

**Memorandum to:** Sally Thompson-Iritani  
**From:** Institutional Animal Care and Use Committee  
**Subject:** Semiannual Report of the Program Review and Facility Inspection  
**Date:** July 31, 2022

This report summarizes results of the IACUC's 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.](#)):**

Christina Cruzen became the Attending Veterinarian for the University on 5/9/22.

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

All animal care and use at the University of Washington adheres to PHS Policy, the *Guide*, and the AWA, as described in our Assurance. Within that framework, the IACUC has approved the following departures from PHS Policy, the AWA and the *Guide*:

- 52 protocols with prolonged restraint (bats, birds, fish, mice, non-human primates, pigs)
- 11 protocols with housing at non-standard temperatures (7 mice, 1 rats, 3 zebrafish)

The following IACUC approved general departures remain in place

- **1 general cage height variance for infant non-human primates**
- **1 general cage floor-area variance, with added vertical space, for juvenile non-human primates**
- **1 general exception for placing NHP feed on compound floors**
- **1 general L-shaped housing variance for NHPs to provide flexibility in configurations of combined cages**
- **1 general cage change frequency variance for singly housed gerbils**

Details are included in [Appendix C](#).

While not departures, the IACUC has also approved the following exceptions to its policies that implement PHS Policy, the AWA and the Guide:

- 12 protocols with cage size variances (7 for mice, 4 rats, 1 mice and rats)
- 3 protocols with wire bottom cages (2 mice, 1 rats)
- 46 protocols with weaning variances (45 mice, 1 rats)
- 2 protocols with a non-AVMA endorsed euthanasia method (1 small birds, 1 frogs)
- 43 protocols with multiple major surgeries (5 species)
- 11 protocols with other policy variances (8 mice, 1 rats, and 2 mice and rats)

Details of these can be reviewed via reports in HoverBoard.

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

Animal Care and Use Program Review Date(s): January through June 2022

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

*Over the past six months, 9 adverse events or non-compliances were reported to the IACUC and, as required, to OLAW, AAALAC, or USDA. See [Appendix A](#) for details.*

*Teams of IACUC members recently reviewed all elements of the University's animal care and use program, guided by the OLAW-provided checklist. They found the program to be strong, and identified no deficiencies. Specific comments and suggestions for improvement are detailed in [Appendix D](#). The IACUC and OAW will pursue the suggestions in the coming year.*

## III. Deficiencies in the Institution’s Animal Facility

Animal Facility Inspection Date(s): January through June 2022

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

*Over the past six months 120 deficiencies were identified during IACUC facility inspections or self-reported. None were considered significant. Counts by type are shown below.*

Type	Minor	Significant	Type	Minor	Significant
Facility and Furnishings	30	0	Personnel Precautions	19	0
Sanitation	7	0	Feed	0	0
Husbandry	1	0	Environment	1	0

Equipment	12	0	Signage and Information	16	0
Drugs	11	0	Research Chemicals	12	0
Supplies	6	0	Protocol/Procedures	5	0

See [Appendix B](#) for deficiency details.

**IV. Minority Views**

Select A or B:

A. No minority views were submitted or expressed.

B. The following minority views were expressed:

**V. Status of AAALAC Accreditation**

Reference Assurance: #000523  
 Most Recent AAALAC Site Visit: 05/31/2019 through 06/07/2019  
 Most Recent Full Accreditation issued: 11/01/2019  
 Per AAALAC request, the next scheduled site visit will be Summer 2023

**VI. Signatures (via signed and dated note of concurrence – see attached images)**

IACUC Members	concurrence	date
A.B.	Concur	7/26/22
A.C.	Concur	7/26/22
A.P.	Concur	7/29/22
A.W.	Concur	7/27/22
Christina Cruzen	Concur	7/31/22
D.M.	Concur	7/26/22
D.T	Abstain	
E.S.	Concur	7/28/22
G.S.	Concur	7/29/22
J.F.I.	Concur	7/28/22
J.M.	Concur	7/26/22

<b>J.P.V.H.</b>	Concur	7/29/22
<b>Jane Sullivan</b>	Concur	7/22/22
<b>K.G.</b>	Concur	7/21/22
<b>K.M.</b>	Concur	7/27/22
<b>M.B.</b>	Concur	7/26/22
<b>M.E.</b>	Concur	7/28/22
<b>M.K.</b>	Concur	7/23/22
<b>M.R.B.</b>	Concur	7/22/22
<b>M.R.K.</b>	Concur	7/27/22
<b>S.R.H</b>	Concur	7/22/22

