

NASA Institutional Animal Care and Use Committee

Meeting Minutes

14 November 2018

CONFIDENTIAL

MEMBERS PRESENT (Voting)

(b) (6), (b) (7)(C), (b) (7)(F)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(ex officio)

SC: (b) (7)(E), (b) (7)(F)

LifeSource (b) (7)(E), (b) (7)(F)

SLR: (b) (7)(E), (b) (7)(F)

DL: (b) (7)(E), (b) (7)(F)

MEMBERS ABSENT

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

LifeSource (b) (7)(E), (b) (7)(F)

Community Member

GUESTS PRESENT

None

Meeting started at 9:10AM with a quorum present.

AGENDA

I. Old Business

- a. Reminder that the AAALAC Site Visit will occur during the first part of 2019. The program description will be due the end of 2018.

II. New Business

- a. The NASA Animal Policy Review Board (APRB) meeting was held in October, (b) (6), (b) (7)(C), (b) (7)(F) attended. Topics discussed included a request from the ISS Office to create a "baseline" for animal housing in flight, which should include huts as a part of basic housing for shelter and sleeping. The Chair attended the American Society for Gravitational and Space Research (ASGSR) conference after the APRB meeting
- b. There may be a government shutdown, beginning 7 December. (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) is working with security, etc. to ensure no disruption to work inside the animal care facility.
- c. Master Protocol Update: no work performed since the last meeting.
- d. Veterinary Update: (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) reviewed animals currently in-house and studies in progress (b) (4)
- e. DMR since last meeting:
 - (b) (4) - amendment to add personnel approved 3 October 2018.
 - NAS-18-001-Y1- amendment to add procedure approved 22 October 2018.
 - (b) (4) - amendment to add personnel approved 9 October 2018.
 - (b) (4) and (b) (4) amendments to add personnel 10 October 2018.

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- NAS-14-002-Y5- protocol reviewed at June meeting approved 7 November 2018.

III. Protocol/ Amendment Review

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the primary reviewer and (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer- in light of (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) absence from this meeting, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) acted as primary reviewer and (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) provided her comments to her to be presented to committee. The following questions/ comments/ edits were presented:

- Section 6- define (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) confirm the goal of the study is to understand (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) or that all will be required to produce the desired effect.
- Section 7B- the highlighted text should be moved to Section 8.
- Section 8- describe the (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) in better detail; identify inclusion criteria and what happens to animals that do not meet these criteria; provide details about (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) provide details about “relevant assays”; provide timelines for individual testing; provide more detail on surgical animals (can they be group housed after surgery? What are potential complications? What is success rate?); provide more detail on all behavior testing models; will animals that lose 20% body weight be removed from a specific test or euthanized; (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) Is there a washout period; provide additional details on (b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
- Section 9- indicate that the IACUC Guidelines for (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) will be followed. Section 9E, 9F- did not include (b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
- Section 10- Are (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) included? What about (b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
- Section 12, Refinement- have pilot studies been completed already?
- Section 14- need to complete entire section for all agents listed. EHS will need to review and approve.

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the ethical reviewer and had no additional comments.

This protocol was not approved and is requested to come back to a fully convened meeting with major revisions required.

CIR-18-002-Y1/ (b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 6- indicate briefly why experiments are expected to be successful; will you be trying to identify the best administration routes; confirm statement that (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) do not exist; need to provide big picture of full study, focus on Year 1.
- Section 7- protocols are approved for 1 year, limit animal number request/ justification to Year 1. Section 7A- why request specific strains? Section 7B- define all acronyms.

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- Section 8- confirm animals will only be obtained from approved vendors; This section needs a lot more detail provided. All activity to be conducted in Year 1 should be detailed here, from animals' arrival at the facility to end of study and euthanasia. A lot of the details from Section 7 can be moved here.
- Section 9- indicate that the IACUC Guidelines (b) (4) will be followed. Section 9E- what is outcomes expected from all surgeries? Can additional analgesia be provided? What are success rates for each procedure?
- Section 10- 20 % weight loss as an endpoint is facility standard. How are signs of discomfort or failure to thrive assessed?
- Section 14- need to complete entire section for all agents listed. EHS will need to review and approve.
(b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and is requested to come back to a fully convened meeting with major revisions required.

Meeting adjourned at 10:43AM. Submitted by (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) IACUC Administrator.

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MEMBERS PRESENT (Voting)

(b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F) (ex officio)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) (ex officio)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (7)(F), (b) (7)(E)
(b) (7)(F), (b) (7)(E)
LifeSource (b) (7)(F), (b) (7)(F)
LifeSource (b) (7)(F), (b) (7)(F)
Community Member (b) (7)(F), (b) (7)(E) (Call)

MEMBERS ABSENT

None

GUESTS PRESENT

None

Meeting started at 9:07AM with a quorum present.

