Memorandum to:	Michele R. Kennett, JD, MSN, LLM; Institutional Official and Associate Vice Chancellor for Research
From:	Institutional Animal Care and Use Committee
Subject:	Semiannual Report of the Program Review and Facility Inspection
Date:	July 2nd, 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 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).

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.): [*optional*]

See Attached (List)

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.
[**X**] B. The following departures have been reviewed and approved by the IACUC: [*include reason for each departure*]

See Attached (Spreadsheet)

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

Animal Care and Use Program Review Date(s): **6/11/19**
Select A or B:

[**X**] A. There were no deficiencies in the program during this reporting period.
[ ] B. The following deficiencies have been identified: [*describe each deficiency, identify each deficiency as either minor or significant, and provide a reasonable and specific plan and schedule for the correction of each deficiency, deficiencies may be recorded on a separate table and attached, the last page of OLAW's Sample Semiannual Program Review and Facility Inspection Checklist provides a sample table*]

III. Deficiencies in the Institution's Animal Facility

Animal Facility Inspection Date(s): **Inspections done on rotating schedule. See attached inspection reports for dates of individual inspections.**
Select A or B:

[ ] A. There were no deficiencies in the animal facility during this reporting period.
[**X**] B. The following deficiencies have been identified: [*describe each deficiency, identify each deficiency as either minor or significant, and provide a reasonable and specific plan and schedule for the correction of each deficiency, deficiencies may be recorded on a separate table and attached, the last page of OLAW's Sample Semiannual Program Review and Facility Inspection Checklist provides a sample table*]

See Attached (Inspection Reports)

I. 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*]

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

Full Accreditation for the Following Facilities: School of Medicine, Dalton Cardiovascular Research Center, College of Arts and Sciences, College of Veterinary Medicine, Bond Life Sciences Center, Animal Resource Center (ARC) and National Swine Resource & Research Center

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

Names of IACUC Members	Signatures
Jen Allen	
D Cornelison	
Jeffre Firman	
~~Nick Harrison~~	
Eileen Hasser	
Jeff Henegar	
Suzanne Marshall	
Joel Maruniak	
Helen Mullen	
Kristi Nichols	
Erin O'Connor	
Scott Rector	
Don Reynolds	
Kevin Wells	
Liz Abbott (Alternate)	
Pat Farrar (Alternate)	
Mike Linville (Alternate)	
Sara Wolff (Alternate)	
Catherine Chambers	

University of Missouri - Program Changes – Spring 2019

Policies Updated:

- Antibody Production (Custom)
- Decapitation of Rodents
- Multiple Major Survival Surgeries
- Painful or Distressful Procedures
- Physical Restraint
- PPE in Animal Facilities
- Radioactive Materials in Animal Experiments
- Tethering & Stanchions (Cattle)
- Wildlife Study Area Oversight

New Animal Species Added:

- None at this time

Protocol Form Updates:

- The Antibody form was updated to include additional adjuvant options with check boxes
- "Alpaca" was changed to "camelid" on the main protocol form
- Added "eye protection" to the description of PPE in the "Test Substances" section of the protocol

Facility Improvements/Facilities Added or Removed:

- Improvements:
  - Badge readers were installed to access the warehouse area where the Lemond Blvd temporary trailers are located
  - New caging has been installed in the north half of the ARC in spring 2019 and is currently in use
- Added:
  - OAR has resumed the use of Lefevre Hall animal vivarium and is making updates to make it suitable for ABLS2 usage in the coming future
- Removed:
  - None at this time

Occupational Health & Safety Program Updates:

- The Committee for Animal Personnel Safety (CAPSafety) has conducted quarterly meetings and addressed safety concerns of those working with animals. CAPSafety has distributed quarterly newsletters to animal users, highlighting different aspects of safety.
- Added mental health component to all 4 OHSP trainings; Compassion Fatigue: identifying, resources, and prevention.

ACUC Training:

- ACUC Meeting Trainings
  - 2/5/2019: ACUC training – ACUC inspections of laboratories
- Webinars
  - 1/8/2019: NABR Webinar – "The 2018 Oversight Process: Changes and Charting the Future"
  - 3/21/2019: OLAW Webinar – "Superstar Rats Teach Empathy to Researchers"
  - 4/23/2019: NABR Webinar – "Animal Law and the Animal Research Community"

Departures from the Guide

ACUC Semiannual Program Review

Last Updated on: 6/27/19

#	PI	Title	Species	Type Dev.	Description & Length of Deviation	Justification	Expires
8699	Adamovicz, Jeffrey J.	Animal models and therapeutics testing for Zika Virus (ZIKV)	Hamsters	Nonstandard Husbandry	Animals were single housed upon arrival and will remain single housed for the duration of the project to mitigate injury/distress associated with cage mate aggression.	Animals are adolescent/adult Syrian hamsters which are potentially aggressive when pair/group housed.	7/28/19
8741	Lever, Teresa E.	Investigating neuron repair and plasticity through electostimulation therapy	Mouse	Food or water Restriction	Overnight food or water restriction (up to 16 hours)	Overnight food or water restriction will be necessary to motivate eating in order to study mastication behaviors.	8/23/19
8783	Delafontaine, Patrice	IGF-1 and atherosclerosis in pigs	Pig	Nonstandard Husbandry	Swine larger than 100kg may be housed in 4x6' pens. It has been observed that they have sufficient room to move and turn around. Pigs will be housed in these pens for up to 1 week. Upon arrival at any of the OAR animal facilities, FH swine may initially be pair housed. However, once moved to MSB and surgical procedures are completed, paired housing will no longer be optimal for recovery (single housed up to 6 months).	Due to the limitations in housing at MSB only, we will have to house the animals in a standard 4x6 pen. It's been our experience that once animals are individually housed there's potential for fighting if paired post-recovery. Therefore, all swine must be individually housed throughout the remaining duration of the study (6 months).	7/21/19
8790	Brogan, David	Optimizing outcomes of peripheral nerve defect repairs: a comparison of primary repair, biologic splinting, and intercalary allograft in a rat model	Rat	Nonstandard Husbandry	Animals may be required to be singly housed for up to 16 weeks.	If animals are found to have evidence of their cagemates chewing on their limbs or the incision sites, they may be required to be singly housed.	9/8/19
8795	Maitz, Charles	Boron Neutron Capture for Infection Control	mouse	Nonstandard Husbandry	Mice singly housed for up to one week.	Prevent other mice from disrupting surgery site.	1/3/21

8799	Hans, Chetan P.	Effect of Notch deficiency on the development of abdominal aortic aneurysm (AAA).	Mouse	Nonstandard Husbandry	The mice will be individually housed after the minor surgical procedure, until the end of the study (up to 8 weeks).	We found individual housing to be necessary as they may fighting each other and hurt their fresh wounds.	8/1/19
8811	Sun, Hongmin	Molecular mechanism of host coagulation system in Group A, B streptococcus and staphylococcus infection and thrombosis formation	Mouse	Non-Standard Husbandry	Infected mice implanted with wafers or catheters will be single housed for up to 1 year.	Single housing is necessary to prevent mice from biting at surgery sites and implanted wafers and catheters of other mice.	8/17/19
8812	Lorson, Monique	Development of pig models of SMARD1 (SMA with Respiratory Distress)	Pig	Nonstandard Husbandry	Once the animals are of sexual maturity they are typically singly housed for life to ensure their health and well-being as boars and some females do not co mingle well and could inflict animal induced injuries. Animals are still in close proximity to have vocal and nose-to-nose contact.	Animals will be housed singly if it is to ensure their health and well-being due to disease symptoms.	9/21/19

8813	Prather, Randall S.	Nuclear Transfer and Cloning Transgenic Pigs: Reproductive Biology	Pig	Nonstandard Husbandry	At our various locations, animals (piglets, gilts, sows and boars) may be housed individually for life. Individually housed animals will still have pigs in close proximity allowing them to have vocal, visual, olfactory and nose-to-nose contact. C-Section-derived piglets may be housed in rabbit cages or dog cages. We have been using this type of housing for the last 10 years with no apparent animal welfare issues. The following caging systems may be used: Stainless steel dog cages or rabbit cages (3' d x 4' w with Dri-deck flooring). This provides 11.6 sq ft of usable floor space (minus the feeder). Cages will be cleaned of gross contaminants daily and sanitized every 2 days. Miniature pigs will be housed in the dog cages up to 5 wks (3-4 kg) while domestic pigs will be housed up to 4 wks (~7 kg). Cage use will be discontinued before the piglets are tall enough to rub their back on the center divider, or are unable to perform normal postural adjustments.	The reason for the individual housing is that many of these animals are genetically engineered or a surrogate carrying genetically engineered animals, which makes them unique and very valuable. Typically these genetically engineered animals are the first in the world for their modification. Individual housing will limit any animal-induced injuries. We have been housing animals individually and in small groups for the past 20 years with no apparent issues. Dog/Rabbit Cages: The crates & cages allow for a micro-environment in which temperature can be raised to an appropriate level for small piglets. Individual housing in cages will help prevent exposure to pathogens.	8/10/19
8818	Cook, James L.	Canine Model for Diagnosis and Treatment of Spine Disorders and Diseases	Dog	Non-Standard Husbandry	Dogs are singly housed for their entire study period but are socialized daily with other dogs, which can include dog-to-dog interactions, in a common area during kennel cleaning and with other dogs and humans during walking episodes.	Dogs are singly housed for safety reasons (preventing complications and trauma from self and other dogs).	8/8/19
8820	Booth, Frank W.	Optimal peak lifecourse functional values	Rat	Nonstandard Husbandry	Rats will be housed singularly up to 21 weeks with wheels for running in order to record distances and times of running for individual animals. Controls will also be housed individually. Any rat that has undergone surgery will be single housed until incision is healed sufficiently.	Rats will be housed singularly with wheels for running in order to record distances and times of running. For healing of incisions.	8/23/19

8824	Padilla Parellada, Jaume	Influence of physical inactivity and obesity on metabolic and vascular health	Mouse	Nonstandard Husbandry	For the brown adipose tissue lipetcomy, the mice will need to be singly-housed for the duration of the study (18 weeks). When mice are in the metabolic chambers, mice will only be singly-housed for a duration of 72 hours.	Male mice used in the brown adipose lipectomy study will need to remain singly-housed for the remainder of the study to prevent fighting post-surgery. Metabolic chambers: they will need to be singly-housed to record usable data.	9/15/19
8836	Duan, Dongsheng	AAV Gene therapy in a canine model of muscular dystrophin deficient disease	Dog	Non-Standard Husbandry	Dogs will be singly housed for up to 72 hours.	Dogs will be singly housed following muscle biopsies to allow healing & when being video recorded in the dog run for gait analysis.	1/30/20
8837	Lorson, Monique	A Swine Animal Model of Spinal Muscular Atrophy for Therapeutic Studies	Pig	Nonstandard Husbandry	Pigs may be housed individually for life. Individually housed animals will still have pigs in close proximity allowing them to have vocal, visual, olfactory and nose-to-nose contact. C-Section-derived piglets may be housed in dog	Many of these animals are genetically engineered or a surrogate carrying genetically engineered animals, which makes them unique and very valuable. Typically these genetically engineered animals are the first in the world for their modification. Individual housing will limit any	9/22/19
8853	Prather, Randall S.	Polyclonal antibody administration to immunodeficient swine	Pig	Nonstandard Husbandry	These animals may be housed individually with close contact to other pigs (indefinitely/for life)	These pigs are highly valuable and immunodeficient. It is important that they remain in an environment that reduces their risk to cuts or abrasians that would expose them to infection.	11/3/19
8859	Phillips, Charlotte L.	Mechanotransduction Approach to Improve Bone Quality in Osteogensis Imperfecta	mouse	Nonstandard Husbandry	Animals will be singly housed for 3-5 days.	Single housing is required for calorimetry (metabolic) measurements	10/20/19
8888	Bryda, Elizabeth A.	Mouse and Rat Resource Center: Cryopreservation, Rederivation and Live Colony Maintenance	Mice and Rats	Non-Standard Husbandry	Mice and rats will be housed in the same room.	Animals of same health status. Never come in visual or physical contact. Housed in ventilated racks.	11/2/19

8889	Sowers, James R.	Angiotensin II, Overnutrition and Insulin Resistance in Cardiovascular Tissue	Mouse	Non-Standard Husbandry	Animals will be singly housed for up to 20 weeks	To prevent crosstalk of implanted telemetry devices	1/10/20
8892	Amelon, Sybill K.	Conservation of North American bat species, nutritional requirements of insectivorous bats	Bats	Non-Standard Husbandry	Bats will be singly housed for one week.	Single housing will allow for collection to obtain feces for calcium and phosphorus analysis	11/1/19
8893	Amelon, Sybill K.	Conservation of North American Bat Species	Bats	Nonstandard Husbandry and Food/fluid Restriction	Bats will be housed singly and fasted while in metabolism cages (up to 24 hours)	Single housing and fasting will elminiate confounding variables, and allow for fecal collection. Metabolism is altered by eating.	1/9/20
8905	Bowles, Douglas K.	Vascular Pathology and Exercise	Pig	Nonstandard Husbandry	If surgeries are completed at the MSB we will house some animals in a standard 4x6 pen for up to a week post operatively 2. Upon arrival at any of the OAR animal facilities, domestic farm pigs may initially be pair housed. However, once moved to MSB and surgical procedures are completed, paired housing will no longer be optimal for recovery (up to 6 months)	1. Some FH swine occasionally grow larger than 100kg but due to the limitations in housing at MSB only, they must be housed in 4x6 pens. 2. It's been our experience that once animals are individually housed there's potential for fighting if paired post-recovery.	11/21/19
8907	Emter, Craig A.	The Effects of Exercise Training on Left Ventricular and Coronary Vascular Function and Remodeling in Heart Failure	Pig	Non-Standard Husbandry	Singly housed following surgery for up to 6 months	Swine will be housed individually to prevent fighting and for post surgical recovery.	1/4/20
8908	Backus, Robert C.	Vitamin D status of adult dogs and supplemention intervention during insufficiency states	Dog	Non-Standard Husbandry	Dogs will be housed individually for up to 24 weeks.	Individual housing will allow individual feed data to be collected.	12/19/19

