

**Memorandum to:** Sally Thompson-Iritani  
**From:** Institutional Animal Care and Use Committee  
**Subject:** Semiannual Report of the Program Review and Facility Inspection  
**Date:** January 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.](#)):**

Effective 1/5/22 Dr. Kim Stocking has retired from UW and is no longer the Attending Veterinarian. Dr. Thea Brabb is filling that role on an interim basis until a new Attending Veterinarian is hired

**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:

- 60 protocols with prolonged restraint (bats, birds, fish, mice, non-human primates, pigs)
- 9 protocols with housing at non-standard temperatures (4 mice, 1 rats, 1 mice and 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**

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)
- 6 protocols with wire bottom cages (4 mice, 2 rats)
- 52 protocols with weaning variances (50 mice, 2 rats)
- 2 protocols with a non-AVMA endorsed euthanasia method (1 small birds, 1 frogs)
- 36 protocols with multiple major surgeries (6 species)
- 12 protocols with other policy variances (10 mice, 1 rats, and 1 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): July through December 2021

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

*Over the past six months, 6 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): July through December 2021

- 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 178 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	28	0	Personnel Precautions	15	0
Sanitation	11	0	Feed	8	0
Husbandry	14	0	Environment	3	0

Equipment	20	0	Signage and Information	21	0
Drugs	13	0	Research Chemicals	17	0
Supplies	25	0	Protocol/Procedures	3	0

174 have been resolved while 4 are pending corrective action. 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.	Concurred	1/27/22
A.C.	Concurred	1/27/22
A.P.	Concurred	1/31/22
A.W.	Concurred	1/27/22
C.M.	Concurred	1/27/22
D.M.	Concurred	1/27/22
E.S.	Concurred	1/27/22
G.S.	Concurred	1/28/22
J.A.		
J.F.I.	Abstained	
J.M.		

<b>J.P.V.H.</b>	Concurred	1/31/22
<b>Jane Sullivan</b>	Concurred	1/27/22
<b>K.G.</b>	Concurred	1/27/22
<b>K.M.</b>	Concurred	1/27/22
<b>M.B.</b>	Concurred	1/27/22
<b>M.E.</b>		
<b>M.K.</b>	Concurred	1/27/22
<b>M.R.B.</b>	Concurred	1/31/22
<b>M.R.K.</b>	Concurred	1/31/22
<b>S.R.H</b>	Concurred	1/28/22
<b>Thea Brabb</b>	Abstained	

## 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	ARCF	Mortality due to no access to food. The Animal Technician in charge of that room underwent re-training in detection of problems such as low food, water, and other concerns. In the future, all lab members will email the senior lab member who oversees the lab's mouse husbandry to confirm that they have weaned a cage of mice and set food, water, and gel in the cage as required. This will serve to provide written confirmation that the weaning process has been completed correctly. In addition, the lab will have a meeting of all mouse users to review protocols for weaning and other aspects of mouse husbandry and to emphasize the importance of providing continuous access to food and water for its animals	Complete	8/27/2021
Minor	No	GNAC	Mechanical issue with cage rack. An email was sent to all Gnotobiotic Animal Core (GNAC) facility users with a detailed infographic explaining the rack malfunction and what it looks like. The users are urged to carefully check the air input and output ports before placing cages back onto the racks, ensuring the malfunction is not present. If a malfunction is found, users will contact GNAC personnel to have it assessed.	Complete	8/27/21
Minor	No	SLU 3.1	Experimental mice not being actively monitored by lab. The lab was made aware of the non-compliance and will be more diligent about ensuring that all animals are euthanized when endpoint criteria are met in the future	Complete	9/22/21
Significant	Yes	SLU 3.1	Mortality due to no access to food. Re-trained all technicians that worked in that room during that time period and implementation of mystery cage in those rooms to ensure animal technician is checking cages appropriately. If a technician repeatedly does not spot the mystery cage, then personnel action is taken.	In Process	
Significant	Yes	ARCF	Mortality due to no access to food. Re-trained all technicians that worked in that room during that time period and implementation of mystery cage in those rooms to ensure animal technician is checking cages appropriately. If a technician repeatedly does not spot the mystery cage, then personnel action is taken.	In Process	

Significant	No	SLU 3.1 ABSL3	ABSL3 mouse housing rooms not checked. DCM has multiple routine practices in place to help ensure personnel are aware of the weekend and holiday days they must travel to the facility to perform health checks. The person scheduled for Sunday self-reported that they failed to do the health checks. No unexpected health conditions were noted. This individual took full responsibility for their error and has been retrained. DCM Additional corrective actions: During their weekly meeting, an email could be generated and programmed to be delivered on Friday as an additional reminder to the person/people scheduled to do weekend health checks.	In Process

## 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	Guthrie	359	Wall damaged, crumbling and curling tape needs to be replaced with fresh sanitizable lab tape.	11/5/2021	11/2/2020
Minor	no	Guthrie	359	All bare paper signage needs to be encased in a plastic sleeve or laminated.	11/5/2021	11/5/2020
Minor	no	DCM Harborview	SB006A, SB006B (Vet Services spaces)	Expired materials have been removed. No other concerns.	7/1/2021	7/1/2021
Minor	no	DCM ARCF	N053 (GNAC)	Expired surgical gloves, several boxes/sizes; corrected (removed) during visit.	7/12/2021	7/12/2021
Minor	no	DCM ARCF	N053 (GNAC)	Expired Clidox; corrected (removed) during visit.	7/12/2021	7/12/2021
Minor	no	DCM 6th Fl	AA706	Leather chair cushion has a couple of small tears – should repair or replace.	7/30/2021	7/14/2021
Minor	no	DCM Harborview	SB032 (clean cagewash)	Still needs autoclave door pin and replacement of rack washer stop cord with yellow color one for better visualization. Otherwise OK.	7/30/2021	7/14/2021
Minor	no	SLU	P125 (Hallway)	8mL of of Midazolam was recorded in the drug log, but not stored in the drug box. The missing Midazolam has been returned to the Brotman P125 drug box and the drug log updated to reflect usage. A reminder drug	7/23/2021	7/14/2021

