

University of Washington
February 20, 2020 IACUC Meeting Minutes

Members Present:	AB	*JB	KS
	AW	JM	MB
	CH	JPVH	MLK
	CM (remote)	JS	SL (remote)
	FRR	KG	SRH

Members Absent:	ML	DM	GS	SJH
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*JB alternate for ML

Opening Business

- The IACUC Chair called the meeting to order at 2:31 pm.

Confirmation of a Quorum and Announcement

- Quorum was confirmed by TN.

Approval of the IACUC Meeting Minutes

- The IACUC Chair called for the approval of the January 16, 2020 meeting minutes.
Motion was made and seconded: to approve the minutes as written.
Discussion: *None.*
Vote: Approved with 14 members voting in favor, 0 against and 1 abstention.

Benefit Story

This month's benefit story is about the interrelated ecological impacts of climate change on an apex predator, specifically the polar bear. Dr. Kristin Laidre's research team analyzed data collected over the past 30 years to identify the effects of declining Arctic sea ice on the behavior, body condition and reproductive success of adult female polar bears in Baffin Bay.

Polar bears can hunt for food most effectively when they can travel quickly across sea ice. As average temperatures rise, the ice in Baffin Bay is melting earlier in the spring and freezing later in the fall. Using satellite telemetry to track the movements of radio-collared polar bears, Dr. Laidre's research team found that these changes in the environment were forcing the bears to spend more time on land, where they can't hunt for seals, their preferred food, and must rely instead on their fat stores. As might be expected, the polar bears' recently accelerated annual transition from sea ice to land is correlated with thinner bears and smaller litters.

In addition to providing important information about polar bears themselves, this study also validated new methods of data collection that do not require physical capture of the bears, thus reducing stress to the animals. For example, the use of remote biopsy darts that can be fired from a helicopter and later retrieved from the ground or water, allowed the collection of fur and subcutaneous fat tissue samples that can be used for genetic and metabolic analysis.

Understanding the impact of climate change on polar bears can help communities to adjust and adapt to increased encounters between humans and hungry bears, so that both can survive and thrive.

Interrelated ecological impacts of climate change on an apex predator Laidre KL, Atkinson S, Regehr EV, Stern HL, Born EW, Wiig Ø, Lunn NJ, Dyck M. *Ecological Applications* (2020)

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Protocol Review

- Standard Procedure Reviews – AS

Procedures with Changes

Procedure Name	Species	Changes Made
Blood Collection, Tail Prick	Mice	Updated language around number of samples to be more flexible; includes volume limit only.
Glucose Tolerance Test, IP, Short Fast (<4 hours)	Mice	Procedure divided in to two separate procedures based on fasting time. Per IACUC policy, longer fasting times require justification to be reviewed and approved by the committee. Long fast procedure includes prompt to include this information by adding a food/fluid restriction procedure to the relevant experiment.
Glucose Tolerance Test, IP, Long Fast (>4 hours)		
Glucose Tolerance Test, Oral Gavage, Short Fast (<4 hours)	Mice	
Glucose Tolerance Test, Oral Gavage, Long Fast (>4 hours)		
Blood Collection, Peripheral Vein (Sedated)	NHPs	Related anesthesia procedures updated to current version.
MRI	NHPs	Related anesthesia procedures updated to current version.
Perfusion, Cardiac, No Fixation	NHPs	Related anesthesia and analgesia procedures updated to current version; minor updates to procedure description and monitoring plan.
Perfusion, Cardiac, With Fixation	NHPs	Related anesthesia and analgesia procedures updated to current version; minor updates to procedure description and monitoring plan.
Ultrasound	NHPs	Related anesthesia procedures updated to current version.
Blood Collection, Tail Prick or Tail Snip	Rats	Updated language around number of samples to be more flexible; includes volume limit only.
Glucose Tolerance Test, IP, Short Fast (<6 hours)	Rats	Procedure divided in to two separate procedures based on fasting time. Per IACUC policy, longer fasting times require justification to be reviewed and approved by the committee. Long fast procedure includes prompt to include this information by adding a food/fluid restriction procedure to the relevant experiment.
Glucose Tolerance Test, IP, Long Fast (>6 hours)		
Glucose Tolerance Test, Oral Gavage, Short Fast (<6 hours)	Rats	
Glucose Tolerance Test, Oral Gavage, Long Fast (>6 hours)		

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Procedures with No Changes

Procedure Name	Species	Changes Made
Insulin Tolerance Test, IP	Mice	No substantive changes; minor administrative changes made (e.g., spacing, font).
Insulin Tolerance Test, IP	Rats	No substantive changes; minor administrative changes made (e.g., spacing, font).

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

Discussion: None.

Vote: Approved with 15 members voting in favor, 0 against, 0 abstentions.