8917	Clarke, Lane L.	Epithelial ion transport in gene-targeted mouse models of cystic fibrosis	Mouse	Non-Standard Husbandry	Mice will be single housed for life.	Single housing improves survivability of the disease model.	12/14/19
8945	Fritsche, Kevin L.	DHA - neuroprotection in autism	Mouse	Non-Standard Husbandry	Female mice will be housed individually two weeks prior to breeding, through gestation and weaning (approx 8-10 weeks)	Reduce cannibalization of litters.	2/1/20
8962	Lockette, Warren	Funny Channels in Post-traumatic Stress Disorder	Mouse	Non-Standard Husbandry	Animals will be singly housed for three weeks.	Single housing is necessary to reproduce the social isolation that induces PTSD.	4/7/20
8969	Anderson, Deborah	Virulence and immunity to bacterial infections	Rat	Non-Standard Husbandry	Rats with telemetry transmitter implants are single housed for up to 25 days.	Necessar for individual monitoring/recording of telemetry data.	3/15/20
8973	Will, Matthew J.	Genetics, Environment, and Motivation in Drug-Induced Behaviors	Rat	Nonstandard Husbandry & Food Restriction	Rats will be housed singly for two weeks post-surgery. Rats will be limited to 16g food/rat/day for two weeks.	Single housing is necessary to prevent cage-mate-destruction of catheter placement. Food restriction is used to increase motivation for food reward and decrease training latency.	3/10/20
8981	Stich, Roger W.	Targeting the tick-pathogen interface for tick-borne disease control	Cow	Physical Restraint	Calves are cross-tied or in head stanchions during tick feeding (7-14 days)	Prolonged Restraint helps to prevent tick escape.	4/6/20
8988	Duan, Dongsheng	AAV Gene Therapy In Mouse model of Muscular Dystrophy	Mouse	Non-Standard Husbandry	Some mice will be singly housed for one week.	Single housing allows running distances to be recorded on running wheels.	3/29/20
9001	Schulz, Laura C.	The Role of Leptin in Placental Development	Mouse	Non-Standard Husbandry	Mice will be individually housed for 3-4 days in metabolic cages.	Mice are housed individually for food consumption and food preference tests and metabolic rate measurements. This is the only way to obtain measurements for individual mice.	4/18/20
9026	Ma, Richard	A rat model to investigate effect of graft force on healing after Anterior Cruciate Ligament (ACL) reconstruction	Rat	Nonstandard Husbandry	If animals are found to have evidence of their cagemates chewing on their limbs or the incision sites, they may be required to be singly housed for up to 6 weeks.	Prevention of injury	9/12/21

9047	Zhang, Shuping	Evaluation of novel antimicrobial peptides for the treatment of Pseudomonas aeruginosa skin infection using a mouse model	Mouse	Nonstandard Husbandry	Mice will be singly housed for the duration of the study (up to 7 days).	Mice will be singly housed after wounding/treatment to prevent chewing/biting on each others bandages.	8/2/20
9062	Loboa, Elizabeth	3D biofabrication of hASC-based biomimetic osteochondral tissue and the role of extracellular calcium receptor	Pig	Non-Standard Husbandry	Pigs will be singly housed following surgery for up to 120 days.	Single housing prevents any interaction-related surgical complications.	6/7/20
9066	Bryda, Elizabeth A.	Zebrafish as a model for human disease- related processes and pathways	Fish	Non-Standard Husbandry	Fish may be singly housed for duration of experiment (3-4 wks). Fish may also be housed more densely than recommended in the Guide (3-4 wks).	PI is observing the effect of single vs. co-housing and housing density on behavior and associated molecular processes.	6/21/20
9067	Will, Matthew J.	Motivational circuits involved in drug and natural reward models	Rat	Non-Standard Husbandry & Food Restriction	Rats may be single housed for up to 5 weeks. They may also be deprived of food for up to 24 hours.	Rats are single housed to allow for running wheel measurements on individual animals. Food restriction is used to induce acute hunger to compare with a palatability driven feeding model.	6/12/20
9072	Pulakat, Lakshmi	The mTOR-miR-29-AT2R axis in cardiovascular diseases	Rat	Nonstandard Husbandry	Animals will be singly housed up to 20 weeks.	Animals will be single housed so that they can be individually dosed, food and water intake may be monitored, urine output can be measured/collected, and telemetry measurements can be collected. Rats recovering from surgery require single housing for their own recovery and safety.	8/7/20
9081	Clarke, Lane L.	CF Mouse Intestine: In Vivo Model for Pharmaceutical Testing	Mouse	Non-Standard Husbandry	After weaning, all mice are singly housed. Also, during the testing period (21 days), the mice will be housed in wire-bottomed cages.	Singly housing the mice improves survival of the disease model mice, and controls must therefore be housed in the same manner. All singly housed mice are provided nestlets for enrichment. Wire bottom caging is used to prevent reingestion of feces and to facilitate monitoring of fecal output.	6/19/20

9091	Lorson, Christian L.	Therapeutic analysis in animal models of neurodegeneration	mouse	Nonstandard Husbandry	Weaning may be delayed for up to 28 days of age.	In some of our affected strains (for ex, SMN-delta7, smn2B/-) weaning might be delayed up to 28 days of age, due to runting and underdevelopment of the pups at 21 days. If this occurs, we will monitor these breeding cages on a regular basis to ensure that if another litter is born during this period, the cages are not overcrowded and the neonates are not trampled by the older litter.	7/26/20
9112	Boerman, Erika M.	Vascular Function and Inflammatory Bowel Disease	mouse	Nonstandard Husbandry	Mice may be singly housed for 90 days.	IL10-/- mice are separated at weaning into either a control group or IBD group (receiving H.hepaticus gavage), and mice within each group are separated by sex. Depending on litter size and sex distribution, this sometimes results in a single-housed mouse.	12/7/20
9114	Baines, Christopher P.	Mechanisms of Mitochondrial-Dependent Cell Death and Disease	Rat	Nonstandard Husbandry	Single housing of rats: Breeding pairs are housed together until the female is pregnant and approaches the estimated delivery date, at which time the male is removed (single housing male 1 week and female until delivery)	Since in the past we noted that litters are often eaten if both adults stay in the cage, the male is separated from the female at that time and housed individually until either that same female or a different female is remated.	7/26/20
9115	Bowles, Douglas K.	Role of ion channels in lesion development	Mouse	Nonstandard Husbandry	Animals are singly housed for 7 days to 12 weeks	To prevent injury or discomfort following surgery	8/11/20
9130	Ozden, Ilker	Optogenetics-based brain stimulation for the treatment of movement disorders		Nonstandard Husbandry and Water restriction	**Single housing:** 1. Hemi-parkinsonian mice will be single housed for approximately 8 weeks. 2. Mice with chronic implants will also be single housed for approximately 8 weeks. **Water restriction:** Water intake will be limited to 1-2ml per day (no less than 1ml per day) for approximately 8 weeks.	**Single housing:** 1. Having cage-mates could give certain mice a disadvantage in the dominance hierarchy. 2. Typically the sensitive parts of our implants are protected from the reach of the implanted animal. However, under social-housing conditions, these implants are accessible to the littermates, which could easily reach and manipulate the implants, injuring the animal and and terminating the experiment. **Water restriction:** We will use water reward for motivating the mice to perform a motor task.	10/13/20

9133	Bender, Shawn B.	Mineralocorticoid receptor-dependent coronary vascular dysfunction in obesity	Pig	Nonstandard Husbandry	Swine may be housed in pens smaller than standard husbandry size for up to 1 week. Swine may be single housed for up to 4 weeks post-op	Some Ossbaw swine may grow larger than 100kg but due to the limitations in housing at MSB only, we will have to house the animals in a standard 4x6 pen for several days before and after surgery. However, it has been observed that swine of this size have sufficient room to move and turn around. Animals must be housed seperately after chronic instrumentation surgery to prevent injury or discomfort.	9/8/20
9159	Cummings, Kevin J.	Control of breathing, heart rate, blood pressure and sympathetic activity in serotonin-deficient rodents: Relevance to the Sudden Infant Death Syndrome, sleep apnea, and hypertension	Mice & Rat	Nonstandard Husbandry	Animals will be housed singly post surgery for up to 10 days.	Single housing will avoid cage-mates interfering with EEG/EMG and catheters.	10/4/20
9167	Cook, James L.	Canine Models for Diagnosis and Treatment of Lower Extremity Disorders	Dog	Nonstandard Husbandry	Dogs are singly housed for up to 104 weeks.	Dogs are singly housed for safety (preventing complications and trauma from self or others), but are socialized.	10/17/20
9168	OConnor, Erin	Assessment of treatment for Brugia pahangi in a Dog	Dog	Nonstandard Husbandry	Dog will be singly housed for the duration of ivermectin treatment and washout period (up to 3 years).	This dog is currently singly housed due to the release of unaltered ivermectin in his feces, which was shown to be affecting the microfilarial counts of the other beagles with which he was previously housed. He remains within sight of his former cagemates, but with one empty cage in between to prevent coprophagia.	10/17/20

9170	Leal, Manuel	Behavioral and Evolutionary Ecology of Lizards	Lizard	Nonstandard Husbandry	Lizards will be housed singly, and cages will be cleaned every 28 days.	At the "laboratory field-site" lizards will be housed individually in 1/2 gallon plastic bags, and provided with a moist piece of paper towel. The bags are kept inside a cooler to avoid over-heating. Please note, plastic bags are commonly use by Herpetologist to keep lizards while conducting fieldwork. Bags are open every 8 hours to provide air change. We have adopted cage cleaning frequency of 28 days for two reasons. First, handling of the lizards tends to result in increase levels of stress, which can cause lizards to stop eating and/or to behave in non-natural fashion. Because the main goal of our study is to study lizard behavior, we would like to minimize any activity that increases the likelihood of producing non-natural behavior. Second, lizards produce relatively little waste product, and uric acid is excreted in feces as a dry mass. Thus the corncob bedding remains in good conditions for a period of 28 days.	10/5/20

9189	Korte, Scott W.	Rodent Health Surveillance Program	Rat, Hamster, Gerbil, Mouse	Nonstandard Husbandry	Potential single housing of sentinel animals for up to 3 months. Sentinel animals are housed on dirty bedding collected from cages of animals in the same room (3 4 months). On occasion, animals of different species of rodents may be co-housed in the same animal room (until no longer needed).	Should one of the two sentinels die prior to the end of the exposure period, the remaining sentinel will remain singly housed, as adding other animals may alter the pathogen flow in the room and cause abherent pathogen results. The use of dirty bedding is an effective and efficient method for exposing sentinel animals to potential pathogens present within colony animals in that room. On occasion different species of rodents may be co-housed in the same animal room in order to perform the health monitoring. For example, Mus species of mice or Rattus species of rat may be used as sentinels to monitor the dirty bedding of other genus/species of mice or rats due to the unavailability of diagnostic services for species other than Mus musculus or Rattus norvegicus. Additionally, mice may be used as sentinels for species like gerbils or hamsters when the goal of the health monitoring is to identify mouse pathogens that these other rodent species could be carrying that would compromise the biosecurity of the facility.	11/16/20
9203	Petris, Michael J.	Metallobiochemistry of Inflammation	Mouse	Nonstandard Husbandry	ALS mice will be singly housed at 60 days of age then sacrificed no later than 130 days of age.	Pregnant females will be housed alone for space, and males will be housed singly to prevent fighting.	12/6/20
9217	Beversdorf, David	Epigenetic mechanism of gene x environmental interactionin autism spectrum disorder	Mouse	Nonstandard Husbandry	Pregnant mice will be housed singly during pregnancy.	Dams are assigned to different dietary groups.	2/2/21