AGENDA

I. Old Business

- a. Reminder that the AAALAC Site Visit will occur in March 2019. The program description has been submitted electronically.

II. New Business

- a. The USDA annual report was not submitted by the deadline- they have requested by 15 January to avoid action. OLAW annual report due in January 2019.
- b. (b) (6), (b) (7)(C), (b) (7)(F) has indicated to the Chair that he would like to attend the upcoming AAALAC site visit, provided his schedule permits. (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) indicated if this appears likely to occur, parameters of this visit will need to be discussed.
- c. An OLAW webinar for SemiAnnual Reviews is scheduled for 13 December 2018. The Chair will review and send out for IACUC training.
- d. Master Protocol Update: no work performed since the last meeting.
- e. Veterinary Update- (b) (6), (b) (7)(C), (b) (7)(F) reviewed animals currently in-house and studies in progress (b) (6), (b) (7)(F), (b) (4).
- f. DMR since last meeting:
 - (b) (6), (b) (7)(F), (b) (4) amendment to add animals approved 15 November 2018.
 - NAS-18-001-Y1- amendment to add procedures approved 30 November 2018.
 - NAS-14-002-Y5- amendment to add procedures approved 5 December 2018.

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III. **Protocol/ Amendment Review**

- (b) (4) (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) 2nd Review (b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
- (b) (6), (b) (7)(C), (b) (7)(F) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:
- The committee noted that the PI did an excellent and thorough rewrite of this protocol for resubmission.
 - Section 8- by "red eyes" do you mean porphyrin staining around eyes; change "sacrificed" to "euthanized" throughout section; for all (b) (4) (b) (4) what are the expected outcomes for the animals and when will they be removed from study/ euthanized; For Aim 7, how old are animals and are they shipped with dams; For Aim 8, are animals anesthetized?
 - Section 10- Provide more detail on potential unexpected results and your planned response to them.
 - Section 14- still need to complete entire section for all agents listed. EHS will need to review and approve.
- (b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

- (b) (4) (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:
- Section 8- Confirm which studies are acute and length of each study; what adverse reaction are expected/ possible and how would they be addressed?
- (b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

- (b) (4) (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) (b) (6), (b) (7)(C), (b) (7)(F) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F) was the secondary reviewer and the following questions/ comments/ edits were presented:
- Section 2- Need to provide a mailing address.
 - Section 5- will animals re-enter (b) (4)?
 - Section 6- provide a summary that would be understandable to a layperson and provide a description of all terminology used.
 - Section 7- will male animals be needed for (b) (4) studies; why is the mouse the appropriate species for these experiments; define (b) (4) animal numbers do not add up, need to redo all justifications and update table; explain extra animal variation and justification; provide statistical analysis.

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- Section 8 and 9- these sections need to be re-written, providing more details to each experiment/ surgery, timelines, what happens to animals from the time they arrive at the facility to the end of the experiment/ euthanasia, potential and expected outcomes, etc.
- Section 14- need to complete entire section for all agents listed. EHS will need to review and approve.
- Category E explanation- need to provide scientific justification.
- (b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and is requested to come back to a fully convened meeting with major revisions required.

NAS-16-007-Y3/ (b) (6), (b) (7)(C), (b) (7)(F) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 3D- describe the new weaning schedule proposed.
- Section 12A- consider minor edits suggested in wording.

(b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

NAS-16-006-Y2 (b) (6), (b) (7)(C), (b) (7)(F) was the primary reviewer, (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 3D- explain how video assessed body weight; define "NL"; confirm that HU mice were more active than NL mice, what time of day was this evaluated?
- Section 7- explain why other strains of mice are requested; Section 7C- explain how reference provided is relevant; since food is now on wall, can a more appropriate amount of nesting material be given?
- Section 8- change "sacrifice" to "euthanize"; perfusion is mentioned in Procedure 7, but not described elsewhere; Procedure 9- provide information on different strains identified; Study 1A- identify timepoints; confirm group numbers in Table1, confirm that no NL animals euthanized at timepoints; confirm if mCAT were social housed;

(b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

Meeting adjourned at 11:47AM. Submitted by (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) IACUC Administrator.

