Members Present: AB JFI MI	Members Present:
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CG JPVH (left at 3:30pm) SL

CH KL TB(left at 3:30pm)
FRR KSH TH (remote)

JE (remote/left at 3:49pm) EC (joined at 3:30pm) JK (joined 3:30pm)

Members Absent: AS JB JS

SH JLS LJE

MS JM

Opening Business

• The IACUC Vice Chair called the meeting to order at 2:29 pm.

Confirmation of a Quorum and Announcement

• Quorum was confirmed by KC.

Protocol Review

- AMEND201800689 (2326-09) A16230 Repair Surgery **KSH**
 - o A16230 is a 5 year old male rhesus macaque.
 - Surgical history:
 - October 2017 a portion of the head stabilization device and a vagus nerve cuff were implanted.
 - December 2017 a cortical implant and the 2nd portion of their head stabilization device were implanted.
 - February of this year, he underwent a repair surgery to repair his vagus nerve cuff, which was non-functional.
 - May he had a surgery to repair the vagus nerve cuff leads.
 - He has one approved repair planned for the near future to repair the right vagus nerve cuff.

Behaviorally: This animal has no history of behavioral issues but has minor alopecia. He is currently pair-housed with a compatible long-term social partner.

Clinically: His records reflect that he is bright, alert, and responsive with a normal appetite and stable weights.

^{*}JFI vice chair for JS

^{*}KSH alternate for AS

^{*}EC alternate for JPVH

^{*}JK alternate for TB

^{*}Disclaimer: Due to technical issues and public members not able to comment, items voted in this June meeting were revoted in the Special Meeting.*

Please note that these vagus nerve cuff repairs that are planned for the near future will be the last attempt at these implants with these animals. The requested "banked" repairs will be used to repair skull implants, if needed.

A member of the research group is here to explain why the continued use of these animals is important to the research and answer any other questions you may have.

- AMEND201800689 (2326-09) A14229 Repair Surgery **KSH**
 - The goal of the proposed work is to establish a protocol for noninvasive vagus nerve stimulation (VNS) that will augment targeted neuroplasticity and enhance cognitive performance. The knowledge and technology generated by this project will aid in the development of neurorehabilitation treatments after stroke and brain injury.

A14229 is a 7 year old male rhesus macaque.

Surgical history:

On the 2326-08 protocol:

- October 2014 implanted an inguinal femoral catheter.
- March 2017 a titanium halo strap was implanted.
- May 2017 a vagus nerve cuff was implanted
- August 2017 he received a halo implant and brain electrodes
- October 2017 he had a clinical surgery to remove the connector on his head.
- December 2017 his first repair surgery was performed to repair the vagus nerve cuff.
- September 2017 the IACUC approved a request to transfer this animal to the 2326-09 protocol and the animal was transferred in February of this year.
- April of this year a surgery was performed to repair the right vagus nerve implant.
- A surgery to replace the right vagus nerve implant is planned for the near future.

Clinically: His records reflect that he is bright, alert, and responsive with a normal appetite and stable weights.

Behaviorally: This animal engages in over-grooming and has moderate to severe alopecia. He is currently pair-housed with a compatible long-term social partner. BMS has recommended standard environmental enrichment (EE) 7 days a week plus extra enrichment an additional 3 days a week. BMS also recommends TV enrichment once a week and daily audio enrichment.

<u>Motion was made and seconded:</u> to approve the repair surgery request for A14229 as written. Discussion:

There was concern raised that it wasn't made clear in the amendment what this new banked repair surgery was for. The amendment states in one place that the repair surgery could potentially be used for both the replacement of cortical implants or for repair of the vagus leads, and in another would just be used for repair of cortical implants.

Vote: Not approved with 0 in favor, 11 opposed, 2 abstained

Motion was made and seconded: to move the repair surgery request for A14229 to DMR for clarification on purpose of the repair surgery.

Discussion: None

<u>Vote</u>: Approved with 12 members voting in favor, and 1 abstentions.

<u>Motion was made and seconded:</u> to move the repair surgery request for A116230 to DMR for clarification on purpose of the repair surgery.

Discussion: None

Vote: Approved with 12 members voting in favor, and 1 abstentions.

- AMEND201800757 (4133-01) Transfer request from 4133-02 **KSH**
- AMEND201800756 (4133-02) Transfer request to 4133-01 **KSH**
 - o Transferring from: 4133-02: 2-photon imaging in awake monkeys visual cortex [PROTO201600461]

Transferring to: 4133-01: Neural Basis of Visual Shape Representation and Recognition [PROTO201600460]

This amendment requests to transfer one monkey, A15131, from protocol 4133-02 to protocol 4133-01. This research group is interested in deciphering the brain processes involved in visual shape perception and object recognition and memory.

After the protocol transfer, this animal will have 2 additional planned surgeries and repair surgeries, as need. Since this animal will have additional major survival surgeries after the transfer, a USDA Exemption is required, as outlined in USDA Animal Care Policy #14.

As part of the exemption request the group must specify the number of operative procedures to be performed and the time frame for the exemption, in addition to providing scientific justification. The group has requested an exemption period of 3 years, with a maximum of 2 additional implant surgeries and repairs as needed and approved by the IACUC.

