

Memorandum to: Sally Thompson-Iritani
From: Institutional Animal Care and Use Committee
Subject: Semiannual Report of the Program Review and Facility Inspection
Date: January 25, 2024

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.](#)):

The DCM-managed vivarium in the Center on Human Development and Disability (CHDD) was decommissioned in fall 2023.

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:**

- 8 protocols with housing at non-standard temperatures (6 mice, 1 rats, 2 zebrafish)
- 14 protocols with cage size variances (13 mice and/or rats, 1 non-human primates)
- 12 protocols with wire bottom cages (11 mice and/or rats, 1 rats and gerbils)
- 14 protocols with food provided on the floor (12 mice, 2 rats)

One new general departure was approved by the IACUC during the reporting period:

- 1 general cage dimension exception for non-human primates

The following IACUC approved general departures remain in place:

- 1 general cage height exception for infant non-human primates
- 2 general cage dimension exceptions for non-human primates
- 1 general exception for placing NHP feed on compound floors
- 1 general cage change frequency variance for singly housed gerbils
- 1 general exception for changing cage components in the Gnotobiotic Animal Core (GNAC) facility as needed

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

While not departures, the IACUC has also approved the following:

- 62 protocols with prolonged physical restraint (28 mice, 17 non-human primates, 7 birds, 5 fish, 2 dogs, 2 pigs, 1 bats)
- 44 protocols with weaning variances (43 mice, 1 rats)
- 6 protocols with a non-AVMA endorsed euthanasia method (2 birds, 2 frogs, 1 zebrafish, 1 wild rats)
- 59 protocols with multiple major survival surgeries (21 non-human primates, 12 rats, 10 mice, 8 mice and rats, 4 pigs, 1 birds, 1 fish, 1 frogs, 1 rabbits)
- 10 protocols with other IACUC policy variances (7 mice, 2 mice and rats, 1 rabbits)

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): July through December 2023

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

Over the past six months, 13 adverse events or non-compliances were reported to the IACUC and, as required, to OLAW, AAALAC, or USDA. See [Appendix A](#) for details.

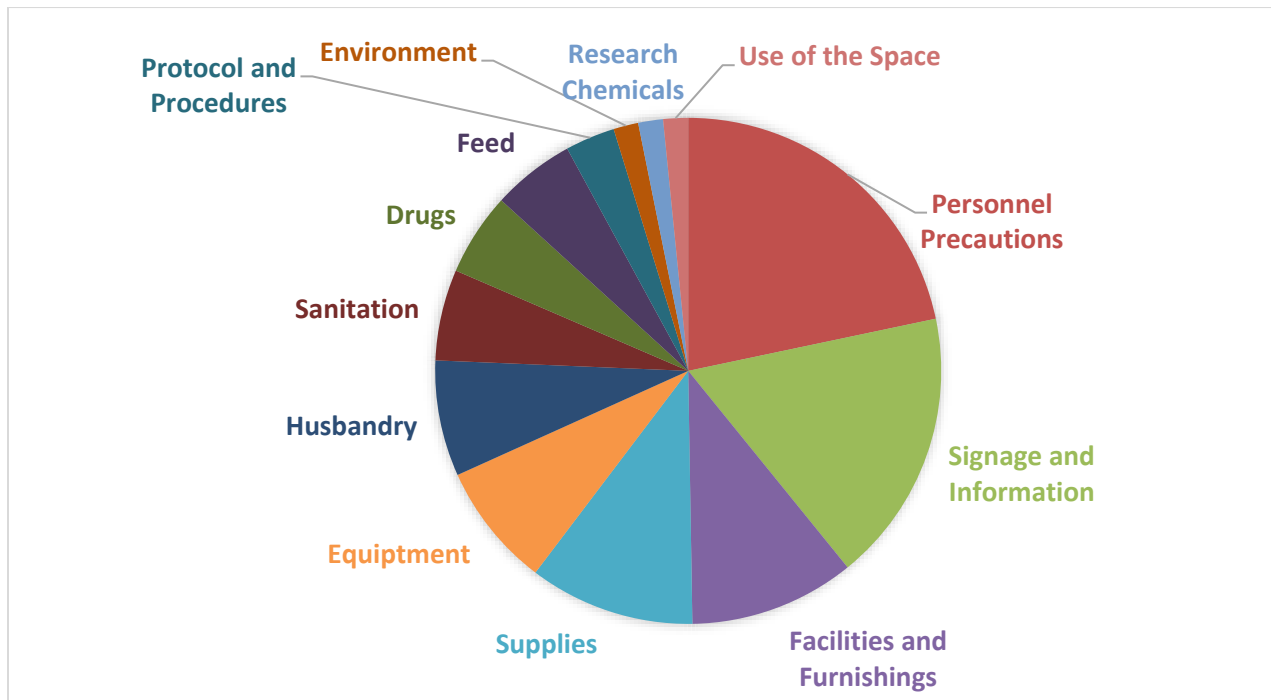
Teams of IACUC members recently reviewed all elements of the University's animal care and use program, guided by the OLAW-provided checklist. All elements of the program were found to be acceptable, no deficiencies were identified. Specific comments and suggestions for improvement are detailed in [Appendix 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): July through December 2023

- 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 190 deficiencies were identified during IACUC facility inspections or self-reported. None were considered significant. Percentage by type is shown in the chart below. See [Appendix B](#) for 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: 06/22/2023 through 06/30/2023
 Most Recent Full Accreditation issued: 11/20/2023

Most recent accreditation letter assured continued full accreditation, with a condition that must be addressed, specifically assurance that effective measures have been fully implemented to minimize the possible use of expired anesthetics, analgesics, and euthanasia drugs.

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

IACUC Members	concurrence	date
A.B.	Concur	01/25/2024
A.P.	Concur	01/30/2024
A.W.	Concur	01/25/2024
Christina Cruzen	Concur	01/26/2024
D.M.	Abstain	01/30/2024
G.L.	Concur	01/30/2024
G.S.	Concur	01/25/2024
G.W.	Concur	01/29/2024
J.F.I.	Concur	01/30/2024
J.P.V.H.	Concur	01/30/2024
Jane Sullivan	Concur	01/25/2024
J.T.	Concur	01/25/2024
K.G.	Concur	01/26/2024
M.B.	Concur	01/25/2024
M.K.	Concur	01/25/2024
M.R.B.	Concur	01/25/2024
M.R.K.	Concur	01/30/2024

Appendix A: Deficiencies in the Institution's Animal Care and Use Program – Reportable Events

Severity	Repeat?	Deficiency and Corrective Action Plan	Date Complete
Significant	No	<p>Non-compliance: Use of expired analgesic</p> <p>On 1/9/23, 5 mice that underwent skin biopsy and UVB exposure received buprenorphine HCl that was labeled with an expiration date of 12/2022.</p> <p>Reported to IACUC 7/27/2023</p> <p>This incident is still under investigation.</p>	In Process
Significant	No	<p>Adverse Event: Mortality due to no access to food/gel</p> <p>On 4/10/23, two mice were found dead in their cage with no food or gel present. The animals were weaned by the research group three days prior.</p> <p>Reported to IACUC 8/17/2023</p> <p>Corrective actions:</p> <ol style="list-style-type: none"> 1) The lab member and husbandry staff underwent retraining. 2) The lab has implemented a checklist for weaning mice. 	9/29/2023
Significant	Yes	<p>Non-compliance: Use of expired euthanasia solution</p> <p>On 12/1/22 and 3/6/23, ~20 mice total were euthanized with euthanasia solution that had expired in August 2022. The expired euthanasia solution was identified by the IACUC during a 2/21/23 facility inspection. Note that the second date on which the expired euthanasia solution was used (3/6/23) occurred after the facility inspection. On 3/30/23, the group indicated they were in the process of reverse distributing the solution, at which time OAW considered the finding resolved. However, the expired bottle was still present during a visit of the space on 6/27/23.</p> <p>Reported to IACUC 7/27/2023</p> <p>Corrective Actions:</p> <ol style="list-style-type: none"> 1) OAW and the attending veterinarian discussed the significance of the situation with the PI. 2) The bottle was labeled as expired and reverse distributed. 3) The PI retrained lab members on management of controlled substances. 4) Expiration dates have been logged onto the PI's calendar, which will provide notifications 4 weeks prior to expiration. 5) The PI will immediately inform lab members of IACUC findings. 	11/6/2023
Significant	No	<p>Adverse Event: Malfunction of anesthetic equipment resulting in death</p> <p>On 6/26/23, a macaque died while under anesthesia performed by Veterinary Services. Shortly after induction of injectable anesthesia, the animal began to experience poor oxygenation and a rapid, irregular heartbeat. A portable anesthesia machine was retrieved. Upon being attached to the anesthesia machine the animal immediately stopped breathing. A veterinarian was called, and the animal was taken to an</p>	9/1/2023

area with a ventilator, but the animal went into cardiac arrest and could not be resuscitated. The portable anesthesia machine had not been previously used, and it did not initially have a breathing circuit attached. Due to the urgency of the situation, the technician leak-tested and pressure-tested the machine while someone retrieved a breathing circuit, which was then connected before attached to the animal. It was later discovered that the machine was not functioning properly with the attached type of circuit, resulting in elevated pressures rapidly developing within the tubing. The anesthesia machine had been serviced by a commercial vendor within the required timeframe.

