Opening Business:

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

Veterinary anesthesia formularies were passed around to the IACUC for reference in support of the planned discussion regarding the Veterinary Verification and Consultation policies.

Protocol Review

Dr. Standage, 4287-01 V.21, “The Role of Macrophage Differentiation and PPARα in Sepsis”

The protocol PI was present to answer any questions raised by the IACUC.

A member of the IACUC summarized the Significant Change, which was being presented due to urgency

It was explained that new data indicated significant metabolic changes in some strains of mice. The group was interested in examining these metabolic changes in tissue harvested from the mice. The metabolic changes in tissues and cells occurs in seconds to minutes so the approved euthanasia technique, C0₂ directly affects the biochemistry of the tissues and takes too long. They are requesting the addition of a terminal surgery in which they will harvest tissue from heavily anesthetized mice. This new terminal surgery will utilize ketamine/xylazine that is not currently approved on the protocol; the surgery will also involve the use of heparin that is currently approved on the protocol for a terminal surgery.

The second change was to add fasting to the sepsis controls. Sepsis is induced via cecal ligation and puncture (CLP), control mice are either not operated or sham operated.

The experimental mice do not eat due their illness (sepsis) the controls however do eat. For these controls they wish to fast the control mice in parallel to the experimental mice thus allowing for more accurate analysis biochemical and otherwise. They have communicated with others, outside the UW, who use this module and include fasting for the controls. Most experiments would involve fasting for 24 hours.

Mice will be monitored every 12 hours for the first 3 days and then daily thereafter. Signs and symptoms of illness will be measured prospectively at each assessment including physical appearance, activity, respiratory status, temperature changes (assessed by JR thermometer), and weight loss.

Discussion: The Committee discussed the significant change with emphasis on the rational for the fast, the duration of the fast, whether or not additional animals would be used and the anesthesia used for the terminal surgery.
Motion: A motion to approve the Significant Change with suggested clarifications was made and seconded. Clarifications were: 1) No additional animals would be used. 2) The dose of ketamine/xylazine would be 130ketamine/8.8xylazine. 3) The CLP/sham mice would only be fasted (food only) for up to 24 hours.

Vote on the Motion: The Significant Change was approved unanimously with 19 members voting in favor.

Approval of the October 16, 2014 IACUC Meeting Minutes

The IACUC Chair called for approval of the minutes.

Motion: A motion for approval of the Meeting Minutes was made and seconded.

Vote on the Motion: The minutes were approved with 14 members voting in favor and 5 members abstaining.

Discussion: None.

Attending Veterinarian’s Report:

Facility issues:

Humidity: Out of range humidities have been reported in most of the rodent facilities and no clear signs of disease have been noted. There is a new article on the lack of relationship between humidity and ringtail in rodents. This article would be sent to the IACUC for review.

At the WaNPRC, there had also been low humidity and two animals developed a bloody nose and another animal developed nasal discharge and sneezing that may have been associated with the sudden drop in humidity. All animals responded well to treatment.

Temperature:

- On 11/4/14, the water temperature in a fish room housing Medaka, dropped to 24.3°F during a water change. It came back up quickly.
- On 11/11/14, the temperature in a decentralized mouse facility dropped to 60.4°F. Facility services responded and it was fixed by the next day.
- On 11/25/14 at 11pm, the temperature in one mouse room of a centralized facility reached 80°F. The building fans had shut down, presumably due to a power alteration. They were restarted and the problem resolved quickly.
- On 10/26/14 at 8:32am, a different rodent area (2 rooms) reported high temperatures (80.4°F) associated with a failure in a damper that was probably also secondary to a power alteration. Other rooms were higher than normal, but within the range of The Guide. The problem was identified and fixed by 10:45 that morning.