				must be stored in the drug box between usages.		
<b>Minor</b>	no	DCM Harborview	SB015	Floors are being re-sealed, still chipping paint on post. Once repairs are finished, DCM can just send photos to show completion.	7/30/2021	7/15/2021
<b>Minor</b>	no	Foege	N333C	Isoflurane equipment needs to be serviced before it can be used. Please post a sign stating “Do Not Use Until Recalibrated” and do not use until this is completed.	8/31/2021	7/15/2021
<b>Minor</b>	no	DCM Harborview	SB007	Room feels warm – room is being re-balanced. Otherwise room is fine. Verify appropriate temperature/air changes prior to use. Don’t need to re-inspect.	7/30/2021	7/16/2021
<b>Minor</b>	no	Foege	N415A	Expired drugs found during visit. All were placed in baggies clearly marked ‘Expired – DO NOT USE’. Please arrange drug disposal through the Drug Services.	8/6/2021	7/16/2021
<b>Minor</b>	no	DCM 6th Fl	C618	Expired hydrogen peroxide (3/2019), 10% povidone-iodine (6/2020), and hydrogen peroxide in a secondary 50ml container was labeled with 2/17. Unsure if this is an expiration date, but it should be thrown away. Inspector left all these out on the counter with an “expired – please throw away” note.	7/30/2021	7/20/2021



<b>Minor</b>	no	DCM 6th FI	C618	Both rodent anesthesia induction chambers were dirty with feces/ nesting material. One chamber also had fecal material on its lid. Please always clean up after use.	7/30/2021	7/20/2021
<b>Minor</b>	no	CHDD	056D	Expired artificial tears. Corrected during visit	7/20/2021	7/20/2021
<b>Minor</b>	no	DCM 6th FI	C618	Rust along the back wall in this room where a previous leak had been noted and fixed.	9/30/2021	7/23/2021
<b>Minor</b>	no	DCM ARCF	N056	Expired Clidox. Please discard.	8/6/2021	7/26/2021
<b>Minor</b>	no	DCM K-Wing	I015D	DCM Room care log not completed since 7/21. Please ensure these logs are completed daily.	8/27/2021	7/26/2021
<b>Minor</b>	no	DCM K-Wing	K-Wing	All eyewashes need to be tested weekly. Most eyewashes are being tested monthly. Please simply print a table with two columns: date tested, and testers' initials. This sheet needs to be mounted on the wall in a plastic pouch near the eye wash.	8/27/2021	7/26/2021
<b>Minor</b>	no	SLU	P128A	Two of four chairs have damaged surfaces, exposing the foam underneath and making them hard to sanitize; please replace with 'sound, sealed and sanitizable' surfaced chairs.	7/30/2021	7/28/2021
<b>Minor</b>	no	DCM K-Wing	K017F	Singly housed mice, but not extra (2 types) of enrichment. Protocol doesn't list anything about limiting extra enrichment.	8/27/2021	7/29/2021
<b>Minor</b>	no	DCM K-Wing	K018D	Clidox bottle was expired. Please discard.	8/27/2021	7/29/2021

<b>Minor</b>	no	DCM 6th FI	E610	3 large open tubs of bleach water in this room apparently being used for tank cleaning by Wills group – no SOP posted in the room on how to do this safely. Safety concerns around large volumes of bleach in tubs without secondary containment. Has EH&S done a safety assessment of this system for bleaching cages?	7/30/2021	7/30/2021
<b>Minor</b>	no	DCM Brotman	P162	Several expired items such as EDTA and serum separator tubes and culture swabs. They were removed by veterinary staff at that time.	8/6/2021	8/6/2021
<b>Minor</b>	no	DCM Brotman	P163	4 bottles of Telazol removed from drug box in the morning, immediately before visit, forgot to log, log was corrected during visit.	8/6/2021	8/6/2021
<b>Minor</b>	no	DCM Brotman	P163	Expired LRS (lactated Ringers solution) found, discarded during visit.	8/6/2021	8/6/2021
<b>Minor</b>	no	DCM 6th FI	C618	Blue cloth drape material hanging from light fixtures (to defuse light?) on one side of the room – not sanitizable and potential fire hazard as there are computer and power cords near it.	8/6/2021	8/9/2021
<b>Minor</b>	no	DCM SLU 3.2	F715	Mice were on a water restriction experiment and no log present to indicate if mice were being given water.	9/3/2021	8/9/2021
<b>Minor</b>	no	DCM 6th FI	E616 (Frog room)	Tank system filter due for replacement. Host stated the filter is ordered.	8/31/2021	8/11/2021

