

University of Washington
December 15, 2016 IACUC Meeting Minutes

Members Present:	AB	JM	ML
	AS	JPVH	SH
	CG (unaffiliated)	JS	SL
	CH	JFI	TB
	JB	MG	
Members Absent:	CG (scientist)	MT	PB
	KL	NJ	

Opening Business:

The IACUC Chair called the meeting to order at 2:32PM

Approval of the IACUC Meeting Minutes

The IACUC Chair called for the approval of the November 17, 2016 IACUC meeting minutes.

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

Discussion: None

Vote on the Motion: The meeting minutes were approved with 13 members voting in favor and 1 abstention.

Harm Benefit – JS

For all of evolution, life has been subjected to the rhythmic movements of the sun, moon and earth. The resulting circadian cycles exert powerful effects on all living organisms, but we are just starting to understand the many ways that this plays out in normal and pathological bodily functions. This month's benefit story focuses on a study from the de la Iglesia lab demonstrating that disruption of the regular light-dark cycle causes learning and memory impairments [Lee et al. 'Fragmentation of rapid eye movement and nonrapid eye movement sleep without total sleep loss impairs hippocampus-dependent fear memory consolidation' *Sleep* 39: 2021-2031 (2016)]. When rats were exposed to just slightly shorter-than-normal light-dark cycles, adjusted from 24 hours down to 22 hours, it altered the normal patterns of REM and non-REM sleep, even when there was no change in the total amount of time spent sleeping. These rats with so-called 'sleep stage fragmentation' had normal short-term memory, but impaired long-term memory consolidation. When IACUC members inspect animal housing areas, we are supposed to make sure that the lighting and the light-dark cycles are appropriate for the animals in the room. Studies like this one on the impact of circadian rhythms on learning and memory show how important it is to make sure that lights are turning on and off according to the approved schedule—and remind us of how sensitive living organisms are to the ancient rhythms of light and time.

Attending Veterinarian's Report

Facility issues:

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- **Humidity:** Low humidity in many facilities and there have been reports of nose bleeds in some NHPs. All animals have responded to treatment or resolved on their own.
- **Temperature and lights:**
Last month I discussed the centralized facility that has greater than four degree swings in temperatures. Facility Services is working on an estimate to propose a solution and I expect to have that in January.

Protocol Monitoring:

There are 15 active protocols on the veterinary monitoring program. Nine involve surgery, anesthesia and surgery, or restraint and surgery. Five involve other procedures including one that involves tumor monitoring.

Adverse event:

Protocol 4092-01: A single elephant nose fish (*Gnathonemus petersii*) was found on the floor near the fish tank housing elephant nose fish on the morning of November 23, 2016. The cover over the tank was slightly ajar, leaving a 1-2 inch opening between the cover and the rim of the front side of the tank. Based on these findings, it is suspected the fish jumped out of the tank during the night, and subsequently died due to being out of the water for an extended period of time. No abnormalities were noted on gross necropsy. Tissues were not submitted for histology. This event has been reported to OLAW.

Discussion: The Committee discussed how this happened, and it was not clear how the cover became ajar. There was no action taken by the Committee.

HBA Subcommittee:

The HBA committee met this month and several protocols were discussed regarding category E determination. In addition, veterinary staff presented information regarding clinical cases of disease in nonhuman primates and up-dates on some projects involving large animals. TB reminded the IACUC that they were welcome to attend these meetings at any time.

OAW Director's Report – Summary in meeting folder.

IACUC Training

STI Reminded IACUC about 3 upcoming training opportunities: 1) 2016 NWABR IACUC Regional Education Conference – February 21, 2017 (pre-conference tour) and February 22, 2017 Spring IACUC Conference, Lynnwood Convention Center 2) The PRIM&R, March 19 – 21st, 2017 and NWABR 1/25/17 IBC Conference

Responses to previously reported non-compliances

- Blood overdraw: Report back on non-compliances. The PI and WaNPRC Associate Director replied as required. STI summarized the responses and corrective action taken for the Committee. AS asked if policies that were implemented were lab or Center specific. STI replied that they were both.
- Excessive weight loss of a mouse: The PI replied as required. STI summarized the PI's response and corrective action taken for the Committee.

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Non-Compliances

- Protocol 4165-02: After a blood draw was performed on a non-human primate it was discovered that the blood draw exceeded the protocol approved blood volume of 10 mL/kg/2 weeks by 0.3%. The animal showed no clinical signs of distress and had a hematocrit of 42%. The issue was promptly reported and the staff policies reviewed. This event has been reported to OLAW. No action was taken by the IACUC.

