

University of Washington  
January 17, 2019 IACUC Meeting Minutes

Members Present:	AB	JM (entered at 2:35)	LJE (remote)	TH (remote)
	*MB	JPVH	ML	
	CG	JS	MS	
	FRR	KG	SH (remote)	
	JB (entered at 2:35)	KL (entered at 3:07)	SJH	
	JE	KS	SL	
Members Absent:	CH	AS		

\*MB alternate for AS.

### Opening Business

- The IACUC Chair called the meeting to order at 2:30 pm.

### Confirmation of a Quorum and Announcement

- Quorum was confirmed by KC.

### Protocol Review

- AMEND201801589 (2174-31) – **LJE**
  - Reason for FCR: Concerns regarding the categorization of the sleep deprivation, mazes with water, and social removal procedures that are designed to cause stress in animals as not causing more than momentary pain and/or distress.

#### 2 Members Entered at 2:35pm

- *In regards to the sleep deprivation procedure, due to the difficulty to determine the difference between when an animal is experiencing stress and distress, the lab did months of research to determine the best methods to induce stress while causing little to no distress. There were other common procedures that the group could have used, but they potentially caused more distress and the group wanted to minimize this with their techniques.*
- *In regards to the voluntary running wheel, the group can only get the desired information they need if the animals are singly housed because if multiple mice are in a cage at one time, the group wouldn't know which animals are using the running wheel and which aren't. The animals are only temporarily singly housed and are returned to their social housing group after the test.*
- *In regards to the mazes with water, this is a standard maze for this type of study. The mice are placed in a maze with 1 inch of water and if they are unable to get out after 90 seconds, they are removed. Mice are always returned to a warmed cage to dry off before returning to their home cage. The group has seen that the animals are able to go back to homeostasis quickly after each of these studies.*
- *The animals are checked at least a few times a week in order to monitor various signs and ensure the animals are not experiencing distress. Distress signs can include fighting against handling, rearing, hiding, and performance in cognitive assessments.*
- *Each animal will undergo each procedure multiple times and are singly housed for up to 5 days. There is at least a week between each test to allow for the animals to return to homeostasis.*

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Motion was made and seconded: to approve the amendment as written.

Discussion: None

Vote: Approved with 18 members voting in favor.

• AMEND201801515 (4226-01) – **LJE**

- Reason for FCR: Concerns regarding the pain and/or distress elk will experience during the time that they will be in traps in addition to the restraint of animals for collar fitting.

**Member entered at 3:07**

- *The group targets and traps various field species to collar and track animals (in this amendment, it is specific to add elk calves). The group acknowledged that the trapping and collaring can cause stress, but they do not think it can cause more than momentary pain or distress as the animal only shows signs of distress when it is approached by an outside source (e.g. a human approaching). When the animals are in the trap, they are relatively calm. The group has cameras that take pictures when there is movement. Typically, there are a few photos, but not many. The calves typically eat all the food in the trap, which shows that they are not so stressed, let alone distressed, that they can't eat. The group does do some video recording, but typically they stick with still photos due to how quickly the batteries drain when using video.*
- *The clover traps are about 4'x4'x8' (a little bit bigger than an adult deer) and collapses in the shape of a four-leaf clover when the ties are pulled. The group has not seen any morbidity/mortality that can be attributed to trapping as predation does not occur close enough to capture to attribute to capture myopathy.*
- *When there is a death, the group does do a forensic assessment of the kill site and necropsies if there is something to necropsy. The animals are typically either killed by human harvest or predation.*
- *All collaring involves equipment that is widely within the safe bounds.*

Motion was made and seconded: to approve the amendment as written.

Discussion: None

Vote: Approved with 19 members voting in favor.

• PROTO201600375 (4381-01) – **LJE**

- Reason for Full Committee Consideration: Concerns regarding the categorization of procedures as not causing more than momentary pain/distress.
- *Due to the committee member's concerns, the PI has agreed to remove the use of wire foot snares to trap coyotes and/or bobcats from the protocol. The PI included this procedures in the protocol because snares are used where foot hold traps are banned.*
- *Foot hold traps are padded, rather than toothed, and have yet to cause damage to any paws. While in the trap, animals typically hide in the vegetation once they know they can't get out of the trap. Struggling does not cause injury with these traps unless the trap is used during the winter. Use in the winter is avoided in this protocol in part because of reports of animals in traps chewing their paws, believed to be related to decreased sensation related to cold*

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*temperatures. Additionally, foot hold traps are checked 2 times per day; once in the morning and once at night.*

- *Animals are anesthetized after capture in order to do a full, detailed work up. This allows the group to ensure that the animal is not injured before being released back into the wild. The animal is monitored by the group until it is able to get up and walk away on its own.*

*The regulations of what the committee can do for a protocol in this situation, was made clear by LI from OAW.*

*When there are holidays, the committee will be given one extra day in order to give a full 5 business days for committee members to make comments on assigned items.*

Motion was made: to suspend the protocol.  
There was no second.

### **Approval of the IACUC Meeting Minutes**

- The IACUC Chair called for the approval of the December 20, 2018 meeting minutes.

Motion was made and seconded: to approve the minutes as written.

Discussion: None

Vote: Approved with 11 members voting in favor, and 8 abstentions.

### **Benefit Story**

- This month's benefit story is about the development of a promising new non-invasive biomedical treatment called Intense Focused Ultrasound. Over the past few years, several research teams here at UW have been refining this technique, and some exciting results are emerging.

Intense Focused Ultrasound works by sending acoustic waves across the skin deep into body tissue. Modulation of the amount of energy carried by the waves can affect how hot the tissue gets and how much the tissue is mechanically disrupted.