The group is requesting to transfer this monkey from the 4133-02 protocol to the 4133-01 protocol because they no longer have the resources to continue the work on 4133-02. The overall objective of the two protocols is quite similar in that both are asking questions about object recognition in the visual path. The behavioral testing is the same in both protocols but where they differ are the techniques for measuring neuronal activity (using 2 photon imaging vs electrode recordings) and the surgeries. Since this monkey has already been implanted with a head post and begun the behavioral training, she is a great candidate to move to the 4133-01 protocol. By transferring the animal, she will undergo the same number of surgeries approved for her on 4133-02. She will have a chamber implant surgery (this is the same chamber implant surgery approved on 4133-02) and a craniotomy surgery. The craniotomy surgery for 4133-01 will be less invasive and shorter in duration than the craniotomy with durotomy and injections on 4133-02.

Motion was made and seconded: to approve both requests, the transfer and receipt of the animal from one protocol to another

Discussion: None

Vote: Approved with 13 members voting in favor.

• PROTO201800051 (4437-01) – **JFI**

o This research is designed to evaluate the ability of neutralizing antibodies to protect against rhesus lymphocryptovirus (RhLCV) infection in rhesus macaques. RhLCV is closely related to Epstein-Barr virus, a cancer-associated pathogen that only infects humans and for which there is no vaccine. Understanding how antibodies protect against RhLCV infection can inform the design of EBV vaccines.

RhLCV is endemic in rhesus research colonies. For this project, one month old infants will be hand-reared in a nursery until the age of 6-8 months. Animals may be socialized with each other in pairs during that time. Their RhLCV negative status will be confirmed, and they will then receive either a recombinant neutralizing antibody or a control antibody, followed 3 days later by oral challenge with RhLCV. The animals will be individually housed at that time to prevent viral transmission. Blood will be collected weekly for 10 weeks to assess the level of serum antibodies and the viral load. Animals that become RhLCV positive may be socially housed with each other. At the conclusion of the 10 week study, the animals are returned to the research colony.

There were some questions from the IACUC about social housing, monitoring of infection status, and a question about sterile filtration of the virus. These questions have been responded to by the PI and the responses are available in the protocol workspace. A few edits have been made to the protocol, including updating the experiment description, number justification, and husbandry exceptions to incorporate some of the language from the responses. Also, the substance administration procedure for the virus was updated to indicate a 0.45uM filter rather than a 0.2uM filter.

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

Discussion: None

Vote: Approved with 13 members voting in favor.

Approval of the IACUC Meeting Minutes

The IACUC Vice Chair called for the approval of the May 17, 2018 meeting minutes.

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

Discussion: None

<u>Vote</u>: Approved with 11 members voting in favor, and 2 abstentions.

Attending Veterinarian's Report - TB

• WaNPRC ABC Supervisory Veterinarians Report - TH

- o There was one incident where an air conditioner went out, but facilities was notified and it was repaired the same day.
- o No adverse events to report.

• Facility issues:

<u>Humidity:</u> No low humidity reports

Temperature and lights:

June 9th: Lights in one centralized rodent room did not turn on as they should have. The manual light timer had been changed. It is still unclear who changed the light timer, but the light cycle was returned to normal.

ARCF airflow: The airflow in this facility continues to have problems with differential pressures in some areas. This was noted on a recent site visit and is still an ongoing issue. HVAC technicians are in the facility now and working to solve the problem. They are estimating it will be completed by the end of June.

• Protocol Monitoring:

There are 20 protocols on the veterinary monitoring program. Of the protocols, 13 involve surgery, two restraint and surgery, one conscious restraint, 2 tumor modeling, 3 miscellaneous. There are two protocols in the process of being added to the monitoring program. The reason for placing them on monitoring is that they involve survival surgery in mice with recovery from surgery for a short period with only local anesthesia but no systemic analgesia on board. The purpose of the monitoring is to ensure the local anesthesia sufficiently blocks the pain responses. The surgery is a craniotomy and is done in order to perform imaging, which also involves restraint. Systemic analgesia is contraindicated for this study because it affect cerebral blood flow.

Adverse events:

None

• HBA Subcommittee:

The HBA committee met this month and discussed Category E designation for a protocol, and incidents of morbidity and mortality in USDA species.

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

2 Members left meeting at this point, 3:30pm.

Alternates for each joined the meeting.

OAW Director's Report - STI

• Semi-Annual Program Review – LI

o Each group of IACUC members reported out their review and recommendations for various aspects of the animal care and use program, and elicited comments and questions from other members. These findings and recommendations have been noted and will be incorporated in the draft report to be reviewed and finalized by the IACUC prior to being sent to the IO.

Adverse Events

Nothing to report

One member left meeting at 3:49pm during the group reports about the semi-annual review.

Standard Operation Procedures / Policies / Guidelines

• Surgery Training Requirements – JFI

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

<u>Discussion</u>: There was discussion regarding whether or not visiting scientists would still qualify for exemption and it was noted that the policy permits them to be assessed on a case-by-case basis. <u>Vote</u>: Approved with 12 members in favor.

Other Business

- **JFI** A subcommittee will be formed to make recommendations on dual assignment of animals.
- **JFI** A demonstration was given on how to look at all items that are currently in the state of "Committee Review".

Closing Business:

The Meeting was brought to a close at 4:14 pm. The floor was opened to public comment.