Protocol Monitoring:

There are 17 protocols on the Veterinary Monitoring program. No protocols have been added to or removed from protocol monitoring this month. Those that were active progressed as expected.
Adverse events:

- On 10/3/14, 1 of 3 mice in a cage receiving a special liquid diet was found with its mouth stuck in the opening of a commercially-available glass j-feeder designed for liquid rodent diets. This cage was 1 week into a matched-fed diet study, and was fed a measured amount of standard control liquid diet. Because this cage is given a fixed amount of the diet, often the feeder is empty by the next feeding time. The group has performed similar experiments using these feeders, and 108 mice have been fed liquid diets from the feeders continuously for 8 weeks with no complications. This is the first problem they have experienced with the feeders. This type of feeder was chosen for the study because it is commercially available, specifically designed for the use of the liquid diet formulations that are used by the lab, and it is commonly used in the literature. The j-feeders are autoclaved and replaced weekly; the contents are monitored and refilled daily. In this case however, there was a “hut” next to the feeder. The affected mouse was standing on the hut, with its head in the feeder. The mouse was freed from the feeder and euthanized due to the extent of soft tissue injury. The feeder was inspected and no defects were found.

It was suspected that the incident occurred because the hut was next to the feeder, which allowed the mouse a different angle to get its head into the feeder. Veterinary Services has proposed that the huts, which and feeders be kept at opposite ends of the cages to potentially prevent this occurrence in the future.

This has been reported to OLAW.

- In a centralized rodent facility, on 10/6/14 one of three mice was found dead in a cage. The remaining 2 mice were dehydrated on presentation, and recovered with supportive care. The cage was on a rack that received automatic watering but the cage did not have a lixit.

At the April IACUC meeting, an incident from 4/4/14 was reported which occurred in a different centralized animal facility. In that case, it was a breeding cage that was found without a lixit. The female was found dead, there was a litter of pups missing, and the male recovered. At that time it was explained the there were two errors that had to be made in order for the error to happen. First, the cage would have been removed from the washroom in that facility without anyone noticing that it did not have a lixit. Second, all new cages should be toggled when animals are added to them. It could not have been toggled if there was no lixit.

In response to the incident in April, all animal technicians at all facilities were retrained. An educational campaign was undertaken to alert investigators that they should only transfer animals in transfer cages and not home cages. Cage inventory was initiated to assure cages are marked with the correct initial for the facility. New carts were placed in the dirty and clean washroom, labeled for supplies that end up there from another facility, to facilitate their removal. Finally, AUTS developed a poster to remind people to look for the lixit on their cages as well as a facility wide e-mail that contains a photo to emphasize the same thing. A new working guideline was developed by DCM to address this issue.

In the incident last month, the cage was unlabeled. DCM staff has been working on another solution because the facility supervisors did not think the labeling really helped the staff in the room as the labels needed to be on the back or side in order not to interfere with visualization of the mice in the cage. They have now come up with a “red dot” solution. All water bottle cages will have the red dot, all non-water bottle cages would not have a dot.
Motion: A member moved to send DCM a letter of counsel asking that they notify the IACUC of the
date all water bottle cages are correctly labeled with the red dot, and how they have trained
technicians and researchers, and how they will assure that such labeling continues. The motion was
seconded.

Vote on the Motion: The motion passed unanimously with 19 members voting in favor.

On October 29, 2014, one cage of mice in a decentralized facility was found dead and the water bottle
on the cage was empty. Other water bottles in the room were low, as they were due to be changed
that afternoon. The technician responsible for checking the water did check the room the day before
and did not observe a problem. The mice in the cage were knock out mice that were missing an
enzyme expressed in the hypothalamus. Whether that could have had an effect on the response of
these mice is unclear.

The Attending Veterinarian met with the investigator and technician involved. They are going to add
an extra individual to do an AM check in their decentralized facility, as the technician involved comes
in later in the day on weekdays. They also will diligently check the water bottles for leaks.

This has been reported to OLAW.

Motion: A motion was made to send a letter of counsel asking that they notify the IACUC of changes
that have been made in lab management to ensure that water in the bottles do not get too low. The
motion was seconded.

Discussion: The Committee discussed the circumstances that would have caused the mice to be
without water and the impact on the strain of the mice.

Vote on the Motion: The motion passed unanimously with 19 members voting in favor.

A shipment of six glass catfish were receive by a decentralized investigator on 9/11/14. The student
responsible for the care of the fish had been given a detailed protocol regarding water quality
parameters required for these fish. In addition, he had completed the decentralized care and records
class. The water quality was not set up as directed. Four of the fish developed illness and died.
These were not reported to veterinary services either when they were noticed to be sick or when they
died. The remaining 2 fish developed illness, were reported by a facility person that was not a
member of the group and were subsequently euthanized by the veterinary staff.