<b>Minor</b>	no	DCM ARCF	N035	Plastic container of "seeds" not labeled. Please identify the responsible PI lab.	8/6/2021	8/12/2021
<b>Minor</b>	no	DCM Brotman	P164	Expired drugs, infusion sets, probiotics and mineral oil – discarded during the inspection.	8/12/2021	8/12/2021
<b>Minor</b>	no	DCM K-Wing	I012F	The isoflurane machine needs to be inspected and calibrated – last date performed in 8/2019 and due in 8/2020. Please post a sign stating “Do Not Use Until Calibrated.”	9/10/2021	8/12/2021
<b>Minor</b>	no	DCM K-Wing	I012F	Sharps container contained numerous recapped needles. A recapper was not present in the room.	8/27/2021	8/12/2021
<b>Minor</b>	no	DCM K-Wing	I012F	Surgical instruments were out on the bench and not cleaned or in sterilized packs. The lab does survival surgery. These instruments need to be cleaned and in autoclaved pouches.	8/27/2021	8/12/2021
<b>Minor</b>	no	DCM K-Wing	I015C, I015Q, I015P	There were several containers of “Lab Tab” diet without expiration date information listed, or arrival date. It was assumed from location in behavioral suite that these were sucrose pellets for animal behavioral studies. When will this product expire, and how frequently are the pellets exchanged within the behavioral equipment? Recommend that PI staff add expiration dates and clearly indicate when containers are refilled if product is to be	8/27/2021	8/12/2021

				consumed by laboratory animals (see sample images below of good labeling examples), consistent with any other diet in use within DCM facilities.		
<b>Minor</b>	no	DCM K-Wing	I015C, I015Q, I015P	Some of the behavioral chambers were quite soiled with accumulated mouse fecal pellets. Recommend increased frequency of cleaning of behavioral equipment by PI staff.	8/27/2021	8/12/2021
<b>Minor</b>	no	DCM Brotman	B36 (Dirty cagewash)	Signage appeared to be out of date, please update.	9/3/2021	8/13/2021
<b>Minor</b>	no	DCM Brotman	B36 (Dirty cagewash)	Large cage temporarily stored on the grate just outside the clean-side door to the rack washer, creating an obstacle if a person needed to escape from the cage wash in an emergency. BE SURE THAT ALL DOORS TO RACK WASHERS AND AUTOCLAVES ARE ALWAYS COMPLETELY UNOBSTRUCTED. This area should be clearly marked off and nothing should ever be stored there.	9/24/2021	8/13/2021
<b>Minor</b>	no	DCM Brotman	B42 (Clean cagewash)	Large rack temporarily stored on the grate just outside the dirty-side door to the rack washer, creating an obstacle if a person needed to escape from the cage wash in an emergency. BE SURE THAT ALL DOORS TO RACK WASHERS AND AUTOCLAVES ARE ALWAYS COMPLETELY	9/24/2021	8/13/2021

				UNOBSTRUCTED. This area should be clearly marked off and nothing should ever be stored there.		
<b>Minor</b>	no	DCM Brotman	B45	Some typos found on the dates listed for rack change out schedules (wrong year); please review and correct as necessary.	9/3/2021	8/13/2021
<b>Minor</b>	no	DCM Brotman	P167A	1 bottle of expired Clidox. Please discard.	9/3/2021	8/13/2021
<b>Minor</b>	no	HSB	G406A	Eyewash log needs to be updated. Eyewash station requires flushing once per week to protect personnel from potential build-up of contaminants in the water line and must be recorded in a log.	10/1/2021	8/14/2021
<b>Minor</b>	no	DCM SLU 3.1	E028	Expired heparinized capillary tubes (2013).	9/3/2021	8/15/2021
<b>Minor</b>	no	DCM SLU 3.1	E044	In refrigerator there was unidentified white powder in small microcentrifuge tubes in a 50 ml conical tube.	9/3/2021	8/15/2021
<b>Minor</b>	no	DCM SLU 3.1	E044	Substances dated from 2019 in the refrigerator. These are most likely out of date/past use. Group should go through everything and dispose of outdated substances.	9/3/2021	8/15/2021
<b>Minor</b>	no	DCM SLU 3.1	E044	Expired Lantus (7/23/21) in refrigerator.	9/3/2021	8/15/2021
<b>Minor</b>	no	DCM K-Wing	K017F	Some cages of single-housed mice did not have two forms of environmental enrichment and an SSR to indicate variance to IACUC policy was not observed. A more consistent adherence to environmental enrichment policy for	8/27/2021	8/16/2021

				single-housed rodents should be followed by AT or PI staff.		
<b>Minor</b>	no	DCM K-Wing	K018C	Single-housed rats were without two forms of environmental enrichment (only had nylabones). Protocol has an approved environmental enrichment exception.	8/27/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E023 (rack 20)	Consecutive cage bottom changes were marked as 6/19 and then 7/13 which is beyond the 14 day cage bottom change requirement.	9/10/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E041	Expired PBS (no information on bottle to indicate owner or if it is not used in animals).	9/10/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E043	Eyewash not initialed next to the test dates. Unclear if eyewash was checked.	9/10/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E051 (Feed/bedding)	Temperatures higher than 70F; two wall defects at the left side of the door.	9/30/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E071 (Dirty cagewash)	Emergency signage inside the rack washer on the side walls is very worn and unreadable. Instructional signage outlining the safety features of the rack washer was not present on the outside of the machine. Information posted on the windows inside the machine would be hard to read in an emergency. The pull cords are covered in yellow plastic, but they are not brightly colored or easily	9/3/2021	8/16/2021