## Appendix A: Deficiencies in the Institution's Animal Care and Use Program

Severity	Repeat?	Location	Deficiency and Corrective Action Plan	State	Date Complete
Significant	No	HSB	Administration of an unapproved substance. 12 rats were given a substance that was not approved on their IACUC protocol. The protocol was approved for administration of a steroid, dexamethasone, by IP injection, but a different steroid, methylprednisolone, was instead given by tail vein injection. An additional 18 rats received IV saline as a control. The IV route was also not approved on the IACUC protocol.	Complete	3/28/22
Minor	No	HSB	Personnel not approved on protocol. A new faculty member arranged for fish to be shipped and quarantined at UW before he arrived. From January 11-15, three individuals associated with the lab (2 postdocs, lab manager), received a facility orientation and began to set up crosses to establish new lines of zebrafish. The individuals set spawning tanks and checked for eggs; no experimental procedures were performed on the zebrafish. These individuals were not approved on the protocol. and, though experienced in working with zebrafish, all individuals had not completed the basic training required by UW (UW Animal Use Laws & Regulations, AUMS). At the time of the incident, one individual had completed the basic training, one individual had only completed the Laws & Regulations course, and the third individual had completed neither of the required training elements.	Complete	3/28/22
Significant	No	SLU 3.1 ABSL3	Pup not euthanized. An investigator found an unexpected litter of pups in an experimental cage in the BSL3 facility. The investigator separated the pups from the cage by putting them in another cage, finished her examination of the other experimental animals, and then euthanized the pups. She missed one and it was found dead in the separated cage the next day.	Complete	3/28/22
Minor	No	HSB	Health check not performed. On December 30th, health checks were not performed in a lab managed housing space with frogs ( <i>xenopus tropicalis</i> ; housed in a recirculating system). The missed day coincided with a snowstorm in Seattle. The lab's usual contingency plan failed, as multiple lab members were not able to safely travel to campus due to the weather, or were unable to come to campus due to COVID quarantine. Although no health check was performed, no feeding days were missed (this species	Complete	3/4/22

			of frog is only fed 3 times per week). There was no apparent harm to the animals as a result of this event. This was identified on January 14th during an IACUC site visit.	
Significant	Yes	SLU 3.1	Administration of an unapproved substance. On April 12th it was self-reported by a group that 19 mice had received a substance that was not approved on the IACUC protocol. The PI of the protocol had submitted an amendment on March 25th that added experiments involving oral and subcutaneous administration of the agent ovalbumin, which was not yet approved. There was a miscommunication within the research group, and these experiments were initiated before that amendment was approved.	In Process
Minor	Yes	SLU 3.1 ABSL3	Mice not actively monitored. On March 21-23, one animal room in the ABSL3 facility was not checked by DCM staff. All animals were weighed and checked by investigative staff and no abnormalities were detected. The new employee who checked the animal rooms failed to check all rooms and was not aware that animals had been moved into that room.	In Process
Significant	No	HSB	Tailing of adult mice without anesthesia or analgesia. On April 16th, tail samples for genotyping were collected from 8 mice older than 28 days of age. This procedure was performed without the use of anesthesia or analgesia, as required by the IACUC'S policy on "Genotyping of Laboratory Mice". The student performing this procedure also failed to adequately cauterize the tail. Tailing of adult mice is not approved on the lab's protocol. The mice were evaluated and treated by vet services, with all mice making a full recovery.	In Process
Significant	No	CHDD	Administration of an unapproved substance. It was self-reported on April 27th that 123 mice over the previous ~14 months had received a dose of tamoxifen that was higher than the dose approved in the protocol. The group and vet services noticed an increase in animal mortality in March of this year, at which time vet services informed them of the dose range approved in their protocol and told them to use a lower dose than they had been administering. It is unclear if the increase in mortality was directly related to the high dose of tamoxifen. The group continued to use the higher-than-approved dose in additional cohorts of mice after that conversation took place.	In Process

Minor	Yes	Friday Harbor Labs	Unapproved work with cephalopods. Squid were shipped to FHL and placed in quarantine tanks without there being an approved IACUC protocol in place. OAW was alerted to the situation after the squid were already in transit. An IACUC protocol application has since been submitted to cover the housing and use of squid.	6/23/22
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## Appendix B: Deficiencies in the Institution's Animal Facility