In the opinion of the Attending Veterinarian, the care provided to the fish was below the standard
expected at the University of Washington. The investigator has decided not to pursue the study and
there are no fish approved on the protocol and this investigator has no other protocols.

This event was reported to OLAW.

Motion: A member moved to send the investigator a letter of counsel indicating that if animal work
is proposed in the future, care must be taken to follow all University policies.

Discussion: The Committee was reminded that this was the second non-compliance on the protocol
involving the student and discussed whether or not the IACUC should also send a letter to the
undergraduate involved.
Revised Motion: A member moved to send the PI a letter of reprimand to remind the PI of the importance of ensuring proper oversight of his animal use protocols and also the importance of following all University policies if animal work is initiated in the future and to ask for a reply indicating the steps that he will take to prevent future occurrences of this nature. Additionally, a motion was made to send the student a separate letter of counsel to stress the importance of adhering to University policies and standards of care. These motions were seconded.

Vote on the Motion: The motion passed with 17 members voting in favor and 2 members opposed.

Office of Animal Welfare Director’s Report

Copy To Committee Report

Since the October 16, 2014 meeting there were 95 items that were sent to the IACUC. There were 7 that were urgent and were sent via email and the rest were posted on Catalyst. There were 2 new projects, 16 renewals of which, 6 were 3-year renewals requiring a complete Project Review Form. There were also 77 significant or minor changes. The IACUC has completed its approval process for most of these items, although some are awaiting final approval due to holds for items such as EH&S approval, OH review or revisions from PI’s.

Liaison Trend Report

October – 49 meetings occurred out of 85 (32 didn’t occur because of non-responsiveness or postponement). 88% no issues; 15 administrative fixes and 6 amendments.

Responses to Non-compliances:

Response to letter of Counsel regarding the extended duration MRI anesthesia reported at the October meeting.

- In the IACUC protocol submission and planning stages, additional time will be calculated into the proposed experimental length, to account for potential delays such as the one encountered during the incident in question. The specific nature of this delay involved troubleshooting MRI scanner parameters (e.g., TR, TE, field of view, resolution) to optimize coil performance for the tissue conditions of the macaque. This is particularly relevant for the first animal in a study, and therefore the protocol will be designed with this in mind.
- When performing any such imaging experiment, a member of our laboratory will be determined to be the senior protocol compliance member, to provide an additional layer of oversight.
- As is currently practiced, we will continue to have all members of an experiment read the IACUC protocol prior to the experiment.
- Specific key details relevant to the IACUC protocol (e.g. experimental length, number of blood draws, volume of injection, number of scans, etc.) will be printed and posted in the scanner console room during the experiment, for reference of all laboratory members.
- The IACUC protocol text itself will be on-hand in the laboratory or scanner console room for immediate reference (as is our current policy).
Response to letter of Counsel regarding the tissue biopsies in bats reported at the last meeting. Significant change has been submitted and is being processed.

Response to letter of counsel reported at August IACUC meeting regarding unapproved surgical procedure.

I will ask each member of my team to send me a copy of a significant change when they submit it to IACUC office.

- When performing any in vivo experiments, a senior member from my group will provide an additional layer of oversight.
- We will make sure that all members read the IACUC protocol prior to an in vivo experiment.
- We will have monthly team meetings to discuss our animal protocols among the team members.
- We will consult our ICAUC liaison, Kelly Heffernan, more frequently in the future. We have scheduled a meeting with her this month (Nov 21).

Non-compliances:

No non-compliances to report.

Housekeeping Items:

Training:

Feb. 23, 2015 – NWABR IACUC member training – registration will be coming out towards the end of the year.

Assessing electronic database options for protocol submission, review and storage – join the Users Advisory Group.

IACUC Sharepoint site – will be storing relevant documents for IACUC members in this location.

Documents for IACUC Meetings – The use of printed materials would be phased out over the next few meetings. Items for review would be provided electronically. Members requiring printed documents should request them.

Forms, Policies, Procedures and Guidance Documents - Continued

- Nonhuman Primate Social Contact Introduction Procedure – A member explained that the SOP and supporting documents were being presented to the IACUC for routine periodic review. Updates to the SOP were summarized for the IACUC, with emphasis on the use of cameras rather than staff observation for pair introductions.

