

Memorandum to: Dr. Sarah Nusser, Vice President for Research, Institutional Official

From: Institutional Animal Care and Use Committee

Subject: Semiannual Report of the Program Review and Facility Inspection

Date: November 25, 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]

There have been no changes to the institution's program for animal care and use since the last review.

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]

The committee approved a protocol in which the PI will be restricting access to food for the entirety of the dark cycle, or the animal's active period. This is done so that the PI can more accurately measure the neurotransmitter concentration in the brains of the animals during the presentation, and initial periods of feeding. Having food present during the entire light and dark cycle may impact animal satiety, thereby adding more variability to food consumption and neuromodulation related to eating.

The committee approved a protocol in which animals will not be monitored on a daily basis. Animals will be in ponds and are unable to be observed. However, water quality parameters will be monitored before and after placement into the ponds.

The committee approved a protocol in which animals are fasted for 48 hours. This is to allow the abomasum to completely empty to facilitate the location and counting of nematodes after euthanasia. Animals are provided with water at all times.

The committee approved a protocol in which reptiles are not fed daily or monitored on a daily basis. This is because the animals are solitary wild animals and to minimize stress, the animals are not monitored daily. Animals are not fed daily as the adult animals will have access to food that occurs naturally in ponds and then when animals are overwintered their light cycle will be changed to 8:16 light:dark and not fed to mimic overwintering as they have a decreased metabolic rate. The young also will not be fed daily as initially they will subsist on resorbed yolk and then fed three times a week.

The committee approved a protocol in which animals will be castrated at a later age than what is recommended in the Ag Guide. This will give veterinary students practice in performing this procedure on older animals as they may need to do this once they become a practicing veterinarian. Animals will be provided with analgesics.

The committee approved a protocol in which amphibians are not fed on a daily basis. This is to prevent the animals from being obese and animals of this nature in the wild typically spend several days without a meal. These are also consistent with accepted amphibian husbandry protocols.

The committee approved a protocol in which animals are not monitored on a daily basis, as daily monitoring is stressful for reptiles and this protocol is studying the stress response. These reptiles are also only fed once per week. Some animals are also housed in chambers in which animals are not allowed to move as the PI is measuring resting oxygen consumption to determine metabolic rate.

The committee approved a protocol in which reptiles are fed intermittently as this animal eats intermittently in the wild so weekly feedings are normal for this species.

The committee approved a protocol in which reptiles will not be fed during the short time of capture as these animals would not normally feed after hatching as the animal will subsist on residual yolk.

The committee approved a protocol in which animals will undergo chronic stress by experiencing different stressful situations. Animals will undergo stressful situations such as being restrained for 4 hours, have wet bedding and reversal of light/dark cycle.

The committee approved a protocol in which birds that need to be euthanized are euthanized via thoracic compression which is a method not approved by the American Veterinary Medical Association (AVMA) Euthanasia Guidelines. However, this method of euthanasia is approved by the Ornithological Society.

The committee approved a protocol in which animals will be euthanized via a method that is not currently approved by the AVMA Euthanasia Guidelines. This method of euthanasia was chosen to evaluate if this is a successful method of euthanasia. This method has been evaluated in cadavers and has demonstrated sufficient brain damage.

The committee approved a protocol in which reptiles will not be monitored on a daily basis to minimize the stress on these wild animals and animals would not be fed on a daily basis, as animals normally do not eat during this time as they are hibernating.

The committee approved a protocol in which animals are euthanized in manners that are not approved by the AVMA Euthanasia Guidelines. This is because the PI is evaluating if these would be acceptable methods to euthanize the animals. Results from this study may be used by the AVMA to determine if these euthanasia methods are acceptable for these animals.

The committee approved a protocol in which birds that cannot be returned to the wild are euthanized by thoracic compression which is not approved by the AVMA Euthanasia Guidelines. However, this method of euthanasia is approved by the Ornithological Society.

The committee approved a protocol in which animals may be euthanized in a manner not approved by the AVMA Euthanasia Guidelines. This was done as disposal of these animals using barbiturates is becoming increasingly difficult. The PI also provided documentation that this manner of euthanasia will very likely be an accepted euthanasia method when the new version of the AVMA Euthanasia Guidelines is published.