Severity	Repeat?	Location	Room	Deficiency and Corrective Action Plan	Correction Due Date	Date Complete
Minor	no	HSB	K024F	Several chamber boxes had peeling tape with exposed sticky surfaces. Please remove all old tape and either use non-tape options (when possible) or replace with fresh sanitizable tape (i.e. plasticized lab tape such as Timed brand).	3/2/2022	3/1/2022
Minor	no	Foege	039A	Expired supplies (needles, solutions) - Remove	2/28/2022	3/7/2022
Minor	no	Foege	N333C	Chair with duct tape-covered tears needs to be removed from the animal use space.	2/28/2022	2/28/2022
Minor	no	HSB	C609	Multiple ceiling lights are flickering on and off. - Repair	3/1/2022	3/2/2022
Minor	no	HSB	H606	Emergency shower just outside of this room also needs to be serviced.	4/4/2022	3/17/2022
Minor	no	HSB	C604	Holes in wall just to the left of the door. Patch and paint so that surfaces are sound, sealed and sanitizable.	4/30/2022	4/25/2022
Minor	yes	HSB	E316	Plastic bin on shelf contains expired needles. Dispose of, or clearly label materials as expired and not for use in live animals.	3/1/2022	3/2/2022
Minor	no	HSB	C613	Ceiling tiles missing from a past water damage repair. Replace the ceiling tiles.	3/1/2022	3/1/2022
Minor	no	HSB	G617	Expired saline, sterile surgical gloves, and tegaderm bandages. Dispose of, or clearly label materials as expired and not for use in live animals.	3/1/2022	3/2/2022
Minor	no	HSB	C604A	Sweep and clean floors	3/1/2022	2/25/2022
Minor	no	HSB	G617	Clean dried Clidox spill under sink.	3/1/2022	2/9/2022
Minor	no	HSB	C603	Isoflurane needs to be serviced before next use. Place sign/label on the vaporizer indicating it cannot be used until serviced.	2/28/2022	2/25/2022



Minor	no	HSB	C603	Several expired solutions (e.g., ultrasound lotion) under sinks. Dispose of properly.	2/28/2022	2/25/2022
Minor	no	HSB	C606	Isoflurane vaporizer needs to be serviced before next use. Please place a sign/label on the vaporizer indicating it cannot be used until serviced. Thank you for noticing this and for scheduling the service appointment!	3/1/2022	2/1/2022
Minor	no	HSB	H608	Eyewash needs to be serviced. Last service date listed is 3/2019.	4/4/2022	3/17/2022
Minor	no	HSB	C615	Provide documentation that the biosafety cabinet in this room has been inspected in the past year, and post it on the cabinet. If it is overdue for an inspection place a sign/label on the BSC indicating it cannot be used until serviced.	3/1/2022	2/1/2022
Minor	no	HSB	C604A	Sweep and clean floors	3/1/2022	2/25/2022
Minor	no	HSB	C603	Eye wash not present in space. Have EH&S conduct a risk assessment to determine what action, if any, needs to be taken to ensure personnel safety.	4/30/2022	3/11/2022
Minor	no	HSB	E610	Tank cleaning room. Storage of tanks and other supplies, including chemicals. Dispose of expired chemicals (e.g., NaOH pellets) and organize extra supplies to minimize safety hazards for personnel (e.g., risk of slips, trips and falls).	3/1/2022	2/23/2022
Minor	no	HSB	C605A	Expired surgical materials. Dispose of, or clearly label materials as expired and not for use in live animals.	4/30/2022	4/22/2022
Minor	no	HSB	C618	Label the doxycycline chow with an expiration date. All feed should be labeled with an expiration date.	3/1/2022	1/31/2022
Minor	no	HSB	C604	Isoflurane vaporizer needs to	3/1/2022	2/25/2022

				be serviced before next use. Place a sign/label on the vaporizer indicating it cannot be used until serviced.		
Minor	no	HSB	C609	Expired 1ml Fisher syringes in drawers. Dispose of all expired syringes, or clearly label materials as expired and not for use in live animals.	3/1/2022	3/2/2022
Minor	yes	HSB	G617	Expired sterile field. Dispose of, or clearly label materials as expired and not for use in live animals.	3/1/2022	3/1/2022
Minor	no	HSB	C603	Remove all unsanitizable items (e.g., cardboard, styrofoam containers) from areas where animal work will be performed.	2/28/2022	2/25/2022
Minor	no	HSB	F606	Fish carcasses in fridge not properly labelled. Ensure dead animal bags are appropriately labelled moving forward. Labels must include the PI's name and euthanasia date.	3/1/2022	2/1/2022
Minor	no	HSB	C605A	Large rust stain on floor. Remove stain	3/1/2022	2/16/2022
Minor	no	HRT Vivarium	SB007	Half of the floor drain is uncovered in this room. Cover the drain.	3/31/2022	3/18/2022
Minor	no	HRT Vivarium	SB015	Add emergency contact name and phone number to cage cards.	3/2/2022	3/2/2022
Minor	no	HRT Vivarium	SB056	Expired angiocatheters. Dispose of, or clearly label materials as expired and not for use in live animals.	3/2/2022	3/2/2022
Minor	no	HRT	B004	Create separate drug logs for Buprenex HCl and Simbadol as these are different formulations of buprenorphine.	3/2/2022	3/2/2022
Minor	no	HRT Vivarium	SB053	A mouse Y maze was disassembled on the floor. Any materials to be used for rodent work should not be placed on the floor. Always place rodent equipment on elevated, sanitizable surfaces.	3/2/2022	2/1/2022