9227	Liu, Zhenguo	A novel role for the bone marrow stem cells in vascular re-endothelialization	Mouse & Rat	Non-standard Husbandry and Food & Fluid Restriction	After surgery, every mouse will be singly housed for the better recovery for up to 6 months Mice with HP bacterial and combined chemical administration will be fasted for 12 hours before and 4 hours after each admisnistration. The mice will be single housed and monitored after each administration.	Post surgical healing and necessary for administration of chemicals.	2/12/21
9244	Booth, Frank W.	Resistance training will attenuate cognitive impairment	Rat	Non-Standard Husbandry	Rats will be singly housed during wheel running for no more than 16 weeks.	The single housing is required so that accurate distances can be measured from individual animals.	1/10/21
9245	Sun, Hongmin	Evaluation of in vivo efficacy of formulations in a wound infection model	Pig	Nonstandard Husbandry	Pigs may be housed individually for the duration of the experiment (21 days).	Pigs will be housed individually to prevent them from chewing on and/or removing each other's bandages.	2/14/21
9248	Prather, Randall S.	Maintenance and production of pigs for cystic fibrosis research	Pig	Nonstandard Husbandry	At our various locations, animals (piglets, gilts, sows and boars) may be housed individually for life. Individually housed animals will still have pigs in close proximity allowing them to have vocal, visual, olfactory and nose-to-nose contact. C-Section-derived piglets may be housed in rabbit cages or dog cages. We have been using this type of housing for the last 10 years with no apparent animal welfare issues. The following caging systems may be used: Stainless steel dog cages or rabbit cages (3' d x 4' w with Dri-deck flooring). This provides 11.6 sq ft of usable floor space (minus the feeder). Cages will be cleaned of gross contaminants daily and sanitized every 2 days. Miniature pigs will be housed in the dog cages up to 5 wks (3-4 kg) while domestic pigs will be housed up to 4 wks (~7 kg). Cage use will be discontinued before the piglets are tall enough to rub their back on the center divider, or are unable to perform normal postural adjustments.	The crates & cages allow for a micro-environment in which temperature can be raised to an appropriate level for small piglets. Individual housing in cages will help prevent exposure to pathogens. Single Housing: The reason for the individual housing is that these animal are genetically engineered or a surrogate carrying genetically engineered animals, which makes them unique and very valuable for biomedical research.	1/12/21

9250	Bostick, Brian	Mechanisms underlying HO-1 imbalance and treatment of heart disease	Mouse	Nonstandard Husbandry	Mice implanted with radio-transmitters will be housed singly during a 10 day post-surgical recovery period and monthly during a 48 hour period of BP data collection. Wheel running exercise – mice will be singularly housed during exercise. Running wheels in the cages for exercise during minimum of 16 week but up to 32 weeks the mice are on experimental diets.	Required for post-surgical recovery, collection of hemodynamic data, and for measuring distance run.	3/7/21
9251	Yeh, Edward T.	The role of the innate immune response in mice subjected to Western diet feeding	Mouse	Nonstandard Husbandry	Mice will be singly housed for sixteen weeks	Mice will be singly housed after baseline assessment of echocardiography for metabolic measurements.	3/1/21
9259	Ozden, Ilker	Neuromodulatory approaches for elucidating the mechanisms of sensorimotor information processing and learning in the brain	Mouse	Nonstandard Husbandry, Fluid Restriction	Single housing: From the implantation of head-plate until the end of all experiments, i.e. about 3-4 weeks. Water restriction: From the recovery of surgery for the virus injection until the end of all experiments, i.e. about 6-7 weeks. Mice will be released from water restriction for couple of days prior to surgery, and then up to 7 days following surgery.	Single housing: Mice with chronic implants will be single housed since implants are susceptible to damage. Water restriction: We will use water reward for motivating the mice to perform a motor task.	1/9/21
9261	Delafontaine, Patrice	Angiotensin II, IGF-1 and Skeletal Muscle Atrophy	Mouse	Food & Fluid Restriction	Pair fed mice will receive same amount of food as assigned pair (Ang II fed - expected to reduce food intake). Deviation is 4 weeks.	We have shown that Ang II infusion in rodents causes skeletal muscle wasting via muscle protein breakdown and suppression of food intake. To determine the precise mechanism of Ang II's action, it is critical to discriminate effect on food intake and skeletal muscle catabolism. By comparing pair-feeding group and Ang II-infused group, only the Ang II's catabolic effect can be analyzed. Also, by comparing sham group and Ang II-infused group both of Ang II's effect (food intake and cababolic) can be analyzed.	1/29/21

9264	Yoshida, Tadashi	The Renin-Angiotensin System, Aging and Skeletal Muscle Regeneration	Mouse	Food & Fluid Restriction	Pair-feeding group of mice will be given the food amount identical to the corresponding experimetal animal group mice. (up to 10 days)	Food amount may be restricted if the experimetnal animals eat less	1/26/21
9266	Besch Williford, Cynthia L.	IDEXX BioResearch Diagnostic Services	Any	Nonstandard Husbandry	Animals may remain in shipping boxes up to 48 hours.	Prevent bio-contamination/transfer of disease.	1/19/21
9269	Martinez-Lemus, Luis A.	Mechanisms of microvascular remodeling progression II	Mouse	Nonstandard Husbandry	Mice will be singly housed for up to 28 days.	Mice implanted with a Dorsal Window Chamber will be placed in single housing in orther to avoid physical interactions with cagemates that could induce lesions and effect the integrity of the surgical implant.	1/30/21
9283	McFadden, Thomas B.	Effects of elevated body temperature on body microbiome, immune system, and mammary gland and ovarian functions	Cattle	Prolonged Restraint & Food & Fluid Restriction	Cattle will remain in tie stalls for up to 43 days	Tie stalls are necessary for housing in indoor environmental chambers.	4/6/21
9292	Zhang, Guoquan	Host immune responses against Coxiella burnetii and Salmonella infections	Guinea pigs	Nonstandard Husbandry	Guinea pigs will be single housed for 7-28 days	1. Tecniplast rat cages meet the Guide space requirements for singly housing guinea pigs. Alternative systems involving larger cages (too big to be handled by one person or to fit inside a standard BSC without moving the sash) or rabbit cages that must be opened before being transported to the BSC (breaking primary containment) are not acceptable for use with C. burnetii-infected animals. 2. Individually evaluate the health of animals following Coxiella burnetii challenge (ie assessment of appetite/fecal output/water intake/etc.)	4/3/21

9300	Heesch, Cheryl M.	Neural Circulatory Control: Effects of Ovarian Hormones, Pregnancy, Gender, and Hypoxia.	rat	Food & Fluid Restriction, Nonstandard Husbandry	Post operative rats may be housed singly. In addition, rats previously housed with cage mate that has undergone operation will be housed singly until experiment is performed (up to 10 days max). 48hr water deprivation to activate brain pathways of interest.	Single housing por post operative purposes and water deprivation to activate brain pathways of interest	4/10/21
9307	Safranski, Timothy J.	Teaching Swine Production Practices	Pig	Food & Fluid Restriction, Nonstandard Husbandry	Sows will be housed single during teaching exercises. Sows will be fed an appropriate amount of food to maintain BCS 3/5	Sows will be housed singly for part of these activities as they are under commercial settings the majority of farms. It is not possible to teach how things are done commercially without being able to mimic those practices. Commercial swine that are not feed limited become obese	4/17/21
9320	Booth, Frank W.	Selective breeding to obtain high and low distance voluntary runners	Rat	Nonstandard Husbandry	Rats will be singly housed for up to 10 weeks.	Rats must be singly housed so that running wheel distance measurements can be made.	3/30/21
9334	Cook, James L.	Canine Models for Diagnosis and Treatment of Upper Extremity Disorders	Dog	Nonstandard Husbandry	Dogs will be singly housed for the length of the study (most studies 1-2 years).	Single housing prevents complications from surgery. Animals are socialized.	4/10/21
9337	Besch Williford, Cynthia L.	Breeding colony maintenance and sample collection protocol	Mouse & Rat	Nonstandard Husbandry	Animals may be termporarily housed in metabolic caging (overnight), or males may be singly housed while associated female is raising pups (no longer than 6-8 weeks max).	Single housing may be required for metabolic measurements. Males are housed singly so that female can safely raise litter (also may be a space exception if males were housed with litter).	4/24/21
9338	O'Connor, Erin	Antibody Production in Several Species	Rabbit	Nonstandard Husbandry	Rabbits may be single housed 1-2 weeks following wiffle ball surgery.	Post-surgical healing.	5/22/21
9339	Duan, Dongsheng	A Xenograft Model for Duchenne Muscular Dystrophy Gene Therapy	Mouse	Nonstandard Husbandry	Mice are typically housed in groups following surgery but may be singly housed if necessary while healing (7-10 days)	Post-surgical healing.	5/22/21

9372	Prather, Randall S.	Swine Models of Congenital Heart Defects for Basic and Translational Research	Pig	Nonstandard Husbandry	We will have to singly house the gilts for 4-6 days during the dosing phase of the experiments.	Gilts will be grouped housed until the dosing phase of the experiment where they will be singly housed to ensure proper dosing of the animal. In addition, singly housing the gilts being fed Retinoic acid also ensures that animals not on treatment will not be recieving a dose of Retinoic acid.	8/7/21
9375	Gruber, Kenneth	Development of Anti-Cachexia Anti-Obesity Anti-Cancer Peptide Drugs	Rat & Dog	Nonstandard Husbandry	Rats may be singly housed for up to 40 days. Dogs will be singly housed overnight.	Rats that have received telemetry implants must be housed individually because with the DSI telemetry system there can be signal cross talk between transmitters and receivers. Rats with the newer Transonic Systems transit time telemetry ssystem can reportedly be group housed. We have concerns though that when one member of a pair that had been previously co-housed, is reintroduced into the original cage, there maybe agressive behavior on the part of the resident animal. We will attempt to group house animals in this study but would like to reserve the ability to keep them separate if one animal shows agressive behavior Rats will also be individually housed for studies where food intake is monitored. Rats in an extended PK study will need to be individually housed to ensure that other rats do not irritate or bite the slightly extended catheter out of the back of the animals. Dogs with ECG Holter jackets will be housed individually for a 24 hour period.	7/10/21

9395	Lyons, Leslie A.	Pilot study - Dietary Therapeutic for Polycystic Kidney Disease Management in the Feline Biomedical Model	Cats	Nonstandard Husbandry, Food Restriction	Cats will be housed individually for approximately four days to ensure no calorie intake or fighting between hungry cats for for the 48 - 72 hour fast.	Cats will be housed individually for approximately four days to ensure no calorie intake or fighting between hungry cats for for the 48 - 72 hour fast.	8/3/21
9405	Schachtman, Todd R.	Animal Learning Laboratory	Rat	Fluid Restriction	Fluid restriction for up to 9 days. Rats will have access to fluid for 15 minutes/day.	Fluid restriction is needed so that the rats will consume the experimental flavored solutions. The access to these solutions is the primarly treatment of the experiments.	8/9/21
9422	Schachtman, Todd R.	Taste Aversion Learning and Retrieval in Rats	Rat	Nonstandard Husbandry & Fluid Restriction	Fluid Restriction for up to 40 days. Rats will have access to fluid for 15 minutes/day. 16/8 light dark cycle Single Housing for up to 40 days Wire Mesh Caging All deviations are for up to 40 days.	Fluid restriction is needed so that the rats will consume the experimental flavored solutions. The access to these solutions is the primarly treatment of the experiments. Light dark cycle is altered in order to conform with previous experiments. Rats are singly housed so that individual drinking measurements can be taken. Wire Mesh Caging: The two plastic "experimental cages" need to be "equally different" from the home cage (i.e., wire mesh). If the rats LIVE for a few months on one plastic cage and then the experiment begins and one of the experimental cages is wire mesh and the other is plastic, then the latter will "generalize too much" to the home cage (which is also plastic).	9/18/21
9439	Li, De-Pei	Central Mechanisms in Chronic Stress-induced hypertension	Rat	Nonstandard Husbandry	Single housing for 2 days after surgery	To allow post-surgical recovery	9/27/21

9446	Li, De-Pei	The role of Alpha2/Delta1 in stress-induced hypertension	Rat	Nonstandard Husbandry	Single housing for 2 days after surgery	To allow post-surgical recovery	12/13/21
9451	Korte, Scott W.	Rabbit ovariectomies for use in protection of ONH astrocytes and structure in glaucoma study	Rabbit	Nonstandard Husbandry	Single housing needed post-operatively to prevent potential trauma. (Up to 3 weeks)	Single housing needed post-operatively to prevent potential trauma.	10/4/21
9469	Nichols, Nicole L.	Swallowing dysfunction, modulation and plasticity following motor neuron death	Rat	Fluid Restriction	16 Hour Water Restriction	Videofluoroscopic Swallow Study (VFSS) testing requires the use of an oral contrast agent to track food and liquid as it is swallowed from the mouth to the stomach, and a prior 16 hour water restriction to entice them to drink for the VFSS procedure.	11/16/21
9474	Vieira-Potter, Victoria J.	Effects of Estrogen Signaling and Exercise on Metabolic Health	Mouse	Nonstandard Husbandry	Single housing for up to 6 months	Reasons for single housing: 1) During voluntary wheel running exercise to quantify running wheel activity. 2) During metabolic cage assessments to assess energy expenditure via gas exchange. 3) To assess food intake. Often we pair this with metabolic chamber assessment to reduce the total amount of time the animals spend single housed.	11/9/21
9498	Shaw, Daniel P.	Avian Blood donors	Chicken	Nonstandard Husbandry	Single housing in raised wire caging for life.	This is required to eliminate trauma from pecking and cannibalism.	11/19/21