				identifiable in the event of an emergency.		
<b>Minor</b>	no	DCM SLU 3.1	E073 (Clean cagewash)	As with other autoclave/rack washer spaces in the facility, up-to-date training records and expected signage on the use of door pins were absent. The IACUC understands that Covid-related staffing issues, as well as a new process for providing trained-staff to operate the autoclaves/rack washers, have created challenges, but it is critical that safety training is provided and logged (with logs stored where site visitors can check them), and that all appropriate safety signage is posted and enforced. This concern should be forwarded to the person responsible for staffing and training the team of workers that are operating these machines.	9/3/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.1	E078	Bare paper signage posted at both hoods; these need to be encased in plastic sleeves or laminated.	9/10/2021	8/16/2021
<b>Minor</b>	no	DCM SLU 3.2	F717	Bare paper signage posted at both hoods; these need to be in plastic sleeves or laminated.	9/3/2021	8/16/2021
<b>Minor</b>	no	DCM Brotman	C34	Appears to be rabbit treats in freezer lacked a label noting the contents, please list contents. Also, although mill date and autoclave date were listed, there was no way of knowing when these frozen	9/3/2021	8/18/2021

				items would expire, so please indicate expiration date, or post sign indicating how long past mill date item is good for.		
<b>Minor</b>	no	DCM SLU 3.1	E044	Induction chamber is dirty with fecal material. Please develop a cleaning SOP and always clean up after use.	9/10/2021	8/18/2021
<b>Minor</b>	no	DCM SLU 3.1	E044	15 ml and 50 ml conical tubes filled with clear liquid, but not labeled at all.	9/10/2021	8/18/2021
<b>Minor</b>	no	DCM SLU 3.1	E210B	Full sharps container was capped off during the visit.	8/18/2021	8/18/2021
<b>Minor</b>	no	DCM Brotman	P152	Expired culture tubes. Please discard.	9/3/2021	8/19/2021
<b>Minor</b>	no	DCM Brotman	P160	Room has been having air flow issues for about a week. Negative pressure is important for keeping mosquitoes from exiting the space, so this should be corrected ASAP. Research group had been communicating with company that makes the air flow equipment, but vivarium staff or perhaps F&S could provide support to make this correction happen faster.	9/17/2021	8/19/2021
<b>Minor</b>	no	DCM SLU 3.1	E044	Glass bottles of water and PBS. No expiration or use by date; unclear if used in animals.	9/10/2021	8/19/2021



<b>Minor</b>	no	DCM SLU 3.1	E068	0.9% saline in a capped syringe – no expiration date and injectables should not be stored in a syringe/needle.	9/10/2021	8/19/2021
<b>Minor</b>	no	DCM SLU 3.1	E068	Expired betadine solution (2019), 10ml 0.9% saline (2020), sutures (2/2021; 4/2010). Please discard expired items.	9/10/2021	8/19/2021
<b>Minor</b>	no	DCM SLU 3.1	E068	Unlabeled 50ml conical tube with clear liquid and 1ml syringe with clear fluid. Please discard.	9/10/2021	8/19/2021
<b>Minor</b>	no	DCM T- Wing	T129	Reviewed a surgery record from 2/6/21 (type of surgery unknown): buprenorphine HCL was given at 5pm on the day of surgery D0, 12pm on D1, and 10am on D2. Buprenorphine HCL should be dosed every 8-12 hours.	9/3/2021	8/19/2021
<b>Minor</b>	no	DCM K- Wing	I015B	Issue with SSR and set-up of cages for weekly animal housing. The current practice is for the DCM AT to prepare special cage set-ups with food included at time of cage set-up for PI staff, who are cycling cages frequently. This is not a standard practice and there was no way to demarcate when food was being added or how long cages could sit without animals present. This could lead to cages with food that	8/27/2021	8/20/2021

				is older than 2 weeks. Solution discussed with lab staff was to indicate on SSR that cages would be set up without food added by DCM staff and that PI team would add food at time of adding animals to new cages. Recommend that PI team add food to cages "as needed" when animals are rehoused, rather than DCM AT performing nonstandard food additions to empty cage set-ups that do not have animals present.		
<b>Minor</b>	no	DCM K-Wing	K030	Emergency shower last checked in 2016. This should be confirmed and yearly checks performed.	9/30/2021	8/24/2021
<b>Minor</b>	no	DCM T-Wing	T125	Cage cards do not include a received date or date of birth.	9/3/2021	8/25/2021
<b>Minor</b>	no	PBB	102K	Biopsy punches were expired- fixed on site.	8/25/2021	8/25/2021
<b>Minor</b>	no	DCM SLU 3.1	E045A (Nephrology)	Expired EDTA (2018), heparinized capillary tubes (2015), PBS (2019) - unclear if used in animals, butterfly needles (2015), formalin (2018), high fat rodent diet (3/31/21). Please discard expired items.	9/10/2021	8/26/2021
<b>Minor</b>	no	DCM T-Wing	T137	Cage of rats is labeled with incorrect PI name after animals were transferred to a new PI.	9/3/2021	8/26/2021
<b>Minor</b>	no	PBB	102N	Open Telazol container was stored in the unlocked refrigerator. Drug should be locked in a refrigerator or a lock box mounted to the refrigerator.	9/30/2021	8/26/2021

<b>Minor</b>	no	Ben Hall	366	Used F/AIR canister found next to sink in partially sealed Ziploc bag (dated 5/2016) – corrected during visit.	8/30/2021	8/30/2021
<b>Minor</b>	no	HSB	G103, G109	Eyewash logs were missing multiple dates in July & August in both rooms. Eyewash station requires flushing once per week to protect personnel from potential build-up of contaminants in the water line and must be recorded in a log.	9/10/2021	8/30/2021
<b>Minor</b>	no	DCM SLU 3.1	E737A	Isoflurane vaporizer past service due date by about 3 months. Please post a sign stating “Do Not Use Until Re-calibrated” and do not use until this is completed. Also, the vapor retrieval canister had also not been weighed and was open.	8/27/2021	8/31/2021
<b>Minor</b>	no	SLU	S346	Expired cleaning solution and expired Saline in the little cabinet above the fridge corrected on site.	8/31/2021	8/31/2021
<b>Minor</b>	no	DCM T-Wing	T127	Rat water bottles are being washed by hand. The lab member was unsure if sanitation efficacy is being performed, similar to what is being done for the behavioral equipment.	9/10/2021	9/3/2021
<b>Minor</b>	no	WaNPRC Arizona	AB Building	Food prep room: Expired food in refrigerator – discarded at time of visit.	9/3/2021	9/3/2021

