

University of Washington
July 15, 2021 IACUC Meeting Minutes

Members Present: AB JPVH KM
 AC JS KS
 CM LM* MB
 DM ME** SRH
 JM
 GS

Members Absent: AW JA MK
 MRK SL

*Alternate for ME

**ME joined 2:57pm, LM became Alternate

Opening Business

- The IACUC Chair called the meeting to order at 2:34pm.

Confirmation of a Quorum and Announcement

- Quorum was confirmed by ZR.

Approval of the IACUC Meeting Minutes

- The IACUC Chair called for the approval of the JUNE 17, 2021 meeting minutes.
Motion was made and seconded: to approve the minutes as written.
Further Discussion: none
Vote: Approved with 10 members voting in favor, 0 against and 4 abstentions.

Benefit Story – JS

I want to update the IACUC on a recent breakthrough from the Murry lab. I have spoken to you before about this group's use of stem cells to repair damaged hearts in pig and monkey models of heart disease. One of the big challenges has been the development of dangerous irregular heartbeats as the engrafted stem cells mature and start beating at a faster pace than the original heart cells.

Over the past several years, the Murry group has been figuring out which genes are turning on in the engrafted stem cells as the heart begins to heal and then to become arrhythmic. The researchers fed this information into a computer model and identified the top candidates for the genes responsible for the arrhythmia. Then they established a procedure using the gene-editing technique known as CRISPR to selectively delete three key genes and add DNA for a fourth gene into the stem cells before transplanting them into the heart.

Last month, the Murry lab reported that these genetically altered stem cells were able to engraft in pigs without inducing arrhythmia. The next step will extend the study to a non-human primate model before initiating human clinical trials. I look forward to providing additional updates as this important work advances.

University of Washington
July 15, 2021 IACUC Meeting Minutes

Attending Veterinarian's/OAW Director's Report - KS

AV/OAW Director's Report to IACUC – July 2021

- Training program updates – Updated Laws and Regulations online lesson.
- IACUC metrics- see meeting documents
- Facility issues:
 - Lights:
 - At ARCF on a Friday night, lights failed to turn off for the dark cycle and remained on during the Saturday and Sunday dark cycles. On Monday morning, it was determined that the lighting relay had failed at switch over from the ON to the OFF (dark) cycle so the lights remained on. Mice were moved to another room on Monday until repairs could be made. Upon investigation into the monitoring system, it was found that the on-call personnel's contact information was not programmed for facilities' lighting alarms, and as such personnel were not notified of the lighting alarm. This issue has been resolved as well as repairs made to the lighting relay.
 - Temperature:
 - Temperature fluctuations in some housing rooms June 26-28 due to extreme outdoor heat and some pre-planned work:
 - There were several different HVAC/cooling issues that lead to increased temperatures in some of the 6th floor vivarium areas, CHDD housing room and the Western building. These issues included chillers going off-line for a short period of time, and not enough chilled water for cooling due to excessive demand. During these events, NHP housing rooms got warmer than normal, but the temperatures in most rooms did not exceed the Guide maximum of 84 degrees except for one compound area that reached 88 for less than 3 hours. In the impacted DCM areas, fans and air conditioning units were brought in and the hallway doors propped open to keep room temperatures in the high 70s/low 80s. Despite these actions, mice in CHDD and a couple of rooms on the 6th floor were moved to different housing rooms that have better temperature control during warm weather. No affects to the animals were noted.
 - On June 28th, K-wing room temperatures became low and went into alarm due to reduction in outside air temperatures overnight and the fact that planned work had required that there was only chilled water and no reheat available in the HVAC system serving that space. The chilled water was turned off which allowed the room temperatures to rise. The planned work was completed by noon that day and the entire HVAC system was brought

University of Washington
July 15, 2021 IACUC Meeting Minutes

back online. Low temperatures lasted about 4 hours with 63F being the lowest temperature. No affects to the animals were noted.

Motion was made and seconded: to send letter of commendation in appreciation of the dedication to animal welfare shown by several DCM staff during this extreme heat event.

Further Discussion: none

Vote: Approved with 14 members voting in favor, 0 against, 0 abstentions.

Member joined at 2:57pm

- Protocol Monitoring:
 - Nineteen total protocols. Of the protocols, eight involve surgery, one restraint (and sx), 2 tumor modeling, 8 miscellaneous (tape skirt, infection, water quality, prolonged anesthesia). Ten are inactive right now.
 - Adverse Events:
 - 2161-24: 6 days after weaning, a cage of 4 mice were found dead in the cage with no food in the hopper. There were very few fecal pellets on the cage floor and a necropsy revealed no food in the stomach. The lab members reported having not handled the cage since weaning and the cage had not been changed. Corrective Actions: The animal technician in charge of that room underwent re-training in detection of problems such as low food, water, and other concerns. The lab personnel were reminded of proper weaning procedures.

Reported to OLAW.

The AV confirmed this was the lab's first instance of this type of adverse event. Also, while these types of adverse events are unfortunate, they are extremely rare events relative to the total number of cages in the facilities. The AV reviewed the on-going efforts to decrease the incidences of these types of events including re-training of DCM staff and researchers, the "mystery cage" program, and increased emphasis on ensuring food and water in the cage in updated on-line training lessons and during lab visits by OAW liaisons.
 - Non-compliance: None
- From Arizona
 - Facilities items: No items to report.
 - Adverse events: No adverse events to report.

University of Washington
July 15, 2021 IACUC Meeting Minutes

Standard Operation Procedures / Policies / Guidelines

- Standard Procedures Review – KSH
 - 23 procedures were up for standard 3-year review.
 - 2 included wording updates.
 - 4 included updates to embedded substance administration procedures.
 - 17 included no changes.

IACUC member asked if there are any drug supply issues due to the pandemic. The AV confirmed there have been supply issues with pentobarbital and that alternative substances are available.

Motion was made and seconded: to approve the updated standard procedures as a block

Further Discussion: none

Vote: Approved with 13 members voting in favor, 0 against, 1 abstention.

- Post-operative monitoring and wound closures – KS
 - Description/Discussion: This is part of the standard 3 year policy review cycle. The Primate Center wanted inclusion of some general guidance and formal expectations around surgical closures and thus, a fair amount of information has been added to this policy. The AV would like a title change to Post-operative Monitoring and Surgical Closures to reflect inclusion of surgical closures. This revision contains just general guidance around surgical closures, so veterinary consultation is still recommended.

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

Further Discussion: none

Vote: Approved with 14 members voting in favor, 0 against, 0 abstentions.

Semi-Annual Program Review – BE

- All IACUC members have access to the draft report
- IACUC does require a concurrence of this report that is sent to the Institutional Official

Closing Business:

The Meeting was brought to a close at 3:14pm. The floor was opened to public comment.