9500	Prather, Randall S.	National Swine Resource and Research Center Procedures for Surgical Recovery of Oocytes, Embryos, and Fetuses, Surgical Embryo Transfer, and Cesarean Delivery	Pig	Nonstandard Husbandry	Farrowing Crate Housing for Weaned Piglets, Stainless steel dog cages 3' d x 4' w with Dri-deck flooring and rabbit cages with floor space of 7.57 sq ft is requested for housing of caesarean derived piglets. These piglets may also be housed singly. Nonstandard housing will not exceed 5 weeks. Single housing of pigs: At our various locations, animals including piglets, gilts, sows, and boars may be housed individually for life. Individually housed animals will still have pigs in close proximity allowing them to have vocal, visual, olfactory and nose to nose contact.	The crates & cages allow for a micro-environment in which temperature can be raised to an appropriate level for small piglets. Individual housing in cages will help prevent exposure to pathogens. Single Housing: The reason for the individual housing is that these animal are genetically engineered or a surrogate carrying genetically engineered animals, which makes them unique and very valuable for biomedical research.	12/17/21
9386	Henegar, Jeffrey	Animal Use Training	Pig	Nonstandard Husbandry	Swine may be single housed for up to 3 days	Swine may be single housed to prevent damage to external catheters or bandage material.	4/10/22
9465	Bromfield, Corinne	Evaluation of dietary urine acidifiers for use in miniature pig urolithiasis	Pig	Nonstandard Husbandry	Pigs may be single housed up to 60 days	Swine may be single housed to ensure that each pig is consuming the appropriate ration and to ensure pigs do not disrupt catheters on other pigs.	2/15/22
9509	Patterson, Amanda L.	Mechanisms of uterine repair in health and disease	Mouse	Nonstandard Husbandry	Vasectomized male mice will be singly housed for up to one year. Mice receiving doxycycline will be singly housed for up to six months.	Vasectomized mice will be housed individually to prevent suture removal by cagemates following surgery and to prevent fighting.	3/4/22
9517	Booth, Frank W.	Effects of prefrontal cortex on voluntary runnning	Rats	Other, Nonstandard Husbandry	Rats will be singly housed with running wheels for up to 3 weeks	Single housing is necessary to measure individual running distances.	1/17/22
9538	Bryan, Jeffrey N.	Phase I/II evaluation of cisplatin hyaluronate nanoparticles in tumor-bearing dogs	Dog	Nonstandard Husbandry	Dogs are housed individually for up to 5 days in radiation isolation	Dogs must be housed individually as per radiation isolation protocol.	3/20/22

9539	Nistala, Ravi	Impact of DPP4 on Angiotensin II/obesity/ichemia dependent cardiovascular and kidney disease	Mouse	Nonstandard Husbandry & Food Restriction	Mice will be in individual wire-floor cages for 24 hour urine collection Mice will be housed individually in normal shoe-box cages for 3-5 days on a telemetry sensor, with blood pressure measureed by tail cuff. A set of animals will be pair-fed and overnight fasted for blood glucose/insulin measurements.	24 hour urine collection is necessary to evaluate salt and protein excretion 3-5 days single housing necessary to complete measurements. A set of animals will be pair-fed and overnight fasted for blood glucose/insulin measurements.	1/30/22
9545	Ulery, Bret D.	Bioactive Materials for Spinal Disorder Treatment	Rabbit	Nonstandard Husbandry	Animals will be housed individually for their entire time on campus.	Animals will be housed individually to prevent barbering of incisions.	3/1/22
9547	Booth, Frank W.	Behavioral Characterization of Rats Selectively-Bred for High and Low Voluntary Running	Rat	Nonstandard Husbandry	Rats are housed individually for 6 days with running wheels	Individual housing is necessary to measure distance	2/12/22
9550	Hasser, Eileen M.	Cardiorespiratory Regulation in rats	Rat	Nonstandard Husbandry & Prolonged Restraint	Rats will undergo preparation for hindlimb unloading, training and the unloading procedure. This will be a total of approximately 3 weeks. Rats are subjected to chronic intermittent hypoxia are housed in hypoxic chambers on average for two weeks. In some cases they will be exposed 3, 10 or 30 days. Animals undergoing survival surgery are housed singly for 3 days to 5 weeks.	Single housing: Hindlimb unloaded (HU) animals must be housed singly because of the suspension apparatus. Having additional animals in the cage would be likely to cause problems with tangling and also disruption of the apparatus. Control animals in the HU studies also are housed singly in order to control for the housing status of the HU animals. Any animals undergoing survival surgery are housed singly to avoid chewing of incision sites, instrumentation, etc. In addition, animals in wheel running experiments will be housed singly. This is necessary in order to verify the distances run by individual animals. HU procedure (prolonged restraint) is necessary to mimic cardiovascular effects of the procedure. Hypoxia mimics sleep apnea.	3/4/22

9552	Wells, Kevin	Bovine "Slick" mutation in the mouse (Prolactin Receptor Truncation)	Mouse	Nonstandard Husbandry	Animals will be housed in an elevated temperature environment and will be housed individually for 10 days.	Single housing is necessary to avoid the affect of cage-mate body heat. Elevated temperature is necessary to mimic ambient temperature (a condition of the study)	4/5/22
9568	Korthuis, Ronald J.	Ethanol Ingestion and Intestinal Ischemia-Reperfusion Injury	Mouse	Nonstandard Husbandry	Animals will be housed individually and pair fed for up to 16 weeks.	Individual housing is necessary to perform accurate pair feeding.	2/28/22
9576	Lever, Teresa E.	Pathophysiology and therapeutic strategies for dysphagia and laryngeal dysfunction in mouse models	Mouse (USDA/Peromyscus)	Nonstandard Husbandry & Food & Fluid Restriction	Single housing for up to 3 months. Food or fluid restriction is overnight.	Single housing is necessary due to fighting/aggression in males. It is also necessary to elicit calls during ultrasonic vocalization testing. Overnight food or fluid restriction is necessary to motivate participation for swallow testing.	3/4/22
9586	Khalyfa, Abdelnaby	Genome-Wide Associations Studies and Extracellular Vesicles Using Mice for Sleep Disordered Breathing	Mouse	Nonstandard Husbandry	Mice will be exposed to sleep fragmentation, intermittent hypoxia or both for 8 weeks.	PI is studing the effects of sleep deprivation and hypoxia.	4/30/22
9590	Rosenfeld, Cheryl S.	The Effects of In Utero Environment Changes on Sex Ratio and Phenotype of Conceptuses during Gestation and Pups at Birth, and on Subsequent Adult Phenotypes of Offspring	Mouse (USDA/Peromyscus)	Nonstandard Husbandry	Single housing for 4-5 days	Mice will be single housed for calometry testing and for running wheel measurements.	4/3/22
9591	Ozden, Ilker	In vivo imaging of dopamine	Rat	Nonstandard Husbandry	Rats with chronic implants will be singly housed for about 3 weeks.	Littermates could damage the implants.	5/9/22

9612	Jana, Soumen	Nanotechnology in tissue engineering for autologous cardiac valve development (whole valve) in rabbit	Rabbit	Nonstandard Husbandry	Rabbits will be housed singly from the time of surgery until euthanasia (8-12 weeks)	Single housing is required to prevent other rabbits from damaging the implants	6/6/22
9622	Maitz, Charles	BetaBrach liquid brachytherapy for solid tumors	Cat	Nonstandard Husbandry	Cats given radiopharmaceutical will stay in radiation isolation 3-5 days.	Radiation isolation is required for animals exposed to radiation.	6/6/22
9629	Prather, Randall S.	Nuclear Transfer and Cloning Transgenic Pigs: Reproductive Biology (University of Florida)	Pig	Nonstandard Husbandry	Pigs may be housed individually for undefined length of time (lifespan)	These pigs are highly valuable and unique, and this must be done to prevent animal-related injuries. Animals will have vocal, visual, olfactory and nose-to-nose contact.	5/2/22
9631	Gu, Zezong	Low-Intensity Blast-Induced Brain Molecular and Ultrastructural Abnormalities in Human Tau Transgenic Mice	Mouse	Nonstandard Husbandry	Mice will be single housed for one night while doing nesting building tests.	Single housing allows individual observation of nest building.	6/4/22
9643	Prather, Randall S.	Creating Genetically Engineered Pigs (USDA Covered-Biomedical)	Pig	Nonstandard Husbandry	Farrowing crate Housing for Weaned Piglets, Stainless steel dog cages 3’ d x 4’ w with Dri-deck flooring and rabbit cages with floor space of 7.57 sq ft is requested for housing of caesarean derived piglets (3-5 weeks). These piglets may also be housed singly.	The crates & cages allow for a micro-environment in which temperature can be raised to an appropriate level for small piglets. These animal are genetically engineered and unique, which makes them very valuable for biomedical research. Single housing prevents injury. Individual housing in cages will also help prevent exposure to pathogens and thus preserve a rare animal resource.	6/14/22

9647	Prather, Randall S.	Creating Genetically Engineered Pigs: Reproductive Biology (non-USDA, Ag Animals)	Pig	Nonstandard Husbandry	Farrowing crate Housing for Weaned Piglets, Stainless steel dog cages 3' d x 4' w with Dri-deck flooring and rabbit cages with floor space of 7.57 sq ft is requested for housing of caesarean derived piglets (3-5 weeks). These piglets may also be housed singly.	The crates & cages allow for a micro-environment in which temperature can be raised to an appropriate level for small piglets. These animal are genetically engineered and unique, which makes them very valuable for biomedical research. Single housing prevents injury. Individual housing in cages will also help prevent exposure to pathogens and thus preserve a rare animal resource.	6/13/22

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Anheuser Busch Natural Resources (ABNR)

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/10/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Schlink
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No vertebrate animals currently used

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Agricultural Engineering

Room (if applicable) [redacted] **(New)**

Date:	**Members:**	**Others Present:**
3/21/2019	Ms. Nichols, Dr. Henegar, Ms. Abbott, Dr. Rector	Dr. Yao
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Room 127 inspected, Dr. Domeier will be performing euthanasia of rodents in Dr. Yao's lab. No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Agricultural Engineering

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
5/22/2019	Dr. Henegar, Dr. O'Connor	Ms. Abbott, Dr. Ozden
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Animal Resource Center (ARC)

1994 Ford Pick-Up (green) - LAC, New Box Van - ARC

Room (if applicable)

Date:	Members:	Others Present:
5/7/2019	Dr. O'Connor, Ms. Abbott, Dr. Harrison	Dr. Henegar, Dr. Korte, Ms. Weir
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	AAALAC Accredited:	Surgery Area Report	Overnight Housing Report
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	investigator support	expired 1mL luer lock syringes.	Discarded during the inspection	unknown	5/7/2019	5/7/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Animal Science Research Center (ASRC) **Room (if applicable)** [redacted]

Date:	**Members:**	**Others Present:**
5/28/2019	Dr. Henegar, Dr. Linville, Ms. Abbott, Dr. Harrison	Dr. Korte, Dr. Gerb, Ms. Kraus, Ms. Samuel, Ms. Franklin (extern)
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
6/3/2019	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	multiple	[redacted]: Feed containers had not been sanitized in the past month per Unit B SOP	Ensure feed containers are sanitized monthly.	ASRC Unit B Committee		
S	☐	Dirty Cage Wash	Eyewash had not been tested since February 2019.	Eyewash must be tested weekly.	ASRC Unit B Committee	Upon receipt of report	6/4/2019
M	☐	[redacted]	Expired NPD	Discarded during inspection	Dr. Prather	5/28/2019	5/28/2019
M	☐	[redacted]	Post-its and tape on cages	Tape and post-its can leave residue on cages which is unable to be properly sanitized. If tape needs to be used, non-residue tape such as painter's tape should be used.	Dr. Beversdorf	6/28/2019	6/5/2019
M	☐	[redacted]	Multiple water bottles with low water; water may be unavailable before the next room check; 2 bottles with water too low to be available via the sipper tube.	Room was marked 'checked' prior to inspection team arrival. Ensure animals have enough water to last between room checks. Inspection team filled empty bottles.	Dr. Spencer	Upon receipt of report	6/4/2019
M	☐	[redacted]	Empty room with expired timothy hay for rabbits	Discard hay	Dr. Green	6/28/2019	6/12/2019
M	☐	[redacted]	Multi-PI use surgery area: expired syringe & suture. F/air canister without start weight. Heating pad with no cover, feces and urine on pad.	Syringe discarded by inspection team. Suture marked "Expired: for terminal use only". Weigh F/air canister and mark with weight prior to use per canister instructions. Clean heating pad and cover with drape or bench pad or similar disposable or sanitizable material. ACUC recommends circulating warm water		6/28/2019	6/12/2019

				pad instead of heating pad.			
M	☐	[redacted]	Expired feed according to manufacture date written on secondary container	Feed can only be used 6 months past mill date before it is considered expired. Discard expired feed.	Dr. Spencer	6/28/2019	6/4/2019
M	☐	[redacted]	Air filters extremely dirty and inhibiting adequate ventilation.	Although air filters were marked as changed within the past month, if they become too dirty they need to be changed sooner.	ASRC Unit B Committee		
S	☐	[redacted]	ABSL-2 room was unlocked.	ABSL-2 rooms must be locked. 6/4/2019: PI re-reviewed the procedures for ABSL-2 rooms, and will be posting signage to remind users to double check that the room is locked before leaving.	Dr. Kazmierczak	Upon receipt of report	6/4/2019
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M	☐	Multiple	PI's are using exhaust fan temperatures displayed outside of rooms to record daily temperature and humidity levels. In multiple rooms, room temperatures were not the same as indicated on the outside of the rooms.	Ensure accurate room temperature measurements are available for PI's.	ASRC Unit B Committee		
M	☐	[redacted]	50% Dextrose within expiration date indicated on bottle, however container had been opened. Bottle states after opening, dextrose is only useable for 24 hours.	Discard used dextrose.	Dr. Padilla	6/28/2019	6/5/2019
M	☐	[redacted]	Cages labeled for Dr. Lubahn with protocol number 8940, but the protocol listed on the door is 8775 for Kazmierczak.	Ensure animals are on the correct protocol so that census and billing are accurate, and so that the veterinary staff know how the animals are being used.	Dr. Lubahn, Dr. Kazmierczak	Upon receipt of report	6/3/2019
M	☐	[redacted]	Expired povidine scrub sponges, surgical gloves. 2 unlabeled containers with 4x4 sponges, likely betadine and alcohol in each container.	Povidine scrubs marked "Expired", surgical gloves marked "Expired: for terminal use only". Label secondary containers with contents and transfer expiration date from original container.	Dr. Spencer	6/28/2019	6/4/2019

Comments

[redacted]: Singly housed mice. If mice are males, this falls under the ACUC SOP on single housing. PI will be contacted to confirm.
*Update: Mice are female and were singly housed by the vendor, the PI is submitting a protocol amendment.
[redacted]: Delafontaine lab had expired lab diet. Delafontaine lab is no longer at the University, discard of diet.
[redacted]: Cobwebs on feed racks, above doors. Clean off cobwebs regularly.
[redacted]: Tubs holding new air filters contained a lot of dust and debris on the bottoms. Clean out tubs.
[redacted] In the inspection team's opinion, the flies look well managed. The facility manager had been told by the pest control company that cracks in the concrete behind the pens can hold water and be a major source of flies.