The committee approved a protocol in which animals will be restrained in a cooling tank to allow the body temperature of the animal to cool down in order to conduct the study. Animals will then be restrained in order to rewarm the animal after the proper cooling temperature has been reached.

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

Animal Care and Use Program Review Date(s): October 2, 2019

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): June 3, 2019; June 12, 2019; June 13, 2019; June 27, 2019; July 9, 2019; July 12, 2019; August 8, 2019; August 21, 2019; August 28, 2019; August 30, 2019; September 5, 2019; September 16, 2019; September 20, 2019; September 23, 2019; September 24, 2019; September 25, 2019; September 26, 2019; October 1, 2019; October 2, 2019; October 3, 2019; October 4, 2019; October 9, 2019; October 10, 2019; October 11, 2019; October 15, 2019; October 16, 2019; October 17, 2019; October 18, 2019; October 21, 2019; October 22, 2019; October 23, 2019; October 24, 2019; October 25, 2019; October 28, 2019; October 29, 2019; October 30, 2019; October 31, 2019; November 1, 2019; November 6, 2019; November 7, 2019; November 8, 2019; November 11, 2019; November 14, 2019; November 15, 2019; November 19, 2019

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]*

Please see attached documents.

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]*

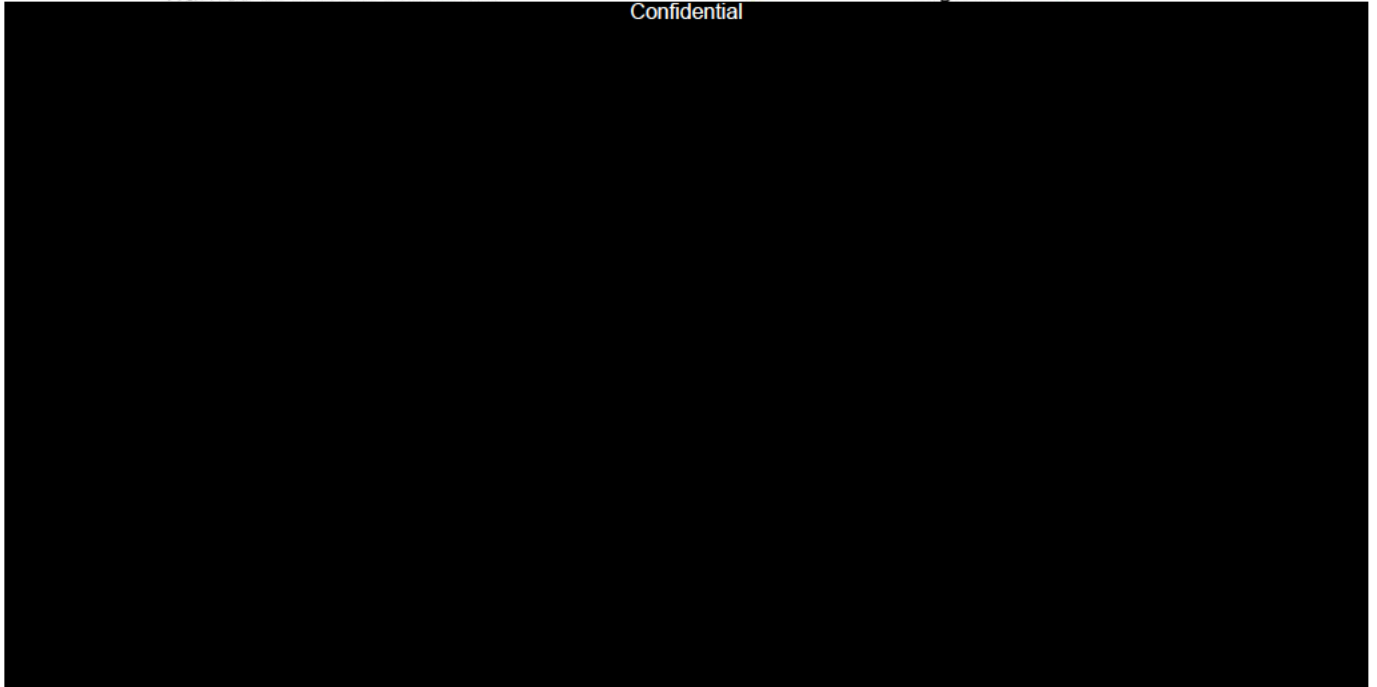
Iowa State University Colleges of Veterinary Medicine and Human Sciences remain full accredited.

