

University of Washington  
May 17, 2018 IACUC Meeting Minutes

Members Present:	AB	JE	LJE (remote)	TH (remote)
	AS	JFI	ML (remote)	
	CH	JLS	MS	
	FRR	JM	SH	
	JB	JPVH	SL	
		JS	TB	
Members Absent:	CG	KL		

### 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

- TR201800049 (4314-07) – **KSH**
  - The group proposes a novel HIV vaccination approach that uses persistent probiotic therapy as an adjuvant to enhance immunogenicity and protection induced by a potent combined SHIV vaccine. The proposed studies will provide (i.) new insights into the possibility of harnessing the microbiota to enhance vaccine responses, and (ii.) assessment of both innate and adaptive immune responses that may block or abort the infection at the site of exposure. (iii.) test the impact of malaria infection on HIV/SIV vaccine responses.

The protocol has 2 experiments:

- 1) Probiotic use as an adjuvant in HIV vaccines: 33 rhesus macaques
- 2) Malaria stock propagation: 1 rhesus macaque

Recent changes since members may have reviewed the protocol:

- 1) Embedded anesthesia procedure in the BAL Terminal Procedure was replaced with the standard.
- 2) Administration of Malaria parasite procedure: The clinical endpoints described on the first page of the procedure (Q4ii) were clarified.
- 3) Standard analgesia procedure ("Analgesia, WaNPRC Standard (at least 48 hours, v.2)") was added to Q6 of Experiment 001.

Discussion:

- *First time going through triennial, but most of the animals are still on study*
- *An IACUC member asked about the use of an animal to propagate malaria.*
  - *The group did extensive research to determine if it was possible to grow monkey malaria in culture, but most papers used a form of malaria that is not being studied by the group. Due to the specific form of malaria that the group chose to study, it has*

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*to be grown in monkey blood/serum not human. Additionally, it is difficult and there are a lot of restrictions involved with doing in vitro studies with this form of malaria and from this determined it would be easier to use an animal model.*

- *This form of malaria has been used successfully in SIV models.*
- *The animal that was used for this part of the study, is no longer on study.*

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

Discussion: *None*

Vote: Approved with 17 members voting in favor, and 1 abstention.

• TR201800047 (4133-01) – **KSH**

- Little is known about how brain activity underlies complex behaviors such as object recognition, memory and decision making – abilities that are impaired due to several neurological disorders/diseases. Understanding normal brain function will help to devise cures/treatments for neurological impairments. This protocol addresses questions about higher brain function in a behaving animal and will provide insights into normal brain function during these cognitive tasks.

The protocol has one experiment:

1. Neurophysiological Investigations: 12 rhesus macaques

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

Discussion: *None*

Vote: Approved with 17 members voting in favor, and 1 abstention.

• TR201800053 (4221-01) – **JFI**

- The fundamental goal of this protocol is to provide a foundation for understanding normal and pathological eye movement control in humans and involves the use of infant and adult rhesus and pigtail macaques that have either normal eye alignment or are made strabismic. Studies vary from short-term tracer studies to multi-year neuro studies. In one study, acrylamide is used to induce partial blindness in order to evaluate “photoswitch” molecules as a potential treatment for macular degeneration, but is never injected into both eyes.

*One IACUC member asked about the refinements the group is working towards to improve their studies and asked about 3D models to improve head chamber fit.*

- *The group explained that MRI, which is currently used, does not always generate an accurate scan for a 3D model, even if it is a high resolution image. Additionally, a CT scanner will be needed to generate an accurate scan for a 3D model, but the PC currently doesn't have access to one fit for a non-human primate. The PC is applying for a grant in order to get the funds for a CT scanner.*

*The use of dental acrylic was also raised as a concern.*

- *The group explained that there are certain settings where they have been able to eliminate dental acrylic, however, they are not able to completely eliminate it, but are constantly working towards that. The group has been working hard to develop implants that last for years without sloughing off and that adhere well to the skull forming a tight junction which currently uses sterile dental acrylic.*

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

Discussion: *None*

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Vote: Approved with 16 members voting in favor, and 2 abstentions.

- AMEND201800545 (4167-01) – A14234 Repair Surgery – **JFI**
  - This amendment is requesting one repair surgery. The goal of this group’s research is to understand the neural mechanisms underlying trichromatic visual perception. This animal is a 7 year old male rhesus macaque who has been assigned to this protocol since September 2015. He has undergone a total of 5 repair surgeries; 3 repairs, 1 clinical, and 1 research related surgery.  
Clinically, his weight has fluctuated quite significantly. After his March surgery he was bright and alert, but he did lose weight post-surgery. He also lost weight and wasn’t eating well after his surgery last August, but recovered with nutritional support. Most recently, his weight is increasing again. According to vet staff, he is healthy and growing at this point.

This animal has no history of behavioral issues and is currently pair-housed.

