Members Present: T. Brabb  C. Goodwin  R. Murnane
A. Burich  C. Hotchkiss  J. Muster
C. Carrier  L. Kinman  M. Newman
E. Clark  P. Lang  J. Stoloff
S. Cunningham  M. Lucas  J. Sullivan
D. Fitts

Members Absent: S. Brockerhoff  J. Clark  A. Leache
M. Byers  C. Grue  G. McLean

Opening Business:

Dr. Cunningham called the meeting to order at 2:32 pm.

Dr. Cunningham introduced Ms. Harvey the Lab Survey Team Supervisor for Environmental Health and Safety (EH&S) who came to talk to the group about securing CO$_2$ tanks. Ms. Harvey explained that the regulations state that tanks should be secured so that they cannot fall down, but the “Best Practice” is for them to be secured by 2 straps. Tanks can be secured by a single strap as long as the strap is securely attached to a wall or something solid and unmovable and the tank could not slide out from underneath the strap.

Below is a description from the EH&S website of how a tank should be secured:

**Securing of compressed gas containers, cylinders and tanks must be by one of the following methods:**

- Secure with a bracket, chain, strap or other approved restraint to a fixed object such as a wall or bench. It is recommended that the cylinder be secured by two straps or chains located at 1/3 and 2/3 of the cylinder height above the floor, because cylinders secured by a single strap have been found to escape the strap during an earthquake.
- When being moved and when routine mobility is necessary, secure to a cart, hand truck or other mobile device designed for the movement of compressed gas containers, cylinders, or tanks secured to or within a rack, framework, cabinet, or similar assembly designed for such use.

Dr. Fitts asked for confirmation that improperly secured tanks should be identified as an IACUC deficiency. Dr. Brabb confirmed that they should be because it is an occupational health and safety hazard, which the IACUC must address. If there is a question as to whether or not a tank is secured properly, the IACUC can consult with the appropriate group to confirm whether or not the tank is properly secured.

Approval of the September 19, 2013 IACUC Meeting Minutes

Dr. Cunningham called for approval of the September 19, 2013 Meeting Minutes.
Motion: Mr. Muster moved to approve the Minutes as written. Dr. E. Clark seconded the motion.

Discussion: none

Vote on the Motion: The minutes were approved unanimously with 15 members voting in favor.

Attending Veterinarians Report:

Facility Issues:

Dr. Brabb reported that on September 28 and 29, 2013 there was a small amount of flooding in the new SLU-3.1 animal facility. All of the rooms had some water on the floor on the evening of September 29, 2013 and staff worked through the night to clean up the water and resolve the problem. The “check valve” that should solve the problem had not been installed at that time. The “check valve” was received and was installed on October 4, 2013. They will also put in a manual shutoff as a secondary prevention mechanism. Dr. Cunningham asked if the Animal Technicians will know where the shutoff valve is and Dr. Brabb explained that the valve is not in the animal facility and would be the responsibility of the maintenance staff.

Adverse Events:

• Dr. Brabb explained that on October 8, 2013, one row of 5 cages flooded at the SLU-3.1 facility. Due to the rapid response by the facility and veterinary personnel, only three pups died although five cages were affected. The remaining animals recovered.

The flood occurred because a test cage used to test the water in the rack as a whole was placed on the rack and left in place. Test cages do not have traditional lixits, but engage the watering system and water fills the cage. Test cages can be used to remove air from the water lines or test that each water port is working properly. Test cages are clearly labeled and have distinct markings that make it very clear they are not normal cages. In this case, the test cage was inadvertently left on the rack and pushed in to engage the watering system. The water filled the cage up so that the water could run back through the air plenums and flood the whole row of cages below.

Numerous corrective measures were discussed and the Department of Comparative Medicine (DCM) decided that the safest decision was to eliminate the use of test cages and use other methods to drain water and test the ports. The test cages have been removed from all animal facilities. This event will be reported to OLAW.

Dr. Cunningham asked if any action needed to be taken. Dr. Brabb commented that she did not feel that any action by the IACUC was needed because the animal technician had been counseled and DCM had already resolved the issue by no longer using the test cages.

There were no concerns expressed by the Committee so no additional action will be taken.