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

Names of IACUC Members

Confidential

Signatures



Semiannual Facility Evaluation

M = minor deficiency S = significant deficiency

Significant deficiency: is one that “is or may be a threat to the health or safety of animals”.

Minor deficiency: examples of minor deficiencies include chipped paint and burnt out light bulbs.

Date	Location	Room	M	S	Notes
9/24/19	Confidential		X		Boxes for expired drugs can be kept, but the drugs need to be disposed of (Correction: The Confidential teaching group is scheduled to dispose of the previously IACUC inspection approved box of outdated drugs that are stored in the designated outdated drugs box in their Confidential lab refrigerator on 10/4/19)
10/1/19			X		Locked cabinet has several expired and unlabeled containers (Correction: Disposed of expired and unlabeled containers in proper disposal locations 10/1/19)
10/1/19			X		Expired drug “VFend” – (Correction: Drugs were immediately disposed of 10/1/19)
10/2/19			X		Bottle does not have a label; CO2 tank is not attached to anything (Correction: Both noted items in Confidential were removed as of 10/9/19)
10/3/19			X		Room does not appear to be in use and needs to be cleaned out (Correction: PI will have room cleaned up and organized by 11/18/19)
10/17/19			X		Metal water pipes are corroding (Correction: Water pipes will be replaced by 11/30/19)
10/17/19			X		Light out (Correction: Light bulb was replaced on 11/5/19)
10/18/19			X		Paint appears to be chipping (Correction: A sample will be taken to match paint and will paint the chips by 10/31/19)
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10/22/19		X	Stickers covering expiration dates, these need to be able to be read (Correction: The stickers covering the expiration dates were removed as of 11/1/19)
10/24/19		X	Light out (low light) (Correction: Light bulb was replaced on 11/13/19)
10/24/19		X	Light out (low light) (Correction: Light bulb was replaced on 11/13/19)
10/24/19		X	Light out (Correction: Light bulb was replaced on 11/13/19)
10/24/19		X	Cracks in the walls (Correction: The cracks in the wall were repaired with caulking on 11/13/19)
11/8/19		X	Lockbox is not secured to anything; Bottles in lockbox have no expiration date (Correction: Lockbox will be secured to one of the cupboards by 12/31/19; the expiration date was updated for the bottles containing drugs on 11/19/19)

Confidential

Semiannual Agricultural Production Farm Evaluation*

M = minor deficiency S = significant deficiency

*No PHS-funded or USDA regulated activities

Significant deficiency: is one that "is or may be a threat to the health or safety of animals".

Minor deficiency: examples of minor deficiencies include chipped paint and burnt out light bulbs.

Date	Location	Room	M	S	Notes
10/15/19	Confidential		X		Office – fridge needs sign “ not for human consumption” and remove human food, or remove drugs and label fridge appropriately (Correction: Food was removed from the fridge on 10/16/19 and a sign was posted “No food or drink allowed in this fridge” on 10/21/19)
10/21/19			X		There needs to be more gravel in front (Correction: The rock will be spread by 11/26/19 at Zumwalt in front of the compost facility)
10/21/19			X		Moldy bread in bread cupboard (Correction: The moldy bread was removed on 10/22/19)
10/25/19			X		Light out (Correction: The light in nursery room 3 will be fixed by 11/8/19)
10/28/19			X		Light out (Correction: The lights listed in the nursery and grower room will be repaired/replaced by 11/15/19)
10/28/19			X		Light out (Correction: The lights listed in the nursery and grower room will be repaired/replaced by 11/15/19)
10/28/19			X		Light out (Correction: The lights listed in the nursery and grower room will be repaired/replaced by 11/15/19)