Members Present:	AS	JS	TB
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CH JFI SH

JB ML JPVH SL

Members Absent: AB CG (Scientist) JM

PB MG KL

Opening Business

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

Confirmation of a Quorum and Announcements

Quorum was confirmed.

Hydropacks - NR (DCM Veterinarian and Husbandry Manager)

Brotman Facility (water bottle only facility) is currently undergoing a transition to Hydropacs. This is a widely used system at multiple institution. The Hydropacs can be filled with various types of water (including medication/drugs) and quickly produced. It is sterile in the pouch (due to the one way valve that keeps the pouch sterile until it is first used) so autoclaving is not required. This system also prevents leaking, and decreases chances of contamination by a one-way valve rather than the ball valve with water bottles. The transition begins on July 22, 2017 and should take about 4-6 months. The pouches will be labeled by the date that they are made.

Positives: Less injury to staff and better for animals.

Costs: Pouches are recyclable, but not reusable.

JS emphasized that any IACUC Member can request any item be included in a meeting. OAW will be sending out a reminder and request for items each month.

Approval of the IACUC Meeting Minutes

The IACUC Chair called for the approval of the meeting minutes.

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

Discussion: None

<u>Vote on the Motion</u>: The meeting minutes were approved with 9 members voting in favor and 1 abstention.

Benefit Story - JS

The July benefit story is on 'Flu-Glue', a synthetic protein designed to prevent flu infections [Stauch et al. (2017) 'Computational design of trimeric influenza-neutralizing proteins targeting the hemagglutinin receptor binding site' *Nature Biotechnology* <u>35</u>: 667-671]. This is a nice example of a collaborative study that begins with computer modelling and carries through to testing in mice. The first step was to determine the theoretically optimal structure of a protein that can bind to conserved regions of the influenza virus and prevent its entry into cells, similar to a naturally occurring antibody. The synthetic protein was designed to bind

with much higher affinity and specificity than an antibody, and could get around the problem of having to produce new batches of flu vaccines every year, based on the best guess for which strain of flu is going to be the biggest health problem of the season.

David Baker's lab at the UW Institute for Protein Design initiated the Flu-Glue study and produced candidate proteins that were tested first in cell culture, to identify the most promising flu inhibitors. Deb Fuller's lab, in the Department of Microbiology, then performed the critical test and found that mice that were given a single intranasal dose of the Flue-Glue protein, either one day before or one day after inoculation with influenza virus, were completely protected from infection and showed no flu symptoms. This translational study lays the ground work for future human clinical trials that can expand the treatment options for flu infections, including newly emerging, drug-resistant viruses that pose a serious threat to global health.

Attending Veterinarian's Report - TB

Facility issues:

Humidity: No issues reported.

Temperature and lights:

On 6/19 the temperatures in a mouse holding room reached 81.5 at 11:17 pm. The doors were opened and fans used to bring the temperatures down. HVAC technicians did respond, however they did not fix the problem that day (6/20/17). The temperatures went back up on 6/21/17 and at that point, the technicians put in a manual steam valve until a new automatic valve could be acquired and the broken valve replaced. DCM has met with facility services and discussed the failure to adequately address the problem in a timely manner.

Protocol Monitoring:

There are 14 active protocols on the veterinary monitoring program (8 surgical, 4 other, 3 tumor). I used to always describe what was happening on one monitoring protocol a month, and I am going to try to go back to that. Most of the protocols on veterinary monitoring have been relatively inactive for the past month. This month's update is for protocol 4356-01, which is a neuroscience study in mice. The veterinary monitor has been working with the group to optimize the husbandry, specifically the caging and delivery of food and water, for animals with cranial implants so that the caging does not interfere with the implants.

Adverse event:

A research technician that works on protocol 2199-09 reported that he found two dead female mice in a cage without food on 6/14/17 in a centralized facility. Five days previously he had separated these mice from their home cage following a procedure and presumably failed to put food in the cage at that time. Unfortunately, he did not notify vet services immediately, and thus no necropsy was performed on the mice, so a definitive cause of death is not known. The DCM staff had checked this room 4 times in the intervening days and not detected the lack of food.

The research technician was extremely distressed regarding this incident. DCM has counseled and retrained its animal technician staff regarding food, water and health checks.

HBA Subcommittee:

The HBA committee met this month. We discussed positive reinforcement training and its utility in the use of manual restraint devices for non-human primates. In addition, we had a discussion regarding clinical cases of morbidity and mortality in the WaNPRC and DCM.

OAW Director's Report – STI

- There will be an upcoming seminar on Positive Reinforcement from Ken Ramirez. Date, time and location are still being scheduled.
- STI updated on the number of changes (Amendments, New Projects, Annual Review, and Triennial reviews) that were completed over the last month.

0

	Total
New Projects	8
3-YR Renewals	12
Annual Renewals	24
Amendments	56
Standard Substances	1
and Procedures	
Total Items	101

- Currently re-evaluating the annual review process.
- Over 90% of PI's have been in the system.
- Urgent Reviews -- JPVH would like to re-assess and get the committees opinion on what classifies an item as urgent. OAW currently tries to follow specific guidelines on when urgents are used. Urgents are usually due to the possibility of losing funding, and loss of animals, or other items on a case by case basis.
 - As people get used to using HoverBoard, maybe the occurrence of urgents will decrease.
 - OAW is currently working with the vendor to see if it is possible to have multiple amendments in the system, but currently what is important is informing researchers to prepare and put the priority amendment in first.
 - It is important to prioritize documents –maybe triaging urgency.
 - Possibly reward research groups for submitting triennials at least 2 months in advance.
 - Whatever works best for OAW and the researchers; IACUC convenience is secondary. OAW has amended their business process to ensure that groups know to get triennials in on time in order to decrease the number of urgent items.
- Rolling reviews, rather than weekly CTCs, will be discussed next month.
- A response to a previous adverse event was read to the committee. It noted that the protocol has been amended to reflect the correct fasting.