• **4073-01**: The purpose of this protocol is to study treatment interventions for cocaine addiction. As part of this research, rats receive an infusion of cocaine if they press a lever during a 6-hour trial. The lab has specialized testing chambers with numerous sophisticated
computer controlled recording devices and cameras to run these experiments. You can’t see in the chambers, but can see the animals with the cameras. On September 5, 2013, the lab was conducting an experiment during severe thunderstorms that were affecting our region. No one was in the room with the testing chambers. The staff was in the adjacent room when they heard disturbances in the testing room. When they came in the room, the testing chambers were going haywire: locks were locking and unlocking, lights changing, cameras flickering, and numerous other unusual events. The circuit board controlling the computer had been hit by a severe power surge (probably associated with a lightning strike) and caused the circuit board to perform the erratic behavior. The investigator tried to disconnect all the rats, but before he could stop the process, 5 rats had received fatal doses of cocaine. The circuit board was burned. The computer/circuit board was protected by a surge protector, but that was not sufficient to prevent the damage. This event has been reported to OLAW.

The members of the lab have discussed numerous potential fixes for this problem. Their immediate response was to not do any experiments when there are thunderstorms, and since this is a rare phenomenon in Seattle, this may be the best solution. Other electrical solutions are being explored, although none seem certain at this point.

Dr. Brabb reminded the IACUC that the PI had a similar occurrence due to a power failure a year ago. This was reported to OLAW.

**Motion:** Dr. Brabb moved to send a letter of counsel to the investigator acknowledging the occurrence of the event and to request a reply summarizing their plans to prevent a reoccurrence of this type in the future. Dr. Fitts seconded the motion.

**Discussion:** Dr. Fitts asked if a surge protector was in use. Dr. Brabb said that it was, but the electrician she consulted said that a normal surge protector would not be enough protection for this type of lightning strike.

**Vote on the Motion:** The motion was approved unanimously with 15 members voting in favor.

- **3441-05** The primary goal of the research is to non-invasively diagnose and stage cancer by targeting unique molecular signatures as well as selectively treating tumor cells while sparing neighboring normal cells. On September 26, 2013, ten female nude mice had laparotomies performed to inject tumor cells into the liver. On September 27, 2013, two mice (one from each cage) were found dead and another mouse was observed to have a 1-2 cm segment of suture protruding from the skin adjacent to the incision site. While this mouse was being examined to evaluate the loose tag of suture the wound dehisced to the level of the abdominal cavity and the mouse had to be euthanized. Post-mortem examination of the surgical site indicated that the body wall and skin had been closed with a single layer of suture with a continuous suture pattern. A break in the suture had then led to failure of the entire suture line. Members of the laboratory confirmed that this animal had been closed with a single layer due to a low supply of suture material. This event was an exception to the group’s normal two-layer closure method. The group regretted the incident and appreciated the serious nature of this deviation. On October 16, 2013 a follow-up examination was performed on the seven remaining mice in the cohort and no additional complications were found and all incision sites were well healed. The veterinary staff will be present during the
next surgery performed by these individuals to verify proper technique and ensure that all appropriate surgical practices are being followed. This event will be reported to OLAW.

Motion: Dr. Brabb moved to send a letter of counsel to the investigator as well as to the individual surgeon involved and ask for a reply summarizing actions taken to prevent future occurrences of this nature. Dr. Fitts seconded the motion.

Discussion: The Committee discussed the event, which was likely a result of poor pre-surgical planning and lack of judgment. Dr. Fitts asked if the surgeon had taken the rodent training class. Dr. Brabb replied that the surgeon had been exempted from taking the class due to prior experience and she was not sure that having taken the class would have made a difference.

Dr. Sullivan suggested that the Committee could suggest that the group modify their SOP (standard operating procedures) to include checking the supplies and equipment they need a week before the surgeries are scheduled. Dr. Brabb agreed this would be a good idea and also commented that the group had been counseled that they could have called Veterinary Services and had sutures brought to them. The group acknowledged the lack of judgment and they are taking the situation very seriously.

Revised Motion: Dr. Brabb moved to send a letter of counsel to the investigator as well as to the individual surgeon involved requesting that the group revise their SOP to include checking the supplies and equipment they will need one week before the surgery and to ask for a reply summarizing actions taken to prevent future occurrences of this nature. Dr. Fitts seconded the motion.

Vote on the Motion: The motion was approved unanimously with 16 members voting in favor.

Veterinary Monitoring

Dr. Brabb gave a brief synopsis of the program for the new IACUC members. Protocols are added to monitoring by the IACUC or the Attending Veterinarian due to the nature of the research or as a result of an event. Once protocols are added to monitoring the assigned veterinarian meets with the group once a month. Dr. Brabb explained that she provides periodic reports to the IACUC on the status of the projects.

