

Memorandum to: Dr. Roxanne Gonzales

From: Institutional Animal Care and Use Committee

Subject: Semiannual Report of the Program Review and Facility Inspection

Date: August 12, 2020

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]

The NMHU IACUC met on August 12, 2020 (Sarah Corey-Rivas (Chair), Ben Nelson, DMV, J1, P1, and W1) for our semi-annual review of the institution's animal care and use program and animal facilities inspection. No deficiencies were found.

SCR conducted the animal facilities inspection alone on August 10, 2020, following pandemic rules set out by OLAW (<https://olaw.nih.gov/covid-19.htm>, COVID FAQ VIII.9). The IACUC reviewed the facilities inspections findings (no deficiencies). Attached to this report is a copy of the OLAW waiver this IACUC obtained as an extension for the animal facility inspection timeline which was altered due to the pandemic and has now been completed.

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

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

Select A or B:

- ☒ A. There were no departures during this reporting period.
- ☐ B. The following departures have been reviewed and approved by the IACUC: *[include reason for each departure]*

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

Animal Care and Use Program Review Date(s):

Select A or B:

- ☒ 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):

Select A or B:

- ☒ A. There were no deficiencies in the animal facility 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]*

IV. Minority Views



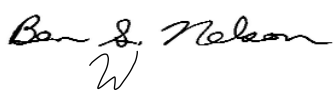
Select A or B:

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

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

N/A

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

Names of IACUC Members	Signatures
Sarah Corey-Rivas, Chair	
Ben Nelson, DVM, Veterinarian	
W1, member	

Semiannual Program Review and Facility Inspection Checklist

New Mexico Highlands University, 2020

About the checklist

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

I. Semiannual Program Review Checklist ⁱ

Institutional Policies and Responsibilities

Date: 8/10/20

1. Animal Care and Use Program ^{NEW}		A*	M	S	C	NA
• Responsibility for animal well-being is assumed by all members of the program (<i>Guide, p 1</i>) ^[must]	X					
• IO has authority to allocate needed resources (<i>Guide, p 13</i>)	X					
• Resources necessary to manage program of veterinary care are provided (<i>Guide, p 14</i>) ^[must]	X					
• Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> (<i>Guide, pp 11, 15</i>)	X					
• Program needs are regularly communicated to IO by AV and/or IACUC (<i>Guide, p 13</i>)	X					
• Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (<i>Guide, p 14</i>) ^[must]	X					
2. Disaster Planning and Emergency Preparedness ^{NEW}		A*	M	S	C	NA
• Disaster plans for each facility to include satellite locations are in place (<i>Guide, p 35, p 75</i>) ^[must]	X					
• Plans include provisions for euthanasia (<i>Guide, p 35</i>) ^[must]	X					
3. IACUC ^{NEW}		A*	M	S	C	NA
• Meets as necessary to fulfill responsibilities (<i>Guide, p 25</i>) ^[must]	X					
• IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (<i>Guide, p 26</i>) ^[must]	X					
• Continuing IACUC oversight after initial protocol approval is in place (<i>Guide, p 33</i>)	X					
4. IACUC Protocol Review - Special Considerations		A*	M	S	C	NA
• Restraint devices are justified in the animal use protocols (<i>Guide, p 29</i>) ^[must]						X
• Veterinary care is provided if lesions or illness result from restraint (<i>Guide, p 30</i>) ^[must]						X
5. IACUC Membership and Functions		A*	M	S	C	NA
• IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, <i>IV.A.3.</i>)	X					
• Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab animal user (<i>Guide, p 24</i>) ⁱⁱ	X					
• IACUC authority and resources for oversight and evaluation of institution's program are provided (<i>Guide, p 14</i>)	X					
• IACUC conducts semiannual evaluations of institutional animal care and use program (PHS Policy, <i>IV.B.</i>)	X					
• Conducts semiannual inspections of institutional animal facilities (PHS Policy, <i>IV.B.</i>)	X					
• IACUC organizationally reports to the Institutional Official (PHS Policy, <i>IV.A.1.b.</i>)	X					
• Methods for reporting and investigating animal welfare concerns are in place (<i>Guide, p 23</i>) ^[must]	X					
• Reviews and investigates concerns about animal care and use at institution ⁱⁱⁱ (PHS Policy, <i>IV.B.</i>)	X					
• Procedures are in place for review, approval, and suspension of animal activities ^{iv} (PHS Policy, <i>IV.B.</i>)	X					
• Procedures are in place for review and approval of significant changes to approved activities (PHS Policy, <i>IV.B.</i>)	X					
• Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS ^v (<i>Guide, p 30</i>) ^[must]						X
6. IACUC Training ^{NEW}		A*	M	S	C	NA
• All IACUC members should receive:						
○ Formal orientation to institution's program (<i>Guide, p 17</i>)	X					
○ Training on legislation, regulations, guidelines, and policies (<i>Guide, p 17</i>)	X					
○ Training on how to inspect facilities and labs where animal use or housing occurs	X					