Minor	no	HRT Vivaium	Cage Wash	There is a fire sprinkler above the other side of the cage washer that has a gap around the base where it meets the ceiling. This needs to be filled in.	3/31/2022	3/4/2022
Minor	no	HRT	718	A drug log book for the Euthasol is needed (currently unopened). Add newly received bottles of controlled substances to the drug log.	3/2/2022	2/1/2022
Minor	no	HRT Vivarium	SB044	Emergency eye wash needs a sign for logging testing. Please test weekly.	3/2/2022	2/1/2022
Minor	no	HRT Vivarium	SB049A	Cracks in flooring need to be sealed. All surfaces should be sound, sealed, and sanitizable.	3/31/2022	3/18/2022
Minor	no	HRT Vivarium	Cage Wash	Log has a place to circle one of two choices but neither is circled. Add correct notation to log.	3/31/2022	2/21/2022
Minor	no	HRT Vivarium	SB044	An excess of ketamine was found at the end of the log. Review surgical/anesthesia records and drug log to ameliorate the discrepancy in balances of ketamine. Also log newly received controlled substances in the log as soon as they are received.	4/5/2022	3/7/2022
Minor	no	HRT Vivarium	Cage Wash	There is a hole cut in the ceiling over the cage wash This needs to be filled in our plugged.	3/31/2022	3/4/2022
Minor	no	HRT	B004	The amount of ketamine left in the opened bottle appeared to be a few milliliters less than what is reported in the drug log. Review surgical records to ameliorate the discrepancy between the amount remaining in the log book versus the bottle.	3/2/2022	3/7/2022
Minor	no	HRT	SB044	Expired needles, blood tubes, 3 way stopcocks, and syringes found. Dispose of, or label as expired and not for use in live animals.	3/2/2022	2/1/2022

Minor	no	HRT	SB056	Isoflurane vaporizer needs to be serviced before next use. Place a sign/label on the vaporizer indicating it cannot be used until serviced.	3/2/2022	2/1/2022
Minor	no	Foege	N415A	Heating pad and kim wipe taped to stereotaxic stage. Ensure that surfaces used for surgical procedures can be properly cleaned between animals/after the procedure (e.g., frequent replacement of tape, use of a blue pad during the procedure).	3/2/2022	2/2/2022
Minor	no	Foege	N415A	Expired eye lubricant. Dispose of expired materials.	3/2/2022	1/20/2022
Minor	yes	Foege	N415A	Expired drugs found during visit. All were placed in baggies clearly marked 'Expired – DO NOT USE'. Arrange drug disposal through Drug Services. (This is a repeat deficiency; identified on July 2021 site visit)	3/2/2022	2/2/2022
Minor	no	Foege	N415A	Eye wash. Ensure that the eye wash is checked and logged weekly.	3/2/2022	2/2/2022
Minor	no	Brotman	141	Isoflurane equipment was due for recalibration in December 2021. Until the replacement arrives, a DO NOT USE UNTIL RECALIBRATED sign should be placed on the machine (and it should not be used).	3/2/2022	3/1/2022
Minor	no	Brotman Vivarium	P168	Rack B51/cage 5E had an outdated WEAN card on the cage, although it looked like the cage had been weaned (i.e. no pups in cage). Remind researchers to remove the WEAN card when they wean the cage, and remind room techs to keep an eye out for inappropriate WEAN cards left on weaned cages.	3/4/2022	2/2/2022
Minor	no	SLU	S346	Surface of chair in room is damaged, exposing foam interior in several places,	3/4/2022	2/25/2022