Reported to IACUC 7/27/2023

Corrective Actions:

- 1) This machine has been removed from use and will be discarded.
- 2) Moving forward, leak and pressure checks will be performed with circuits attached.
- 3) Procedure spaces will be set up with emergency kits that include ambu bags and intubation supplies.
- 4) Any new or donated anesthesia machines will be fully evaluated by a veterinarian in addition to commercial vendor maintenance prior to use, and machines that are different from existing stock will require machine-specific training by all users prior to storage in any common-access storage area.

Significant	No	Adverse Event: Mice mortality due to no food	11/6/2023
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On 7/3/23, a cage of two mice was found without food. One mouse died, and the second recovered with supportive care. Per the lab, the cage was moved off the SSR rack 3 days prior, and husbandry staff should have resumed feeding. This could not be confirmed.

Reported to IACUC 8/17/2023

Corrective Actions:

- 1) Both the lab member and husbandry staff underwent retraining.
- 2) The lab implemented a system that indicates when mice are removed from the SSR, triggering supervisors to follow up with research technicians.
- 3) In collaboration with DCM staff, the group has devised a system to quickly identify cages that have recently been removed from SSR, including research technicians flagging cages with a unique blue strip of paper, and DCM staff prioritizing evaluation of flagged cages to confirm that food and water is provided before removing the blue flag.

Significant	No	Non-compliance: Administration of unapproved dose resulting in mortality	12/22/2023
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On 6/12/23, 20 mice were administered a higher-than-approved dose of PTZ, a drug used to induce seizures. 15 of the mice were in a control group, and they experienced expected behavioral seizures and were euthanized at planned endpoint that day. Five mice were in an experimental group that received phenytoin, which in combination with PTZ can act as a proconvulsant. Four of the five mice were found dead the following morning. The fifth mouse was stable but the group decided to euthanize the animal. It was determined that the bottle of

PTZ was mislabeled, resulting in mice receiving 1.5 times the intended dose.

Reported to IACUC 9/21/2023

Correction Actions:

- 1) Development of calculation quick reference guides.
- 2) Implementation of secondary check at the time of formulation.

Significant

No

Non-compliance: Survival surgery not performed according to protocol

12/22/2023

On 7/27/23, during a surgery certification procedure on a mouse, the veterinarian observed several deviations from the approved protocol, including that local anesthesia was not administered as described in the protocol and the drill burr was sterilized by a hot bead sterilizer rather than autoclave. Upon investigation it was determined that 12 mice over the previous 3 months were impacted, with surgeries performed by 2 different surgeons.

Reported to IACUC 9/21/2023

Corrective Actions:

- 1) Experienced lab members will review the protocol with new trainees.
- 2) Performance will be cross-checked between experienced surgeons, and multiple experienced surgeons will be involved in training new personnel, so that any variation in performance is identified.
- 3) A checklist will be posted in the surgery area.
- 4) Any changes made to the protocol will be communicated via email and in-person at lab meetings.

Significant

No

Non-compliance: Unapproved surgery

12/22/2023

On 8/14/23, one pigtail macaque underwent surgery to replace a telemetry implant. The next day, it was discovered there was an error in the animal number on the surgery request form, and the telemetry repair was intended to be requested for a different animal on the project. The animal that underwent the surgery had already undergone a previous telemetry repair surgery on 8/2/23. The protocol is approved for only one telemetry replacement surgery for each animal.

Reported to IACUC 9/21/2023

Corrective Actions:

- 1) The Surgery Request website has been modified so that when an animal number is selected, all previous surgeries for that animal are displayed.
- 2) The veterinarian will review the surgical history when they enter the approval in the pre-surgery section of the Surgery Request website. If the request is for a surgery that is already in the animal's history, the veterinarian will check the protocol to verify compliance.
- 3) If a member of the surgery/anesthesia team notices previous surgical scars while prepping the animal for surgery, they will check with the Research Support technician or the protocol to verify compliance.

Significant	No	<p>Non-compliance: Use of expired euthanasia solution</p> <p>During an IACUC inspection on 8/9/23, the IACUC inspectors found several bottles of expired euthanasia solution inside the locked drug box. Upon checking the drug log, it was noted that 1.0mL of euthanasia solution was used on 7/26/23, from a bottle that expired on 6/23/23. 10 mice had received the expired euthanasia solution. The drug log is tracked by bottle, and the expiration date of the bottle is indicated at the top of the drug log sheet, but this was overlooked by the lab member who retrieved and logged the drug.</p> <p>Reported to IACUC 9/21/2023</p> <p>Corrective Actions:</p> <ol style="list-style-type: none"> 1) Adding a drug expiration column to the drug log to require that users write down the expiration date. 2) All users have been updated on change to drug log. 3) Expired lots of euthanasia drugs have been properly reverse distributed. 	12/22/2023
Significant	No	<p>Adverse Event: System malfunction resulting in mortality</p> <p>On 8/15/23 at Western Fisheries Research Center (WFRC), immediately following a routine system backflush, mortality of one adult zebrafish was noted and several other zebrafish were noted to be swimming erratically. Water quality parameters were immediately tested, and oversaturation was noted. Supplemental air stones were added to the tanks and flow rates were modified. Empty tanks were also added to the system with higher flow rate to help clear the system. All fish were observed frequently overnight until all parameters normalized the following day. There were ~1000 fish in the system at this time, and a total of 7 mortalities were recorded, including 3 fish that were humanely euthanized. Upon inspection of the system, a small crack was noted in a section of tubing that supplies air to the sump pump.</p> <p>Reported to the IACUC 9/21/2023</p> <p>Corrective Actions:</p> <ol style="list-style-type: none"> 1) The identified crack was immediately repaired. 2) The standard backflush procedure has been modified to include a one-hour period where water is run only to an empty tank (with water parameters monitored). 3) The UW Attending Veterinarian was promptly notified of the event by the WFRC AV and consulted with UW's aquatic specialist, who concurred with WFRC's response to this supersaturation event. 	10/13/2023
Minor	No	<p>Adverse Event: HVAC malfunction led to out of range temperatures in BSL3 facility</p> <p>On 7/4/23 the two chillers that control HVAC temps in the BSL3 vivarium malfunctioned. The room temps alarmed and the chiller malfunction alarmed, however the reporting guide to infocenter were mislabeled as standard rooms (nonemergency call out) and the engineers were not dispatched right away to fix it. The facility supervisor called the infocenter, but the infocenter operator mistakenly told her the engineers had been called. This error was not identified until the next morning. Overnight the housing room rose to 81.6 at its</p>	12/22/2023

highest (per The Guide, mouse rooms should be maintained with dry bulb temperatures of 68-79 F). This sensor is located in the ducts so the animals likely did not experience temperatures this high, and there were no sick animals reported.

Reported to the IACUC 8/17/2023

Corrective Actions:

- 1) The chillers were repaired on 7/5/23.
- 2) The call tree designation has been updated to prevent future issues.

Significant

No

Adverse Event: Lights in NHP rooms remained on overnight

In Process

On 9/26/23, the lights in 5 nonhuman primate rooms did not turn off when scheduled and remained on all night. The animals were assessed by a veterinarian the following morning and there were no health concerns noted. These animal rooms do have light alarms, but these alarms did not go off. This may have been due to an ongoing transition between environmental monitoring systems. The night staff member assigned to verify light levels visually noted the room lights to be on after the designated dark phase and attempted to turn off the lights manually but the switch did not work. Appropriate contacts were made, including to primate center management and facility operations staff. Facility operations staff attempted to override the system to turn off the lights but were unable to turn them off. The following day, additional expertise was sought and a mechanism for overriding the system was established. Animal program leadership continue to work with the company responsible for the system transition, but lights are not automatically turning on and off consistently as designed.

Reported to the IACUC 10/19/2023

Pending response from OLAW to final report.

Corrective Actions:

- 1) Staff are manually verifying lights in all animals rooms every morning and every night and facility operations are intervening with overrides as needed.
- 2) Continue to work with company to identify resolution.

Significant

No

Non-compliance: Unapproved euthanasia method

In Process

On 9/25/23, 20 mice were euthanized with a method that was not approved on the IACUC protocol. The method, ketamine/xylazine followed by exsanguination, is an AVMA-approved method of euthanasia. The procedures were performed by an individual acting in the role of a core service, specifically the Nutrition Obesity Research Core (or NORC), which investigators can hire to perform some specific in vivo procedures related to energy balance. An individual from the research group was also present.

Reported to the IACUC 11/16/2023

Pending report to the IACUC of PI and core director responses, and final report to OLAW.