(Guide, p 17)					
o Training on how to review protocols as well as evaluate the program (Guide, p 17)	X				
o Ongoing training/education (Guide, p 17)	X				
7. IACUC Records and Reporting Requirements^{vi}	A*	M	S	C	NA
• Semiannual report to the IO (PHS Policy, IV.B.)					
o Submitted to IO every 6 months See OLAW waiver for 2020 extension (COVID-19)	X				
o Compiles program review and facility inspection(s) results (includes all program and facility deficiencies)	X				
o Includes minority IACUC views	X				
o Describes IACUC-approved departures from the Guide or PHS Policy and the reasons for each departure ^{vii}	X				
o Distinguishes significant from minor deficiencies	X				
o Includes a plan and schedule for correction for each deficiency identified ^{viii}	X				
• Reports to OLAW (PHS Policy, IV.F.)					
o Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	X				
o Promptly advises OLAW of serious/ongoing Guide deviations or PHS Policy noncompliance (NOT-OD-05-034)	X				
o Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)	X				
• Records (PHS Policy, IV.E.)					
o IACUC semiannual reports to the IO are maintained for 3 years	X				
o 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
• An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care ^{ix}	X				
• Veterinary access to all animals is provided (Guide, p 14) [must]	X				
• Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (Guide, p 14) [must]	X				
• Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (Guide, p 5) [must]	X				
• Veterinarian provides consultation when interventional control is not possible (Guide, p 5) [must]					X
• If part time /consulting veterinarian, visits meet programmatic needs (Guide, p 14)					
• Regular communication occurs between veterinarian and IACUC (Guide, p 14)	X				
• Veterinarian(s) have experience and training in species used (Guide, p 15) [must]	X				
• Veterinarian(s) have experience in facility administration/management (Guide, p 15)	X				
9. Personnel Qualifications and Training	A*	M	S	C	NA
• All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]					
o Veterinary/other professional staff (Guide, p 15-16)	X				
o IACUC members (Guide, p 17)	X				
o Animal care personnel (Guide, p 16)	X				
o Research investigators, instructors, technicians, trainees, and students (Guide, pp 16-17)	X				
• Continuing education for program and research staff provided to ensure high quality care and reinforce training (Guide, pp 16-17)	X				
• Training is available prior to starting animal activity (Guide, p 17)	X				
• Training is documented (Guide, p 15)	X				
• Training program content includes: (Guide, p 17)					
o Methods for reporting concerns (Guide, p 17)	X				
o Humane practices of animal care (e.g., housing, husbandry, handling) *	X				
o 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) ^{xi}	X				

o Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)	X				
o Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)	X				
o Use of hazardous agents, including access to OSHA chemical hazard notices where applicable (<i>Guide</i> , p 20)	X				
o Animal care and use legislation (<i>Guide</i> , p 17)	X				
o IACUC function (<i>Guide</i> , p 17)	X				
o Ethics of animal use and Three R's (<i>Guide</i> , p 17)	X				

10. Occupational Health and Safety of Personnel

A* M S C NA

• Program is in place and is consistent with federal, state, and local regulations (<i>Guide</i> , p 17) [must]	X				
• Program covers <i>all</i> personnel who work in laboratory animal facilities (<i>Guide</i> , p 18)	X				
• Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (<i>Guide</i> , p 20)	X				
• Personal Protective Equipment for the work area is appropriate and available (<i>Guide</i> , p 21)	X				
• Program for medical evaluation and preventive medicine for personnel includes:					
o Pre-employment evaluation including health history (<i>Guide</i> , p 22)	X				
o Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (<i>Guide</i> , p 22)	X				
o Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (<i>Guide</i> , p 23)	X				
o Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (<i>Guide</i> , p 23)	X				
o Promotes early diagnosis of allergies including preexisting conditions (<i>Guide</i> , p 22)	X				
o Considers confidentiality and other legal factors as required by federal, state and local regulations (<i>Guide</i> , p 22) [must]	X				
o If serum samples are collected, the purpose is consistent with federal and state laws (<i>Guide</i> , p 22) [must]	X				