Working with mice and rats, the Mourad group has found that Intense Focused Ultrasound can be used to temporarily disrupt the blood-brain barrier, allowing drugs that have been injected into the bloodstream to enter the brain and reach their intended targets, such as brain tumors. Intense Focused Ultrasound can also be used to deliver quantifiable pressure stimulation to points deep within tissue throughout the body, allowing for better assessment and treatment of pain after injury. Most recently, the Mourad group has identified ultrasonic parameters that can be used to activate cells in the brain and reverse neurodegeneration.

Other researchers here at UW are exploring additional applications of Intense Focused Ultrasound, including precisely localized mechanical disruption of cancerous tissue with minimal heating of healthy surrounding tissue.

As UW researchers continue to develop and refine this technique, Intense Focused Ultrasound holds great promise for improved treatments of a broad variety of diseases and conditions, including cancer, multiple sclerosis and chronic pain.

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[\[Transcranial and pulsed focused ultrasound that activates brain can accelerate remyelination in a mouse model of multiple sclerosis.](#)  
Olmstead TA, Chiarelli PA, Griggs DJ, McClintic AM, Myroniv AN, Mourad PD. *J Ther Ultrasound*. 6:11 (2018).]

**Attending Veterinarian's/OAW Director's Report - KS**

- Announcements
  - Adoptions: 2 fish and 2 dogs have been adopted out in the last month.
- IACUC metrics – see meeting documents
- HBAS has finished its evaluation of existing Hoverboard “Physical Restraint” procedures to determine which of those procedures are prolonged restraint using the definitions in the IACUC policy. OAW will work to re-categorize only prolonged restraint procedures as “Physical Restraint” in Hoverboard and other short term restraint procedures as “Other-Restraint”. Other types of momentary restraint, such as a mouse in a restraint device for blood collection or injection, can be described on that procedure itself rather than listed as a separate restraint procedure.
- Facility issues:
  - Humidity: Some low humidity seen in a couple of Primate areas – No obvious health issues related to lower than optimum humidity.
  - Temperature and lights - None
- Protocol Monitoring:
  - Twenty total protocols. Of the protocols, 13 involve surgery, two restraint (and sx), one conscious restraint, 1 tumor modeling, 4 miscellaneous (tape skirt, infection, water quality). Seven are inactive right now. One protocol has been removed as the lab decided not to pursue a new rat thoracic duct cannulation surgery due to technical challenges.
- Non-compliances
  - Follow up on bird researcher non-compliance (3077-01): The PI and graduate student submitted a response to the IACUC’s Letter of Reprimand. They acknowledged their mistakes and took full responsibility. An amendment providing a more complete description of the experiment, the behavioral test with description of the food restriction and the monitoring during that food restriction was approved.

**Corrective Actions:** The lab has scheduled a meeting with their OAW liaison to review the HoverBoard process and ensure that everyone is comfortable with checking the protocol and submitting amendments. The PI will discuss the protocol at the weekly lab meetings to review their processes and alert them to amendments that may be needed. The PI will familiarize each new student with the protocol and work with them to assure any new procedures are integrated into the protocol prior to field/lab work.

- Autoclave concerns at Guthrie: Follow up with administrator in charge of this autoclave. Autoclaves have been receiving regular preventive maintenance. Turnover in personnel overseeing the autoclave resulted in incomplete documentation of chemical and biological indicator testing. Working instructions including use of indicators are posted by the autoclave. The administrator has revised the autoclave log sheet and created a new binder

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for just the autoclave log. A new lab tech who will oversee the running of the biological indicators has been trained. Moving forward, OAW and the IACUC will investigate the quality control of other autoclaves that are being used to sterilize equipment used in animal surgeries.

- *KS will follow up with the administrator to determine if there is more than one person trained. OAW will work with EH&S to locate all the autoclaves and ensure EH&S information is provided to the various groups on the requirements for sterilization of surgical supplies.*

- Adverse Events:

- Follow-up: There is no MOU with the Mukilteo Marine Research Station. A new facility is currently in the planning stage and will look into whether we should have a more formal agreement with the new facility.
- Gnotobiotic Animal Core (GNAC): A breeder pair were found with the water bottle flipped upside down in a germ-free GNAC isolator cage on 11/19/18. One mouse was dead and the other euthanized due to moribund condition. This cage was under GNAC care, with no handling by the investigative group. The GNAC staff was been notified of the incident and retrained.

**This will be reported to OLAW.**

- ARCF: A single sided mouse rack with 18 breeder cages found without the automated water line attached on 1/4/19. Estimated 12-15 hours without water. 60 mice were affected. Some were treated and survived but there were neonate, pup and adult deaths. Vet Services and DCM husbandry have been working together to determine the cause but it's unclear how the rack became disconnected. All AT's will be re-trained and must demonstrate competency on the proper method for performing daily evaluation to ensure that hoses are properly connected to the animal watering system supply and return lines at each rack drop in a room.

**This has been reported to OLAW.**

- From Arizona

- Facilities items: No items to report.
- Adverse events: No adverse events to report.

### Other Business

- Semi-annual report – LI

- *The committee discussed the semi-annual report. A sentence will be added to note that the IACUC will be looking at capture/trapping procedures to determine if they are considered prolonged restraint. Concurrences and any minority reviews are due by 1/29 as the report is due to the IO by 1/31.*

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**IACUC Training**

- Vet Services – **KS**
  - KS gave a presentation on who is part of Vet Services (both for DCM and the Primate Center) and what each group's processes are for checking animals.  
*KS will report the number of vet services personnel to the IACUC at the next IACUC meeting.*

**Closing Business:**

The Meeting was brought to a close at 4:28pm. The floor was opened to public comment.