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Animal Science Research Center (ASRC)

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
5/28/2019	Dr. Henegar, Dr. Linville, Ms. Abbott, Dr. Harrison	Dr. Gerb, Ms. Franklin (extern)
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
6/12/2019	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	Lab area	Expired box of 5mL syringes	Discard expired syringes	Dr. M. Lorson	6/28/2019	6/12/2019
M	☐	Biomedical pig area	Protocol number(s) for animals not available	On white board, indicate the protocol number for each animal.	Dr. M. Lorson, Dr. Prather	6/28/2019	6/12/2019
M	☐	Farrowing room	One female was alone in the farrowing/nursery room, in a farrowing crate and no environmental enrichment was provided.	Provide sow with enrichment such as a chain	Dr. M. Lorson	6/28/2019	6/12/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Beef Farm

Beef Farm - Transport Trailer

Room (if applicable)

Date:	Members:	Others Present:
5/21/2019	Dr. Reynolds, Dr. Henegar, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Mr. Ladyman, Dr. Schlink, Dr. Young, Dr. Gerb, Ms. Tomasino
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	AAALAC Accredited:	Surgery Area Report	Overnight Housing Report
6/6/2019	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐		Expired vegetable oil and lubricant	Discarded during inspection	Mr. Ladyman	5/21/2019	5/21/2019
M	☐		Perimeter fencing not yet replaced (continuation from Fall 2018 inspection report)	Repairs have begun and materials have been purchased. CAFNR has hired an outside company to complete the work.	Dr. Lamberson, Dr. Daubert	6/31/2019	*
M	☐		Sections of interior fencing and posts in disrepair (continuation from Fall 2018 inspection report)	Majority of internal fencing has been replaced. Beef Farm manager anticipates it being completed by the end of June, per email on 1/21/2019	Dr. Lamberson, Dr. Daubert	6/31/2019	5/29/2019
M	☐		Sections recently replaced are in disrepair.	Fix sections in disrepair	Dr. Lamberson, Dr. Daubert	6/31/2019	5/29/2019
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Comments

*ACUC voted to extend deadline

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Bond Life Science Center (BLSC) Labs

Room (if applicable)

Date:	**Members:**	**Others Present:**
4/9/2019	Ms. Nichols, Dr. O'Connor, Ms. Abbott	Dr. Gerb, Dr. O'Connor
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Mice infected with Salmonella and Staph aureus housed in lab overnight, lab not approved for overnight housing.	Lab was sent an email on 4/10 that mice cannot be housed in the lab, the Housing in Non-Designated Areas policy was emailed to them, and that their ACUC protocol would need an amendment if they would like to house overnight. No response as of 4/18. PI responded 5/10/2019 that they will not be housed overnight.	Dr. Petris	Do not house animals in lab.	5/10/2019
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Comments

ACQA/OAR Director to call Petris lab and follow-up on housing animals in the lab.
5/10/2019: Email sent
5/10/2019: PI responded to ACQA director stating they understand "mice need to be be taken down to ABSL-2 cubicle outside or the step-down space".

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Bond LSC Vivarium

2004 Chevrolet Blazer 4x4 (green) - BLSC, 2005 Dodge Caravan (Black) - OAR Trailer

Room (if applicable)

Date:	**Members:**	**Others Present:**
4/9/2019	Ms. Nichols, Ms. Abbott	Dr. O'Connor, Dr. Gerb, Ms. Weir, Ms. Allen
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Expired gavage needles and isoflurane. Several unlabeled bottles.	Discard gavage needles and ensure bottles are labeled. Inspection team spoke with Dr. Arpke during the lab inspection and let him know.	Dr. Guanfu Li	5/9/2019	5/9/2019
M	☐	[redacted]	Expired EMLA cream	Discarded during inspection	Dr. Lorson	4/9/2019	4/9/2019
M	☐	[redacted]	Expired gel diet	Discarded during inspection	Dr. McKarns	4/9/2019	4/9/2019
M	☐	[redacted]	opened suture packets in plastic tub with surgical instruments	ensure that any items used for surgery are sterile. Suture may be used for terminal surgeries but not survival surgeries. Autoclave instruments before use.	Dr. Guanfu Li	5/9/2019	5/8/2019
M	☐	[redacted]	Pain & distress forms were not available in the room, several mice with ulcerated tumors and greater than 20% weight loss.	PI was contacted 4/9 by AV, responded 4/10. P&D forms were sent to AV. Mice were only scored when a score of 1 was reached. Lab was instructed to score from the beginning of the study until euthanasia. Study groups were also instructed to be more clear.	Dr. Yeh, Dr. Jinxiong Wang	4/10/2019	4/10/2019
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Comments

Common use lab: Dr. Li's mice were stored in small refrigerator containing animal food. OAR is getting a new refrigerator to store animal carcasses separate from food.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Botany Greenhouse

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/6/2019	Dr. Henegar, Ms. Abbott	Dr. Schlink, Mr. Burkhart, Mr. Anderson
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Connaway Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/21/2019	Ms. Abbott, Dr. Rector	Dr. Henegar, Ms. Weir, Ms. Blair
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Secondary container of fruity snacks missing expiration date from original container.	Transfer expiration date to secondary container.	Dr. David Schulz	4/21/2019	4/21/2019
M	☐	[redacted]	Two expired syringes	Discarded during inspection	OAR	3/21/2019	3/21/2019
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Comments

W119A1: blue card had been started on mouse with rectal prolapse on 3/18, inspection team requested that the mouse be checked sooner than the next scheduled check, condition seems to be worse than indicated on the card.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Dalton Cardiovascular Research Center (DCRC)

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/13/2019	Dr. Wells, Dr. Henegar, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Dr. Korte, Dr. Schlink, Ms. Weir, Mr. Baepler
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Cage with 2 litters resulting in overcrowding	The lab was notified that the cage was overcrowded, and that multiple litters per cage is overcrowding and instructed to separate the litters. An email was sent to the lab and Mr.. Baepler on 2/18 for confirmation.	Dr. Hans	2/13/2019	2/13/2019
M	☑	[redacted]	Surgical records incompleted - missing PI, person performing surgery, and type of surgery.	During the inspection, PI was notified that lab staff must complete the surgical records in their entirety. A lab animal resident will work with the lab on completing surgical records.	Dr. Kline	4/13/2019	4/13/2019
M	☐	[redacted]	Expired lubricating jelly	Discarded during inspection	Dr. Zhe Sun	2/13/2019	2/13/2019
M	☐	[redacted]	Unlabeled conical with what appeared to be Evans Blue dye	Label secondary containers with contents and expiration date from original packaging.	Dr. Zhe Sun	3/13/2019	3/13/2019
M	☐	[redacted]	Expired chlorhexadine	Marked "expired" during inspection; Dr. Callahan stated he will be ordering new chlorhexadine.	Dr. Gruber	2/13/2019	2/13/2019
M	☐	[redacted]	Box of expired microvette blood collection systems	Marked "Expired; for terminal use only" during inspection. Lab representative was instructed to not use them for survival procedures, and that in-date materials must be used.	Dr. Pulakat	2/18/2019	2/18/2019
M	☐	[redacted]	Expired bottle of heparin	Marked "Expired". Discard of heparin appropriately.	Dr. Martinez-Lemus	2/18/2019	2/18/2019

Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Discovery Ridge/IDEXX/RADIL

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/20/2019	Dr. Maruniak, Ms. Nichols, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Dr. Henegar, Mr. Huntsperger, Dr. Gerb, Dr. Young, Dr. Olthoff, Mr. Moley (extern)
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Equine Teaching Facility | **Equine Teaching Farm/Sorenson - Transport Trailer** | **Room (if applicable)**

Date:	Members:	Others Present:
5/16/2019	Dr. Hasser, Ms. Marshall, Dr. Linville	Dr. Schlink, Ms. Crosby, Ms. Abbott
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	AAALAC Accredited:	Surgery Area Report	Overnight Housing Report
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Foremost Dairy Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/21/2019	Dr. Reynolds, Dr. Henegar, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Mr. Denbigh, Dr. Schlink, Dr. Young, Dr. Gerb, Ms. Tomasino
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐		Expired purple top tubes	Discarded during inspection	Mr. Denbigh	5/21/2019	5/21/2019
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Comments

Farm manager indicated the lagoon is close to full. Lagoon cannot overflow. The OAR/ACQA director will discuss the lagoon with the ASRC director.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Forage System Research Center

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/1/2019	Dr. Linville	Mr. Tate, Mr. Davis
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Greenley Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
4/30/2019	Dr. Linville	Mr. Hubble, Mr. Schreck
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Gwynn Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/10/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Ms. Welly
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified. Dopplar equipment has been moved to the ASRC. CO2 euthanasia is the only animal work occuring in Gwynn now.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Horticulture Agroforestry Research Center (HARC)

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/14/2019	Dr. Linville	Mr. Eschenbrenner
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Laboratory Animal Center (LAC)

1995 Chevrolet Box Van - LAC

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/28/2019	Ms. Abbott, Dr. Harrison	Dr. O'Connor, Dr. Korte, Dr. Dashek, Dr. Olthoff, Mr. Douglas, Mr. Cowan
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	Dirty Cage Wash	Eyewash last tested in January	Test eyewash weekly, Mr. Cowan and Mr. Douglas notified during inspection.	OAR	3/28/2019	3/28/2019
M	☐	large animal pens	Small rust spots on some penning	Next time affected rooms are empty spots will be sprayed with galvanized zinc spray	OAR	10/28/2019	4/19/2019
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Comments

Full sharps container with numerous recapped needles; discard container, do not recap needles if possible

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Lefevre Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/17/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Korte, Dr. Schlink
Make-Up Date:	**Members:**	**Others Present:**
1/22/2019	Dr. Maruniak, Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Korte, Dr. Schlink, Dr. Gerb

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	2 overcrowded rat cages due to trio breeding and pregnant female not being pulled prior to parturition	Mr. Navarro was given the rodent facilities guidelines which was also emailed to the lab on 1/16/2019. Breeding will occur according to guidelines.	Dr. Milescu	2/21/2019	2/18/2019
M	☐	[redacted]	Frog water quality testing had not been recorded since December 2018.	Ensure water quality testing is performed at each cage change per the standards listed in the OAR SOP (and provided in the comments below) and that the water quality testing is recorded.	Dr. Milescu	2/21/2019	2/18/2019
M	☐	[redacted]	Expired antibiotic ointment and calcium supplement	Discard of appropriately	Dr. Leal	1/29/2019	1/24/2019
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Comments

19 (Milescu): Lab had not been writing cage change dates on sentinel cards; Mr. Navarro was informed during the inspection that when sentinel cages are changed, the date must be written on the cage card.

