardboard boxes on floor	move cardboard boxes off floor	Cardboard moved off the floor as per email from vet	12/22/2020
	PI Lab	Drugs/Chemicals improperly labeled	11/5/20	Minor	12/4/20	Y		unlabeled syringes of dyes in the fridge and freezer; need to be disposed of	dispose of improperly labeled syringes	Syringes discarded as per PI email	12/7/2020
	PI Lab	Feed Improper Label	11/5/20	Minor	12/4/20	Y		unlabeled items in tupperware in fridge	dispose of improperly labeled/oudated diets/feed	Items disposed of as per PI email	12/7/2020
	PI Lab	Feed Improper Label	11/5/20	Minor	12/4/20	Y		unlabeled containers of feed; premixed diets with unspecified dates	dispose of improperly labeled/oudated diets/feed	Items disposed of as per PI email	12/7/2020
	PI Lab	Sanitation Mold	11/5/20	Minor	12/4/20	Y		dirty freezer; mold on fridge door seal	clean and sanitize	Fridge and freezer cleaned and sanitized as per PI email	12/7/2020
	PI Lab	vermin inadequate monitoring	11/5/20	Minor	12/4/20	Y		only mouse traps, no insect traps	set at least 1-2 insect traps/room and check monthly; reset tripped mouse traps, daily if needed	Insect traps set and mouse traps reset as per PI email	12/7/2020
	Storage Room	vermin inadequate monitoring	11/5/20	Minor	12/4/20	Y		only mouse traps; no insect traps	set at least 1-2 insect traps/room and check monthly; reset tripped mouse traps, daily if needed	Insect traps set and mouse traps reset as per PI email	12/7/2020
	PI Lab	safety unsecured or improperly secured gas cylinder (s)	11/20/20	Minor	12/20/20	Y		CO <sub>2</sub> tank not secure near hood (indicated they were in the process of switching tanks out)	Secure tank	CO <sub>2</sub> tank secured as per PI email	12/4/2020