<b>Minor</b>	no	WaNPRC Arizona	AB hospital	1 expired substance – discarded at time of visit.	9/3/2021	9/3/2021
<b>Minor</b>	no	DCM T-Wing	T123	Isoflurane machine was past due for service from 5/21. Please post a sign stating “Do Not Use Until Calibrated.”	9/30/2021	9/4/2021
<b>Minor</b>	no	DCM T-Wing	T123	Virkons disinfectant had expired 8/20. Please discard.	9/17/2021	9/4/2021
<b>Minor</b>	no	SLU 3.2	F734	Expired Iodine and wipes belonging to another group in the same lab space.	9/24/2021	9/8/2021
<b>Minor</b>	no	DCM 6th Fl	C603	Slow water drip from area above janitor’s faucet/floor drain.	9/30/2021	9/9/2021
<b>Minor</b>	no	HSB	H330C	Uncapped sharps (scalpels and needles) on the counter. Tools should be stored when not in use.	9/24/2021	9/9/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I045	Packets of expired suture (12/20) were removed at the time of the site visit.	9/10/2021	9/10/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I455	Expired alcohol prep pads (2018) removed at the time of the site visit.	9/10/2021	9/10/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	MRI Cart	Expired aminophylline removed at the time of site visit.	9/10/2021	9/10/2021
<b>Minor</b>	no	HSB	I516C	Tall gas tanks not double chained, fixed on site.	9/13/2021	9/13/2021

<b>Minor</b>	no	HSB: I-Wing Vivarium	I735	Expired suture 7/21. Please discard.	10/1/2021	9/14/2021
<b>Minor</b>	no	HSB	T123	Eyewash logs not up-to-date.	9/24/2021	9/14/2021
<b>Minor</b>	no	WaNPRC 6th Fl	G606	There were small discrepancies between the lock box contents and the drug log for Ketamine and Diazepam (tabs). Host will track this down, review records and update logs so they correctly reflect the contents of the drug lock box.	10/1/2021	9/16/2021
<b>Minor</b>	no	DCM Harborview	SB053	Still working on the repairs in this room – re-sealing floor cracks in particular. Once repairs are finished, DCM can just send photos to show completion.	9/30/2021	9/17/2021
<b>Minor</b>	no	WaNPRC Arizona	AB Building	Rodent feces were seen near some unsprung, baited rodent traps, also inside some upper light fixtures. Feces need to be removed promptly when they appear. There is a plan in place to replace the existing light fixtures with a model that is harder for rodents to enter and easier to clean.	9/24/2021	9/17/2021
<b>Minor</b>	no	WaNPRC I-Wing	I445A	Tape in booth removed during visit.	9/17/2021	9/17/2021
<b>Minor</b>	no	WaNPRC I-Wing	I553	Expired food found, discarded during visit.	9/17/2021	9/17/2021
<b>Minor</b>	no	WaNPRC I-Wing	I728C	Expired detergent, discarded during visit.	9/17/2021	9/17/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I065D	One cage had vomit on the cage bottom. The animal had been	10/1/2021	9/19/2021

				sedated and it is not uncommon for this to happen. A veterinarian was part of the site visit team and will speak with the group re: future use of anti-nausea medication when sedation is necessary.		
<b>Minor</b>	no	DCM T-Wing	T117	Expired Vetbond 2016, expired suture 2019. Please discard.	9/24/2021	9/20/2021
<b>Minor</b>	no	WaNPRC Arizona	AA Building	Damaged chair (torn cover) in the AA Procedure room needs to be replaced with a chair with an intact, sanitizable surface.	10/1/2021	9/20/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I752 ( Multi-user PET scanner)	Expired Taxol in refrigerator. Please discard.	10/1/2021	9/21/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I455	Steam sterilizer strips expired on 3/21.	10/1/2021	9/22/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I047	Hosts were unable to find 2021 biological indicator testing results for the 2 sterilizers in this room. These require review.	10/1/2021	9/23/2021
<b>Minor</b>	no	HSB: RR-Wing Vivarium	RR052 (Kitchen)	3 bottles of expired cranberry juice and 1 tub of expired popcorn kernels.	10/8/2021	9/23/2021
<b>Minor</b>	no	WaNPRC I-Wing	I445	Stimulator leads to Booth are being held apart with tape, need to	10/8/2021	9/24/2021