Water Testing for static tanks

Weekly: Ammonia <0.8ppm, Nitrite <0.75ppm, Nitrate <20ppm

Monthly: Chlorine 0mg/L

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Lemone Blvd Temporary Trailers

2002 Dodge Caravan (silver) - MSB

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/6/2019	Dr. Mullen, Ms. Nichols, Dr. Henegar, Ms. Abbott	Mr. McDowell, Ms. Weir, Dr. Olthoff
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Laboratory for Infectious Disease Research (LIDR)

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/20/2019	Ms. Abbott, Dr. Rector	Dr. Henegar, Dr. McCarthy, Dr. Olthoff, Dr. Young, Dr. Schlink, Mr. Hynes, Dr. Paul Anderson, Ms. Allen
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Mason Eye Institute

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/19/2019	Dr. Mullen, Ms. Nichols, Dr. Henegar, Ms. Abbott	Dr. Schlink, Dr. Reneker
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
2/22/2019	No	☐	☐

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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Meat Lab Abattoir

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/30/2019	Dr. Linville, Dr. O'Connor, Ms. Abbott	Mr. Disselhorst
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Metabolism Building

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/21/2019	Dr. Reynolds, Dr. Henegar, Dr. Linville, Dr. O'Connor, Ms. Abbott	
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐		6 bottles of expired Follotropin in freezer, marked "Expired" and separated from in-date bottles	Discard of expired bottles.	Dr. Spencer	6/21/2019	6/4/2019
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Comments

Previously called "Nutrition Building at South Farms"

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Middlebush Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/3/2019	Dr. Maruniak, Dr. Henegar, Dr. Linville, Ms. Abbott, Dr. Rector	Mr. Glascock, Mr. Atkins
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
1/10/2019	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐		The ACUC still does not yet have access to the electronic health records for Middlebush Farm animals.	Provide Dr. O'Connor and Dr. Linville with access to the electronic health records of veterinary medicine teaching animals so they may be accessed as needed by MU ACUC.	Dr. Wilson	1/22/2019	1/22/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Medical Science Building (MSB) Animal Facility

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
2/2/2019	Dr. Henegar, Ms. Abbott	Dr. Korte
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Unlabeled 12mL syringe (no needle) filled with opaque off-white liquid.	Discarded during inspection. Ensure secondary containers are labeled with contents and original expiration date, and are stored in a manner consistent with manufacturer recommendations.	Mr. Nance, Dr. Duan	2/4/2019	2/4/2019
M	☐	[redacted]	Expired bacteriostatic 0.9% sodium chloride.	Discarded during inspection	Mr. Nance, Dr. Duan	2/4/2019	2/4/2019
M	☐	[redacted]	2 unsecured oxygen tanks	Secure tanks appropriately. If needed, contact acuc@missouri.edu for assistance.	Dr. Duan	3/2/2019	3/2/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Medical Science Building (MSB) Laboratories

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/19/2019	Dr. Mullen, Ms. Nichols, Dr. Henegar, Ms. Abbott	Dr. Schlink
Make-Up Date:	**Members:**	**Others Present:**
2/4/2019	Dr. Henegar, Ms. Abbott	Dr. Cui

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Expired suture and bacteriostatic 0.9% sodium chloride	Items marked "Expired" during inspection and moved to the "Expired for Terminal Use Only" area in lab.	Dr. Cui	2/4/2019	2/4/2019
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Comments

M610 (Duan): full sharps container, dispose of appropriately.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Medical Science Building (MSB) Laboratories

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
5/16/2019	Dr. Henegar, Dr. O'Connor	Dr. Korte, Ms. Abbott, Dr. Holliday
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Room inspected for housing alligator eggs in an incubator. Animals will be euthanized prior to hatching. No deficiencies were identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Medical Science Building (MSB) Laboratories

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
2/15/2019	Dr. Henegar, Ms. Abbott	Dr. Li
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
2/18/2019	No	☐	☑

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Comments

NW724 has been approved for overnight housing.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

MU Research Reactor (MURR)

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/13/2019	Dr. Wells, Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Maitz, Dr. Brockman
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
2/22/2019	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

National Swine Resource and Research Center (NSRRC) | **Transport Trailer - NSRRC** | **Room (if applicable)**

Date:	**Members:**	**Others Present:**
5/14/2019	Dr. Henegar, Dr. Linville, Dr. Harrison	Ms. Abbott, Dr. Gerb, Dr. Whitworth
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

The facility manager was asked to request a plan from the University of Minnesota PI for using two specific Burlak pigs. Depending on the response and that plan, the ACUC may need to contact the PI or set an end date for their use.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Poultry Abattoir

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/22/2019	Dr. Linville, Ms. Abbott	Dr. Gerb
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Raptor Rehab

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/22/2019	Dr. Henegar, Dr. O'Connor	Ms. Abbott, Ms. Rainwater
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified, puts rehab on a different ACUC Inspection schedule

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Raptor Rehab

Room (if applicable)

Date:	**Members:**	**Others Present:**
2/8/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Ms. Rainwater
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
2/22/2019	No	☐	☐

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Comments

No deficiencies were identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Rocheford Turkey Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
4/23/2019	Ms. Marshall, Dr. Maruniak, Dr. Henegar, Dr. Linville, Dr. O'Connor	Ms. Abbott, Mr. Morris
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Schlundt Annex

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/17/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Korte, Dr. Schlink, Dr. Peculis
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Schweitzer Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/10/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Schlink, Ms. Gremminger
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	[redacted]	Non-pharmaceutical grade ketamine and xylazine in use, and not behind two locks.	PI was emailed immediately following the inspection with information on how to purchase pharmaceutical grade ketamine and xylazine as well as the MU ACUC policy on storage. Dr. Phillips ordered pharmaceutical grade ketamine/xylazine through OAR on 1/16/2019	Dr. Phillips	1/16/2019	1/16/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Schweitzer Hall

Room (if applicable) [redacted]

Date:	**Members:**	**Others Present:**
2/15/2019	Dr. Henegar, Ms. Abbott	Dr. Phillips, Ms. Gremminger
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
2/15/2019	No	☐	☑

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Anteroom is approved for overnight housing.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Sheep Farm at South Farms

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/21/2019	Dr. Reynolds, Dr. Henegar, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Dr. Spencer, Mr. Todd, Dr. Schlink, Dr. Young, Dr. Gerb, Ms. Tomasino
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Sorenson Equine Facility

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/16/2019	Dr. Hasser, Ms. Marshall, Dr. Linville	Dr. Schlink, Ms. Crosby, Ms. Abbott
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

South Farm Feed Mill

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/22/2019	Dr. Linville, Ms. Abbott	Dr. Gerb, Mr. Crane
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Mr. Schaffner has retired, Mr. Crane is now the facility foreman.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Swine Research Complex (SRC)

Room (if applicable) Ag Side

Date:	**Members:**	**Others Present:**
4/11/2019	Dr. Maruniak, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Mr. Dowell
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

Breeding/Gestation barn to be completed by the end of the calendar year. Nursery replacement building is not yet funded.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Swine Research Complex (SRC) **Room (if applicable)** **Biomedical Side**

Date:	**Members:**	**Others Present:**
4/11/2019	Dr. Maruniak, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Mr. Dowell
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Swine Research Complex Annex (SRCA)

Room (if applicable) | **Building** 4 (new)

Date:	**Members:**	**Others Present:**
1/11/2019	Dr. Henegar, Dr. Linville	
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

New building on the Annex. This building will go on the SRCA's regular inspection schedule. No deficiencies were identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Swine Center Annex

Room (if applicable)

Date:	**Members:**	**Others Present:**
4/11/2019	Dr. Maruniak, Dr. Linville, Dr. O'Connor, Ms. Abbott, Dr. Harrison	Ms. Blackstock
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Stewart Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/17/2019	Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Korte, Dr. Schlink, Mr. Daniel
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Southwest Center (SWC)

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/9/2019	Dr. Linville	Mr. Cope
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Swine Research and Teaching Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/14/2019	Dr. Henegar, Dr. Linville, Dr. Harrison	Dr. Gerb, Mr. VanSkike
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
M	☐	Swine Teaching Center	Expired vacutainers, needles, & 70% alcohol	Discard expired items.	Dr. Safranski	6/14/2019	6/14/2019
M	☐	SEW	Roof/Ceiling in SEW was repaired but continues to leak.	SEW cannot be used until building is repaired and no longer leaks. PI's with ACUC approval of this facility will be informed of this decision. Farm manager says Field Ops has been notified but will not be able to replace the roof until September 2019.	Dr. Lamberson	Upon receipt of report	8/4/2019
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Comments

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Thompson Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/1/2019	Dr. Linville	Mr. Coffman, Mr. Schreck
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Trowbridge

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/22/2019	Dr. Linville, Ms. Abbott	Dr. Gerb
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
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Comments

No deficiencies identified. Study using farrowing crates has been completed.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Tucker Hall

Room (if applicable)

Date:	**Members:**	**Others Present:**
1/22/2019	Dr. Maruniak, Dr. Henegar, Dr. O'Connor, Ms. Abbott	Dr. Schlink, Dr. Korte, Dr. Gerb, Ms. Cruz Santos
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Veterinary Health Center - Wentzville

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/20/2019	Dr. O'Connor	Ms. Frederking
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies were identified.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Veterinary Health Center (VMTH/Clydesdale)

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/21/2019	Dr. Henegar, Ms. Abbott, Dr. Rector	Dr. Dodam
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Veterinary Medical Building (VMB) | **1995 Ford Explorer 4x4 (Black) - VMB, OAR Trailer** | **Room (if applicable)**

Date:	**Members:**	**Others Present:**
3/14/2019	Ms. Nichols, Ms. Abbott, Dr. Rector	Dr. Henegar, Dr. Schlink
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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M	☐	[redacted]	Expired Isopropyl alcohol	Discarded during inspection	Dr. Kannan	3/14/2109	3/14/2019
M	☐	[redacted]	Biohazard ziplock in fridge with feed, unlabeled except for PI name.	Secondary containers must have contents and expiration date or manufacture date in the case of feed.	Dr. Liu	4/14/2019	4/11/2019
M	☐	[redacted]	Hamilton needles not properly sterilized between uses, soaked in isopropyl alcohol which is a disinfectant not sterilant	ACQA is working with the lab to find an appropriate method of sterilization for the syringes. Dr. Booth & lab were emailed 4/4/2019 with sterilization techniques.	Dr. Booth	4/14/2019	4/4/2019
S	☐	[redacted]	Pain & distress forms not completed adequately as required by the protocol. Forms missing everything except the cage numbers and if an animal was found dead.	Pain & distress forms must be completed in their entirety as required in the approved protocol. The lab was contacted along with OAR veterinarians and techs. Re-training with the lab on correct use of pain and distress forms is being scheduled. Lab has not replied as of 4/2/2019	Dr. Deb Anderson	4/14/2109	4/5/2019
M	☐	[redacted]	Expired bupivacaine and xylazine	Marked "expired" during inspection. Discard of appropriately.	Dr. Bowles	4/14/2019	4/12/2019
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Comments

Anderson Lab deficiency follow-up: lab completed online pain & distress form training, and were retrained by the Attending Veterinarian and OAR Veterinary

Technician on 4/5/2019.

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Veterinary Science Building (VSB)

Room (if applicable)

Date:	**Members:**	**Others Present:**
3/14/2019	Ms. Nichols, Ms. Abbott, Dr. Rector	Dr. Henegar, Ms. Weir, Ms. Blair, Dr. Schlink
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	Yes	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Animal Care
Quality Assurance
University of Missouri

Animal Care and Use Committee Semiannual Inspection Report

Wurdack Farm

Room (if applicable)

Date:	**Members:**	**Others Present:**
5/8/2019	Dr. Linville	Mr. Booker
Make-Up Date:	**Members:**	**Others Present:**

Date of Report:	**AAALAC Accredited:**	**Surgery Area Report**	**Overnight Housing Report**
	No	☐	☐

M/S	Repeat	Room #	Deficiency	Plan for Correction	Responsible Party	Correction Deadline	Date Completed
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Comments

No deficiencies identified

Citations

M: minor deficiency; S: significant deficiency

Semiannual Program Review Checklist

Date: 6/11/19

1. Animal Care and Use Program		A	M	S	C	NA
a	Responsibility for animal well-being is assumed by all members of the program (*Guide*, p 1) [must]	X				
b	IO has authority to allocate needed resources (*Guide*, p 13)	X				
c	Resources necessary to manage program of veterinary care are provided (*Guide*, p 14) [must]	X				
d	Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the *Guide* (*Guide*, pp 11, 15)	X				
e	Program needs are regularly communicated to IO by AV and/or IACUC (*Guide*, p 13)	X				
f	Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (*Guide*, p 14) [must]	X				
g	Inter-institutional collaborations are described in formal written agreements (*Guide*, p 15)	X				
h	Written agreements address responsibilities, animal ownership, and IACUC oversight (*Guide*, p 15)	X				

2. Disaster Planning and Emergency Preparedness		A	M	S	C	NA
a	Disaster plans for each facility to include satellite locations are in place (*Guide*, p 35, p 75) [must]	X				
b	Plans include provisions for euthanasia (*Guide*, p 35) [must]	X				
c	Plans include triage plans to meet institutional and investigators' needs (*Guide*, p 35)	X				
d	Plans define actions to prevent animal injury or death due to HVAC or other failures (*Guide*, p 35)	X				
e	Plans describe preservation of critical or irreplaceable animals (*Guide*, p 35)	X				
f	Plans include essential personnel and their training (*Guide*, p 35)	X				
g	Animal facility plans are approved by the institution and incorporated into overall response plan (*Guide*, p 35)	X				
h	Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (*Guide*, p 35)	X				

3. IACUC		A	M	S	C	NA
a	Meets as necessary to fulfill responsibilities (*Guide*, p 25) [must]	X				
b	IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (*Guide*, p 26) [must]	X				
c	Continuing IACUC oversight after initial protocol approval is in place (*Guide*, p 33)	X				
d	IACUC evaluates the effectiveness of training programs (*Guide*, p 15)	X				