  Discussion:  The Committee discussed the process for social introductions and how the proposed changes would improve the process.

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

  Vote on the Motion:  The SOP was approved unanimously with 19 members voting in favor.
Protocol Review Continued:

Dr. Fetz, 2326-08 “Brain Computer Interface

A member summarized the goals of the project and explained that there were 4 Significant Changes being presented.

- Significant Change, V.101 – A member explained that the Significant Change was for the approval of one surgery to repair or revise existing implants. The animal’s surgical and clinical history was summarized for the Committee.

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

  Discussion: The Committee continued to discuss the animal’s history with an emphasis on the number of anesthetic events that the animal had experienced.

  Vote on the Motion: The Significant Change was approved with 17 members voting in favor, one member abstained. One member had left the meeting and was not present for the vote.

- Significant Change V.102 – A member explained that the Significant Change was for the approval of one surgery to repair or revise existing implants. The animal’s surgical and clinical history was summarized for the Committee.

  Discussion: The Committee discussed the clinical issues associated with the animal, which were primarily related to gastrointestinal clinical issues rather than issues associated with experimental procedures. A member asked if the research experiments could continue without this animal. It was explained that they could, but another animal would need to be placed on the study. In the case of this animal, the project is almost completed.

  Motion: A motion to approve the Significant Change was made and seconded. As part of this motion, the Committee also determined that if additional surgeries were requested for this animal, information about how long the animal will need to remain on study should be provided as well as a full case report.

  Vote on the Motion: The Significant Change was approved unanimously with 18 members voting in favor.

- Significant Change V.103 – A member explained that the Significant Change was for the approval of one surgery to repair or revise existing implants. The animal’s surgical and clinical history was summarized for the Committee.

  Discussion: None

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

  Vote on the Motion: The Significant Change was approved unanimously with 18 members voting in favor.
• V.104 – A member explained that the Significant Change was for the approval of one surgery to repair or revise existing implants. The animal’s surgical and clinical history was summarized for the Committee.

  **Motion:** A motion to approve the Significant Change was made and seconded.

  **Discussion:** None

  **Vote on the Motion:** The Significant Change was approved unanimously with 18 members voting in favor.

**Forms, Policies, Procedures and Guidance Documents - Continued**

• **Pet Owner Consent Form:** A member explained that the Pet Owner Consent form was used when pets were enrolled as part of research projects. The form has been used on individual projects but had never been voted on independently.

  **Motion:** A motion to approve the Pet Owner Consent Form was made and seconded.

  **Discussion:** The Committee discussed the types of studies that would necessitate the use of the form.

  **Vote on the Motion:** The form was approved with 18 members voting in favor.

• **Veterinary Verification and Consultation Standard Operating Procedures (SOPs)** – A member summarized the following 3 policies for the IACUC. It was explained that the documents would be stored in a central location that the IACUC would have access to. If changes are made to the documents, the IACUC will be notified through the CTC process and given an opportunity to request clarification or further review.

  1) Veterinary Verification and Consultation of Timing of Procedures, Timing of Administration of Agents, and Changes in Procedures
  2) Veterinary Verification and Consultation of Agents Administered to Animals, changes in Dose, Agent or Route
  3) Veterinary Verification and Consultation of Anesthetic Protocols

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

  **Discussion:** None.

  **Vote on the Motion:** The SOPs were approved with 18 members voting in favor.

• **Experimental Tumor Growth Monitoring and Endpoints Policy** – The policy was summarized for the IACUC so that they would have time to consider it before being presented for a vote at the December meeting. The Committee was given two weeks to submit comments.
• **Site Visit Guidance Document** – An IACUC member updated the Committee on the status of the guidance document. The updated Site Visit Report Form would be presented to the IACUC for review at the December meeting and training on the use of the new form would be provided.

• **Annual Renewal Form** – An IACUC member summarized the changes that had been made to the form.

  **Motion:** A motion to approve the revised form was made and seconded.

  **Vote on the Motion:** The revised form was approved unanimously with 18 members voting in favor.

**Closing Business:**

The meeting was brought to a close at 5:09 pm. The floor was opened to public comment.