Appendix B: Deficiencies in the Institution's Animal Facility

Table B.1 Animal Facility Deficiencies over the Previous Four Reporting Periods by Deficiency Type

Deficiency Type	2022 January - June	2022 July - December	2023 January - June	2023 July - December
Personnel				
Precautions	19	15	34	41
Signage and Information	16	39	20	33
Facility and Furnishings	30	21	56	20
Supplies	6	4	27	20
Equipment	12	13	13	15
Husbandry	1	8	24	14
Sanitation	7	10	41	11
Feed	0	3	15	10
Drugs	11	10	18	10
Protocol/Procedures	5	5	6	6
Environment	1	0	4	3
Use of Space	0	1	1	3
Research Chemicals	12	11	5	3
Animal Health	0	0	5	1
Total	120	140	269	190

Table B.2 Deficiencies by Generalized Facility

Generalized Facility	Count
DCM HR&T Vivarium	15
DCM Main Campus Vivaria	33
DCM SLU Vivaria	21
Friday Harbor Labs	8
HR&T Lab-Managed Spaces	8
Main Campus Lab-Managed Spaces	66
SLU Lab-managed Spaces	22
NOAA	1
USGS	1
WaNPRC Vivaria	12
WaNPRC Lab-Managed Spaces	3
Total	190

Table B.3 Deficiencies Details

Severity	Repeat?	Location	Room	Deficiency and Corrective Action Plan	Date Identified	Correction Due Date	Date Complete
Minor	no	DCM Foegen Vivarium	N039A	Unlabeled EtOH and formalin jars. Please label properly.	7/7/2023	8/11/2023	8/11/2023
Minor	no	DCM Foegen Vivarium	N043	Dead animal cards from 5/11/23 and 6/20/23 on Bruchas lab cages. Curious how often the lab is down there working with these mice and who is supposed to be removing dead animal cards. Please remove.	7/7/2023	8/11/2023	7/28/2023
Minor	no	DCM Foegen Vivarium	N039A	There are several jars of formalin containing mouse lungs labeled from euthanasias between 2/16-2/24/2020. The only identifier on there was "Iritani." Can we please figure out who needs/wants these tissues and if not dispose of them properly?	7/7/2023	8/11/2023	8/11/2023
Minor	no	DCM Foegen Vivarium	N043	Expired or inaccurately labeled vial of ethanol, labelled "07/10" in a box marked "Stuber lab." Please dispose of or properly label.	7/7/2023	8/11/2023	7/19/2023
Minor	no	Foegen	N415A	Water has spilled over and damaged the boxes. Recommend moving the boxes to a safe a dry location.	7/10/2023	8/11/2023	7/17/2023
Minor	no	Foegen	N415A	Eyewash has not been tested since April 2023. Please check once a week and let it run for approximately one minute to clear the lines	7/10/2023	8/11/2023	7/17/2023
Minor	no	Foegen	N423D	Eyewash check log out of date. Please test and log.	7/10/2023	8/11/2023	7/25/2023
Minor	no	Brotman	Brot. 225	Brotman 225 (Disis): Group needs to develop and post a Contingency Plan for what to do with animals brought to this space in the event of an emergency. Please have the group's liaison Kelly H contact host Erin Rodmaker to provide some guidance on what should be included in the brief contingency plan.	7/13/2023	8/14/2023	7/19/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K018G	Smelly room - please check on ventilation	7/24/2023	9/15/2023	8/28/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K007C	Smells bad, ventilation issues. Please check with facilities.	7/24/2023	9/15/2023	8/28/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K024B	Expired Needles - please discard	7/24/2023	9/1/2023	7/31/2023

				Really dirty behavior equipment. Caked on. Group needs to follow their approved sanitation protocol. Expired Clidox.			
Minor	no	DCM Health Sciences K-Wing Vivarium	K018A & B	Toss Clidox that is expired and follow cleaning/sanitation protocols.	7/24/2023		7/31/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	I015M	50 mL vial of "mouse treats" in hood with no expiration date noted.	7/24/2023	8/31/2023	7/24/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	I012F	Surgical Heating pads should be taken out of use	7/24/2023	8/31/2023	8/4/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K024E	1 box of expired surgical knives/blades - 11/2014 date 1 box of expired 4/0 sutures - 7/31/2021 2 boxes of expired surgical blades - 5/2012. All expired supplies labeled "expired" by inspector and left for group to manage in the space. Please dispose of all items.	7/24/2023	8/31/2023	8/4/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K024E	No contingency plan in place. Please draft and post.	7/24/2023	9/1/2023	7/31/2023
Minor	no	DCM Health Sciences K-Wing Vivarium	K030	Styrofoam Lid with Needles inserted and what appears to be lots of blood or dye staining this box. This should be tossed.	7/24/2023	9/1/2023	8/9/2023
Minor	no	Health Sciences Building	B309	The room is used for weekend NHP recordings but there is one window open to public view. Please work with facilities to have blinds installed and repaired in this space. Zak will submit work order to have facilities install blinds.	7/24/2023	9/22/2023	9/18/2023
Minor	no	Harborview Research & Training	B004	Need secondary chain on all CO2 cylinders-fixed during visit	7/26/2023	9/1/2023	8/1/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB027	Three rat cages with singly housed animals with only one piece of enrichment present (1 Nylabone). Need at least two forms for singly housed rats per DCM SOP and IACUC policy.	7/26/2023	9/8/2023	7/12/2023

Minor	no	DCM Harborview Research & Training Vivarium	SB044A	Large containers with loose hay inside. No labeling. Needs to be emptied and cleaned.	7/26/2023	9/8/2023	7/10/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB044A	SB044B: Rabbit Housing 1. Enrichment log includes music that is played for at least 4 hours/day. The log contained the time music was started, but not when the music was turned off (so it is unclear if the music was played for the required amount of time). Please be sure that all data is entered on the enrichment log. 2. Music is played-can we get them tested to make sure the volume is appropriate? Host didn't know how loud music was supposed to be played at.	7/26/2023	9/15/2023	7/10/2023
Minor	no	Harborview Research & Training	B016	Guillotine used for rat euthanasia did not have a maintenance log. The equipment appears to be in good working order (lab is newer so equipment has not been in use that long). Please create a log to document servicing and store it in close proximity to this piece of equipment. (Note: When used for rats, generally, sharpening is required every 15-20 animals).	7/26/2023	9/8/2023	8/23/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB035	Opened gel with no open or expiration date. Please label.	7/26/2023	9/1/2023	7/10/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB060	Food Storage - Expired hay. There was a sign that said hay is good for three months-this batch had an expiration date of 20July2023. Please discard.	7/26/2023	9/1/2023	7/4/2023
Minor	no	Harborview Research & Training	B004	Unlabeled solution in beaker. This turned out to be a protein enzyme but needs to be labeled and note an open and expiration date.	7/26/2023	9/1/2023	8/1/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB015	Bare post-it note was placed on rack H19. Needs to be in plastic	7/26/2023	9/1/2023	8/1/2023

Minor	no	DCM Harborview Research & Training Vivarium	SB027	Open gel with no open date or expiration date. Please ensure that all secondary containers are appropriately labelled.	7/26/2023	9/1/2023	7/19/2023
Minor	no	Harborview Research & Training	B016	Eyewash not being checked. There is no drain or sink under their eyewash-this makes it difficult to test. Last testing was in March. Eyewashes must be checked weekly.	7/26/2023	9/4/2023	8/23/2023
				Iso machine is out of compliance. Needs servicing.			
Minor	no	DCM Harborview Research & Training Vivarium	SB056	Please place a sign on the machine to indicate that it should not be used until serviced. Unclear which lab this piece of equipment belongs to. This is a repeat deficiency (noted on the last three site visits) and needs to be corrected and/or escalated to the IACUC for further action.	7/26/2023	9/27/2023	8/1/2023
Minor	no	Harborview Research & Training	B004	Expired blood tubes-need to be labeled "Not For Use In Live Animals"	7/26/2023	9/1/2023	8/1/2023
Minor	no	Harborview Research & Training	B016	Found a vial of MK-801 in a decommissioned refrigerator. No received or expiration date on the label. No one knew where the item came from or who it belonged to. Please discard.	7/26/2023	9/4/2023	8/23/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB011	Del Zoppo had a cracked induction chamber, making it difficult to properly clean and an occupational health risk. Please discontinue use of this piece of equipment, and replace with an induction chamber in good repair.	7/26/2023	9/15/2023	8/30/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB056	Loose papers out, please encase in plastic sleeve	7/26/2023	9/1/2023	8/1/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB035	Loose paper. Please put in plastic sleeve.	7/26/2023	9/1/2023	8/1/2023