				making it unsanitizable. Chair needs to be replaced with a chair with an intact covering that will ensure it is 'sound, sealed and sanitizable'.		
Minor	no	Brotman Vivarium	P164	Reminder to log monthly biosafety cabinet cleaning or note 'not in use' on log and place a sign on the cabinet itself.	3/4/2022	2/2/2022
Minor	no	Brotman Vivarium	P167A	One of two chairs in room, the black chair, has surface damage, exposing the foam interior in a few places. This chair needs to be removed and replaced.	3/4/2022	2/2/2022
Minor	no	SLU	S346	Need two chains on the large CO2 containers.	3/4/2022	2/11/2022
Minor	no	SLU	N327	Log forms need to be revised so they include the information that site visitors need, and then logs need to be updated to include missing information.	3/7/2022	2/4/2022
Minor	no	SLU 3.1	E020	Cage card weaning and separation cards don't have contact info. Include contact information.	3/16/2022	2/23/2022
Minor	no	SLU	N328	A bottle of unopened, recently received Ketamine has not been entered into the drug log. Drugs should be logged in when they go in the lock box, so the records are always consistent with the contents of the box.	3/7/2022	2/4/2022
Minor	no	SLU	N328	Two damaged chairs with exposed foam interiors must be removed from this space where animals are used.	3/7/2022	2/4/2022
Minor	no	HSB	F715	Expired vial of 0.9% Sodium Chloride (expired 1 Feb 2022). Discard.	3/23/2022	2/23/2022
Minor	no	Brotman Vivarium	P152	Expired Clidox in room. Clidox should be discarded once it has passed its expiration date.	3/7/2022	2/8/2022
Minor	no	SLU 3.2	E023	Contact info on cage cards missing. Also, doesn't include # mice/cage. Include needed	3/16/2022	2/23/2022

				information.		
Minor	no	Brotman Vivarium	P160	Eye wash is being checked weekly but not logged. Be sure to log the weekly eye wash tests and store the paper log in a plastic sleeve.	3/7/2022	2/4/2022
Minor	no	Brotman Vivarium	P152	BSC monthly cleaning log is not being maintained. If room is not in use, and cleaning of the cabinet is not needed, it is OK to note this in the log (i.e. record date and note 'not in use'), but signage should also be posted on the BSC stating 'do not use until cleaned (check log)'.	3/7/2022	2/8/2022
Minor	no	SLU	S373	About 5 mLs of Ketamine not accounted for in drug box. Update log.	3/7/2022	2/3/2022
Minor	no	SLU	N327	Damaged chair has exposed foam interior, cannot be sanitized. This damaged chair must be removed from space where animals are used.	3/7/2022	2/4/2022
Minor	no	SLU	N131A	Eye wash needs to be tested and logged once every week	3/14/2022	3/3/2022
Minor	no	SLU	N115	Cardboard boxes on floor need to be raised up off floor so they do not get wet if liquid spills on the floor	3/14/2022	3/17/2022
Minor	no	SLU	S462	Damaged chairs in room need to be replaced with sound, sanitizable chairs	3/15/2022	3/15/2022
Minor	no	SLU	N126	Damaged chairs in room need to be replaced with sound, sanitizable chairs.	3/14/2022	3/24/2022
Minor	no	SLU	N117	Damaged chair in room need to be replaced with sound, sanitizable chair	3/15/2022	2/14/2022
Minor	no	SLU	N520	Drug box had expired buprenorphine that expired 12/21	4/25/2022	4/20/2022
Minor	no	SLU	N101	Replace chairs in N101 that are not sanitizable.	3/23/2022	2/22/2022
Minor	no	SLU	S445	Bare paper signage needs to be placed in a plastic sleeve or laminated.	3/15/2022	3/15/2022
Minor	no	SLU	S462	Isoflurane equipment needs to be recalibrated before	3/15/2022	3/16/2022