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MEMBERS PRESENT (Voting)

(b) (7)(C), (b) (7)(F), (b) (6)

(b) (4), (b) (7)(C), (b) (7)(F), (b)

(b) (7)(C), (b) (7)(F), (b) (6), (b) (4)

(b) (4), (b) (7)(C), (b) (7)(F), (b) (6)

SC: (b) (7)(E), (b) (7)

(F) (b) (7)(E), (b) (7)(F)

LifeSource

Community Member

SLR: (b) (7)(E), (b) (7)(F)

MEMBERS ABSENT

(b) (6), (b) (4), (b) (7)(C), (b) (7)(F) ex officio)

(b) (7)(C), (b) (7)(F), (b) (6), (b) (4)

LifeSource (b) (7)(E), (b) (7)

DL: (b) (7)(E), (b) (7)

(F)

GUESTS PRESENT

None

Meeting started at 9:02AM with a quorum present.

AGENDA

I. Old Business

- a. The AAALAC Site Visit will occur on 15 March 2019. We will have our regularly scheduled meeting on 13 March and will review the program at that time; the site visit will act as our SemiAnnual inspection.

II. New Business

- a. The USDA and OLAW annual reports were submitted.
- b. Master Protocol Update: no work performed since the last meeting.
- c. Veterinary Update: (b) (6), (b) (4), (b) (7)(C), (b) (7)(F) provide a review of animals currently in-house and studies in progress.
- d. DMR since last meeting:
 - (b) (4) amendment to add personnel approved 15 January 2019.
 - (b) (4) protocol renewal reviewed at the December meeting approved 19 December 2018.
 - (b) (4) amendment to add procedure and personnel approved 26 December 2018.
 - NAS-16-007-Y3- protocol renewal reviewed at the December meeting approved 24 December 2018.

III. Protocol/ Amendment Review

(b) (4) (b) (4), (b) (7)(C), (b) (7)(F), (b) (6)

(b) (6), (b) (4), (b) (7)(C), (b) (7)(F)

was the primary reviewer and (b) (6), (b) (4), (b) (7)(C), (b) (7)(F) was the secondary reviewer- in light of (b) (6), (b) (4), (b) (7)(C), (b) (7)(F) absence, her comments were provided to (b) (6), (b) (4), (b) (7)(C), (b) (7)(F). The following questions/ comments/ edits were presented:

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- Section 7C- moribund animals are unlikely to eat or drink, confirm that these animals will be euthanized, not given food and water on floor of cage.
- Section 8- the facility standard acclimation is 3 days, not 2; indicate if water provided during fasting period; state how frequently water consumption is measured; for sessions that require training, indicate how often and how far in advance of studies; are pharmacological agents provided via microinfusion? What is the dose for each agent?

(b) (7)(C), (b) (7)(F), (b) (6), (b) (4) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4), (b) (4), (b) (7)(C), (b) (7)(F), (b) (6), (b) (7)(C), (b) (7)(F), (b) (6), (b) (4) was the primary reviewer, (b) (7)(C), (b) (7)(F), (b) (6), (b) (4) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 7B- what type of variability and/ or statistical analysis is expected to be performed?
- Section 8 and 10- body weight is not a good sole indicator of health in animals with (b) (4) body condition scoring should be used also.
- Section 14- if (b) (4) cell lines will be used, should be listed and described here.

(b) (4), (b) (7)(C), (b) (7)(F), (b) (6) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4), (b) (4), (b) (7)(C), (b) (7)(F), (b) (6), (b) (7)(C), (b) (7)(F), (b) (6), (b) (4) was the primary reviewer, (b) (4), (b) (7)(C), (b) (7)(F), (b) (6) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 7A- explain why only female transgenic mice are requested. Sec
- Section 14- add PLX5622 and LPS.

(b) (4), (b) (7)(C), (b) (7)(F), (b) (6) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4), (b) (7)(C), (b) (7)(F), (b) (6), (b) (4), (b) (7)(C), (b) (7)(F), (b) (6), (b) (4) was the primary reviewer, (b) (7)(C), (b) (7)(F), (b) (6) was the secondary reviewer and the following questions/ comments/ edits were presented:

- Section 7C- confirm that immunocompromised animals will receive autoclaved food, water, cage, etc.
- Section 8- confirm if animals will receive additional dosing at the end of the MTD to do (b) (4) and if so, dose; length of time on study; describe how long implant procedure takes and what endpoints for (b) (4) are; indicate

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when and why minipumps will be used; describe how often body condition scores are assessed; need to provide an IACUC approval (b) (4) prior to transport of animals; describe potential adverse effects of (b) (4) and end points; indicate the goal of providing (b) (4)

- Section 9- indicate potential adverse effects of each surgical procedure.
- Section 10- body weight is not a good sole indicator of health in animals with (b) (4) body condition scoring should be used also.
- (b) (4), (b) (6), (b) (7)(C), (b) (7)(F) was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

NAS-16-007-Y3/

(b) (7)(C), (b) (7)(F), (b) (6)

(b) (4), (b) (7)(C), (b) (7)(F), (b) (6)

was the primary reviewer

(b) (7)(C), (b) (7)(F), (b) (6), (b) (4)

was the

secondary reviewer and the following questions/ comments/ edits were presented:

- Section 3D- describe the new weaning schedule proposed.
- Section 12A- consider minor edits suggested in wording.