				replace tape with something sanitizable.		
<b>Minor</b>	no	WaNPRC I-Wing	I553	All bare paper signage needs to be encased in a plastic sleeve or laminated.	10/8/2021	9/27/2021
<b>Minor</b>	no	WaNPRC I-Wing	I728C	Old biohazard waste being stored in refrigerator needs to be discarded.	10/15/2021	9/30/2021
<b>Minor</b>	yes	Benson Hall	211	Tank with only one strap - fixed on site.	10/1/2021	10/1/2021
<b>Minor</b>	no	WaNPRC I-Wing	I013, I021	Isoflurane vaporizer is overdue for service. Please place a "DO NOT USE" sign on the equipment and schedule service before it needs to be used.	10/15/2021	10/4/2021
<b>Minor</b>	no	WaNPRC I-Wing	I445A	Chair with ripped cover needs to be replaced.	10/15/2021	10/4/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I459, I461, I567	Environmental enrichment calendar - initials for provision of enrichment were missing from several dates.	10/6/2021	10/5/2021
<b>Minor</b>	no	DCM Brotman	P164A	Room flooring is peeling off especially under/near the pig pens – floor should be re-sealed.	12/31/2021	10/5/2021
<b>Minor</b>	no	DCM Brotman	P169	Chipped paint noted at the back of the room (blue wall) near the floor – needs patch/paint.	12/31/2021	10/5/2021
<b>Minor</b>	no	WaNPRC I-Wing	I553	Old lab tape needs to be replaced.	10/8/2021	10/6/2021
<b>Minor</b>	no	WaNPRC I-Wing	I441	Missing ceiling tile needs to be replaced.	10/29/2021	10/7/2021

<b>Minor</b>	no	WaNPRC I-Wing	I441	Remove tape and gauze from the back booth in this room before using again (not currently in use).	10/8/2021	10/7/2021
<b>Minor</b>	no	WaNPRC I-Wing	I441	Short stretch of vinyl baseboard needs to be replaced.	10/29/2021	10/7/2021
<b>Minor</b>	no	DCM ARCF	B141C	Expired food - Corrected on site.	10/8/2021	10/8/2021
<b>Minor</b>	no	DCM ARCF	B181	Expired food - Corrected on site.	10/8/2021	10/8/2021
<b>Minor</b>	no	WaNPRC I-Wing	I553	Soiled ceiling tiles and light fixture need to be cleaned up (looks like something splashed upward).	10/29/2021	10/8/2021
<b>Minor</b>	no	WaNPRC I-Wing	I728C	Replace old tape with fresh sanitizable 'lab tape'.	10/8/2021	10/8/2021
<b>Minor</b>	no	WaNPRC I-Wing	I728C	All bare paper signage needs to be encased in a plastic sleeve or laminated.	10/8/2021	10/8/2021
<b>Minor</b>	no	DCM Guthrie	369H	Surgery records for animal # NP 9 on 9/30 was blank.	10/15/2021	10/11/2021
<b>Minor</b>	no	Friday Harbor Labs	Lab 11, rooms # 1 & 2	Protocol number and name DOES NOT match the IACUC protocol of that PI. The current care log started on 10/01/2021 must be replaced with a new care log that lists both the protocol # and title of the approved IACUC protocol of correct PI.	10/12/2021	10/11/2021
<b>Minor</b>	no	DCM ARCF	Veterinary Services	Expired substances found – discarded at the time of the visit.	10/13/2021	10/13/2021



<b>Minor</b>	no	WaNPRC Arizona	AB Building	Although enrichment was broadly available, not every housing space has hanging enrichment. As staffing permits, hanging EE should be placed in every housing space.	10/15/2021	10/13/2021
<b>Minor</b>	no	DCM ARCF	B171	Fume hood needs monthly cleaning – last performed 6/18/2021.	11/5/2021	10/14/2021
<b>Minor</b>	no	DCM ARCF	B184	Fume hood needs monthly cleaning – last performed 8/31/2021; needs a mouse cage-compatible lid for CO2 euthanasia.	11/5/2021	10/14/2021
<b>Minor</b>	no	DCM ARCF	B219	Separate out where the food/treats and chemicals are stored. They were right next to each other on the counter.	11/5/2021	10/14/2021
<b>Minor</b>	no	DCM ARCF	Lock box #4	Ketamine/xylazine combination did not have an expiration date labeled on the bottle.	10/22/2021	10/14/2021
<b>Minor</b>	no	HSB	E174	Large Nitrogen tank with single chain - fixed on site.	10/14/2021	10/14/2021
<b>Minor</b>	no	HSB	H404	Non-sanitizable cloth chair in lab area - fixed on site.	10/14/2021	10/14/2021
<b>Minor</b>	no	HSB	NN143J	Eyewash logs not updated since July.	11/5/2021	10/14/2021
<b>Minor</b>	no	Ben Hall	365	Anesthesia machine/vaporizer needs to be serviced (last calibration Aug 2020). Please post a sign stating "Do Not Use Until Re-calibrated" and	10/20/2021	10/19/2021

				do not use until this is completed.		
<b>Minor</b>	no	Ben Hall	366	No drug log available for controlled drug Ketamine (the group had one expired bottle of ketamine with approx. 9mLs and one expired bottle of Xylazine with approx. 9 mLs and two vials of working solution of which all were labelled as expired 2014, but there is/was no drug log present/available. Host was not sure if there is one, but will look for it. The group would like to return all expired drugs, including the Ketamine and Xylazine, but not sure how. OAW to provide group the link to Drug Services with return information.	10/20/2021	10/19/2021
<b>Minor</b>	no	DCM ARCF	B245	Wall vents are dirty and should be cleaned on a regular schedule.	11/19/2021	10/19/2021
<b>Minor</b>	no	DCM ARCF	B152C	Mice with cranial implants in a wire top cage.	10/29/2021	10/20/2021
<b>Minor</b>	no	WaNPRC ARCF	WaNPRC ARCF	Chair in surgery room had a partial cloth chair which can't be sanitized.	11/5/2021	10/20/2021
<b>Minor</b>	no	HSB	NW141A	Expired Xylazine not marked for disposal.	11/5/2021	10/21/2021
<b>Minor</b>	no	WaNPRC ARCF	Transportation Van	Expired disinfectant spray. Please discard.	11/5/2021	10/22/2021
<b>Minor</b>	no	Guthrie	408	All damaged, crumbling and curling tape needs to be replaced with fresh sanitizable lab tape.	11/5/2021	10/25/2021