4105-01 – Dr. Brabb explained that she put this protocol on monitoring because of issues with measuring tumor size. These issues have been resolved and the protocol was being taken off monitoring.

After the removal of protocol #4105-01 there are 10 protocols actively being monitored; 5 of which involve surgical protocols, 1 that involves prolonged anesthesia, 1 that involves endpoint determination, and 3 that involve technique development. This month, Dr. Brabb added 4 protocols to the monitoring program because of concerns that arose during the IACUC review process bringing the total of protocols on monitoring to 14. One protocol involves water restriction in a rat model, one is a new surgical model in rats, one is an abscess model in rats and the final one is a new tumor model in zebrafish.
Report on packets sent:

Since the last report at the September 19, 2013 meeting 2 packets and 2 e-mailed items had been sent to the IACUC. There were 3 new protocols. There were 23 renewals, of which 5 were three-year renewals requiring a complete Project Review Form. There were 18 annual renewals. There were also 74 Significant and Minor Changes. The IACUC has completed its approval process for many of these items, though some are awaiting final approval due to holds for items such as EH&S approval, OH review or signatures, or revisions from PIs.

Reply from Researcher Regarding Non-compliance Previously Reported:

At the September 19, 2013 IACUC meeting, the Committee was informed that on August 1, 2013 an animal care technician found two male C57BL/6 mice dead in their cage. The mice had been born on July 2, 2013 and were weaned from their littermates on July 23, 2013. On the afternoon of July 29, 2013 the mice were separated from their littermates by an individual in the lab and were placed in a new cage, presumably without food. The group did not have any further contact with this cage of mice and the animal technician did not change the cage. Necropsy and histology was consistent with the finding that these mice were housed without access to food.

The Committee was aware that the animal technician in this room should have checked this cage on Tuesday and Wednesday morning, and discovered the error. The animal technician was retrained, a letter was placed in the technicians file and the facility supervisor is currently closely monitoring his work.

The Committee voted to send the PI and the graduate student a letter of counsel and requested a reply indicating what measures had been taken to prevent future occurrences of this nature. The PI and the responsible individual replied that they have taken the following actions:

1) The graduate student will double check all the newly separated or weaned cages carefully after the mice have been returned to their housing rack to ensure they have food in addition to gel and water bottles (when water bottles are used).
2) The graduate student now systematically checks the entire colony of mice whenever she is in the animal housing facility, a minimum of 3 times per week rather than solely relying on the daily checks from the animal care technicians to ensure the health of their animals.
3) The importance of performing the duties as outlined has been communicated to everyone on the protocol.

Since the last meeting there were 2 animal welfare issues reported to Office of Animal Welfare:

- 2153-08 - Four mice were found dead in a decentralized housing room and reported by investigative group: 2 separate cages
  a. 1 out of 4 mice were found dead in a cage where the water bottle was inadvertently left off the cage
  b. 3 out of 5 mice were found dead in a cage where the water bottle had run out of water
  c. The investigative group explained that these were very atypical. Due to regular staff being on vacation and the position of the rack in the room it was not easily visible to the untrained eye that the cages lacked water.
  d. CAPA (Corrective and Preventive Action) submitted to OAW by the investigative staff:
i. Frequency of food, water and cage checks will be increased to twice daily on weekdays.
ii. An additional undergraduate husbandry tech will be hired, trained, and added to the protocol to provide of backup and facilitate the twice-daily checks.
iii. The number of cages will be minimized and orientation of the rack changed to increase visualization.
iv. Additional notification in case of an absence of regular staff.
e. Recommendation of the Office of Animal Welfare – that a letter of counsel be sent to the investigative group and notification of incident sent to OLAW.

Motion: Dr. Brabb moved to notify OLAW of the incident and to send a letter of counsel to the PI acknowledging the incident and the corrective actions taken. Dr. E. Clark seconded the motion.

Discussion: Dr. Cunningham clarified that this was a decentralized facility and that there were no DCM people responsible for checking on these animals. Dr. Brabb concurred.

Vote on the motion: The motion was approved unanimously with 16 members voting in favor.

• An anonymous animal welfare concern was made regarding potentially unapproved procedures being performed. Procedures described were behavioral evaluations and biospecimen collection. The concern was thoroughly investigated and no non-compliances were identified (behavioral evaluations that have been done to date are cage side and would not require protocol approval and biospecimen/hair collection is approved in the protocol). Dr. Thompson-Iritani recommended that the Committee consider the investigation complete.