(b) (6), (b) (7)(C), (b) (7)(F)

was the ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4)

(Amendment)

- The following questions/ comments/ edits were presented:
- Sections 3 and 5- Confirm dosing will be up to 60 days.

This amendment was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4)

(Amendment)

- The following questions/ comments/ edits were presented:
- Section 3- why is new mouse strain requested?
- Section 7- clarify animal numbers requested and new yearly total.

This amendment was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4)

(Amendment)

- The following questions/ comments/ edits were presented:
- Section 7- need to clarify requested animal numbers and new yearly total.

This amendment was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

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Meeting adjourned at 11:17AM. Submitted by (b) (4), (b) (7)(C), (b) (7)(F), (b) (6) IACUC Administrator.

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MEMBERS PRESENT (Voting)

(b) (6), (b) (7)(C), (b) (7)(F)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) (ex officio)

(b) (6), (b) (7)(C), (b) (7)(F) (ex officio)

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

SC: (b) (7)(E), (b) (7)(F)

LifeSource (b) (7)(E), (b) (7)(F)

LifeSource (b) (7)(E), (b) (7)(F)

DL: (b) (7)(E), (b) (7)(F)

SLR (b) (7)(E), (b) (7)(F) Call

MEMBERS ABSENT

(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

Community Member

GUESTS PRESENT

None

Meeting started at 9:09AM with a quorum present.

AGENDA

I. Old Business

- a. The AAALAC Site Visit will occur on 15 March 2019. We will have our regularly scheduled meeting on 13 March and will review the program at that time; the site visit will act as our SemiAnnual inspection.

II. New Business

- a. The committee discussed and decided to add Body Condition Scoring (BCS) to the (b) (4) Guidelines. (b) (6), (b) (7)(C), (b) (7)(F), (b) (4) to provide draft and rubric.
- b. All updated IACUC Guidelines approved as submitted, the (b) (4) Guidelines to be reviewed and approved via email.
- c. A question confirming Blood Borne Pathogen (BBP) training for applicable studies will be added to the (b) (4) medical questionnaire.
- d. Master Protocol Update: no work performed since the last meeting.
- e. Veterinary Update- a review of animals currently in-house and studies in progress was presented.
- f. DMR since last meeting:
 - NAS-16-007-Y3- amendment to add procedure approved 1 February 2019.
 - (b) (4) amendment to add procedure approved 28 January 2019.
 - (b) (4) amendment to add mouse strains approved 7 February 2019.
 - (b) (4) protocol renewal reviewed at the January meeting approved 7 February 2019.

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- (b) (4) - new protocol reviewed at the January meeting approved 8 February 2019.
- (b) (4) - new protocol reviewed at the January meeting approved 7 February 2019.
- (b) (4) - new protocol reviewed at the January meeting approved 7 February 2019.
- (b) (4) - new protocol reviewed at the January meeting approved 7 February 2019.

III. Protocol/ Amendment Review

(b) (4)

- The following questions/ comments/ edits were presented from committee:
- Section 2- the Responsible Point of Contact should be affiliated with the PI.
- Section 7- why only female mice requested?
- Section 8- add Body Condition Score (BCS) to weight monitoring description; indicate that the (b) (4) Guidelines will be followed; provide full citation and link (if possible) to the Miller article; explain why the chemotherapeutic agents may be administered- if there are any potential adverse effects, even if not anticipated, add to section 10.
- Section 12- has any in vitro testing of compounds been completed?
- Section 14- add chemotherapeutic agents to table and provide safety information.
- The ethical reviewer had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

NAS-19-001-Y1

- The following questions/ comments/ edits were presented from committee:
- Revise title to include species and description of study. Provide copy of grant.
- Section 7- why are mouse responses to irradiation relevant to this protocol? Why only female mice? How do the statistics provided correlate to the study? Explain how you came up with the 60 mice requested in the table. Clean up Section 7C, several incomplete sentences.
- Section 8- This Section should be re-worked to focus on answering the hypothesis. Why are bone formation markers measured instead of immune function? The references provided do not appear related to this experiment, please clarify. Do you have a reference indicating that immune-competent mice will accept the human cells? Provide full citation for Ofir reference. The Zehavi-Goldstien article does not indicate which mouse strains were used or if cells were tolerated. Perfusion is mentioned,

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but not described. What is the “placebo solution”? Remove references to “TBD Study 2”, should be added via amendment or during renewal.