*Concerns were raised in regards to the magnitude of weight loss (near 20%).*

- *His body condition score goes from 2/5 to 3/5. Weight does fluctuate over time, but is coming back up currently. A body conditioning score of 3 is normal and 2 is thin.*
- *Animal is on clinical, daily observation. TB will update the IACUC on this animal at the next meeting, or sooner, if individual members want this information.*

*This group has animals on water restriction for this study*

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

Discussion: *None*

Vote: Approved with 16 members voting in favor, and 2 abstentions.

### **Response to IACUC letter of Reprimand (4389-01) - JS**

- The chair provided a summary of the response from the PI. The IACUC then directed questions to him about his proposed plan of action:
  - *Appointing a current student as lab manager after graduating*
  - *The PI will be working closely with animal support personnel including monthly meetings with the OAW liaison, and meeting with the fish facility supervisor and vets regularly.*
  - *Improving lab support and supervision via lab meetings and shared documents.*
  - *The PI will go to fish lab 1-2 times per week to provide additional oversight to lab members working at the fish facility.*
  - *The PI will work with group to refine existing experiments and technique to reduce mortality.*
    - *Refinements will include working to reduce mortality rates by training personnel through surgery certification under direct supervision of the PI, as suggested by an IACUC member.*
  - *The PI has reached out to other PI’s at the campus where the fish facility is located, to tap local expertise there.*
- *The IACUC deliberated on the action plan and responses and determined to take no further action at this time. A final report to OLAW will be sent. The protocol will remain on veterinary monitoring.*

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**Approval of the IACUC Meeting Minutes**

- The IACUC Chair called for the approval of the April 19, 2018 meeting minutes.  
Motion was made and seconded: to approve the minutes as written.  
Discussion: *None*  
Vote: Approved with 15 members voting in favor and 3 abstentions.

**Convening a new Subcommittee to Review Annual Renewals**

- This subcommittee will be reviewing the process by which annual renewals are reviewed and approved. LJE will be chairing the subcommittee. Anyone interested in joining should contact LJE directly.

**Attending Veterinarian's Report – TB**

- **WaNPRC ABC Supervisory Veterinarians Report – TH**
  - 5/9/2018 ABC had its annual USDA Inspection. It went well and there were no noncompliant items. The USDA inspector asked that there be a separate IACUC meeting item to inform the IACUC of anything that happens at the ABC.
- **Facility issues:**
  - **Humidity:** Low humidity reported in our older facilities without humidity control. One macaque (rhesus) animal did develop epistaxis last month, but was treated and improved.
  - **Temperature and lights:**
    - 3/18/18: Lights in this mouse room did not turn off as scheduled at 8 pm. There was a problem with the relay that was fixed on 3/19/18.
    - 4/16/18: Lights in this NHP room did not go off as they were supposed to at 6pm, but were manually turned off 1 hr. and 40 minutes later.
    - 5/9/18: This is the same facility as above. The lights in this mouse room went out early in the light cycle. It was suspected to be a problem with the light bulbs tripping the circuit. The circuit was reset and the light came on but one light bulb was burned out. The bulbs were replaced and the lights have been fine.
    - 5/8/2018 we had lost UPS power (uninterruptible power supply) due to a failure with the UPS system in a rodent biohazard area. HVAC ordered a new UPS and plugged the transformer controllers directly into the 120V wall outlet to provide power to the system. During system start-up we noticed low static pressure on the system due to a damper not actuating in an open position. Facility services responded and a valve was discovered to be stuck shut. The temperature got to 81.7 degrees in this rodent biohazard area before the situation was resolved.
    - 5/14/2018, Siemens technicians replaced the old software that controls and monitors the lights and temperature in this vivarium that contained pigs and rodents. That night all lights turned off as scheduled. But Siemens returned on Tuesday to fix potential issues on the newly installed software. This work caused a system error and lights in 7 animal housing rooms remained ON during their scheduled OFF time. The problem was corrected the next day.

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- **ARCF airflow:** On May 3<sup>rd</sup>, the odors in a mouse room in ARCF (B167) were noted to be abnormally strong and suggestive of high ammonia. The racks were functioning normally and the rack changes were being done on time. It was discovered the HVAC was not functioning as it should. In this facility, the HVAC is to respond to increased odors by increasing airflow. This was not happening. Airflow was manually increased and on the next day, the odor was reduced. This is an ongoing issue until the system can be repaired. Also, the airflow in this facility has continuing problems with differential pressures in some areas. This was noted on a recent site visit and is still an ongoing issue.
  
- **Protocol Monitoring:**
  - There are 20 active protocols on the veterinary monitoring program.
  
- **Adverse event:**
  - 3030-01: One mouse was found dead on May 11<sup>th</sup> in a cage with 3 additional mice. A mouse was reported to Vet Services for testicular hernia on 5/4/2018 following a complete cage change by the husbandry staff. The veterinary technician examined the mouse and notified the lab contact about the hernia. The lab contact looked at the mouse the next day (5/5/18). On the scheduled re-examination date (5/10/18), the veterinary technician found the mouse dead between the food hopper and lid of the cage. Examination by the DVM revealed the carcass was too heavily autolyzed for necropsy to provide further information. No other cage changes were made during this time. It is unclear when the mouse died or who left it in the position in which it was found. This has been reported to OLAW.
  
