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Office of Research, Innovation and Economic Development Sponsored Programs and Regulatory Compliance Services

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Memorandum to: Richard Beat, Director of Compliance, Institutional Official

From: Institutional Animal Care and Use Committee

Semiannual Report of the Animal Care and Use Program Review

Date: July 18 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).

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. **See table at** [x] B. The departures have been reviewed and approved by the IACUC. **See table at**

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II. Deficiencies in the Institution's Animal Care and Use Program Animal Care and Use Program Review Date(s): June 20, 2019

Select A or B:

[x] A. There were no deficiencies in the program during this reporting period.*

[] B. The following deficiencies have been identified:

Areas for Improvement

Status of Continuing improvements since the last Semiannual Program Review Report:

Semiannual Program Review Report to IO 1018.2019 97.18.2019 2 II. During the two most recent AAALAC International (AAALACi) reaccreditation processes, site visitors recommended improvement of our existing Occupational Health and Safety Program for Personnel with Animal Contact through establishment of annual health re-evaluation of enrollees. A proposed method for periodic check of changes in employees medical or animal handling status which could prompt an updated animal contact form submission has been reviewed with key personnel in SHS and CVM. It is presently under review by CVM college management for any concerns associated with implementation.

During the recent AAALACi reaccreditation process at the College of Veterinary Medicine (CVM), Dr. McKeon discovered that university owned mares are being used as recipients for client embryos. AAALAC required IACUC oversight/inspection of the housing of the NCSU-owned mares during their gestation period at the client-owned farms. There is no easy mechanism to temporarily transfer ownership of the horses to the clients. It is also not feasible for the IACUC to semiannually inspect the client-owned farms that temporarily house these university-owned mares. The service was halted until an IACUC oversight mechanism was established. Ownership will be retained by NCSU. The IACUC will assign a subcommittee to perform a site inspection of each farm that receives a surrogate mare. The subcommittee will include one representative veterinarian from the equine theriogenology service as well as one committee member (generally the AV). A checklist has been developed to ensure that the standards are met by each farm.

III. Deficiencies in the Institution's Animal Facilities

Animal Facility/Lab Inspection Date(s): Multiple dates: January 7 and 8; February 4, 5 and 6; March 3, 4, 5 and 6; April 1, 2, 3, 17 and 24; May 1, 2 and 6.

- [] A. There were no deficiencies in the animal facilities during this reporting period.
- [x] B. The following deficiencies were noted in animal facilities during this reporting period. Also included are approved plans and schedules for correction approved during this reporting period for deficiencies noted during the previous reporting period.

Plan and Schedule for Correction of Deficiencies

Facility	
Date of	November 13, 2018
Inspection	

DEFICIENCY	M/S	ACTION/DESCRIPTION OF PLAN TO CORRECT	SCHEDULE FOR CORRECTION	
Deficiency(ies) are	Minor	-Replacement	Proposed	Deficiency
described below		-Renovation or Repair	Scheduled	Confirmed
			Date(s) of	Corrected by

	Or Signi- ficant	-Modification of Policies or SOPs -Other	Corrective Action (Start/Finish)	IACUC (date and by whom)
Upon inspection, numerous zebrafish were individually housed. The research technician explained that this was necessary for the establishment of genotype sequencing. The fish could be individually housed for up to 3-4 months if they are used for CRISPR genome editing. Because zebrafish are a social species, this is an exception to standards that is not listed on the approved protocols. An amendment must be submitted to add this exception to provide the committee with proper scientific justification.	M	An amendment submission was approved on 12/12/2018 to individually house zebrafish for genotyping purposes for protocol 18-041-B.	12/12/2018	1/15/19 Confirmed by Nina Zimmerman

Facility		
Date of Inspection	March 4, 2019	

DEFICIENCY	M/S	ACTION/DESCRIPTION OF	SCHEDULE FOR CORRECTION	
		PLAN TO CORRECT		
Deficiency(ies)	Minor	-Replacement	Proposed Scheduled Deficiency	
are described	Or Signi-	-Renovation or Repair	Date(s) of Corrective	Confirmed
below	ficant	-Modification of Policies or	Action (Start/Finish)	Corrected by
		SOPs		IACUC (date
		-Other		and by whom)

The peeling ceiling in the hallway between the entry doors into vivarium is in need of repair. The manager indicated a work order had been submitted months ago. However, upon inquiry to why the repair hasn't been done, she was told due to a person working in the building with an allergy to latex, the repair and painting cannot be performed. The Attending veterinarian will contact facilities personnel to determine how best to repair the damaged surface since latex is not an option.	M	Working with paint shop to get the all clear to paint with signage and notification for CVM staff member with latex allergy or a different type of paint that will meet our regulations needs	Aug 2019	To be confirmed at next IACUC inspection. JLS

Facility	
Date of Inspection	March 5, 2019

DEFICIENCY	M/S	ACTION/DESCRIPTION OF	SCHEDULE FOR CORRECTION	
		PLAN TO CORRECT		
Deficiency(ies)	Minor	-Replacement	Proposed Scheduled	Deficiency
are described	Or Signi-	-Renovation or Repair	Date(s) of Corrective	Confirmed
below	ficant	-Modification of Policies or	Action (Start/Finish)	Corrected by
		SOPs		IACUC (date
		-Other		and by whom)