Minor	no	DCM Harborview Research & Training Vivarium	SB056	No secondary chain on CO2 cylinder on hand cart, and no secondary chain on 3 small oxygen cylinders-safety hazard. Please add a second chain or consult with EH&S to ensure these are stored safely.	7/26/2023	9/15/2023	8/1/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB044A	SB044A ABSL2 Rabbit Procedure Space Bare paper on wall-T. Pallidum exposure response. Important document that needs to be in plastic.	7/26/2023	9/1/2023	8/2/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB007	SB007 – Multi User Procedure Room There was no room log present for this week. Please be sure that all routine tasks are completed and documented appropriately. SB007 Hallway Daily and weekly tasks for week of July 17th not completed. Please ensure that all routine tasks are completed and work is documented appropriately.	7/26/2023	9/8/2023	8/1/2023
Minor	no	Harborview Research & Training	B004	Buprenorphine (Simbadol) present was a multi-dose vial. Lab currently uses the solution until the vial's expiration date, which may be beyond the manufacturer's recommendation of discarding 56 days after first puncture. The bottle was not labeled with a date of first puncture or discard date. *Please label bottle with this information and ensure that the solution is discarded per manufacturer's recommendations.	7/26/2023	9/1/2023	9/1/2023
Minor	no	Harborview Research & Training	B016	Daily room cleaning log not filled out since March-the room has been in use since then. Please be sure that the room is cleaned and that cleaning documented per lab SOP.	7/26/2023	9/4/2023	8/23/2023
Minor	no	DCM Harborview Research & Training Vivarium	SB015	Cage cards missing emergency contact. Please fill out properly.	7/26/2023	9/1/2023	8/2/2023
Minor	no	DCM 6th Floor Vivarium	C618	Sucrose pellets remain in food hoppers of several testing chambers. Be sure to label the hoppers with the current date and the expiration date of the sucrose pellets when you put them in	7/27/2023	9/6/2023	8/2/2023

Minor	no	DCM 6th Floor Vivarium	C608	Exposed Sticky Surfaces - Testing equipment in Cubicle 2 uses a lot of tape that is coming loose and exposing the sticky surface to potential contaminants. All of this older tape needs to be replaced with fresh sanitizable (plasticized) tape (i.e. the common type of plasticized lab tape that is being used now in most places). There should be NO exposed sticky surfaces. Consider using zip ties and magnets in place of tape (in general, tape use should be minimized).	7/27/2023	9/8/2023	9/8/2023
Minor	no	DCM 6th Floor Vivarium	C608	Sucrose pellets remain in food hoppers of several testing chambers. Be sure to label the hoppers with the current date and the expiration date of the sucrose pellets when you put the pellets in.	7/27/2023	9/8/2023	9/8/2023
Minor	no	DCM 6th Floor Vivarium	C618	Bare Paper Signage. Lots of paper towels and some bare paper being used for signage. Any paper signage must be laminated or encased in a plastic sleeve.	7/27/2023	9/6/2023	8/2/2023
Minor	no	DCM 6th Floor Vivarium	C613	Bare Paper Signage. Cubicle 3 houses testing cabinets identified by bare paper Post-It notes. All paper signage needs to be laminated or put in a plastic sleeve.	7/27/2023	9/6/2023	8/7/2023
Minor	no	DCM 6th Floor Vivarium	C618	Sticky Surfaces. Testing chambers use a lot of tape that is coming loose and exposing the sticky surface to potential contaminants. All of this older tape needs to be replaced with fresh sanitizable (plasticized) tape (i.e. the common type of plasticized lab tape that is being used now in most places). There should be NO exposed sticky surfaces. Consider using zip ties and magnets in place of tape (in general, tape use should be minimized).	7/27/2023	9/8/2023	8/2/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E078	No dates on autoclave tape. Please date.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E063	In cabinet, several expired syringes 2021/01 and needles (mixed w nonexpired needles in a box). Please dispose of expired syringes.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E45A	Chair needs to be replaced or discarded.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E079	Bin (Stetson lab) has a container of petroleum jelly expired 10/2021. Please dispose of.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E043	Rattling noise in air exchange. Please work with facilities to get this checked out.	8/4/2023	9/8/2023	8/8/2023

Minor	no	DCM SLU 3.1 0 Level Vivarium	E078	Logs on BSC out of date. Two BCS monthly logs have a last cleaned date 6/22. Please clean and follow cleaning policy and update logs.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E084	Eyewash last checked 7/17 - please ensure eyewash is checked and logged weekly	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E083	Container of Napa Nectar - label indicates expires 2yrs from 3/31/21. Label was not updated, a packet of napa nectar inside is stamped with an expiration date of 2025. There was a sealed jar with an opened pack inside, not dated. Host says the turnaround time for an opened pack is short, within a day. Please dispose of expired product and ensure products are labeled with "use by" dates.	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E044	Chair needs to be replaced	8/4/2023	9/8/2023	8/7/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E088E	Ceiling Damage, please repair.	8/4/2023	9/22/2023	8/8/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	E088D	CO2 Tank with only one chain. Please use a second chain.	8/4/2023	9/8/2023	8/8/2023
Minor	no	DCM SLU 3.1 0 Level Vivarium	Multiple Rooms	Paper on clipboard not covered w plastic. Please make sure all bare paper is covered or laminated so it is sanitizable.	8/4/2023	9/8/2023	8/7/2023
Minor	no	South Lake Union	S374	Did not have a contingency plan in place. Please work with your liaison to create a plan.	8/9/2023	9/19/2023	9/12/2023
Minor	no	South Lake Union	N527	Recapped needles found in room with no recapper present. Please remind everyone on the research team of the importance of following the safety instruction not to recap needles without a recapper.	8/11/2023	9/20/2023	9/11/2023
Minor	no	South Lake Union	S427	Eye wash is not being tested regularly. Eye wash must be tested and logged weekly.	8/11/2023	9/22/2023	8/14/2023
Minor	no	South Lake Union	S427	Damaged chair is unsanitizable, needs to be removed/replaced; only intact chairs that can be sanitized are permitted in animal use spaces. Any tape that is used on walls and other surfaces needs to be intact, and not crumbling or curling to expose a sticky surface. Damaged tape should be replaced with sanitizable, plasticized lab tape, such as the Timemed brand—or, better yet, zip ties or magnets!	8/11/2023	9/20/2023	8/14/2023
Minor	no	South Lake Union	N417	Expired Clidox needs to be discarded.	8/11/2023	9/15/2023	8/15/2023

Minor	no	South Lake Union	N527	Damaged chair is unsanitizable, needs to be removed/replaced; only intact chairs that can be sanitized are permitted in animal use spaces.	8/11/2023	9/15/2023	9/11/2023
Minor	no	South Lake Union	S173	Damaged chair is unsanitizable, needs to be removed/replaced; only intact chairs that can be sanitized are permitted in animal use spaces.	8/11/2023	9/19/2023	8/14/2023
Minor	no	South Lake Union	N417	Please have the research team's OAW liaison Whitney (or other appropriate person) contact Brandon Ausk or Steve Bain to set up annual Biological Monitoring of equipment that comes into contact with animals (e.g. isoflurane induction chamber) to ensure that sanitation procedures are effective.	8/11/2023	9/22/2023	8/16/2023
Minor	no	DCM SLU 3.1 7 Level Vivarium BSL3/ABSL3	E739A	Tape on and around isoflurane equipment needs to be removed/replaced with fresh sanitizable tape.	8/14/2023	9/15/2023	8/24/2023
Minor	no	DCM SLU 3.1	7 Level Vivarium BSL3/ABSL3	All bare non-sanitizable paper (including Post-It notes) posted in this space need to be encased in plastic sleeves or laminated. In this space, the bare paper is a blue post-it note with lab contact information. I encourage the research team to post this list in a plastic sleeve so it can be easily removed and updated when there is turnover of lab personnel. I was not sure which research team's members were listed, so our host Rick may need to help us figure out who to direct this to.	8/14/2023	9/22/2023	8/24/2023
Minor	no	Health Sciences Building	RR535	All bare paper signage posted in this space needs to be encased in plastic sleeves or laminated.	8/18/2023	9/22/2023	8/21/2023
Minor	no	South Lake Union 3.2	F634	Instructions and Warning needed for topical gel. The lab uses Nair to get rid of hair on surgical sites-this is in the protocol and okay, but it needs to state clear instructions for use and mention the risk of chemical burn to the animal.	8/21/2023	9/28/2023	8/29/2023
Minor	no	DCM South Lake Union 3.2	F715, F717	expired Clidox. Looks like it's changed out monthly-needs to be changed every two weeks.	8/21/2023	9/28/2023	8/28/2023

				Singly housed animals without two forms of enrichment. The DCM protocol says singly housed animals must be given extra enrichment (nesting and a chew toy). I've reviewed the Schwartz protocol (2456-06) and they do have a husbandry exception but it doesn't, in my observation, apply to these cages. The animals are allowed to be singly housed, but there isn't a justified reason as to why they cannot receive a chew toy or hiding hut. If they do not wish to have these items, there needs to be an SSR stating this. There were SSR's present in the room-but not enrichment specific. Singly housed animal cages not labeled with "SSR" sign even though it specifies this as an instruction at the top of the Husbandry SSR form			
Minor	no	DCM South Lake Union 3.2	F715	Correction due date: 9/29/2023	8/21/2023	9/29/2023	9/27/2023
Minor	no	South Lake Union 3.1	E477	No Contingency Plan in Place Please create and post plan.	8/21/2023	9/26/2023	9/6/2023
Minor	no	South Lake Union 3.1	E258	No contingency plan in place. Please create and post plan.	8/21/2023	9/27/2023	8/26/2023
Minor	yes	DCM South Lake Union 3.2	F715, F717	PPE not available in the hallway. There also needs to be a trash can to dispose of PPE in the hallway	8/21/2023	10/4/2023	8/28/2023
Minor	no	DCM South Lake Union 3.2	F725	The nearest eyewash is in F725-near the animals rooms behind one door. The eyewash is not tested. Please check this eyewash and make a sign stating where the nearest eyewash is.	8/21/2023	10/4/2023	10/2/2023
Minor	no	South Lake Union	E327	Bare paper taped on walls-please encase in plastic	8/21/2023	9/27/2023	9/26/2023
Minor	no	DCM South Lake Union 3.2	F715	Need emergency contacts on ALL cages-this was a finding in Feb 2023 and has not been fixed. --There were cage cards that just had initials on them or a name but way to look up who that is or an associated phone number (ideally, for a room with so many different researchers, contact info should be posted on the wall). Other cards had no name at all.	8/21/2023	10/4/2023	10/2/2023
Minor	yes	South Lake Union	E258	Many chairs in poor condition. The lab doesn't know how to procure better chairs or fix the ones they have. Their entire lab has the foam style chair that should not be used in animal areas OR in the lab space. My hope is to bring attention to this via IACUC deficiency in order to attain UW Facilities attention. Order new chairs or seal current chairs.	8/21/2023	9/29/2023	8/26/2023

