Members Present:	AS	JFI	LJE
	CH (left at 1:25)	JM	MS
	JB	JPVH	TB
	JE	JS	TH (remote)
Members Absent:	AB	JLS	SL
	CG	KL	SH
	FRR	ML	

Opening Business

• The IACUC Chair called the meeting to order at 1:02 pm.

Confirmation of a Quorum and Announcement

• Quorum was confirmed by KC.

Protocol Review

- 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 had 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.

• AMEND201800689 (2326-09) – A16230 Repair Surgery – KSH

- 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.

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, lead wire lead repairs, cortical implants if needed.

Vets were not able to see the erosion due to the chamber but the group does check the animals everyday.

Motion was made and seconded: to move the repair surgery request for A14229 as written. Discussion: None Vote: Approved with 12 members voting in favor.

<u>Motion was made and seconded:</u> to move the repair surgery request for A116230 as written. <u>Discussion:</u> *None* Vote: Approved with 12 members voting in favor.

- AMEND201800757 (4133-01) Transfer request from 4133-02 **KSH**
- AMEND201800756 (4133-02) Transfer request to 4133-01 **KSH**
 - 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.

Age: 11 years old This animal has begun training for behavioral tests.

<u>Motion was made and seconded:</u> to approve both requests, the transfer and receipt of the animal from one protocol to another <u>Discussion:</u> *None* <u>Vote</u>: Approved with 11 members voting in favor and 1 abstention.

- PROTO201800051 (4437-01) JFI
 - 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.

Will individual housing cause issues to the result of this study? PI was not concerned. Infants are being individually housed until RhLCV status is determined and will ultimately be rehoused with the colony. Infants will stay in pairs until they are determined to be RhLCV negative. Individually housed infants will be able to see other primates and will have contact with humans and will be given extra enrichment. Animals will be constantly evaluated by the WaNPRC BMS group.

MEMBER LEFT meeting at 1:25pm.

Motion was made and seconded: A motion to approve the protocol as written. Discussion: *None* Vote: Approved with 8 members voting in favor, 1 opposed, and 2 abstentions.

Approval of the IACUC Meeting Minutes

The IACUC Chair called for the approval of the May 17, 2018 meeting minutes.
<u>Motion was made and seconded</u>: to approve the minutes as written
<u>Discussion</u>: *None* <u>Vote</u>: Approved with 10 members voting in favor and 1 abstention.

Standard Operation Procedures

Surgery Training requirements

Added time limitations that were discussed, for rodents. 2nd lab 1 year for certification Exemptions specified. Clarified visiting surgeons exemption status.

> Motion was made and seconded: to approve the policy as written Discussion: None Vote: Approved with 11 members voting in favor.

Other Business

Next meeting, there will be an update on HW infant and mother.

Convening of Dual Assignment Subcommittee Contact JFI if interested in participating

Closing Business:

The Meeting was brought to a close at 1:32 pm. The floor was opened to public comment.