Facility Extension Requests

Site Visit Deficiency Completion Deadline Extension Request:

Dr. E. Clark informed the IACUC that there was one extension request as follows:

Site: Harborview Research & Training B029A
Deficiency: Door lock repeatedly makes a hole in the wall when opening the door.

Original Citation: 7/24/13
Original Deadline: 9/30/13
Extension Deadline: 11/30/13

Reason for request: The group was requesting an extension for correction of the deficiency because they are having difficulty scheduling the repair because the engineering department is undergoing a transition. The current HR&T building engineer is being replaced and the new crew has not taken over yet. The new engineers will not start until the end of the month. As a result, the group is requesting that the deadline be extended to November 30, 2013.

Motion: Dr. E. Clark moved to extend the deadline to November 30, 2013. Dr. Newman seconded the motion.
Discussion: Dr. Brabb asked if B029A was a procedure room. Dr. Fitts confirmed that it was. Dr. Fitts suggested that the Committee extend the deadline until December 31, 2013 to allow for time to fix the hole in the wall as well as put a doorstop on.

Revised Motion: Dr. E. Clark moved to extend the deadline to December 31, 2013. Dr. Newman seconded the motion.

Vote on the Motion: The deadline extension was approved unanimously with 16 members voting in favor.

Standard Operating Procedures, Policies and Guidelines:

Environmental Operating Enhancement SOPs:

• B.1063 EE for Rabbits
• B.1067 EE for Dogs
• B.1068 EE for Cats
• B.1070 EE for Swine
• B.1095 EE for Gerbils
• B.1079 EE for Bats
• B.1069 EE for Ferrets
• B.1084 EE for Amphibians

Dr. Brabb summarized the changes that were made to the SOPs.

Discussion: The Committee discussed the Environmental Enrichment Group for the Department of Comparative Medicine and the Wa National Primate Research Center. The Committee for DCM is composed of a veterinarian, usually a veterinary resident, and then the rest is animal care staff.

Ms. Goodman asked how frequently exceptions are reviewed. Dr. Brabb replied that exceptions are part of the veterinary record and are normally reviewed every day.

Motion: Dr. Brabb moved to approve the Environmental Enrichment policies. Dr. E. Clark seconded the motion.

Discussion: None

Vote on the Motion: The SOPs were approved unanimously with 16 members voting in favor.

• Permissible Weight Loss Policy

Dr. Brabb brought to the Committee for review the policy about “Permissible Weight Loss”. She made a change based on the Committee discussion during the last IACUC meeting. The change is in the last paragraph of the policy “Criteria in addition to body weight measures might be used for rapidly growing animals, animals with tumors, or obese animals. Body condition scoring can be used in addition to or instead of weight measures when appropriate.”

Motion: Dr. Brabb moved to approve the revised policy. Mr. Muster seconded the motion.
Discussion: Dr. Sullivan asked if this policy applied to all species and Dr. Brabb replied that it did.

Vote on the motion: The policy was approved unanimously with 16 members voting in favor.

• Ether Use Policy:

Dr. Brabb explained that she did not make many changes to the policy. Ether should only be used in rare and very clearly justified cases. Environmental Health and Safety has guidelines items that should considered if someone is using ether. There is no one currently using ether and it hasn’t been used for many years but it seemed wise to keep the policy up to date in case someone proposed to use it.

Motion: Dr. Brabb moved to approve the policy. Dr. Sullivan seconded the motion.

Vote on the motion: The policy was approved unanimously with 16 members voting in favor.

Subcommittee Updates:

• Pilot Project Review Forms
Dr. Istvan reported there are 11 investigators using the new form with a good distribution across the University Community and they are still hoping to get someone from the non-human primate center to participate. He hopes that by November they may be able to sit down and assess the metrics to see if it had the effect they were hoping for.

• Nonhuman Protocol Reassignment
Dr. Newman reported the next meeting is scheduled for October 24, 2013 and Dr. Hotchkiss and others from the primate center are working on a revised draft of the policy.

• Site Visit Guidance Document
Dr. E. Clark said they had their second meeting and the smaller groups are continuing to work on the species and location specific sections. They are trying to find generalizations across species for site visits. They have gone on a few field trips to less represented species to gather information. The next meeting is scheduled for November 2013. Dr. Cunningham commented that this should make the site visits better and more consistent.

Closing Business

The meeting was brought to a close at 3:27 pm. The floor was opened to public comment.