11. Personnel Security **NEW**

A* M S C NA

• Preventive measures in place include pre-employment screening, and physical and IT security (<i>Guide</i> , p 23)					X
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12. Investigating & Reporting Animal Welfare Concerns **NEW**

A* M S C NA

• Methods for investigating and reporting animal welfare concerns are established (<i>Guide</i> , p 23) [must]	X				
• Reported concerns and corrective actions are documented (<i>Guide</i> , p 24)	X				
• Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (<i>Guide</i> , p 24)	X				
o Includes multiple contacts (<i>Guide</i> , p 24)	X				
o Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (<i>Guide</i> , p 24)	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

NOTES:

8/10/20 S.C.R.: A waiver was obtained from OLAW to extend the deadline up to 6 months for conducting the semi-annual animal facilities inspection. The COVID-10 pandemic shut down NMHU campus in March 2020. The revised 2020 OLAW assurance includes contingency planning applicable to the COVID-19 shut down. We maintained essential personnel on campus to care for animals in animal facilities. May 11th, 2020 research studies at animal facilities at NMHU concluded as the planned endpoint for research.

Veterinary Care

Date: 8/10/20

1. Clinical Care and Management NEW							A*	M	S	C	NA
• Veterinary program offers high quality of care and ethical standards (<i>Guide, p 105</i>) [must]							X				
• Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (<i>Guide, p 106</i>)							X				
• Veterinarian provides oversight to surgery and perioperative care (<i>Guide, p 106</i>)											X
• Veterinary care program is appropriate for program requirements (<i>Guide, pp 113-114</i>)							X				
• Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (<i>Guide, p 114</i>)							X				
• Procedures to triage and prioritize incident reports are in place (<i>Guide, p 114</i>)							X				
• Procedures are in place to address:											
○ Problems with experiments to determine course of treatment in consultation with investigator(<i>Guide, p 114</i>)							x				
○ Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (<i>Guide, p 114</i>)							x				
○ Veterinary review and oversight of medical and animal use records (<i>Guide, p 115</i>)							x				
• Procedures established for timely reporting of animal injury, illness, or disease (<i>Guide, p 114</i>) [must]							X				
• Procedures established for veterinary assessment, treatment, or euthanasia (<i>Guide, p 114</i>) [must]							X				
• Veterinarian is authorized to treat, relieve pain, and/or euthanize (<i>Guide, p 114</i>) [must]							X				
2. Animal Procurement and Transportation/Preventive Medicine							A*	M	S	C	NA
• Procedures for lawful animal procurement are in place (<i>Guide, p 106</i>) [must]							X				
• Procedures for compliance with animal transportation regulations, including international requirements, are in place (<i>Guide, p 107</i>) [must]							X				
3. Surgery							A*	M	S	C	NA
• Researchers have appropriate training to ensure good technique (<i>Guide, p 115</i>) [must]							x				
4. Pain, Distress, Anesthesia and Analgesia							A*	M	S	C	NA
• Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training (<i>Guide, p 121</i>)							x				
• Procedures are in place to assure antinociception before surgery begins (<i>Guide, p 122</i>) [must]											X
5. Euthanasia							A*	M	S	C	NA
• Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC (<i>Guide, p 123</i>)							x				
• Standardized methods are developed and approved by the veterinarian and IACUC that avoid distress and consider animal age and species (<i>Guide, pp 123-124</i>)							x				
• Training is provided on appropriate methods for each species and considers psychological stress to personnel (<i>Guide, p 124</i>)							x				
• Procedures and training are in place to ensure death is confirmed (<i>Guide, p 124</i>) [must]							X				
6. Drug Storage and Control NEW							A*	M	S	C	NA
• Program complies with federal regulations for human and veterinary drugs(<i>Guide, p 115</i>) [must]							X				
• Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide, p 122</i>) [must]							X				

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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

NOTES:

II. Semiannual Facility Inspection Checklist

Terrestrial Animal Housing and Support Areas

Date: 8/10/20

Location: NMHU campus facility

NOTE: conducted by S. Corey-Rivas, no live animals at facilities as of May 11, 2020