Minor	no	DCM South Lake Union 3.2	F715	There was a stack of clean cages and a food pellet on the floor covered with a blanket. . No items should be directly placed on the floor. Please elevate.	8/21/2023	9/29/2023	8/28/2023
Minor	no	South Lake Union 3.1	E327	No contingency plan in place/posted. Please create and post.	8/21/2023	9/28/2023	9/26/2023
Minor	no	DCM South Lake Union 3.2	F715	Incomplete SSR and husbandry LogsPlease organize, clarify, and monitor	8/21/2023	10/4/2023	8/29/2023
Minor	no	South Lake Union 3.2	F634	There was a surgery log present, but animals weights were not noted. In the protocol, it states, for substance administration, "Total volume will not exceed 10 microliters per gram of body weight" but there weren't any logged body weights. I understand they procure their Buprenorphine from Vet Services, but it is not clear how or when they do this. No indication of post op monitoring.Please record and document animal weights. Please document post op monitoring.	8/21/2023	9/29/2023	8/29/2023
Minor	no	South Lake Union 3.2	F762	No Contingency plan posted/in place.Please work with liaison to write one up and post it in a visible place.	8/24/2023		9/11/2023
Minor	no	South Lake Union	F762	Vaporizers need servicing. Please have vaporizers serviced so they are up to date.	8/24/2023	10/31/2023	9/14/2023
Minor	no	USGS	D119B, D119D	Ceiling needs repairs. Ceiling repairs are scheduled for Sept-Oct (maintenance project of the entire building is scheduled to take place over about a month, starting late September). Please have host Gael Kurath confirm via HoverBoard when these repairs have been completed.	8/28/2023	10/26/2023	10/3/2023
Minor	no	South Lake Union 3.1	154A	The floor in this room is very dirty with resin. Needs to be stripped and re-waxed. Host agrees. Zak will submit request to Facilities Services.	8/28/2023	11/15/2023	11/14/2023
Minor	no	South Lake Union 3.1	154A	Eyewash not flushed weekly. Eyewash station not being flushed weekly. Please flush and log weekly	8/28/2023	10/6/2023	9/5/2023
Minor	no	South Lake Union 3.1	E144	Contingency Plan Missing for Zebrafish; please write up and post	8/28/2023	10/4/2023	8/29/2023
Minor	no	NOAA	204E	All bare paper (including Post-It notes) posted in this space need to be encased in plastic sleeves or laminated.	8/28/2023	10/3/2023	8/29/2023
Minor	no	South Lake Union 3.1	E520	Missing Contingency Plan for mice; please write up and post	8/28/2023	10/4/2023	8/29/2023

Minor	no	Benjamin Hall	364, 365	Ben Hall 364 & 365 (O'Donnell): All bare paper posted in this space needs to be encased in plastic sleeves or laminated.	8/30/2023	10/6/2023	9/21/2023
Minor	no	Benjamin Hall	365	Recapped needles found in room. Please remind everyone on the research team of the importance of following the safety instruction not to recap needles.	8/30/2023	10/6/2023	9/21/2023
Minor	no	DCM T-Wing Vivarium	T139	Guilloting missing log. There was a guillotine present in the room, but I couldn't find a blade sharpening/maintenance log in close proximity as outlined in the IACUC Euthanasia Policy. If the guillotine is not in use, please mark it as such, or have the log readily available for inspection.	8/31/2023	10/6/2023	9/21/2023
Minor	no	DCM T-Wing Vivarium	T131	Vetchecked rat not getting daily treatments T131 (Perlmutter lab): vetchecked rat on rack 5, row 2, space 6 is supposed to have daily betadine treatments, but the last treatment date listed was 8/27 Please treat daily and document.	8/31/2023	10/6/2023	9/6/2023
Minor	yes	WaNPRC Health Sciences	I553	Paneling behind sink is delaminating, with visible mold present. Areas must be sanitizable, and mold is an occupational health risk. This area must be repaired	9/7/2023	1/5/2024	
Minor	no	WaNPRC Health Sciences	I013, I021	Expired Scrub in scrub kit needs to be replaced.	9/7/2023	10/20/2023	9/8/2023
Minor	no	WaNPRC Health Sciences	I553	Expired Eye Rinse in Scrub Kit Please discard and replace	9/7/2023	10/18/2023	9/12/2023
Minor	no	Friday Harbor Labs	Lab 8	Fish food left at ambient temperature and opened without proper lid. No open date on any of the products. Please keep all perishable items in a refrigerator, label with open and expiration date.	9/11/2023	10/17/2023	10/9/2023
Minor	no	Friday Harbor Labs	Various labs	Eyewashes are checked by facilities once a week-so we were told. Couldn't locate any logs or was not able to meet with any facilities person Several of the eyewashes appeared dirty and crusted-cannot guarantee this is being done regularly. Please clean and document daily.	9/11/2023	10/17/2023	10/9/2023
Minor	no	Friday Harbor Labs	Lab 7: F112, F133	Unsanitizable Chairs Cloth chairs. Please replace or use chair cover to ensure chairs are sealed and sanitizable.	9/11/2023	10/27/2023	10/9/2023
Minor	no	Friday Harbor Labs	Lab 8	Husbandry log missing water temp monitoring log. Husbandry log: A water temp monitoring task should be completed daily and it is not. Host said they keep a log in a different location (didn't get to see). Recommend removing that task from the daily log if they aren't tracking it or track it somewhere else	9/11/2023	10/17/2023	10/9/2023

Minor	no	Friday Harbor Labs	Round Tank Room: F112, F113	Lights with no casings (Round Tank Room, F112/113)Please encase lights.	9/11/2023	10/31/2023	10/9/2023
Minor	no	Friday Harbor Labs	Lab 6, round tank room	Electrical Outlets on the ground near hoses/tanks. Move off of ground, away from hoses/tanks.	9/11/2023	10/20/2023	10/9/2023
Minor	no	Friday Harbor Labs	Various labs	Overfull and Dirty Refrigerators. Refrigerators are packed FULL with various samples and solutions. An effort should be made to clear these out so they are useable. Fridges are also dirty. Please clean.	9/11/2023	10/20/2023	10/9/2023
Minor	no	Friday Harbor Labs	Various labs	Unlabeled Solutions. There are lots of unlabeled solutions in various refrigerators on on cabinets, etc. Please label.	9/11/2023	10/19/2023	10/9/2023
Minor	no	Health Sciences Building	B108D	All bare paper (including Post-It notes) posted in this space needs to be encased in plastic sleeves or laminated. Please encase all paper, laminated or in sleeve.	9/14/2023	11/9/2023	11/6/2023
Minor	no	Health Sciences Building	C525	Expired food was found in several locations throughout the lab. Please discard expired food.	9/14/2023	11/15/2023	11/9/2023
Minor	no	Health Sciences Building	C525	There are several shelves without 'earthquake lips' that could prevent the multitude of glass bottles from shattering during an earthquake. Dr. Bitto will need to work with his department to get Facilities to install the safety lips on the open shelves in C525.	9/14/2023	11/29/2023	11/28/2023
Minor	no	Health Sciences Building	H330	The NHP Scrub Kits in the lab were all expired. Please remove expired scrub kit items and replace with new ones	9/14/2023	11/15/2023	
Minor	no	Health Sciences Building	C525	All bare paper (including Post-It notes) posted in this space needs to be encased in plastic sleeves or laminated. Please encase or laminate all paper	9/14/2023	11/8/2023	11/6/2023
Minor	no	WaNPRC 6th Floor Vivarium	6th Floor vivarium	A label indicating contents and relevant dates needs to be re-affixed to the plastic bag containing Fiber Bites gummies.	9/15/2023	10/27/2023	9/19/2023
Minor	no	WaNPRC 6th Floor Vivarium	G606	Tthe infusion pump attached to the treatment cart is beyond the maintenance due date and should either be serviced or removed	9/15/2023	10/27/2023	10/6/2023
Minor	no	WaNPRC 6th Floor Vivarium	G608	Cleaning tools are sitting on floor and generally very disorganized; all cleaning implements (brooms, squeegees, etc) should be hanging and not directly in contact with the floor	9/15/2023	10/27/2023	10/26/2023
Minor	no	WaNPRC 6th Floor vivarium	6th Floor vivarium	Expired Food. A bag of expired food needs to be discarded.	9/15/2023	10/27/2023	9/18/2023
Minor	no	Health Sciences Building	RR747	Missing Contingency Plan. Please write up and post a contingency plan.	9/20/2023	11/21/2023	10/24/2023
Minor	no	Health Sciences Building	K087	The light bulb in this space is burnt out. WO has been submitted to replace.	9/27/2023	11/10/2023	11/16/2023