<b>Minor</b>	no	HSB	H227A	Full sharps container – closed lid during visit.	10/25/2021	10/25/2021
<b>Minor</b>	no	HSB	H428A	Expired suture material – removed at time of visit.	10/25/2021	10/25/2021
<b>Minor</b>	no	DCM ARCF	B168	Unclear if agents in small black refrigerator are for in vivo use and compounds were generally unlabeled. Need to specify if these compounds are to be administered to animals and include expiration dates.	11/5/2021	10/27/2021
<b>Minor</b>	no	DCM ARCF	B168	Small white refrigerator contained “DNP 1 mg/L” and several unknown compounds. Need labels on agents if they are to be administered to animals, or clarify if not for in vivo use.	11/5/2021	10/27/2021
<b>Minor</b>	no	HSB	H428B	Testing apparatus made of what looks like dried pasta that doesn’t look it can be sanitized- unclear when it was last used and if pasta is being changed out between uses. Should be discarded.	11/12/2021	10/27/2021
<b>Minor</b>	no	DCM LSB	B130 (Fish quarantine)	4 tanks with less than 3 fish were lacking enrichment - corrected on site.	10/29/2021	10/29/2021
<b>Minor</b>	no	Guthrie	408	Expired Heparin needs to be discarded.	11/5/2021	11/1/2021
<b>Minor</b>	no	Guthrie	359	Sucrose pellets were opened in 2019, recommendation is to replace a year after opening. Please discard.	11/5/2021	11/2/2021
<b>Minor</b>	no	DCM ARCF	B245	Ding in wall near the wall vent.	12/31/2021	11/3/2021

<b>Minor</b>	no	DCM LSB	B118 (Zebra finch)	Cage cards did not have accurate numbers of birds in each cage, cage cards for finches should be updated to reflect the number of animals in the cage.	11/19/2021	11/3/2021
<b>Minor</b>	no	DCM ARCF	B212	Opened scalpel blade sitting in a drawer. There are a lot of tangled dirty looking electrodes on a cart.	11/5/2021	11/4/2021
<b>Minor</b>	no	LSB	B212	Overflowing sharps container. Sharps at the fill line must be replaced with a new container and disposing the full container.	11/19/2021	11/5/2021
<b>Minor</b>	no	Guthrie	413	In testing booth, two pieces of unsealed wood need to be finished or replaced. All surfaces where animals are used or housed should be 'sound, sealed and sanitizable'.	11/30/2021	11/8/2021
<b>Minor</b>	no	HSB	G530A	O2 tank will only 1 strap securing it to the wall. Either remove tank or get a second security strap.	11/12/2021	11/8/2021
<b>Minor</b>	no	WaNPRC 6th Fl	H610	Water hose in room is damaged, repair is in progress.	12/31/2021	11/9/2021
<b>Minor</b>	no	DCM LSB	B119A (Zebrafish procedure)	Expired bottle of "PH 10 Standard". Please discard.	11/19/2021	11/9/2021
<b>Minor</b>	no	DCM LSB	B124C	Animal Room Care Log dates were incorrect, August was represented in both the August and September columns and October dates were written as September.	11/19/2021	11/9/2021
<b>Minor</b>	no	DCM LSB	B130 (Quarantine)	4 tanks of zebrafish with low density housing and no enrichment provided.	11/19/2021	11/9/2021

<b>Minor</b>	no	HSB	H227A	Rust on metal plate underneath microinjector – needs to be cleaned.	11/12/2021	11/13/2021
<b>Minor</b>	no	Foegen	N251B	Even though the Isoflurane machine has never been used, it is several years old. This machine should be recalibrated before it is used for rodent surgery.	11/30/2021	11/15/2021
<b>Minor</b>	no	Guthrie	354A	Surgery room was generally messy. A stereotaxic setup, but no one has been using it for a long time so “stuff” has accumulated on and around it.	11/19/2021	11/19/2021
<b>Minor</b>	no	Guthrie	354A	Isoflurane machine in room with a sticker that said it needs service on 6/20 so it’s long overdue. Please post a sign stating “Do Not Use Until Calibrated.”	11/19/2021	11/20/2021
<b>Minor</b>	yes	DCM ARCF	B271 (Dirty Cagewash)	Autoclave biological indicator logs are not being maintained. Tests are being run, but not documented.	11/19/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	B212	Expired maxon suture. Please discard.	11/29/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	B265 (Clean Cagewash)	Color coating on emergency pull cord needed on 1 side of rack wash R1.	11/19/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	B265 (Clean Cagewash)	Autoclave safety signage is inconsistent – some signs say always use a pin when door is open and some signs say use a buddy or a pin. As staffing is a challenge, suggest personnel always use a pin as a buddy may not be available.	11/19/2021	11/23/2021