The issue of falling ceiling insulation was noted as a minor deficiency on a previous semiannual inspection and those problem areas of insulation were removed. There were new areas of the ceiling's insulation that are torn and falling down that should be removed/repaired.	M	Repair ceiling Insulation will continue to be removed as sections come loose	Bimonthly	To be reviewed with the next self-evaluation checklist submitted to IACUC.
was wobbling and the anchor bolts need to be replaced to stabilize the gate and to keep it from falling down.	M	Pen will be repaired Concrete anchors and welding	To be completed by end of May '19	

Facility	
Date of Inspection	March 6, 2019

DEFICIENCY	M/S	ACTION/DESCRIPTION OF	SCHEDULE FOR CORRECTION	
		PLAN TO CORRECT		
Deficiency(ies)	Minor	-Replacement	Proposed Scheduled	Deficiency
are described	Or Signi-	-Renovation or Repair	Date(s) of Corrective	Confirmed
below	ficant	-Modification of Policies or	Action (Start/Finish)	Corrected by
		SOPs		IACUC (date
		-Other		and by whom)

The roof on the is damaged in many places with metal roofing material missing and/or flapping in the wind. Additionally, the wood truss in one section of the barn is damaged. A gate has been put up so that animals cannot be access this section to prevent possible injury to them. There are small holes in the roofing throughout this building. This roof needs to be repaired or replaced to prevent potential injury to animals and personnel working in the area.	M	The roof has been a topic of our ongoing repair lists. I have begun to gather quotes for these repairs to be made by a roofing contractor. These notes have been shared with the Assistant Director of NCARS. Together we are working on a plan to get this building fixed. MV	Start - March 2019 – finish asap, pending available funding	To be reviewed with the next self-evaluation checklist submitted to IACUC.

Facility/location		
Date of	5/6/19	
Inspection		

DEFICIENCY Deficiency(ies) are described below	M/S Minor Or Significant	ACTION/DESCRIPTION OF PLAN TO CORRECT -Replacement -Renovation or Repair -Modification of Policies or SOPs -Other	SCHEDULE FOR CORRECTION Proposed Scheduled Date(s) of Corrective Action (Start/Finish) Corrected by IACUC (date and by whom)		
The plexiglass box used for euthanasia needs to have instructions for flow meter use. The technician will add these instructions to the box for all users. This comment was previously made during a semiannual inspection in November 2018.	M	Lab manager confirmed via e-mail that the sign including the instructions and the flow rate for the flow meter was hung on 5/30/2019	5/30/2019	5/30/19 to IACU office	email
Facility/location Date of	5/6/19	· 	1		

Facility/loca	tion			
Date of	5/6/1	9		
Inspection				
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DEFICIENCY	M/S	ACTION/DESCRIPTION OF PLAN TO CORRECT	SCHEDULE FOR CORRECTION	
Deficiency(ies) are described below	Minor Or Signi- ficant	-Replacement -Renovation or Repair -Modification of Policies or SOPs -Other	Proposed Scheduled Date(s) of Corrective Action (Start/Finish)	Deficiency Confirmed Corrected by IACUC (date and by whom)
Disinfectant bottle labels indicated that disinfectant was expired. All labels need to reflect actual expiration date of disinfectant and only in date cleaning products should be used. This comment was previously made during a semiannual inspection in November 2018.	M	IACUC staff verified lab will discard the expired chemicals and a plan is in place to prevent re-occurrence. Lab has delegated a research assistant to keep up with expiration dates of chemicals to prevent re-occurrence.	6/25/19	Verified by IACUC staff 6/25/19

Minority Views

	Select A or B: [x] A. No minority views were submitted or expressed. [] B. The following minority views were expressed:				
IV.	Status of AAALAC Accreditation				
	The College of Veterinary Medicine is accredited. The College of Sciences is accredited.				

Active IACUC Approved Exceptions to Standards Specified by Either the *Guide* or the *Ag Guide*

ID#	Standard	Species	IACUC-Approved Exception	Date
19-016-B	Guide	Dog	Housed in cages with lowered lids	01/24/2019

Signatures: NCSUIACUC's semiannual evaluation of the Animal Care and Use Program was completed by a convened quorum on June 20, 2019 and the final report approved and verified with the signatures below on July 18, 2019. All current voting members of the committee have had an opportunity to review this semiannual program report to the Institutional Official.

Printed Names of Vot	ting Members of the IACUC	Siş	gnatures	
Kenneth Anderson	not Present	7-18-19	ils	
Paula DeLong	Paula Defons	k		
Christopher DePern	· Mi Cult			
Robert Elder	Blut Elde			
William Flowers		6		
John Gadsby	not present	7-18-19	jls	
Nneka George	Mhu Sel			
Gabriel McKeon	6			
Candace Morales	Candace Morale	5		
Judith Schledorn	Candre Morale Justith Schle	don		
Paul Siciliano	not present	7-18-19	jls	
David Sloop	David a Stopp			
Steven Suter	It LIN			
Susan Tonkonogy	Susen John	noem		