Minor	no	Health Sciences Building	I534Q	Ceiling tile needs repair. There is a gap in the ceiling tile around one of the fire sprinkler heads that needs to be repaired. Zak to submit work order into FS Works	9/28/2023	12/21/2023	1/2/2024
Minor	no	Health Sciences Building	I534Q	Damaged Tape on Walls. Any tape that is used on walls and other surfaces needs to be intact, and not crumbling or curling to expose a sticky surface. Damaged tape should be replaced with sanitizable, plasticized lab tape.	9/28/2023	10/31/2023	9/29/2023
Minor	no	Health Sciences Building	I341b	Container of reward food treats in refrigerator was unlabeled. List contents and expiration date on container.	9/28/2023	11/10/2023	10/3/2023
Minor	no	Health Sciences Building	I341e	Recapped needles found in biohazard waste. Remind lab that needles should be discarded after use without recapping.	9/28/2023	11/10/2023	10/3/2023
Minor	no	Health Sciences Building	I341b, I341e	Eyewashes need testing. Each room has an eye wash but they record the testing by recording the date, the testing hasn't been done since June so it needs to be resumed.	9/28/2023	11/10/2023	10/3/2023
Minor	no	Health Sciences Building	I341b	Unlabeled syringe with blunt needle in refrigerator needs to be labeled with contents and, if appropriate, expiration date.	9/28/2023	11/14/2023	10/3/2023
Minor	no	Health Sciences Building	K127	Expired Drugs. Remove, label expired drugs	9/29/2023	11/16/2023	10/12/2023
Minor	no	Health Sciences Building	K122	Expired drugs stored with non-expired drugs and not clearly labeled. Please dispose of all expired drugs and ensure all drugs are clearly labeled.	9/29/2023	11/10/2023	9/29/2023
Minor	no	Health Sciences Building	K122	Damaged chair - please seal or replace	9/29/2023	11/28/2023	10/10/2023
Minor	no	Health Sciences Building	K107, K107A	Loose paper in animal spaces - please encase in plastic sleeve or laminate	9/29/2023	11/9/2023	10/5/2023
Minor	no	Health Sciences Building	K107A	Please label all solutions. If expired, discard, and re-label new solutions	9/29/2023	11/9/2023	10/5/2023
Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I363A	No Scrub in B Virus kit. Please acquire and place Scrub in the B Virus Kit	10/3/2023	11/15/2023	10/12/2023
Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I455	Lollipop found, not appropriate for this space. Do not bring human food into the lab. Please discard lollipop.	10/3/2023	11/8/2023	10/12/2023

Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I089L	Please discard expired scrub. Replace with properly labeled new scrub.	10/3/2023	11/8/2023	10/12/2023
Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I455	Please discard expired antibiotic ointment asap.	10/3/2023	11/8/2023	10/12/2023
Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I737	Door to room does not close properly. Submit Work Order to Facilities.	10/3/2023	12/13/2023	11/15/2023
Minor	no	WaNPRC Health Sciences I-Wing/Court Vivarium	I700T	Falling signage over scale in hallway. Please secure or replace falling signage.	10/3/2023	11/8/2023	11/8/2023
Minor	no	DCM Guthrie Hall Vivarium	351B	Unsanitized weight station. Please sanitize the weight station.	10/11/2023	11/22/2023	11/20/2023
Minor	no	Guthrie Hall	414	Eyewash not signed off since 9/18. Please make sure to check and log eyewash station flushing weekly.	10/11/2023	11/20/2023	11/24/2023
Minor	no	Guthrie Hall	418	Please make sure to check and log eyewash station flushing weekly.	10/11/2023	11/20/2023	11/24/2023
Minor	no	Guthrie Hall	419	Missing ceiling tile. Need to fix the ceiling tile, awaiting clarification on the future use of the space.	10/11/2023	12/13/2023	10/19/2023
Minor	no	Health Sciences Building	J681A, J681H	One vial of non-pharmaceutical grade buprenorphine found in drug box (PIs office). Please reach out to OAW liaison to ensure that the correct agent is being used in line with your protocol and correct accordingly.	10/16/2023	1/17/2024	12/5/2023
Minor	no	Health Sciences Building	BB857	Missing contingency plan. Please write up and post a contingency plan.	10/18/2023	11/20/2023	10/19/2023
Minor	no	Benson Hall	211	Raw paper posted. Please ensure that all paper is laminated or in a plastic sleeve.	10/18/2023	11/23/2023	10/24/2023
Minor	no	Benson Hall	211	Missing Eyewash log. Please ensure that the eyewash station is being flushed and logged weekly.	10/18/2023	11/22/2023	10/24/2023
Minor	no	Health Sciences Building	H227	Please laminate all paper or place in plastic sleeve.	10/18/2023	11/21/2023	10/19/2023

Minor	no	Health Sciences Building	F511	Fume hood not signed off for inspection . Once EH&S updates the sign off date, please make sure to complete the corrective action.	10/18/2023 11/30/2023 11/14/2023
Minor	no	Benson Hall	211	Missing Contingency Plan. Please put a contingency plan in place.	10/18/2023 11/22/2023 10/24/2023
Minor	no	Health Sciences Building	G524A	Raw paper posted. Please ensure that all paper is encased in plastic sleeves or laminated.	10/18/2023 11/21/2023 11/17/2023
Minor	no	Benson Hall	211	Non-water resistant tape . Please ensure that damaged tape is replaced with sanitizable, plasticized lab tape, such as the Timemed brand—or magnets.	10/18/2023 11/23/2023 10/24/2023
Minor	no	Health Sciences Building	K116	All bare paper (including Post-It notes) posted in this animal use space needs to be encased in plastic sleeves or laminated.. Please ensure that all paper is encased in plastic sleeves or laminated.	10/18/2023 11/21/2023 10/20/2023
Minor	no	Health Sciences Building	H507	Raw paper posted. Please ensure that all paper is encased in plastic sleeves or laminated.	10/18/2023 11/21/2023 11/17/2023
Minor	no	Health Sciences Building	E426	Please laminate or place all paper in plastic sleeves.	10/18/2023 11/21/2023 10/19/2023
Minor	no	Health Sciences Building	J083B	Please ensure that all paper is encased in plastic sleeves or laminated.	10/18/2023 11/21/2023 10/19/2023
Minor	no	Health Sciences Building	K116	Missing Contingency Plan. Please put a contingency plan in place.	10/18/2023 11/22/2023 10/24/2023
Minor	no	Benson Hall	211	Cardboard box on floor needs to be raised up to avoid exposure to spilled liquids. Please raise cardboard boxes off the floor to avoid exposure to spilled liquids.	10/18/2023 11/22/2023 10/20/2023
Minor	yes	Guthrie Hall	363A	Cord across floor presents a trip hazard, please secure with sanitizable cord cover. Please secure cords with sanitizable cord covers.	10/19/2023 11/23/2023 10/24/2023
Minor	no	Guthrie Hall	351B	Please remove all signage from the door indicating experiments are in progress. There should be a sign that states that this room is not being used for experiments.	10/19/2023 11/30/2023 11/20/2023
Minor	no	Guthrie Hall	052, 052A, 351A, 351C, 356, 358	Please add a disaster contingency plan to all rooms on the protocol.	10/19/2023 12/6/2023 11/20/2023
Minor	no	Guthrie Hall	356	Bag of expired rat pellets. Please discard. Please discard the bag of expired rat pellets.	10/19/2023 11/30/2023 11/20/2023
Minor	no	Guthrie Hall	351, 356, 358 Hallway	Eyewash station not checked. Please ensure that they eyewash is being checked and logged weekly.	10/19/2023 11/30/2023 11/22/2023