	A*	M	S	C	NA
<ul style="list-style-type: none"> Location: <ul style="list-style-type: none"> animal areas separate from personnel areas (<i>Guide</i>, p 134) separation of species (<i>Guide</i>, p 111) separation by disease status (<i>Guide</i>, p 111) security and access control (<i>Guide</i>, p 151) 	X				
					X
					X
	X				
<ul style="list-style-type: none"> Construction: <ul style="list-style-type: none"> corridors (<i>Guide</i>, p 136) animal room doors (<i>Guide</i>, p 137) exterior windows (<i>Guide</i>, p 137) floors (<i>Guide</i>, p 137) drainage (<i>Guide</i>, p 138) walls and ceilings (<i>Guide</i>, p 138) heating ventilation and air conditioning (<i>Guide</i>, p 139) power and lighting (<i>Guide</i>, p 141) noise control (<i>Guide</i>, p 142) vibration control (<i>Guide</i>, p 142) environmental monitoring (<i>Guide</i>, p 143) 	X				
	X				
	X				
	X				
	X				
	X				
	X				
					X
					X
	X				
<ul style="list-style-type: none"> Room/Cage: <ul style="list-style-type: none"> temperature and humidity (<i>Guide</i>, p 43) ventilation and air quality (<i>Guide</i>, p 45) illumination (<i>Guide</i>, p 47) noise and vibration (<i>Guide</i>, p 49) 	X				
	X				
	X				
	X				
	x				
<ul style="list-style-type: none"> Primary Enclosure: <ul style="list-style-type: none"> space meets physiologic, behavioral^{xii}, and social^{xiii} needs (<i>Guide</i>, pp 51, 55-63) secure environment provided (<i>Guide</i>, p 51) durable, nontoxic materials in good repair and no risk of injury (<i>Guide</i>, p 51) flooring is safe and appropriate for species (<i>Guide</i>, p 51) adequate bedding and structures for resting, sleeping, breeding (<i>Guide</i>, p 52) objective assessments of housing and management are made (<i>Guide</i>, p 52) procedures for routine husbandry are documented (<i>Guide</i>, p 52) socially housed animals can escape or hide to avoid aggression (<i>Guide</i>, p 55) cage height provides adequate clearance (<i>Guide</i>, p 56) animals express natural postures, can turn around, access food and water, and rest away from urine and feces (<i>Guide</i>, p 56) [must] 	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				
					X
<ul style="list-style-type: none"> Environmental Enrichment, Behavioral and Social Management: <ul style="list-style-type: none"> structures and resources promote species typical behavior (<i>Guide</i>, pp 52-54) novelty of enrichment is considered (<i>Guide</i>, p 53) species specific plans for housing including enrichment, behavior and activity are developed and reviewed regularly by IACUC, researchers and veterinarian (<i>Guide</i>, pp 53, 58, 60, 63) animal care personnel receive training to identify abnormal animal behaviors (<i>Guide</i>, p 53) stability of pairs or groups is monitored for incompatibility (<i>Guide</i>, p 64) 	X				
	X				
	X				
	X				