				next use. Sign needs to be placed on machine stating 'DO NOT USE UNTIL RECALIBRATED'.		
Minor	no	SLU	N131A	Damaged chairs in room need to be replaced with sound, sanitizable chairs.	3/14/2022	2/10/2022
Minor	no	Benjamin Hall	365	Isoflurane machine calibration not up to date. Calibrate machine.	3/23/2022	3/23/2022
Minor	no	Benjamin Hall	366	Eyewash log not kept up to date. Update log.	3/23/2022	3/23/2022
Minor	no	SLU	S485	A fabric curtain has been removed from the room, but there is still some fabric hanging from the ceiling as well as Velcro tape along the walls. The metal track can stay, but please remove the fabric and Velcro.	4/25/2022	3/28/2022
Minor	yes	SLU	S373	REPEAT Eye wash test log is being checked off on outside of plastic sleeve. Paper log needs to be removed from sleeve, checked off and returned to sleeve, when eye wash is tested.	4/25/2022	3/21/2022
Minor	no	SLU	S485	Several damaged chairs in room need to be replaced with ones that are intact and sanitizable.	4/25/2022	4/4/2022
Minor	no	HSB	T135	Spray bottle of liquid not properly labelled (label just included an expiration date, which had passed). Label to include the name of the compound, concentration, date of preparation and expiration date.	4/25/2022	4/25/2022
Minor	no	HSB	T131	Cage with 3 adult male rats MC 145,146,147 looks over crowded. Move animals as appropriate.	4/25/2022	4/19/2022
Minor	no	HSB	T131	Bag of cereal in plastic bin needs to be properly labelled. Label to include the name of the contents and the expiration date.	4/25/2022	4/25/2022
Minor	no	HSB	T129	Post-operative monitoring not consistently documented.	4/25/2022	4/19/2022

				Ensure that post-operative monitoring is performed, and documented, as described in the approved protocol. Reach out to your OAW liaison if help is needed.		
Minor	no	HSB	T121	Conflicting door signs - one stated okay to enter, the other stated do not enter experiment in progress. Be sure signage on doors is accurate and up to date.	4/25/2022	3/30/2022
Minor	no	HSB	T135	Spray bottle of liquid not properly labelled (label just included an expiration date, which had passed). Label to include the name of the compound, concentration, date of preparation and expiration date.	4/25/2022	4/25/2022
Minor	no	HSB	AA6 Hallway	Scratched paint on the walls in the upstairs hallway in the AA Building	4/25/2022	4/25/2022
Minor	no	HSB	RR747	Drug log needs to be updated. Pages should be created for new drugs as soon as they arrive and are put in the safe. Logs should be updated promptly when drugs are removed.	4/9/2022	3/16/2022
Minor	no	HSB	I445	When asked the lab tech said they weigh their food restricted animals monthly. The OAW policy requires weekly weighing of all food restricted animals.	4/25/2022	3/23/2022
Minor	no	HSB	I089G/J/M	Paint scratches on walls and door needs patching. Repair.	7/31/2022	1/1/1900
Minor	no	HSB	I089N	Bulbs in one of the overhead light fixtures need to be replaced.	3/28/2022	4/14/2022
Minor	no	HSB	I090A	Expired scrub kit in corridor just outside this room. Discard.	4/25/2022	3/9/2022
Minor	no	HSB	C525	A small amount of a ketamine working solution was locked in the safe, but there was not a log of the use of it. Must log.	4/25/2022	4/5/2022
Minor	no	HSB	I441	Ceiling tile is missing.	4/25/2022	4/11/2022



				Replace.		
Minor	no	HSB	I553	Expired Scrub Kit in Bite Kit. Replace with non-expired Scrub Kit.	4/25/2022	3/23/2022
Minor	no	Guthrie	028C2	Several components of the elevated maze had unfinished wood surfaces that cannot be sanitized. These surfaces need to be sealed with paint or varnish (or similar) so that they can be sanitized if they become soiled.	5/6/2022	5/6/2022
Minor	no	Guthrie	028D	Several ceiling fixture light bulbs are out in this room. Replace.	5/6/2022	5/6/2022
Minor	no	Guthrie	028C1	Old masking tape and blue painter's tape on a light above maze need to be removed.	5/6/2022	5/6/2022
Minor	no	Guthrie	028C2	Old tape dangling ceiling needs to be removed.	5/6/2022	5/6/2022
Minor	no	Guthrie	028D	Eye wash needs to be tested and logged weekly (not monthly)	5/6/2022	5/6/2022
Minor	no	Guthrie	028C1	Several components of the elevated maze had unfinished wood surfaces that cannot be sanitized. These surfaces need to be sealed with paint or varnish (or similar) so that they can be sanitized if they become soiled.	5/6/2022	5/6/2022
Minor	no	Chemistry Library	066	Bare paper signage posted on walls needs to be put in plastic sleeves or laminated	5/16/2022	4/19/2022
Minor	no	Guthrie	354A	Isoflurane vaporizer calibration is out of date. Do not use vaporizer until it has been recalibrated. Post 'Do Not Use Until Recalibrated' sign on the equipment.	5/16/2022	5/16/2022
Minor	yes	HSB	H330	All old tape (e.g. curling up at edges) needs to be replaced, ideally with a non-tape option (e.g. plastic zip ties, magnets). REPEAT DEFICIENCY FROM OCT '21	5/16/2022	5/16/2022
Minor	no	Chemistry	066	Isoflurane scavenger canister	5/16/2022	4/19/2022