<b>Minor</b>	no	DCM ARCF	B271 (Dirty Cagewash)	Fruit flies in dirty cagewash.	11/19/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	B271 (Dirty Cagewash)	Herpes B scrub kit needed in dirty cagewash.	11/19/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	Transport Vehicle (White Prius)	Expired disinfectant spray.	11/19/2021	11/23/2021
<b>Minor</b>	no	DCM ARCF	B265 (Clean Cagewash)	pH standards for pH meter are expired.	11/19/2021	11/24/2021
<b>Minor</b>	no	HSB	E064B	2 stained ceiling tiles noted – leak?	11/30/2021	11/30/2021
<b>Minor</b>	no	HSB: I-Wing Vivarium	I033	Door to room has exposed wood. These areas should be sealed to ensure appropriate sanitation. WaNPRC to submit work order for repairs.	2/28/2022	
<b>Minor</b>	no	HSB: I-Wing Vivarium	I752 ( Multi-user PET scanner)	Opening in ceiling near door.	12/31/2021	
<b>Minor</b>	no	DCM ARCF	B160	Small brown refrigerator contained several bottles of expired solution (1/2021 and 7/2019 dates). Are these for in vivo use? Unclear labeling.	11/29/2021	
<b>Minor</b>	no	DCM ARCF	B265 (Clean Cagewash)	Emergency “push to exit” stickers on the doors inside the rack washers are peeling off and need to be replaced.	12/10/2021	
<b>Minor</b>	no	DCM ARCF	Transport Vehicle (Box Truck)	Sanitation log should be updated to reflect actual frequency of sanitation of the truck.	12/3/2021	

## **Appendix C Departures**

### Prolonged restraint

Active protocols with approved prolonged restraint are as follows:

- Wild bats, held in cloth bags for transport – 1 protocol
- Wild Birds, held and hooded for transport or equipment attachment – 6 protocols
- Wild mammals, held during capture – 1 protocol
- Wild fish, captured in gill or tow nets – 4 protocols
- Zebrafish, held in a matrix for imaging – 4 protocols
- Mice, held in tubes for various procedures – 19 protocols
- Mice, held by head posts – 7 protocols
- Nonhuman primates, held in chairs or tubes with or without head posts – 12 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 – 4 mice protocols, 1 rat protocol, 1 mice and 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.

## **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:

*An oversight program for disaster plans with a master list of existing plans and dates of review is proposed, perhaps by creating a subgroup tasked with overseeing disaster plans on a regular basis.*

*It is unclear who is reviewing disaster plans to ensure all necessary information is filled out.*

*If OAW ends up being the repository for disaster plans, it is suggested that IACUC committee members have access to the OAW SharePoint*

*It is suggested that a template disaster plan be available on SharePoint.*

*There is a need to confirm that disaster plans are being regularly updated and uploaded to both SharePoint (if OAW is determined to be the disaster plan repository) and Husky Ready.*

*It is unclear how frequently are departments reviewing/updating disaster plans.*

*Disaster plans must be available for decentralized facilities.*

IACUC: This section was found to be acceptable.

*There was a discussion about how to evaluate the effectiveness of the training programs. Surveys are utilized with the online and in-person trainings to get trainee feedback on the content. Are there metrics that could be developed to judge training effectiveness? Perhaps a PI survey about whether training needs are being met or ongoing assessment of number/types of adverse events and non-compliance compared to training.*

IACUC Protocol Review was found to be acceptable.

IACUC Membership and Functions were found to be acceptable.

*Our IACUC memberships is compliance with the AWA and PHS Policy. All members are appropriately credentialed for their roles, including our two Non-Scientist members and our three Nonaffiliated non-lab animal user members. In the past couple of years, both AAALAC and the USDA have specifically reviewed our UW IACUC Membership and did not cite us for any deficiencies.*

IACUC Training was found to be acceptable.

*New online IACUC member training has recently been rolled out. A question arose about who members should contact if there are questions related to a protocol so perhaps more emphasis on using OAW liaison as first point of contact. There has been previous discussion about a member training "retreat" but the pandemic has made that difficult to do this type of training.*

IACUC Records and Reporting Requirements was found to be acceptable.

*Our records and reporting out to the Institutional Official, regulatory and accreditation agencies are complete and on-time.*



Veterinary Care was found to be acceptable

The majority of the clinical veterinarians here are ACLAM Diplomates who are certified specialists in the field of laboratory animal medicine. This ensures our ability to provide care from experienced and well-trained veterinarians for all species used at UW. In addition, designated veterinarians with appropriate expertise and experience in facility administration and management are assigned to specific facilities.

The previous semi-annual suggested developing a process to ensure that **all** drug records and storage procedures are reviewed during facility inspections. It might be helpful if each vivarium could maintain a master list of lock boxes within the facility used by individual research teams. Vivarium site visit hosts could contact relevant research teams to make sure they are present during the visit.

Personnel Qualifications and Training was found to be acceptable.

Prior findings regarding the continued importance of trainings are endorsed, including finding ways to improve these trainings. Similarly, findings related to training associated with adverse events and near misses and the ongoing need for a program to learn from such events are endorsed. The progress that the Instructional Designer is making in relation to improved trainings is noted.

In terms of other future improvements:

Return to Mock IACUC facility inspections and other such peer learning opportunities when possible.

Possibly develop lab specific and/or species specific checklists for facility inspections.

Remind IACUC members about ways to report concerns.

It is unclear if non-typical or species specific training are fully implemented.

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

The prior finding about the needs for guidance for Field Studies is endorsed as is the need for guidance on rare events.

Mental Wellness Support should be added to this section with information provided in an accessible way for the assistance of both UW staff and volunteers.

Personnel Security: Acceptable. No recommendations for improvement.

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

## Concurrence Letters

Concurrence Image - MRB

Concurrence Image - MB

Concurrence Image - AB

Concurrence Image - AC

Concurrence Image - KG

Concurrence Image - SH

Concurrence Image - MRK

Concurrence Image - MK

Concurrence Image - DM

Concurrence Image - CM

Concurrence Image - KM

Concurrence Image - AP

Concurrence Image - ES

Concurrence Image - GS

Concurrence Image - AW

Concurrence Image - JS

Concurrence Image - JPVH

### **Minority Views**

None