○ habituation to routine procedures is part of enrichment program (<i>Guide</i> , p 64)	X				
• Sheltered or Outdoor Housing: (e.g., barns, corrals, pastures, islands)					
○ weather protection and opportunity for retreat (<i>Guide</i> , p 54) [must]					X
○ appropriate size (<i>Guide</i> , p 54)					X
○ ventilation and sanitation of shelter (no waste/moisture build-up) (<i>Guide</i> , p 54)					X
○ animal acclimation (<i>Guide</i> , p 55)					X
○ social compatibility (<i>Guide</i> , p 55)					X
○ roundup/restraint procedures (<i>Guide</i> , p 55)					X
○ appropriate security (<i>Guide</i> , p 55)					X
• Naturalistic Environments:					
○ animals added /removed with consideration of effect on group (<i>Guide</i> , p 55)	X				
○ adequate food, fresh water, and shelter ensured (<i>Guide</i> , p 55)	X				
• Food:					
○ feeding schedule and procedures including caloric intake management (<i>Guide</i> , pp 65-67)	X				
○ contamination prevention (<i>Guide</i> , p 65)	X				
○ vendor quality control (<i>Guide</i> , p 66)	X				
○ storage in sealed containers (<i>Guide</i> , p 66)	X				
○ expiration date labeling (<i>Guide</i> , p 66)	X				
○ vermin control (<i>Guide</i> , p 66)	X				
○ rotation of stocks (<i>Guide</i> , p 66)					X
• Water:					
○ ad libitum unless justified (<i>Guide</i> , pp 67-68)	X				
○ QC procedures (<i>Guide</i> , pp 67-68)	X				
• Bedding and Nesting Materials:					
○ species appropriate (<i>Guide</i> , pp 68-69)	X				
○ keeps animals dry (<i>Guide</i> , pp 68-69)	X				
○ QC procedures (<i>Guide</i> , pp 68-69)	X				
○ minimizes scientific variables (<i>Guide</i> , pp 68-69)	X				
• Sanitation:					
○ frequency of bedding/substrate change (<i>Guide</i> , p 70)	X				
○ cleaning and disinfection of microenvironment (<i>Guide</i> , pp 70-71)	X				
○ cleaning and disinfection of macroenvironment (<i>Guide</i> , p 72)	X				
○ assessing effectiveness (<i>Guide</i> , p 73)	X				
• Waste Disposal:					
○ procedures for collection (<i>Guide</i> , pp 73-74)	X				
○ procedures for storage and disposal (<i>Guide</i> , pp 73-74)	X				
○ hazardous wastes are rendered safe before removal from facility (<i>Guide</i> , pp 73-74) [must]	X				
○ animal carcasses (<i>Guide</i> , pp 73-74)	X				
• Pest Control:					
○ regularly scheduled (<i>Guide</i> , p 74)	X				
○ documented program including control of rodent pests and insecticide use (<i>Guide</i> , p 74)					
• Emergency, Weekend, and Holiday Animal Care:					
○ care provided by qualified personnel every day (<i>Guide</i> , p 74)					
○ provision for accessible contact information (<i>Guide</i> , p 74)					
○ monitoring of backup systems (<i>Guide</i> , p 143)					
○ veterinary care available after hours, weekends, and holidays (<i>Guide</i> , pp 74, 114) [must]	X				
○ a disaster plan that takes into account both personnel and animals (<i>Guide</i> , p 75)	X				
• Identification:					
○ cage/rack cards contain required information (<i>Guide</i> , p 75)	X				
○ genotype information included and standardized nomenclature used when applicable (<i>Guide</i> , p 75)	X				
• Recordkeeping:					
○ clinical records accessible and contain appropriate information (<i>Guide</i> , pp 75-76)	X				
○ records are provided when animals are transferred between institutions (<i>Guide</i> , p 75)					X

<ul style="list-style-type: none"> • Breeding Genetics and Nomenclature: <ul style="list-style-type: none"> ○ appropriate genetic records, management and monitoring procedures (<i>Guide, p 76</i>) ○ phenotypes that affect wellbeing are reported to IACUC and effectively managed (<i>Guide, p 77</i>) • Storage: <ul style="list-style-type: none"> ○ adequate space for equipment, supplies, food, bedding and refuse (<i>Guide, p 141</i>) ○ bedding in vermin-free area and protected from contamination(<i>Guide, p 141</i>) ○ food in vermin-free, temperature and humidity controlled area and protected from contamination (<i>Guide, p 141</i>) ○ refuse storage is separate (<i>Guide, p 141</i>) ○ carcass and animal tissue storage is separate, refrigerated below 7°C and cleanable (<i>Guide, p 141</i>) • Personnel: <ul style="list-style-type: none"> ○ adequate space for locker rooms, administration and training (<i>Guide, p 135</i>) 					
	X				
					X
	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				

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NA = not applicable

NOTES:

Cagewash

Date: 8/10/20

Location: NMHU campus facility

	A*	M	S	C	NA
• Construction and Operation:					
○ dedicated central area for sanitizing cages and equipment is provided (<i>Guide, p 143</i>)	X				
○ cage-washing equipment meets need (<i>Guide, p 143</i>)	X				
○ doors, windows, floors, drainage, walls, ceilings (<i>Guide, pp 136-138</i>)	X				
○ convenient to animal areas/waste disposal (<i>Guide, p 143</i>)	X				
○ ease of access (including door size) facilitates use (<i>Guide, p 143</i>)	X				
○ sufficient space for staging and maneuvering (<i>Guide, p 143</i>)	X				
○ safety precautions/clothing/equipment used for waste disposal/prewash/acid wash (<i>Guide, p 143</i>)	X				
○ traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (<i>Guide, p 143</i>)	X				
○ insulation and/or sound attenuation present as needed (<i>Guide, p 143</i>)					X
○ utilities are appropriate (<i>Guide, p 143</i>)	X				
○ ventilation meets heat and humidity load (<i>Guide, p 143</i>)	X				
○ safety features (e.g., SOPs, warning signs, eyewash stations) are in use (<i>Guide, p 143</i>)	X				
○ functioning safety devices to prevent entrapment in washer/sterilizers (<i>Guide, p 143</i>)	X				
○ cage wash temperatures are monitored and records are available (<i>Guide, p 73</i>)					
○ appropriate clean cage storage (<i>Guide, p 141</i>)	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