Discussion: In this case, the planned blood volume was not entered into the electronic system according to the SOP, and was manually calculated resulting in a miscalculation of the total blood volume collected. The Committee discussed the timing of this non-compliance in relation to when the new policies regarding blood draws were put into place. This event happened in parallel to the implementation of the new policies.

- Protocol 4381-02: This programmatic non-compliance involved a teaching protocol that involves trapping and release of wild rodents/amphibians. Due to an entry error in our electronic database the triennial renewal date was incorrectly recorded as February 2017 and in actuality the protocol expired February 2016 and the course was taught in the Spring of 2016. The class involved trapping of 28 Keen's mice (*Peromyscus keeni*), 2 deer mice (*P. maniculatus*), 1 red-backed vole (*Myodes gapperi*), and 1 shrew that was dead in the trap and given to the Burke Museum. All the mice and voles were released alive and unharmed. They also caught 60 amphibians (salamanders, newts, and frogs) during the trip to the Olympic Peninsula. All were released alive and unharmed after capture.

The implementation of HoverBoard validates dates upon approval of a protocol and will prevent future occurrences of data entry errors. This protocol did not involve the use of PHS funds. No action was taken by the IACUC.

Minority Opinion, what they are and how to file one – STI reminded the IACUC that they have the right as IACUC members to, at any point, file a minority opinion to anything related to the program. These reports are submitted to IO and OLAW. TB commented that minority opinions are a good way to keep the IO informed of differences of opinion. JS encouraged people to speak up and share their thoughts which could be submitted anonymously.

Protocol Review:

- Hu, Shiu-Lok, “Glycan Modification, CD4 Independence, and Env Immunogenicity” 2370-23 - JFI

This Amendment is being reviewed at a full committee meeting because it is related to an urgent Just-In-Time request. The group revised their grant application based on reviewer feedback, and this amendment incorporates the necessary revisions into the protocol.

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Background: This group works in the field of HIV vaccine research. This amendment impacts Experiment 3.1, which will use 18 macaques to evaluate the immunogenicity and protective efficacy of novel immunogens administered via an optimized recombinant vaccinia virus prime-protein boost immunization regimen.

Specifically, this amendment makes the following 2 changes to Experiment 3.1:

- 1) Add the option of using rhesus macaques, in addition to the pigtail macaques originally proposed. This change was based on feedback from the funding organization, and the group states that both of these species are widely used for HIV/SIV research so they are both physiologically relevant animal models.
- 2) Add survival surgery for peripheral lymph node biopsy to quantify the phenotype and functionality of antigen-specific T cell responses in peripheral lymph nodes (LN) before and after each immunization and after challenge. Animals would undergo up to 7 LN biopsies over the course of the study. The sample collection schedule indicates collections on weeks 0, 2, 10, 26, and 42 of immunization phase, and weeks 8 and 24 after challenge. The group does state that the timing may vary, but collections will always be at least 1 week apart. Due to the number of biopsies requested, the group states that ILN regions will be palpated prior to every LN collection, and surgery will only be performed if LNs are palpable. The group used the Standard Procedure in HoverBoard for this surgery.

As part of the pre-review process, some corrections and clarifications were also made to the HoverBoard protocol. This includes addition of a second literature search database, and update of some fields that had standard “migration language” (meaning the question wasn’t specifically asked on the PRF), including the experiment monitoring and endpoint descriptions and some fields within the use locations. These clarifications are consistent with the already approved protocol.

Motion: A motion was made and seconded to approve the Amedment

Discussion: None

Vote on the Motion: The Amedment was approved unanimously with 14 members voting in favor.

- Horwitz, “Neurophysiology of Vision” 4167-01, V.85 (Repair) - JFI

Background: As summarized in this Amedment, the objective of this group’s research is to reveal the neural mechanisms that underlie visual perception. To accomplish this, they record the electrical activity of neurons from the visual system of rhesus monkeys to study the computations that they perform with regard to their visual input.