Minor	no	Health Sciences Building	H428B	Please post sign on isoflurane machine that was last inspected over a year ago "DO NOT USE UNTIL RECALIBRATED".	10/25/2023 11/29/2023 10/25/2023
Minor	no	Health Sciences Building	I501	Any tape that is used on walls and other surfaces needs to be intact, and not crumbling or curling to expose a sticky surface. Please ensure that damaged tape is replaced with sanitizable, plasticized lab tape, such as the Timemed brand—or magnets	10/25/2023 11/29/2023 11/3/2023
Minor	no	Health Sciences Building	J430	MS222 is currently not being prepared in a hood. Preparation in a hood is required for occupational health and safety. Please review the EH&S SOP on preparation of MS-222 with your team and adjust current lab practices as needed for alignment. The previous SOP is attached.	10/25/2023 12/6/2023 11/20/2023
Minor	no	Health Sciences Building	J429	Please ensure that the eyewash is being tested and logged weekly.	10/25/2023 11/29/2023 11/27/2023
Minor	no	Health Sciences Building	H404	All gas tanks need to be properly secured to ensure they can't fall over or slip out from under a loose chain in the event of an earthquake. Please properly secure all gas tanks.	10/25/2023 11/29/2023 10/25/2023
Minor	no	Health Sciences Building	H428A	Please be sure to label the contents of containers in addition to their expiration dates, which were present.	10/25/2023 11/29/2023 10/25/2023
Minor	no	Health Sciences Building	H431	Please post the lab's contingency plan where it can be easily referenced during an emergency.	10/25/2023 11/29/2023 10/25/2023
Minor	no	Health Sciences Building	J429	All bare paper (including notes on paper towels and Post-It notes) posted in this space needs to be encased in plastic sleeves or laminated.. Please ensure that all paper posted is encased in plastic sleeves or laminated.	10/25/2023 11/29/2023 11/13/2023
Minor	no	Health Sciences Building	G530	Please ensure that all bare paper posted in this space is encased in plastic sleeves or laminated.	10/25/2023 11/29/2023 11/2/2023
Minor	yes	Health Sciences Building	H404	Please ensure that the eyewash is being tested and logged weekly.	10/25/2023 11/29/2023 10/25/2023
Minor	no	Health Sciences Building	J611, J631	Please post the lab's contingency plan where it can be easily referenced during an emergency.	10/25/2023 11/29/2023 11/13/2023
Minor	no	Health Sciences Building	J430	Records of surgery and post-operative monitoring are currently not being maintained. Please work with your liaison to develop a system to ensure surgical and post-operative monitoring is being consistently and properly documented.	10/25/2023 12/6/2023 12/1/2023
Minor	no	Health Sciences Building	G530A	All bare paper (including notes on paper towels and Post-It notes) posted in this space needs to be encased in plastic sleeves or laminated. Please ensure that all paper posted in this space is encased in plastic sleeves or laminated.	10/25/2023 11/29/2023 10/30/2023

Minor	no	Health Sciences Building	I501	Cloth chair is unsanitizable, needs to be removed/replaced; only chairs that can be sanitized are permitted in animal use spaces. Please remove the unsanitizable cloth chair.	10/25/2023 11/29/2023 11/2/2023
Minor	yes	Health Sciences Building	H413	All bare paper (including notes on paper towels and Post-It notes) posted in this space needs to be encased in plastic sleeves or laminated. Please ensure that all paper posted is encased in plastic sleeves or laminated.	10/25/2023 11/29/2023 10/26/2023
Minor	no	Health Sciences Building	J429	Please raise cardboard boxes off the floor.	10/25/2023 11/29/2023 11/6/2023
Minor	no	DCM Animal Research and Care Facility	B141D	CO2 euthanasia lid for mice is incompatible with NextGen caging.. Please work with ARCF Facility supervisors to get a compatible CO2 euthanasia lid.	10/27/2023 12/14/2023 11/2/2023
Minor	no	DCM Animal Research and Care Facility	B141D	Hood needs monthly cleaning.. Please ensure the hood gets a monthly cleaning. We followed up with DCM facilities and they confirmed that Adrienne Lenert from Miyaoka lab had been responsible for cleaning it in the past. Please assign a new person to be responsible for the cleaning now that Adrienne has left.	10/27/2023 12/5/2023 11/7/2023
Minor	no	DCM Animal Research and Care Facility	B203A	Room needs new mop holder. Please get a new mop holder.	10/30/2023 11/30/2023
Minor	no	DCM Animal Research and Care Facility	B148D	Card noted 'mild dermatitis' but mouse was scratching aggressively and had a lot of bare skin (possibly due to barbering by cage mate who was observed grooming this mouse) and what looked like some blood. Please be sure to continue to closely monitor the health of this animal, even though there are only a few animals in this room.	10/30/2023 11/30/2023 12/21/2023
Minor	no	DCM Animal Research and Care Facility	B210A	Room needs a new mop holder. Please get a new mop holder.	10/30/2023 11/30/2023 12/21/2023
Minor	no	DCM Animal Research and Care Facility	B205, B207, B209, B211, B212, B219	Missing several weeks of eye wash testing and logging in October.. Please check all rooms with eye washes in the facility and ensure that they are being tested and logged weekly.	10/30/2023 11/30/2023 11/27/2023
Minor	no	DCM Animal Research and Care Facility	B213	Zip lock baggie had an expiration date listed, but contents were not identified. Please be sure to label contents of any secondary containers, as well as expiration dates.	10/30/2023 11/30/2023 12/21/2023

Minor	no	DCM Animal Research and Care Facility	B219A	The audio enrichment in this dog room seemed 'wrong'. Maybe we were hearing some weird recording of faint doggie noises or maybe the radio tuner had drifted off its regular station.. Please check and confirm that appropriate audio enrichment is being provided to the dogs in this room.	10/30/2023	11/30/2023	12/4/2023
Minor	no	DCM Animal Research and Care Facility	B208	Room needs new (stronger) mop holder. Please get a new, stronger mop holder	10/30/2023	11/30/2023	
Minor	no	DCM Animal Research and Care Facility	B148C	Emergency contact info on cage cards includes names only, no phone numbers. Please add numbers to cage cards or post master list of names and phone numbers on the wall of the room (laminated or encased in a plastic sleeve).	10/30/2023	11/30/2023	11/27/2023
Minor	no	DCM Animal Research and Care Facility	B203A	Expired spray bottle (or possibly the wrong label was used) for Rescue/Kennel Sol solution. Please dispose of and replace the expired spray bottle of Rescue/Kennel Sol solution.	10/30/2023	11/30/2023	12/4/2023
Minor	no	WaNPRC Animal Research and Care Facility	B282B	Mop/squeegee on floor. Please ensure that mops, squeegees and brooms are hung up off floor when not in use.	10/31/2023	12/5/2023	11/2/2023
Minor	no	WaNPRC Animal Research and Care Facility	B284	There is an apparent discrepancy between the drug log and the contents of the drug lock box for Buprenorphine HCl. Please reconcile this discrepancy with appropriate, initialed corrections.	10/31/2023	12/5/2023	11/9/2023
Minor	yes	Health Sciences Building	J106	Please ensure that gas tanks are being checked to make sure they are secured properly. The lab may want to post a reminder sign for the gas delivery people and check this space regularly to make sure the instructions are being followed and tanks are being secured properly.	11/2/2023	12/7/2023	11/13/2023
Minor	no	Health Sciences Building	H310K	Eye wash log is missing some weekly checks. Please ensure that the eyewash is being tested and logged weekly.	11/2/2023	12/7/2023	11/6/2023

Appendix C: Departures

8 protocols with housing at non-standard temperatures (6 mice, 1 rats, 2 zebrafish)

- 1 protocol (zebrafish) - Larval zebrafish are reared from fertilization to 7dpf at 16-18°C to delay development and induce mitochondrial biogenesis.
- 1 protocol (mice) - Ambient temperature oscillates between a maximum of 22±1°C during the light phase and a minimum of 15±1°C during the dark phase to test impact of circadian and sleep hygiene on symptoms of Dravet syndrome.
- 6 protocols (mice/rats) - Ambient temperature will be held at thermoneutral (maximum 32°C) or cool temperature (minimum 14°C) during metabolic experiments.

14 protocols with cage size variances (11 mice, 2 rats, 1 mice and rats, 1 non-human primates)

- 9 protocols (mice) - Housing in the Comprehensive Lab Animal Monitoring System (CLAMS) metabolic cage, which has a cage height of 4" for mice.
- 3 protocols (mice/rats) - Raised wire flooring (<1.5") to facilitate fecal collection and/or prevent coprophagia.
- 1 protocol (NHPs) - Housing two infant macaques (up to 4 weeks of age) in the nursery in a single isolette with 2.4 sq ft of floor space when two newborns require nursery rearing at the same time.
- 1 protocol (rats) - Housing in an ethanol vapor delivery chamber and/or thermal gradient alleyway with raised custom flooring, reducing internal height to 6.25" and 4.75", respectively.

12 protocols with wire bottom cages (8 mice, 1 rats, 2 mice and rats, 1 rats and gerbils)

- 7 protocols (mice/rats) - Housing in a metabolic cage with wire flooring and no bedding.
- 5 protocols (mice/rats/gerbils) - Wire bottom cages to facilitate fecal collection and/or prevent coprophagia.

14 protocols with food provided on the floor (12 mice, 2 rats)

- 9 protocols (mice/rats) - Food placed on floor following experimental manipulation to provide nutritional supplementation for animals with potential impaired mobility.
- 3 protocols (mice/rats) - Implanted animals are housed without wire-top and food is placed on the floor to prevent interference with the implant.
- 2 protocols (mice) - Small amount of food placed on floor for newly weaned animals.

IACUC-Approved General Departures Summarized – Details can be found in SharePoint.