NOTES:

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

Date: 8/10/20

Location: NMHU campus facility

	A*	M	S	C	NA
• General Considerations:					
○ labs used to house animals only when scientifically required and limited to minimum period necessary (<i>Guide, p 134</i>)	x				
○ drug storage, control, and expiration dates (<i>Guide, pp 115, 122</i>)	x				
○ sharps disposal (<i>Guide, p 74</i>)	X				
○ anesthetic monitoring (<i>Guide, p 120</i>)					X
○ scavenging of anesthetic gases (<i>Guide, p 21</i>)					X
○ safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders) are in place (<i>Guide, p 19</i>)	x				
○ carcass disposal (<i>Guide, pp 73-74</i>)	x				

<ul style="list-style-type: none"> • Imaging/Whole Body Irradiation: NEW <ul style="list-style-type: none"> ○ appropriate sensors and ventilation are provided for cryogen gases (<i>Guide, p 147</i>) [must] <i>No irradiation is used at the facility, NA</i> 					
					X
<ul style="list-style-type: none"> • Hazardous Agent Containment: NEW <ul style="list-style-type: none"> ○ facility adheres to APHIS, USDA and CDC Select Agent Regulations and other federal, state and local regulations including security measures (<i>Guide, p 148</i>) [must] 					
	X				
<ul style="list-style-type: none"> • Behavioral Studies: NEW <i>No behavioral studies, NA</i> <ul style="list-style-type: none"> ○ facility minimizes airborne transmission of noise and ground-borne transmission of vibration (<i>Guide, p 149</i>) ○ floor coverings reduce sound transmission (<i>Guide, p 149</i>) ○ testing equipment allows for surface disinfection (<i>Guide, p 150</i>) ○ components that cannot be cleaned are not in ready contact with animals and kept covered when not in use (<i>Guide, p 150</i>) ○ housing areas are contiguous with testing areas when appropriate (<i>Guide, p 150</i>) 					
					X
					X
					X
					X
					X
					x

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M = minor deficiency
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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

NOTES:

III. Semiannual Program Review and Facility Inspection Report

Date: 8/12/20

Semi-Annual Program Review Members in Attendance: Sarah Corey-Rivas (Chair), Ben Nelson, DVM, J1, W1, P1.

Facility Inspection Members in Attendance: Conducted on 8/10/20 by Sarah Corey-Rivas. Please note that an exception has been made due to COVID-19 conditions that one person may conduct the facilities inspection (<https://olaw.nih.gov/covid-19.htm>, COVID FAQ VIII.9). IACUC members were invited to also conduct an inspection, but declined. Results of the inspection were reviewed by the committee on 8/12/20.

Electronic signatures of members in attendance:

Sarah Corey-Rivas, Chair

Ben Nelson, DVM

J1

W1

P1

Deficiency Category*	✓	Location	Deficiency and Plan for Correction	Responsible Party	Correction Schedule and Interim Status	Date Complete
			No deficiencies were found.			

* **A** = acceptable

M = minor deficiency

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

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

NA = not applicable

✓ Check if repeat deficiency

IV. Endnotes

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

ⁱⁱ Part 2 Subpart C - Research Facilities

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

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

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

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

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

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

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

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

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

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

- "proper use of anesthetics, analgesics, and tranquilizers for any species of animals used by the facility"

- "methods whereby deficiencies in animal care and treatment are reported, including deficiencies in animal care and treatment reported by any employee of the facility..."

- "utilization of services (e.g., National Agricultural Library, National Library of Medicine) to provide information on appropriate animal care and use, alternatives to the use of live animals in research, that could prevent unintended and unnecessary duplication of research involving animals, and regarding the intent and requirements of the Act." [USDA training specifications are more detailed than PHS Policy].

^{xii} Part 3 Subpart A 3.8 - "...research facilities must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition the plan must be approved by the attending veterinarian. The plan must provide written standard procedures..."

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