Amedment V85: In this Amedment the group is requesting one repair surgery for A12013, a 9 year old male rhesus macaque. The group reports that he is healthy and is well-trained to sit calmly in a chair and fixate his gaze on a dot while a variety of visual stimuli are presented in his peripheral vision – a task that poorly trained monkeys have difficulty performing. His initial surgeries to implant head post, eye coil, and recording chamber were performed in 2013 and 2014, and an approved surgery to remove the original recording chamber and place a new one we performed in June 2016. He had an approved repair surgery performed on November 22, 2016 to reinforce that

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second recording chamber, which was loose. They are requesting a new repair surgery in order to avoid unnecessary delays in the event that an implant requires future repair.

Current implants: Head post, left eye coil, and recording chamber

Surgical history:

* Consistent with the description in the Amendment.

Clinical History:

* Unremarkable, record shows he has recovered well from all surgeries

* Mild intermittent inflammation in the left eye noted since early November, also noted on the record back in 2013 after a left eye coil was implanted, but not in between. Described as “mild”, “minor”, or “slight”.

Behavior Report: This animal is not a behavioral case. In 2014, he was monitored for some minor alopecia and locomotor stereotypy but was discharged. He is currently in a stable social environment via full-contact pair housing. BMS has recommended standard environmental enrichment (EE) 7 days a week, as well as TV enrichment twice a week and daily audio enrichment.

Motion: A motion was made and seconded to approve the Amendment.

Discussion: The Committee was reminded of the review process for banked surgeries and that a veterinary pre-surgical exam is always performed prior to allowing the planned surgery. TB commented that this monkey has been very stable.

Vote on the Motion: The Amendment was approved unanimously with 14 members voting in favor.

SOPs/Policies/Guidelines

- **NHP Procedures Guidance Document:** TB explained that this is a guidance document and summarized one suggested clarification related to bone marrow aspirates. “Multiple sites may be used in a single session”.

Motion: A motion was made and seconded to approve the policy with the proposed modification.

Discussion: None

Vote on the Motion: The policy was approved unanimously with 14 members voting in favor.

- **Standard Light Cycles in Animal Housing:** TB read the policy to the Committee.

Motion: A motion was made and seconded to approve the policy.

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Discussion: The Committee discussed the applicability of the policy to certain circumstances such as facility issues. In summary, if the issue/procedure is for the clinical wellbeing of the animals then it would be ok for performance outside of the standard light cycle. Routine maintenance should be during the normal light cycle. The Committee recommended that “should” be changed to “must”. The Committee also discussed enforcement of the policy and outreach for communication of the policy. The policy would be circulated and posted online. Also, liaisons were asked to reach out to groups that would be impacted by the policy.

Vote on the Motion: The policy was approved unanimously with 14 members voting in favor.

- **Expired Drugs and Biomaterials Used in Research Involving Animals:** TB summarized the changes made to the policy for the Committee.

Motion: A motion was made and seconded to approve the policy with the proposed modifications.

Discussion: None

Vote on the Motion: The policy was approved unanimously with 14 members voting in favor.

- **Expired Drugs and Biomaterials Used in Research Involving Animals:** TB summarized the changes made to the policy for the Committee.

Motion: A motion was made and seconded to approve the policy with the proposed modifications.

Discussion: None

Vote on the Motion: The policy was approved unanimously with 14 members voting in favor.

- **Surgical Training Policy:** TB summarized the changes made to the policy for the Committee.

Motion: A motion was made and seconded to approve the policy with the proposed modifications.

Discussion: The Committee discussed the applicability of this policy to certain procedures, such as minor surgeries like lymph node biopsies, bone marrow aspirates, trocar implantation of pellets into mice. It was stressed that if an incision is made, it’s a surgery.

Vote on the Motion: The policy was approved unanimously with 14 members voting in favor.

HoverBoard Outreach

- IACUC Site Visits – TN summarized how site visits will be scheduled and managed in the HoverBoard system. TN reminded IACUC members to sign up for January visits. The Committee discussed how best to indicate transport times for offsite visits. The Committee discussed the pros of reporting functionality and the process for notifying/reminding IACUC

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members and facility staff of site visits. It was noted that there was no changes to the functionality of the surface. STI asked members to give feedback.

- Protocol Migration Status Update - EW
- Designated Member Reviewer (DMR) Notification/FCR Flag – STI reminded people to look in their inbox in HoverBoard rather than relying on email notifications. The Committee discussed the process in the system.

CH commented that pre-review questions are not kept once the protocol has been approved. It was explained that the Coordinator is responsible for making sure that all required changes have been incorporated into the body of the protocol. The Committee discussed how the status is updated in HoverBoard during the review process.

Closing Business:

The Meeting was brought to a close at 4:03 pm. The floor was opened to public comment.