		Library Building		does not have weight logged. Weights need to be recorded after use and canister needs to be replaced after it reaches 1400 grams. Used canisters must be stored in an airtight container until they can be properly disposed.		
Minor	no	Chemistry Library Building	066	Expired substances need to be clearly labeled EXPIRED - DO NOT USE and properly disposed of (Dexamethasone, 0.9% NaCl soln, Lidocaine, Eye lubricant)	5/16/2022	4/19/2022
Minor	no	Guthrie	419	Expired substance (Dopram) needs to be discarded.	5/16/2022	4/13/2022
Minor	no	Guthrie	354	Eye wash needs to be flushed and logged every week	5/16/2022	5/16/2022
Minor	yes	Guthrie	359	Bare paper posted on walls needs to be put in plastic sleeves or laminated. REPEAT DEFICIENCY FROM OCT '21 SITE VISIT	5/16/2022	5/16/2022
Minor	no	HSB	NW141A	Eyewash is checked inconsistently. Eyewash stations require flushing once per week to protect personnel from potential build-up of contaminants in the water line and must be recorded in a log.	5/19/2022	4/19/2022
Minor	no	HSB	J661D	Signs must be laminated or in sleeves.	6/9/2022	5/17/2022
Minor	no	LSB	321H	Eye wash needs to be tested and logged weekly (or note that room is not in use); log should be stored in a plastic sleeve (no bare paper signage)	5/27/2022	5/4/2022
Minor	no	LSB	312	Replace any tape that is cracking or curling up so the sticky surface is exposed.	5/27/2022	5/6/2022
Minor	no	ARCF	B141B	Room temp and humidity should be logged daily on Daily Care Log (or note that room is not in use).	5/27/2022	5/27/2022
Minor	no	ARCF	B141D	Room temp and humidity should be logged daily on Daily Care Log (or note that	5/27/2022	5/27/2022

				room is not in use).		
Minor	no	LSB	312	All bare paper that is posted needs to be encased in a plastic sleeve or laminated.	5/27/2022	5/6/2022
Minor	no	LSB	B208	Eye wash needs to be tested and logged weekly (or note that room is not in use); log should be stored in a plastic sleeve (no bare paper signage)	5/27/2022	4/27/2022
Minor	no	ARCF	B141D	Eye wash needs to be tested and logged weekly (or note that room is not in use); log should be stored in a plastic sleeve (no bare paper signage).	5/27/2022	5/2/2022
Minor	no	ARCF	B141C	Eye wash needs to be tested and logged weekly (or note that room is not in use); log should be stored in a plastic sleeve (no bare paper signage).	5/27/2022	4/27/2022
Minor	no	ARCF	B141B	Eye wash needs to be tested and logged weekly (or note that room is not in use); log should be stored in a plastic sleeve (no bare paper signage).	5/27/2022	4/27/2022
Minor	no	ARCF	B141C	Room temp and humidity should be logged daily on Daily Care Log (or note that room is not in use).	5/27/2022	5/27/2022
Minor	no	LSB	415	Eyewash station not being flushed and logged weekly.	5/30/2022	5/17/2022

## **Appendix C Departures**

### Prolonged restraint

Active protocols with approved prolonged restraint are as follows:

- Wild bats, held in cloth bags for transport – 1 protocol
- Farm Pigs, suspended in a sling to change dressings – 1 protocol
- Wild Birds, held and hooded for transport or equipment attachment – 5 protocols
- Wild fish, captured in gill or tow nets – 3 protocols
- Zebrafish, held in a matrix for imaging – 3 protocols
- Mice, held in tubes for various procedures – 17 protocols
- Mice, held by head posts – 7 protocols
- Nonhuman primates, held in chairs,, tubes, and cloth jackets – 15 protocols

### Housing at Non-standard Temperature

Active protocols with approved housing at non-standard temperatures are:

- Zebrafish following human cell transplantation or for heat-shock gene activation – 3 protocols
- Mice and Rats housed under cold stress or at thermo-neutral temperatures during metabolic experiments – 7 mice protocols, 1 rat protocol