- The IACUC has approved 3 cage dimension exceptions for non-human primates.
 - *New since last semiannual report:* The Animal Welfare Act Regulations require 8.0 sq ft of floor area and 36 inches of height for primates between 15kg and 25kg (group 5). The IACUC has approved an exception to singly-house group 5 primates in L-shape or C-shape configurations composed of group 4 cages with removable floors and sides. An animal housed in this manner would have access to three or four cages with one section/rack opened to both upper and lower cages (thus providing double the normal height of a group 4 [64 inches]), and one section/rack where the second-story floor remains in place (thus providing less than 36 inches height, but at least 32 inches).
 - The Animal Welfare Act Regulations require 3.0 sq ft of floor space per animal for nonhuman primates weighing 1 to 3 kg (Group 2), and 4.3 sq ft of floor space for animals that weigh 3 to 10 kg (Group 3). The IACUC has approved an exception to house four 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 4-cage rack will have 12.9 sq ft of floor space. The volume of space meets the regulations for Group 3 animals, and each quadrant of the rack contains a perch.
 - The Animal Welfare Act Regulations requires 6.0 sq. ft. of floor area and 32 inches of height for primates weighing up to 15 kg (group 4), and 8.0 sq. ft. of floor area and 36 inches of height for primates weighing up to 20 kg (group 5). The IACUC has approved an exception to house two group 5 primates in three group 4 (6.0 sq. ft.) cages, each having access to two group 4 floors (12 sq ft) with one cage opened to both upper and lower cages, thus providing double the normal height of a group 4 (64 inches).

- Exception to house infant monkeys in cages that meet floor space requirements but are only 15" to 20" high. The lower cage height reduces the risk of injury if an animal should fall.
- Exception to allow scattering of food on the floor of NHP housing compounds to minimize contamination and ensure access to food and foraging opportunities for all animals.
- Exception to allow for 28 day cage changes for singly house gerbils.
- Exception to allow for changing of cages, wire-tops, and water bottles within the isolator in the Gnotobiotic Animal Core (GNAC) facility on an as-needed basis, such as due to damage or crusted material which cannot be scraped off. Since mice are in a germ-free, sterile environment, no microorganisms are present within the isolator. Bedding in cages within the isolator is changed at least once a week, or more often if necessary.

Appendix D: D IACUC Program Review Group Reports

1. *The Animal Care and Use Program – Was found to be acceptable*

In prior reviews, questions arose regarding content of Inter-Institutional Agreements. We feel this has been addressed well via the inclusion of a template on the sharepoint site.

2. *Disaster Planning and Emergency Preparedness - Was found to be acceptable*

Prior reviews in the past year noted that additional emphasis should be placed on communicating expectations for contingency plans. This group felt that expectations have been well-communicated and that complete contingency plans are consistently posted in all spaces during site visits. We specifically discussed the past suggestion that templates be provided and we respectfully disagree with the providing templates due to the risk of templates being posted without customization to each specific laboratory environment.

3. *IACUC – Was found to be acceptable*

We want to point out that our Root Cause Analysis subcommittee provides a mechanism for evaluating the effectiveness of training programs, when cases are taken on.

The challenge of evaluating the effectiveness of training programs is often brought up at these semi-annual reviews. Our group wanted to take a data-driven approach by surveying both IACUC members and 'clients' (i.e. PIs) to get their thoughts about the effectiveness of the training programs provided.

4. *IACUC Protocol Review - Special Considerations – was found to be acceptable*

The Protocol Review section of the OLAW checklist was reviewed. The group felt that most of the items are adequately addressed through specific questions asked in the protocol form that are reviewed during pre-review, veterinary consult, and IACUC review.

The group discussed pilot studies and potential methods of communication with the IACUC, including OAW liaisons, veterinary monitoring, and direct requests from the IACUC to report back to the committee. These processes seem effective.

The group discussed the classification of major vs minor surgery. These are evaluated on a case-by-case basis, since the protocol form that is reviewed by the IACUC requires a classification for each surgery. The benefits of applying a consistent definition were discussed, as well as the option to request full committee review if a member disagreed with the classification in the protocol.

For field studies, it is understood that all studies must undergo an occupational health review that provides information on zoonotic and other safety risks, and investigators must identify in the protocols the types of permits that are required.

The group discussed toe-clipping and endorses a previous recommendation made by the committee that the IACUC Genotyping Policy and/or the DCM Animal Identification SOP be updated 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).

5. IACUC Membership and Functions - Was found to be acceptable

No suggestions for improvement

6. IACUC Training – Was found to be acceptable

One of the areas we were tasked with evaluating is ongoing training and education of the IACUC. We want to acknowledge the great job our AV has been doing with her training presentations at our meetings.

We remember in the past having online training opportunities hosted by OLAW and NABR that were made available through OAW. If these training seminars are being offered, we would like to see them made available to IACUC members.

7. IACUC Records and Reporting Requirements - Was found to be acceptable

No suggestions for improvement

8. Veterinary Care – Was found to be acceptable

We found the veterinary care program to be comprehensive in its scope and nature, and offers high quality of care and ethical standards. We discussed each item on the checklist pertaining to this portion of the program review and agreed that the UW veterinary care program itself adequately covers all aspects reviewed including clinical care and management, animal procurement and transportation, preventative medicine, surgery, analgesia and anesthesia, euthanasia, and drug storage and control.

A few isolated minor deficiencies were noted during IACUC inspections in regard to “Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely”. These minor deficiencies included instances in which improper labelling and storage of drugs, lapses in anesthetic equipment maintenance, drug log documentation, and drug handling procedures occurred. While we recognize that these incidents are isolated to specific labs, additional e-lesson trainings have been implemented including information pertaining to appropriate drug storage and control to help mitigate these types of deficiencies from occurring in the future. Corrective actions have since been implemented for all of these reported minor deficiencies pertaining to drug storage and control, and have since been corrected.

9. Personnel Qualifications and Training - Was found to be acceptable

We highly endorse the previous recommendation about animal users being very familiar with their protocols and documenting lab member training.

Suggestion to reward IACUC members for participation in IACUC activities (gameboard to allow people to advance, a thermometer to indicate progress, reward after X #review/site visits completed).

10. Occupational Health & Safety of Personnel - Was found to be acceptable

EH&S is updating internal criteria to evaluate possible gaps in eye wash or emergency shower placement. The lab should be checking eyewashes weekly and facilities is responsible for annual checks of showers. Make sure there is documentation for each of these at site visits.

EH&S is in the process of evaluating spaces for effective scavenging of waste anesthetic gases and are getting groups to participate in exposure monitoring, as needed. IACUC can help encourage groups to participate by asking about exposure to make sure the proper protection is in place.

EH&S does noise monitoring to assess any concerns about exposure to loud noise but it is currently focused on areas with high noise environments or when concerns are raised by a lab group. It is recommended that they evaluate zebrafish vivaria where there can be a lot of background noise.

11. Personnel Security - Was found to be acceptable

No suggestions for improvement

12. Investigating Animal Welfare and Concerns - Was found to be acceptable

Regarding reporting and investigating animal welfare concerns, this sub-group feels the investigation team should be commended for a thorough investigation of all reported concerns without breaching the confidentiality of those reporting issues in every instance. Regarding non-compliance reports to the committee, this group recognizes the challenge our leadership has in preparing documents for each meeting, but encourages OAW and the AV to consider making reports available to the committee members at least 24 hours in advance of the scheduled meeting to allow committee members to preview the issue and be more prepared to engage in thoughtful discussion during the meeting. This would be especially beneficial for any non-compliances with a direct animal impact.

Summary of program review suggestions/improvement items

- Section 3. IACUC – Regarding evaluation of the effectiveness of the training program, suggest a data-driven approach by surveying both IACUC members and ‘clients’ (i.e. PIs).
- Section 4. IACUC Protocol Review - Endorses a previous recommendation made by the committee that the IACUC Genotyping Policy and/or the DCM Animal Identification SOP be updated to include statements about the use of toe clipping.
- Section 6. IACUC Training - If online training seminars hosted by OLAW and NABR are being offered, we would like to see them made available to IACUC members.
- Section 9. Personnel Qualifications and Training - Suggestion to reward IACUC members for participation in IACUC activities.
- Section 10. Occupational Health & Safety of Personnel – Regarding noise monitoring, it is recommended that EH&S evaluate zebrafish vivaria where there can be a lot of background noise.
- Section 12. Investigating Animal Welfare Concerns - Encourages OAW and the AV to consider making reports available to the committee members at least 24 hours in advance of the scheduled meeting to allow committee members to preview the issue and be more prepared to engage in thoughtful discussion during the meeting.

Concurrence Letters

Concurrence Image – Jane Sullivan |

Concurrence Image – Christina Cruzen |

Concurrence Image - AB |

Concurrence Image - AP |

Concurrence Image - AW |

Concurrence Image - DM |

Concurrence Image - GL |

Concurrence Image - GS |

Concurrence Image - GW |

Concurrence Image - JFI |

Concurrence Image - JPVH |

Concurrence Image - JT |

Concurrence Image - KG |

Concurrence Image - MB |

Concurrence Image - MK |

Concurrence Image - MRB |

Concurrence Image - MRK |

Minority Views - None