Protocol Review

Repair Surgeries – AMEND201701067 (4133-01) – JFI

Request for a repair surgery for two non-human primates on a neuroscience study.

Background: This group is interested in deciphering the brain processes involved in visual shape perception, object recognition, and memory. When we look at a complex visual scene, the information that reaches our eyes is parsed by the visual system into a meaningful arrangement of regions and objects. This process, called image segmentation, is an important precursor to object recognition and scene understanding and is one of the most challenging computations accomplished by the primate brain. Today we know very little about how brain activity underlies these complex behaviors, which can be impaired by several neurological disorders and diseases. Understanding normal brain function will help us devise rational treatments for neurological impairments.

Amendment: In this amendment the group is requesting one repair surgery each for animals Z05360 and Z11111. Animals on this protocol undergo an initial head post implantation, followed by up to 4 chamber or array implantations over the course of their enrollment on this protocol, with each chamber implantation being followed by a craniotomy. At the end of their time on this study, they may receive a surgical tracer injection shortly before euthanasia. Z05360 is a 12 year old male rhesus macaque who underwent his first surgery, a head post implantation, in July 2009, followed by a chamber implantation in 2011 and a craniotomy in 2015. He underwent a repair surgery in April of this year to remove the implanted chamber, which was no longer yielding data. Z11111 is a 6 year old male rhesus macaque who had a head post implanted in October of 2015, and underwent a repair surgery last month to remove the head post, which had become loose. The approved protocol provides for two repair surgeries for each animal, so both of these animals have one repair surgery still available. This amendment is requesting a second repair surgery for each animal. The group explains that they make a huge investment of time and effort to prepare these animals for recording, typically spending a year to 1.5 years training an animal on a behavioral task, so replacing the animal with another naïve animal would be a loss of valuable time and effort for both them and the animal.

Current implants: Z05360 has a headpost; Z11111 has no hardware

Clinical History: The group reports that both animals are in good health. Z05360 is described in the clinical record as being "lean" with prominent spine and hips, but his weight appears fairly stable over the last several years so this doesn't appear to be a new or changed condition. I found Z11111's clinical record to be unremarkable.

Behavior Report: Neither of these animals are considered behaviorally sensitive, although they both have a history of minor locomotor stereotopy. They are both in grooming-contact with a social partner – this is approved in the protocol for these animals. BMS has recommended standard environmental enrichment plus extra environmental enrichment as described in the amendment.

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

Discussion: None.

Vote on the Motion: The amendment was approved with 10 members voting in favor.

SOPs/Policies/Guidelines

PUB team plan -- KSH

Policy Update Brigade (PUB) The PUB resulted from an OAW strategic planning meeting that occurred in June. Updating, organizing, and putting all IACUC policies on a regular schedule for review was identified as an action item during this meeting. The team consists of 6 individuals within OAW, and is divided into two sub-teams. One sub-team is working on evaluating the current IACUC policies to determine if any can be eliminated, 'demoted' to a guideline, or combined with another policy. Additionally, this team will be establishing a naming convention and a template for our IACUC policies and guidelines. As part of this process we will work to clearly define the terms "policy" and "guideline".

The second sub-team is working on updating the OAW website where the current and archived policy versions are stored and organized, to provide a better user experience and to allow for easier tracking of policy approval and review.

At the August IACUC meeting, the committee will be presented with the PUB's suggestions for the current IACUC policies. I encourage the committee, between now and then, to look through the current IACUC policies. This is a good opportunity to re-familiarize ourselves with the policies that we have in place. Feel free to contact OAW if you have any questions or suggestions related to the IACUC policies or to this project.

Other Business

Semiannual Facility and Program Review - LI

The report was pulled out of HoverBoard and is organized differently than previous reports. It is possible that some of the information is in odd locations or incorrect due to the migration of the protocols into HoverBoard. OAW welcomes IACUC review of the report and suggestions or questions about things that may need to be changed.

IACUC discussion noted:

Program Review -- There are issues that occurred that are not included in the report that should be in the report. Items reported to the IACUC as well as regulatory agencies should be included. There are multiple ways to transmit the information to the IO, but the IACUC needs to be sure that the IO knows about all the deficiencies.

Discussion continued regarding what is required and what is not. It has been determined that the current version of the Semiannual Facility and Program Review Report is a draft and some edits will need to be made before an official copy is sent to the IO. Some of the changes include only including regulatory requirements in addition to what the IO specifically wants to see. Other items of interest to the IACUC can be kept track of within HoverBoard or the SharePoint site, but will not be included in the report to the IO.

Motion: A motion was made to change the concurrence approval from written to an email approval.

Discussion: None

Vote on Motion: The motion was approved with 10 members voting in favor.

IACUC Training: Sensaphone Basics – MM

Review of the various types of Sensaphones and what each does in addition to what IACUC members should be looking for and asking about while on IACUC site visits.

IACUC Training: Lessons learned from Recent Review Training – EC

EC began by saying that the training was beneficial and it was agreed that all new IACUC members should have to complete this training. There were a few items that should be acted upon/addressed including reviewer notes. There were also some areas of excellence such as Harm Benefit and Alternative Searches. EC also covered the importance of using a private comment for suggestions or recommendations to the liaison rather than using a public comment. Ultimately, 90% of full members completed the training.

FHCRC visit in August - GL

Next IACUC meeting, 5-6 FHCRC personnel will be visiting the UW and coming to view the IACUC meeting.

Closing Business:

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