### Others

- The IACUC has approved housing infant monkeys (age 2 weeks to a body weight of 1 kg) in cages that meet floor space requirements but are only 24" high. These animals climb up well, but are not adept at climbing down. The lower cage height reduces the risk of injury if an animal should fall.
- The IACUC has approved co-housing 4 juvenile nonhuman primates (up to 5 kg body weight) as a group in a Group 3 sized 4-cage rack with both vertical dividers and one horizontal divider removed. This innovative configuration meets the volume regulations for Group 3 animals and, while being shy of the floor area standard, provides the animals increased opportunity to express species-typical behavior.
- The IACUC has approved a L shaped housing variance combining cages together in configurations that provide increased vertical space for the animals and more than standard floor space but with part of the space <36 inches (but at least 32 inches) high. This will offer more choice in housing configurations to encourage species-typical behavior such as locomotion and exploration.
- The IACUC has approved scattering food on the floor of NHP housing compounds to minimize contamination and ensure access to food and foraging opportunities for all animals.
- The IACUC has approved to allow for 28 day cage changes for singly housed gerbils.

## **Appendix D IACUC Program Review**

The Animal Care and Use Program was found to be acceptable with no suggestions for improvement.

Disaster Planning and Emergency Preparedness was found to be acceptable

Contingency operations plan exists for each vivarium at UW in Seattle and Arizona and is accessible on sharepoint website and at each facility. It is reviewed and updated annually by OAW, WaNPRC, and DCM leadership.

Previous program review made the following recommendations that have not yet been implemented:

- Creation of a master list of existing plans and dates of review
- Creation of a subgroup tasked with overseeing disaster plans on a regular basis- currently conducted by WaNPRC, OAW, and DCM leadership- should this include the IACUC?
- Creation of a template disaster plan to be shared on sharepoint

IACUC: This section was found to be acceptable.

IACUC Protocol Review was found to be acceptable.

Regarding prolonged restraint, there is an IACUC policy that defines restraint and discusses the need for justification and monitoring. The policy specifies that the frequency of monitoring and criteria for removal be included in the IACUC protocol. A number of protocols were checked and all contained the necessary information so the policy is being consistently followed. There is some inconsistency regarding the details of frequency of checks. Our group suggests that the IACUC consider adding additional detail within the policy to provide PIs guidance as to what the committee expectations are as they pertain to specific monitoring parameters. This may decrease some administrative burden to the committee and lead to more consistent practices between different labs.

Regarding toe clipping in rodents, The Guide specifies that it only be used when no alternative is available and that it must be performed aseptically and with pain relief. It was confirmed that toe clipping is not being done by any labs at this time. In our required animal handling training, we specify that "amputation of toes requires strong justification and approval from IACUC," and toe clipping is not mentioned as an option in either the Animal Identification SOP or in the Rodent Genotyping Policy. Our recommendation is that the committee consider revising either the Genotyping Policy or the Animal Identification SOP (or both) to include statements about the use of toe clipping (e.g. not recommended, only appropriate for ID if critical for genotyping, only in very young animals, must use anesthesia/analgesia, etc).

IACUC Membership and Functions were found to be acceptable.

IACUC Training was found to be acceptable.

There was a discussion about how to evaluate the effectiveness of the training programs. The group would like to see a return to mock protocol reviews and mock site visits that can be used to help members evaluate their skills in those areas when resources are available

IACUC Records and Reporting Requirements was found to be acceptable

Veterinary Care was found to be acceptable

*There is still work to do to implement past suggestions to ensure that all drug records and storage procedures are reviewed during site visits and to create a master list of drug box locations.*

Personnel Qualifications and Training was found to be acceptable.

*Prior recommendations related to the development of lab-specific and/or species-specific checklists or trainings for facility inspections are endorsed.*

*Prior recommendations related to improvements of IACUC training are endorsed, including potential return of Mock IACUC facility inspections and other such peer-learning opportunities. Regular IACUC training opportunities at convened meetings have been appreciated in the past and are encouraged to continue. A mentor or buddy system for protocol review may be beneficial for new members.*

*The importance of promoting involvement of more IACUC members in protocol review and Designated Member Review was discussed.*

*As noted on the previous semi-annual program review, additional methods or metrics for determining impact and effectiveness of training across the program may be beneficial in evaluating this aspect of the program. Consider IACUC pulse surveys.*

Occupational Health & Safety of Personnel was found to be acceptable.

*No suggestions for improvement. The addition of Mental Wellness Support to the program review checklist was noted.*

Personnel Security: Acceptable. No recommendations for improvement.

Investigating Animal Welfare and Concerns: Acceptable. No recommendations for improvement.

## Concurrence Letters

[Concurrence Image - KG ]

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## **Minority Views**

None