4. IACUC Protocol Review - Special Considerations		A	M	S	C	NA
a	Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock (*Guide*, p 27)	X				
b	For pilot studies, a system to communicate with the IACUC is in place (*Guide*, p 28)	X				
c	For genetically modified animals, enhanced monitoring and reporting is in place (*Guide*, p 28)	X				
d	Restraint devices are justified in the animal use protocols (*Guide*, p 29) [must]	X				
e	Alternatives to physical restraint are considered (*Guide*, p 29)	X				
f	Period of restraint is the minimum to meet scientific objectives (*Guide*, p 29)	X				
g	Training of animals to adapt to restraint is provided (*Guide*, p 29)	X				
h	Animals that fail to adapt are removed from study (*Guide*, p 29)	X				
i	Appropriate observation intervals of restrained animals are provided (*Guide*, p 29)	X				
j	Veterinary care is provided if lesions or illness result from restraint (*Guide*, p 30) [must]	X				
k	Explanations of purpose and duration of restraint are provided to study personnel (*Guide*, p 30)	X				
l	Multiple surgical procedures on a single animal are justified and outcomes evaluated (*Guide*, p 30)	X				
m	Major versus minor surgical procedures are determined on a case-by-case basis (*Guide*, p 30)	X				
n	Multiple survival procedure justifications in non-regulated species conform to regulated	X				

	species standards (*Guide*, p 30)					
o	Animals on food/fluid restriction are monitored to ensure nutritional needs are met (*Guide*, p 31)	X				
p	Body weights for food/fluid restricted animals are recorded at least weekly (*Guide*, p 31)	X				
q	Daily written records are maintained for food/fluid restricted animals (*Guide*, p 31)	X				
r	Pharmaceutical grade chemicals are used , when available, for animal-related procedures (*Guide*, p 31)	X				
s	Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC (*Guide*, p 31)	X				
t	Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area (*Guide*, p 32)	X				
u	Disposition plans are considered for species removed from the wild (*Guide*, p 32)	X				
v	Toe-clipping of small rodents only used when no alternative, performed aseptically and with pain relief when warranted. (*Guide*, p 75)	X				

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

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

7. IACUC Records and Reporting Requirements		**A**	**M**	**S**	**C**	**NA**
a	Semiannual report to the IO (PHS Policy, IV.B.)					
	a1 Submitted to IO every 6 months	X				
	a2 Compiles program review and facility inspection(s) results (includes all program and facility deficiencies)	X				
	a3 Includes minority IACUC views	X				
	a4 Describes IACUC-approved departures from the *Guide* or PHS Policy and the reasons for each departure	X				
	a5 Distinguishes significant from minor deficiencies	X				
	a6 Includes a plan and schedule for correction for each deficiency identified	X				
b	Reports to OLAW (PHS Policy, IV.F.)					
	b1 Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	X				
	b2 Promptly advises OLAW of serious/ongoing *Guide* deviations or PHS Policy noncompliance (NOT-OD-05-034)	X				
	b3 Institute must promptly advise OLAW of any suspension of an animal activity by	X				

	the IACUC (NOT-OD-05-034)					
c	Reports to U.S. Department of Agriculture (USDA) or Federal funding agency					
	c1 Annual report to USDA contains required information including all exceptions/exemptions	X				
	c2 Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	X				
	c3 Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	X				
	c4 Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	X				
d	Records (PHS Policy, IV.E.)					
	d1 IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	X				
	d2 Records of IACUC reviews of animal activities include all required information	X				
	d3 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)		**A**	**M**	**S**	**C**	**NA**
a	An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care	X				
b	Veterinary access to all animals is provided (*Guide*, p 14) [must]	X				
c	Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, p 14) [must]	X				
d	Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol, or when interventional control is not possible. (*Guide*, p 5) [must]	X				
e	Regular communication occurs between veterinarian and IACUC (*Guide*, p 14)	X				
f	Veterinarian(s) have experience and training in species used (*Guide*, p 15) [must]	X				
g	Veterinarian(s) have experience in facility administration/management (*Guide*, p 15)	X				

a	All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]					
	a1 Veterinary/other professional staff (*Guide*, p 15-16)	X				
	a2 IACUC members (*Guide*, p 17)	X				
	a3 Animal care personnel (*Guide*, p 16)	X				
	a4 Research investigators, instructors, technicians, trainees, and students (*Guide*, pp 16-17)	X				
b	Continuing education for program and research staff provided to ensure high quality care and reinforce training (*Guide*, pp 16-17)	X				
c	Training is available prior to starting animal activity (*Guide*, p 17)	X				
d	Training is documented (*Guide*, p 15)	X				
e	**Training program content includes: (*Guide*, p 17)**					
	e1 Methods for reporting concerns (*Guide*, p 17)	X				
	e2 Humane practices of animal care (e.g., housing, husbandry, handling)	X				
	e3 Humane practices of animal use (e.g., research procedures, use of anesthesia, pre- and post-operative care, aseptic surgical techniques and euthanasia (*Guide*, p 17)	X				
	e4 Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)	X				
	e5 Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)	X				
	e6 Use of hazardous agents, including access to chemical hazard notices where applicable (*Guide*, p 20)	X				
	e7 Animal care and use legislation (*Guide*, p 17)	X				
	e8 IACUC function (*Guide*, p 17)	X				
	e9 Ethics of animal use and Three R's (*Guide*, p 17)	X				

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

f	Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) (*Guide*, p 20)	X				
g	Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (*Guide*, p 21)	X				
h	Personal Protective Equipment for the work area is appropriate and available (*Guide*, p 21)	X				
i	Program for medical evaluation and preventive medicine for personnel includes:					
	i1 Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (*Guide*, p 22)	X				
	i2 Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (*Guide*, p 23)	X				
	i3 Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (*Guide*, p 23)	X				
	i4 Promotes early diagnosis of allergies including preexisting conditions (*Guide*, p 22)	X				
	i5 Considers confidentiality and other legal factors as required by federal, state and local regulations (*Guide*, p 22) [must]	X				
	i6 If blood samples are collected, the purpose is consistent with federal and state laws (*Guide*, p 22) [must]	X				
j	Policies are in place to meet guide requirements regarding the scavenging of waste anesthetic gases (*Guide*, p 21)	X				
k	Hearing protection is provided in high noise areas (*Guide*, p 22)	X				
l	Appropriate respiratory protection is available when performing work that has the potential to create airborne particulates (*Guide*, p 22)	X				
m	Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
	m1 Tuberculosis screening provided for all exposed personnel (*Guide*, p 23)					X
	m2 Training and implementation of procedures for bites, scratches, or injuries associated with non-human primates (*Guide*, p 23)					X
	m3 PPE is provided including gloves, arm protection, face masks, face shields, or goggles (*Guide*, p 21)					X
	m4 Injuries associated with non-human primates are carefully evaluated and treatment implemented (*Guide*, p 23)					X
n	Occupational safety and health of field studies is reviewed by OHS Program (*Guide*, p 32)	X				

11. Personnel Security		**A**	**M**	**S**	**C**	**NA**
a	Preventive measures in place include pre-employment screening and physical IT security. Students enrolled in courses to which approved protocols apply are not subject to these measures. (*Guide*, p 23)	X				

12. Investigating & Reporting Animal Welfare Concerns		**A**	**M**	**S**	**C**	**NA**
a	Methods for investigating and reporting animal welfare concerns are established (*Guide*, p 23) [must]	X				
b	Reported concerns and corrective actions are documented (*Guide*, p 24)	X				
c	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, p 24)	X				
	c1 Includes multiple contacts (*Guide*, p 24)	X				
	c2 Includes anonymity, confidentiality, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p 24)	X				

13. Veterinary Care - Clinical Care and Management						
a	Veterinary program offers high quality of care and ethical standards (*Guide*, p 105) [must]	X				
b	Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (*Guide*, p 106)	X				
c	Veterinarian provides guidance to surgery and perioperative care (*Guide*, p 106)	X				
d	Veterinary care program is appropriate for program requirements (*Guide*, pp 113-114)	X				
e	Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (*Guide*, p 114)	X				
f	Procedures to triage and prioritize incident reports are in place (*Guide*, p 114)	X				
g	Procedures are in place to address:					
	g1 Problems with experiments to determine course of treatment in consultation with investigator(*Guide*, p 114)	X				
	g2 Recurrent or significant health problems with the IACUC and documentation of	X				

	treatments and outcomes (*Guide*, p 114)					
	g3 Veterinary review and oversight of medical and animal use records (*Guide*, p 115)	X				
h	Procedures established for timely reporting of animal injury, illness, or disease (*Guide*, p 114) [must]	X				
i	Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, p 114) [must]	X				
j	Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p 114) [must]	X				

14. Veterinary Care - Animal Procurement and Transportation/Preventive Medicine		**A**	**M**	**S**	**C**	**NA**
a	Procedures for lawful animal procurement are in place (*Guide*, p 106) [must]	X				
b	Sufficient facilities and expertise are confirmed prior to procurement (*Guide*, p 106)	X				
c	Procurement is linked to IACUC review and approval (*Guide*, p 106)	X				
d	Population status of wildlife species is considered prior to procurement (*Guide*, p 106)	X				
e	Appropriate records are maintained on animal acquisition (*Guide*, p 106)	X				
f	Animal vendors are evaluated to meet program needs and quality (*Guide*, p 106)	X				
g	Rodent breeding colonies are based on need and managed to minimize numbers (*Guide*, p 107)	X				
h	Procedures for compliance with animal transportation regulations, including international requirements, are in place (*Guide*, p 107) [must]	X				
i	Transportation is planned to ensure safety, security and minimize risk (*Guide*, p 107)	X				
j	Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (*Guide*, pp 107- 108)	X				
k	Appropriate loading and unloading facilities are available (*Guide*, p 109)	X				
l	Environment at receiving site is appropriate (*Guide*, p 109)	X				
m	Procedures in place on separation by species, source, and health status (*Guide*, pp 109, 111-112)	X				
n	Procedures in place for quarantine to include zoonoses prevention (*Guide*, p 110)	X				
o	Quarantined animals from different shipments are handled separately or physically separated (*Guide*, p 110)	X				
p	Recommendations in place for stabilization/acclimation (*Guide*, pp 110-111)	X				
q	Recommendations are in place for isolation of sick animals (*Guide*, p 112)	X				
r	Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (*Guide*, p 112)	X				
s	Diagnostic resources are available for preventive health program (*Guide*, p 112)	X				

15. Veterinary Care - Surgery		**A**	**M**	**S**	**C**	**NA**
a	Surgical outcomes are assessed and corrective changes instituted (*Guide*, p 115)	X				
b	Researchers have appropriate training in good surgical technique (*Guide*, p 115) [must]	X				
c	Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (*Guide*, p 116)	X				
d	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (*Guide*, p 116)	X				
e	For nonsurvival surgery, the site is clipped as needed, gloves are worn and instruments and area are clean (*Guide*, p 118)	X				
f	Aseptic technique is followed for survival surgical procedures, unless exception is justified and IACUC approved (*Guide*, pp 118-119)	X				
g	Effective procedures for sterilizing instruments and monitoring the integrity of sterile packs are in place before use. (*Guide*, p 119)	X				
h	Procedures for monitoring surgical anesthesia and analgesia are in place (*Guide*, p 119)	X				
i	For aquatic species, skin surfaces are kept moist during surgical procedures (*Guide*, p 119)	X				
j	Post-operative monitoring and care are provided by trained personnel and documented (e.g., thermoregulation, physiologic function, analgesia, infection, removal of skin closures) (*Guide*, pp 119-120)	X				

16. Veterinary Care - Pain, Distress, Anesthesia and Analgesia		**A**	**M**	**S**	**C**	**NA**
a	Training for assessment and categorization of pain, distress and animal wellbeing is provided (*Guide*, p 121)	X				
b	Selection of analgesics and anesthetics is based on professional veterinary judgment (*Guide*, p 121)	X				
c	Painful procedures are monitored to ensure appropriate analgesic management (*Guide*,	X				

	p 122)					
d	Nonpharmacologic control of pain is considered as an element of postprocedural care (*Guide*, p 122)	**X**				
e	Procedures are in place to assure antinociception before surgery begins (*Guide*, p 122) [must]	**X**				
f	Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (*Guide*, p 122)	**X**				
g	Special precautions for the use of paralytics are in place to ensure anesthesia (*Guide*, p 123)	**X**				

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

18. Veterinary Care - Drug Storage and Control		**A**	**M**	**S**	**C**	**NA**
a.	All animal users comply with federal regulations for human and veterinary drugs (*Guide*, p 115) [must]	**X**				
b	Drug records and storage procedures should be reviewed during facility inspections. (*Guide*, p 115)	**X**				
c	Policy(ies) in place for the use of analgesics and anesthetics within expiration date. (*Guide*, p 122) [must]	**X**				
d	Policy(ies) in place for the legal and safe acquisition, storage, use, and disposal of anesthetics and analgesics. (*Guide*, p 122)	**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

Semiannual Program Review Checklist

Date: 12/3/19

1. Animal Care and Use Program		A	M	S	C	NA
a	Responsibility for animal well-being is assumed by all members of the program (*Guide*, p 1) [must]	X				
b	IO has authority to allocate needed resources (*Guide*, p 13)	X				
c	Resources necessary to manage program of veterinary care are provided (*Guide*, p 14) [must]	X				
d	Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the *Guide* (*Guide*, pp 11, 15)	X				
e	Program needs are regularly communicated to IO by AV and/or IACUC (*Guide*, p 13)	X				
f	Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (*Guide*, p 14) [must]	X				
g	Inter-institutional collaborations are described in formal written agreements (*Guide*, p 15)	X				
h	Written agreements address responsibilities, animal ownership, and IACUC oversight (*Guide*, p 15)	X				

2. Disaster Planning and Emergency Preparedness		A	M	S	C	NA
a	Disaster plans for each facility to include satellite locations are in place (*Guide*, p 35, p 75) [must]	X				
b	Plans include provisions for euthanasia (*Guide*, p 35) [must]	X				
c	Plans include triage plans to meet institutional and investigators' needs (*Guide*, p 35)	X				
d	Plans define actions to prevent animal injury or death due to HVAC or other failures (*Guide*, p 35)	X				
e	Plans describe preservation of critical or irreplaceable animals (*Guide*, p 35)	X				
f	Plans include essential personnel and their training (*Guide*, p 35)	X				
g	Animal facility plans are approved by the institution and incorporated into overall response plan (*Guide*, p 35)	X				
h	Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (*Guide*, p 35)	X				