- **HBA Subcommittee:**
  - The HBA committee met this month and discussed incidents of morbidity and mortality in USDA species as well as concerns raised by individual IACUC members. We also discussed a protocol that involved induction of pain in rodents (in order to study pain) and which animals would be classified in the system as category E. It was the opinion of the group to classify conservatively until the experiments were done and further classifications could be made based on the results of the experiments.

I would urge you to look at the minutes for further insight.

### **OAW Director's Report – LI**

- **Responses to letters of Counsel**
  - Water bottle was flipped up (2183-02)
    - Actions include: the lab member was retrained; all future lab members will undergo similar intensive training; there have been extensive conversations between the research group and the facility manager regarding how to prevent such breakdowns; the incident was used to raise overall lab awareness of the importance of routine checks for proper access to food and water
  - Lack of food in one cage (4249-01)
    - Actions include: the group met with veterinary services and the facility manager to discuss additional safeguards; the group has added a required visual inspection after

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cages are returned to a rack to ensure food and water are in place on each cage; lab personnel and husbandry staff have been retrained..

- **A question was raised at an earlier meeting regarding protocol 3228-05, where it says that they will have a play cohort of 3 infant monkeys but had used a cohort of 2 instead: Is this a non-compliance?**
  - OLAW was contacted and indicated this would not be considered a non-compliance, since such variability can be expected in research.
- **Semi-Annual Program Review**
  - LI will send out homework assignments to evaluate elements of the overall program. Please prepare brief reports on your conclusions for presentation at the next IACUC meeting.

### Standard Operation Procedures / Policies / Guidelines

- EE SOP for Zebrafish and Medaka – **ML**
  - *No changes.*

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

Discussion: *None*

Vote: Approved with 18 members voting in favor.

- Neuroscience Studies in Non-Human Primates Policy – **JS**

Proposed Changes include:

  - *Two definitions have been added by the AV.*
  - *Still must include justification for repair surgery and attach the surgical history.*
  - *Changing mechanism by which repairs may be approved by the IACUC.*
    - *Repair surgeries will be reviewed via the DMR process, but can still be called for FCR.*

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

Discussion: *Pros and cons of changing from FCR to DRM for repair request were considered. Concerns were raised about decreased awareness of these surgeries and difficulties members might have following the surgical records on their own. Benefits would include increased focus on more complicated repair requests.*

Vote: Approved with 8 members voting in favor, 7 against, and 3 abstentions.

### Other Business

- Harm Benefit Analysis Subcommittee discussion – **LJE**
  - *IACUC is empowered to use subcommittees to perform duties.*
    - *The HBAS was convened in 2015 to discuss potential Category E protocol and then expanded to include discussion of pain and distress-related events, policies and guidelines. Any IACUC member is welcome to join the subcommittee. Notes from the subcommittee meetings are available to the IACUC and highlights are announced at the monthly IACUC meeting. The subcommittee does not set policy or make determinations about protocols. Recommendations by the subcommittee are brought to the full IACUC.*

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- *LJE expressed concerns about the use of this subcommittee.*
  - *The committee is technically in regulatory compliance, however, LJE feels the committee is ethically non-compliant and provided suggested additional actions the IACUC could work toward to improve including:*
    - *Comprehensive continuing education program*
    - *Repository of continuing literature*
    - *Broadening and diversifying the IACUC*
    - *Move away from the idea that the FCR is punitive*
    - *Recognize the HBAS discussions should not be taking place in the subcommittee format*

Motion was made and seconded: to dissolve the Harm Benefit Subcommittee.

Discussion: *It was agreed that the committee would like to get a non-scientist or ethicist to join the committee. The HBAS subcommittee was started because Cat E protocols weren't being discussed. Several members have found discussion in the Harm Benefit Subcommittee meeting helpful.*

*Subcommittees are an important aspect of the function of the IACUC.*

Vote: Motion did not pass with 1 member voting in favor, 16 against, and 1 abstention.

**TB left the meeting**

- Committee Packets – AS
  - *OAW will start working to use HoverBoard as it was intended by doing daily committee packets. Committee members will be assigned on a daily basis, but still have a week to review. The packets will be sent out first thing in the morning.*
  - *Will work to make the due date very prominent*
  - *The volume is expected to be the same, but the daily number will vary*
  - *Can do a trial period and then go back to weekly committee packets if not working*
  - *AS will come up with a concrete plan and will revisit at the next meeting*
- Review Plan for Standard Procedures – AS
  - *Standard Procedures will have a 3 year approval period, but wanted to start reviewing in batches earlier, starting in mid-June, in order to spread out the expiration dates.*
- Using HoverBoard instead of SharePoint for Meeting Agendas, items, etc. – TN
  - *Starting in June, items will be in HoverBoard*

**Closing Business:**

The Meeting was brought to a close at 5:04 pm. The floor was opened to public comment.