- Section 10- Add urine scald to potential adverse effects of hindlimb unloading. Provide information for the use of PLX-PAD cells in mice.
- Section 14- add human cells to table and provide safety information.
- Section 18- there are procedures listed to be performed in the personnel table that are not addressed in the protocol- either remove or update protocol.
- Photodoc request- behavior studies are not described in the protocol- either remove or update the protocol.
- The ethical reviewer had no additional comments.

This protocol was not approved and was voted to come back to full committee with major revisions required at the next convened IACUC meeting.

Meeting adjourned at 11:01AM. Submitted by IACUC Administrator.

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Meeting Minutes

13 March 2019

CONFIDENTIAL

MEMBERS PRESENT (Voting)

(b) (6), (b) (7)(C), (b) (7)(F)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4) (ex officio)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)
(b) (6), (b) (7)(C), (b) (7)(F), (b) (4)

SC: (b) (7)(E), (b) (7)(F)
LifeSource (b) (7)(E), (b) (7)(F)
LifeSource (b) (7)(E), (b) (7)(F)
Community Member
SLR: (b) (7)(E), (b) (7)(F) Call)

MEMBERS ABSENT

(b) (6), (b) (7)(C), (b) (7)(F) (ex officio)

DL (b) (7)(F), (b) (7)(E)

GUESTS PRESENT

None

Meeting started at 9:07AM with a quorum present.

AGENDA

I. Old Business

- a. The AAALAC Site Visit will occur on 15 March 2019. We will review the program at today's meeting; the site visit will act as our SemiAnnual inspection.

II. New Business

- a. The (b) (4) Guidelines were reviewed and approved via email. All IACUC Guidelines are now finalized.
- b. Master Protocol Update: no work performed since the last meeting.
- c. Veterinary Update- a review of animals currently in-house and studies in progress was presented.
- d. DMR since last meeting:
 - NAS-16-006-Y2- amendment to change procedure approved 22 February 2019.

III. Protocol/ Amendment Review

- (b) (4)
- o The following questions/ comments/ edits were presented from committee:
 - o Section 7- explain why/ how 3 types of bedding are requested to measure (b) (4)
 - o Section 9- (b) (4)
 - o The ethical reviewer had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

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(b) (4)

- The following questions/ comments/ edits were presented from committee:
- Section 3- confirm that this progress from last year's work.
- Section 6- Ref. 6 was removed, has this work ended?
- Section 7- explain strain selection for each species requested. Description animal total requested does not match table.
- Section 8- confirm that no metabolic studies will be performed this year; what clinical condition criteria is followed for the long duration studies; describe criteria for removal of (b) (4) from immune studies; need to add description of (b) (4) studies.
- Section 10- Add drug administration toxicity and antibody production potential adverse effects.
- The ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4)

- The following questions/ comments/ edits were presented from committee:
- Section 7- explain strain selection for each species requested. Indicate that skin closures for vendor-cannulated animals may not be removed.
- Section 12- update literature search.
- The ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

(b) (4)

- The following questions/ comments/ edits were presented from committee:
- Section 2- provide a local contact address.
- Section 7- does the animal number requested include animals from breeding? Why only males requested for experiments?
- Section 8- define/ explain (b) (4) are mice singly housed? May cage changes be delayed to avoid disturbing new litters? Will animals have identification, such as microchip, etc.? Indicate maximum number of cannulas in single animal; indicate who is monitoring animals during all testing procedures; provide criteria of removal of animals from studies; can any of these tests be repeated? For drug testing, can there be a washout/ reuse of animals? Breeding and genotypic is not described, need to provide details.
- Section 12- need to complete this entire section.
- Section 14- need to add all chemical hazards to table and provide safety information.
- The ethical reviewer and had no additional comments.

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This protocol was not approved and will return to the IACUC office with revisions for review and approval via DMR.

(b) (4)

- The following questions/ comments/ edits were presented from committee:
- Section 7- why only female mice requested? Indicate that immune-compromised animals will receive autoclaved cages/ water/ etc.
- Section 8- what are potential side effects of (b) (4)?
- Section 14- provide safety information for all agents listed in table.
- The ethical reviewer and had no additional comments.

This protocol was not approved and will return to the IACUC office with minor revisions for review and approval via DMR.

Meeting adjourned at 12:07PM. Submitted by IACUC Administrator.