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

- Adoptions – in the last month, 2 non-genetically modified mice were adopted out by a researcher.
- IACUC metrics- see meeting documents
- Facility issues:
 - On 02-06-20 at 4:00 am, the room temperature in a Foege mouse room went as high as 80.00 F. An urgent Work Order was generated for Facility Services to evaluate and repair. Room temperature was back into normal range at around 7:00 am. No animals were affected during this event. The cause of the high temperature was due to a power bump that cause the vivarium fans to go down. The HVAC system cannot control when these power bumps occur but the reporting and repair systems in place worked and response was per procedures and took place per expectations.
- Protocol Monitoring:
 - Twenty-two 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.
- Follow up on 4259-04 protocol non-compliance
 - PI response to the IACUC Letter of Concern: The PI apologized for the non-compliance and indicated that this event will not be repeated, nor any other issues of non-compliance. Based on the difficulties they experienced, it is unlikely that they will proceed with a 2nd embryo transfer procedure on any female gerbil that fail in establish pregnancy on the 1st attempt. Furthermore, should complications arise during any animal procedure, the procedure will pause and consultation with vet staff sought. The PI will also engage the vet staff to discuss any further refinements to their embryo transfer procedure.
- Adverse Events:
 - Protocol 4328-01: Twelve mice between 4-10 months of age were found dead after one hour of experimental exposure to cigarette smoke per the protocol. One additional mouse was found dead several days later. The group indicated no previous mortality associated with this

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experimental procedure so a smoke machine malfunction was thought to be the cause. The smoke machine was re-calibrated by the machine engineer. After calibration, the machine was confirmed to be properly functioning and no further issues have been seen.

Reported to OLAW.

- *The IACUC discussed the cause for the adverse event and the need for regular calibration of the equipment in order to avoid issues going forward. The IACUC also discussed that there are no historical issues with this group, and while Vet Services was notified, this event was not self-reported to OAW.*

Member Left

Motion was made and seconded: to send a letter of acknowledgement and request specifically the group provide a calibration maintenance schedule and recommend self-reporting of these events in the future.

Discussion: None.

Vote: Approved with 14 members voting in favor, 0 against, 0 abstentions.

Member Returned

- Protocol 4417-01: In the 3.1 facility, one cage was found with 2 dead mice and 2 moribund mice that were subsequently euthanized. The cage did not have a water valve and was not marked with a “red dot” to indicate the lack of a valve. The investigator had transferred the mice to a new cage prior to this discovery and that cage was obtained from the clean side of cage wash. The 3.1 facility has an automatic watering system so it’s unclear how a valve less cage was obtained by the investigator. An investigation is underway to determine the source of the cage, In addition, the investigator is being re-trained by AUTS in water valve toggling for all new cages.

Reported to OLAW.

- *There was a previous event in 2017 where cage was not correctly locked in rack.*

Motion was made and seconded: to send a letter of acknowledgement emphasizing importance of toggling.

Discussion: None.

Vote: Approved with 15 members voting in favor, 0 against, 0 abstentions.

- From Arizona

- Facilities items: No items to report.
- Adverse events:
 - At ABC Building B, there was an altercation between 2 adult male NHPs due to a transfer door failure between 2 enclosures. Both sustained injuries but fully recovered. All B building enclosure side-to-side doors were secured to prevent additional transfer door failures and we are working with the caging manufacturer to permanently fix this issue while again making the doors readily usable. The USDA was informed and the VMO visited the site with no deficiencies noted at that time. Official inspection report is pending. **Reported to OLAW.**

Standard Operation Procedures / Policies / Guidelines

- B.1063 Environmental Enrichment for Rabbits– KS

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- *Change includes clarification on the number of toys provided as enrichment for rabbits. Each cage door will have a chain toy attached and each animal will have at least one toy inside cage at all times.*

Motion was made and seconded: to approve the revised EE SOP for Rabbits as written.

Discussion: *None.*

Vote: Approved with 15 members voting in favor, 0 against, 0 abstentions.

Other Business

- Gerbil Cage Changing Frequency – **JB**
 - *JB provided a quick presentation on a study on ammonia levels in singly housed gerbil cages. Results show there was no significant difference in ammonia levels between 7 and 28 days post cage change. There are currently no co-housed gerbils, however if this changes in the future there will be discussions on additional studies to assess cage changing frequency.*

Motion was made and seconded: to approve an exemption to the guide to allow for 28 day cage change variance in singly housed gerbils.

Discussion: *None.*

Vote: Approved with 14 members voting in favor, 0 against, 1 abstention.

- Change to AVMA guidelines for euthanasia – **KS**
 - *The AV notified the IACUC of changes made to the AVMA guidelines regarding CO2 euthanasia. DCM and OAW are working to educate researchers about this change with the goal of implementing it by April 2020.*

Closing Business:

The Meeting was brought to a close at 3:16 pm. The floor was opened to public comment.