3. IACUC		A	M	S	C	NA
a	Meets as necessary to fulfill responsibilities (*Guide*, p 25) [must]	X				
b	IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (*Guide*, p 26) [must]	X				
c	Continuing IACUC oversight after initial protocol approval is in place (*Guide*, p 33)	X				
d	IACUC evaluates the effectiveness of training programs (*Guide*, p 15)	X				

4. IACUC Protocol Review - Special Considerations		A	M	S	C	NA
a	Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock (*Guide*, p 27)	X				
b	For pilot studies, a system to communicate with the IACUC is in place (*Guide*, p 28)	X				
c	For genetically modified animals, enhanced monitoring and reporting is in place (*Guide*, p 28)	X				
d	Restraint devices are justified in the animal use protocols (*Guide*, p 29) [must]	X				
e	Alternatives to physical restraint are considered (*Guide*, p 29)	X				
f	Period of restraint is the minimum to meet scientific objectives (*Guide*, p 29)	X				
g	Training of animals to adapt to restraint is provided (*Guide*, p 29)	X				
h	Animals that fail to adapt are removed from study (*Guide*, p 29)	X				
i	Appropriate observation intervals of restrained animals are provided (*Guide*, p 29)	X				
j	Veterinary care is provided if lesions or illness result from restraint (*Guide*, p 30) [must]	X				
k	Explanations of purpose and duration of restraint are provided to study personnel (*Guide*, p 30)	X				
l	Multiple surgical procedures on a single animal are justified and outcomes evaluated (*Guide*, p 30)	X				
m	Major versus minor surgical procedures are determined on a case-by-case basis	X				

	(*Guide*, p 30)					
n	Multiple survival procedure justifications in non-regulated species conform to regulated species standards (*Guide*, p 30)	**X**				
o	Animals on food/fluid restriction are monitored to ensure nutritional needs are met (*Guide*, p 31)	**X**				
p	Body weights for food/fluid restricted animals are recorded at least weekly (*Guide*, p 31)	**X**				
q	Daily written records are maintained for food/fluid restricted animals (*Guide*, p 31)	**X**				
r	Pharmaceutical grade chemicals are used , when available, for animal-related procedures (*Guide*, p 31)	**X**				
s	Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC (*Guide*, p 31)	**X**				
t	Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area (*Guide*, p 32)	**X**				
u	Disposition plans are considered for species removed from the wild (*Guide*, p 32)	**X**				
v	Toe-clipping of small rodents only used when no alternative, performed aseptically and with pain relief when warranted. (*Guide*, p 75)	**X**				

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

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

7. IACUC Records and Reporting Requirements		**A**	**M**	**S**	**C**	**NA**
a	Semiannual report to the IO (PHS Policy, IV.B.)					
	a1 Submitted to IO every 6 months	**X**				
	a2 Compiles program review and facility inspection(s) results (includes all program and facility deficiencies)	**X**				
	a3 Includes minority IACUC views	**X**				
	a4 Describes IACUC-approved departures from the *Guide* or PHS Policy and the reasons for each departure	**X**				
	a5 Distinguishes significant from minor deficiencies	**X**				
	a6 Includes a plan and schedule for correction for each deficiency identified	**X**				
b	Reports to OLAW (PHS Policy, IV.F.)					
	b1 Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	**X**				
	b2 Promptly advises OLAW of serious/ongoing *Guide* deviations or PHS Policy	**X**				

	noncompliance (NOT-OD-05-034)					
b3	Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)	X				
c	Reports to U.S. Department of Agriculture (USDA) or Federal funding agency					
c1	Annual report to USDA contains required information including all exceptions/exemptions	X				
c2	Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	X				
c3	Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	X				
c4	Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	X				
d	Records (PHS Policy, IV.E.)					
d1	IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	X				
d2	Records of IACUC reviews of animal activities include all required information	X				
d3	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)		**A**	**M**	**S**	**C**	**NA**
a	An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care	X				
b	Veterinary access to all animals is provided (*Guide*, p 14) [must]	X				
c	Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, p 14) [must]	X				
d	Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol, or when interventional control is not possible. (*Guide*, p 5) [must]	X				
e	Regular communication occurs between veterinarian and IACUC (*Guide*, p 14)	X				
f	Veterinarian(s) have experience and training in species used (*Guide*, p 15) [must]	X				
g	Veterinarian(s) have experience in facility administration/management (*Guide*, p 15)	X				

9. Personnel Qualifications and Training		**A**	**M**	**S**	**C**	**NA**
a	All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]					
a1	Veterinary/other professional staff (*Guide*, p 15-16)	X				
a2	IACUC members (*Guide*, p 17)	X				
a3	Animal care personnel (*Guide*, p 16)	X				
a4	Research investigators, instructors, technicians, trainees, and students (*Guide*, pp 16-17)	X				
b	Continuing education for program and research staff provided to ensure high quality care and reinforce training (*Guide*, pp 16-17)	X				
c	Training is available prior to starting animal activity (*Guide*, p 17)	X				
d	Training is documented (*Guide*, p 15)	X				
e	**Training program content includes: (*Guide*, p 17)**					
e1	Methods for reporting concerns (*Guide*, p 17)	X				
e2	Humane practices of animal care (e.g., housing, husbandry, handling)	X				
e3	Humane practices of animal use (e.g., research procedures, use of anesthesia, pre- and post-operative care, aseptic surgical techniques and euthanasia (*Guide*, p 17)	X				
e4	Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)	X				
e5	Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)	X				
e6	Use of hazardous agents, including access to chemical hazard notices where applicable (*Guide*, p 20)	X				
e7	Animal care and use legislation (*Guide*, p 17)	X				
e8	IACUC function (*Guide*, p 17)	X				
e9	Ethics of animal use and Three R's (*Guide*, p 17)	X				

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

e	Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (*Guide*, p 20)	**X**				
f	Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) (*Guide*, p 20)	**X**				
g	Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (*Guide*, p 21)	**X**				
h	Personal Protective Equipment for the work area is appropriate and available (*Guide*, p 21)	**X**				
i	Program for medical evaluation and preventive medicine for personnel includes:					
	i1 Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (*Guide*, p 22)	**X**				
	i2 Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (*Guide*, p 23)	**X**				
	i3 Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (*Guide*, p 23)	**X**				
	i4 Promotes early diagnosis of allergies including preexisting conditions (*Guide*, p 22)	**X**				
	i5 Considers confidentiality and other legal factors as required by federal, state and local regulations (*Guide*, p 22) [must]	**X**				
	i6 If blood samples are collected, the purpose is consistent with federal and state laws (*Guide*, p 22) [must]	**X**				
j	Policies are in place to meet guide requirements regarding the scavenging of waste anesthetic gases (*Guide*, p 21)	**X**				
k	Hearing protection is provided in high noise areas (*Guide*, p 22)	**X**				
l	Appropriate respiratory protection is available when performing work that has the potential to create airborne particulates (*Guide*, p 22)	**X**				
m	Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
	m1 Tuberculosis screening provided for all exposed personnel (*Guide*, p 23)					**X**
	m2 Training and implementation of procedures for bites, scratches, or injuries associated with non-human primates (*Guide*, p 23)					**X**
	m3 PPE is provided including gloves, arm protection, face masks, face shields, or goggles (*Guide*, p 21)					**X**
	m4 Injuries associated with non-human primates are carefully evaluated and treatment implemented (*Guide*, p 23)					**X**
n	Occupational safety and health of field studies is reviewed by OHS Program (*Guide*, p 32)	**X**				

11. Personnel Security		**A**	**M**	**S**	**C**	**NA**
a	Preventive measures in place include pre-employment screening and physical IT security. Students enrolled in courses to which approved protocols apply are not subject to these measures. (*Guide*, p 23)	**X**				

12. Investigating & Reporting Animal Welfare Concerns		**A**	**M**	**S**	**C**	**NA**
a	Methods for investigating and reporting animal welfare concerns are established (*Guide*, p 23) [must]	**X**				
b	Reported concerns and corrective actions are documented (*Guide*, p 24)	**X**				
c	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, p 24)	**X**				
	c1 Includes multiple contacts (*Guide*, p 24)	**X**				
	c2 Includes anonymity, confidentiality, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p 24)	**X**				

13. Veterinary Care - Clinical Care and Management						
a	Veterinary program offers high quality of care and ethical standards (*Guide*, p 105) [must]	**X**				
b	Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (*Guide*, p 106)	**X**				
c	Veterinarian provides guidance to surgery and perioperative care (*Guide*, p 106)	**X**				
d	Veterinary care program is appropriate for program requirements (*Guide*, pp 113-114)	**X**				
e	Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (*Guide*, p 114)	**X**				
f	Procedures to triage and prioritize incident reports are in place (*Guide*, p 114)	**X**				
g	Procedures are in place to address:					
	g1 Problems with experiments to determine course of treatment in consultation with	**X**				

	investigator(*Guide*, p 114)					
g2	Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (*Guide*, p 114)	X				
g3	Veterinary review and oversight of medical and animal use records (*Guide*, p 115)	X				
h	Procedures established for timely reporting of animal injury, illness, or disease (*Guide*, p 114) [must]	X				
i	Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, p 114) [must]	X				
j	Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p 114) [must]	X				

14. Veterinary Care - Animal Procurement and Transportation/Preventive Medicine		**A**	**M**	**S**	**C**	**NA**
a	Procedures for lawful animal procurement are in place (*Guide*, p 106) [must]	X				
b	Sufficient facilities and expertise are confirmed prior to procurement (*Guide*, p 106)	X				
c	Procurement is linked to IACUC review and approval (*Guide*, p 106)	X				
d	Population status of wildlife species is considered prior to procurement (*Guide*, p 106)	X				
e	Appropriate records are maintained on animal acquisition (*Guide*, p 106)	X				
f	Animal vendors are evaluated to meet program needs and quality (*Guide*, p 106)	X				
g	Rodent breeding colonies are based on need and managed to minimize numbers (*Guide*, p 107)	X				
h	Procedures for compliance with animal transportation regulations, including international requirements, are in place (*Guide*, p 107) [must]	X				
i	Transportation is planned to ensure safety, security and minimize risk (*Guide*, p 107)	X				
j	Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (*Guide*, pp 107- 108)	X				
k	Appropriate loading and unloading facilities are available (*Guide*, p 109)	X				
l	Environment at receiving site is appropriate (*Guide*, p 109)	X				
m	Procedures in place on separation by species, source, and health status (*Guide*, pp 109, 111-112)	X				
n	Procedures in place for quarantine to include zoonoses prevention (*Guide*, p 110)	X				
o	Quarantined animals from different shipments are handled separately or physically separated (*Guide*, p 110)	X				
p	Recommendations in place for stabilization/acclimation (*Guide*, pp 110-111)	X				
q	Recommendations are in place for isolation of sick animals (*Guide*, p 112)	X				
r	Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (*Guide*, p 112)	X				
s	Diagnostic resources are available for preventive health program (*Guide*, p 112)	X				

15. Veterinary Care - Surgery		**A**	**M**	**S**	**C**	**NA**
a	Surgical outcomes are assessed and corrective changes instituted (*Guide*, p 115)	X				
b	Researchers have appropriate training in good surgical technique (*Guide*, p 115) [must]	X				
c	Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (*Guide*, p 116)	X				
d	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (*Guide*, p 116)	X				
e	For nonsurvival surgery, the site is clipped as needed, gloves are worn and instruments and area are clean (*Guide*, p 118)	X				
f	Aseptic technique is followed for survival surgical procedures, unless exception is justified and IACUC approved (*Guide*, pp 118-119)	X				
g	Effective procedures for sterilizing instruments and monitoring the integrity of sterile packs are in place before use. (*Guide*, p 119)	X				
h	Procedures for monitoring surgical anesthesia and analgesia are in place (*Guide*, p 119)	X				
i	For aquatic species, skin surfaces are kept moist during surgical procedures (*Guide*, p 119)	X				
j	Post-operative monitoring and care are provided by trained personnel and documented (e.g., thermoregulation, physiologic function, analgesia, infection, removal of skin closures) (*Guide*, pp 119-120)	X				

16. Veterinary Care - Pain, Distress, Anesthesia and Analgesia		**A**	**M**	**S**	**C**	**NA**
a	Training for assessment and categorization of pain, distress and animal wellbeing is provided (*Guide*, p 121)	X				
b	Selection of analgesics and anesthetics is based on professional veterinary judgment	X				

	(*Guide*, p 121)					
c	Painful procedures are monitored to ensure appropriate analgesic management (*Guide*, p 122)	**X**				
d	Nonpharmacologic control of pain is considered as an element of postprocedural care (*Guide*, p 122)	**X**				
e	Procedures are in place to assure antinociception before surgery begins (*Guide*, p 122) [must]	**X**				
f	Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (*Guide*, p 122)	**X**				
g	Special precautions for the use of paralytics are in place to ensure anesthesia (*Guide*, p 123)	**X**				

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

18. Veterinary Care - Drug Storage and Control		**A**	**M**	**S**	**C**	**NA**
a.	All animal users comply with federal regulations for human and veterinary drugs (*Guide*, p 115) [must]	**X**				
b	Drug records and storage procedures should be reviewed during facility inspections. (*Guide*, p 115)	**X**				
c	Policy(ies) in place for the use of analgesics and anesthetics within expiration date. (*Guide*, p 122) [must]	**X**				
d	Policy(ies) in place for the legal and safe acquisition, storage, use, and disposal of anesthetics and analgesics. (*Guide*, p 122)	**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