



# INSTITUTIONAL BIOSAFETY COMMITTEE

UNIVERSITY *of* WASHINGTON

## Meeting Minutes

**Date:** Wednesday, February 15, 2017

**Time:** 10:00 AM – 12:00 PM

**Location:** Foegen N-130A

- Members Present:**
1. Thea Brabb, Comparative Medicine (*Animal Containment Expert*)
  2. Richard Grant, Washington National Primate Research Center
  3. Garry Hamilton (*Community Member*)
  4. David Koelle, Allergy and Infectious Diseases
  5. Stephen Libby, Laboratory Medicine (*IBC Chair*)
  6. Matthew R. Parsek, Microbiology
  7. David Scarsella, Pacific Northwest Diabetes Research Institute (*Community Member*)
  8. Jason Smith, Microbiology (*IBC Vice Chair*)
  9. Eric Stefansson, Environmental Health & Safety (*Biosafety Officer, Animal Containment Expert*)
  10. Paul Swenson, Seattle-King Co. Dept. of Public Health (*Community Member*)

### Commonly Used Abbreviations

IBC: Institutional Biosafety Committee

BSO: Biological Safety Officer

BUA: Biological Use Authorization

BSL: biosafety level

PI: Principal Investigator

IACUC: Institutional Animal Care and Use Committee

NIH: National Institutes of Health

DURC: Dual Use Research of Concern

SOP: standard operating procedure

1. **CALL TO ORDER:** The Institutional Biosafety Committee (IBC) Chair called the meeting to order at 10:05 am. A quorum was present.
2. **REMINDER:** The IBC Chair reminded attendees that any notes that they retain are subject to public disclosure. A statement was also made about conflict of interest and voting on research proposals as described in the IBC Charter. This includes sharing a grant or a familial relationship.
3. **APPROVAL OF MINUTES:**
  - The IBC Chair sought a motion to approve the minutes from the January 18, 2017 meeting.
  - A member made a motion to approve the January 18, 2017 minutes. Another member seconded the motion.
  - The committee voted unanimously to approve the January 18, 2017 meeting minutes.
4. **OLD BUSINESS**
  - At the January IBC meeting, Dr. DePaolo's BUA was approved pending a the biosafety officer's review of the IACUC protocol, and the industrial hygienist verifying correct waste disposal procedures for the azoxymethane. At this time, the IACUC protocol is still pending.
  - At the January IBC meeting, Dr. Folch's BUA was approved pending clarification on whether non-transduced human cells should appear on the BUA letter. Non-transduced human cells were added to the BUA letter, and the letter was sent out.
  - At the January IBC meeting, Dr. Schwartz's BUA was approved pending the correction of the BUA letter to list wild-type LCMV as III-D\* because it is used in a transgenic animal model. The letter was corrected and sent out.
  - At the January IBC meeting, Dr. Shendure's BUA was approved pending a demo of the air sampler. This is still pending.
  - At the January IBC meeting, Dr. Tuthill's BUA was approved pending inspection of the fly containment area. This area was inspected by the biosafety officer and the letter was sent out.
  - At the January IBC meeting, Dr. Woodrow's BUA was approved pending successful completion of the lab inspection. The lab was inspected and the letter has been sent out.
5. **BIOSAFETY OFFICER (BSO) REPORT:** The Biosafety Officer Report includes (1) projects involving recombinant or synthetic nucleic acids covered under section III-E and III-F of the *NIH Guidelines*, (2) proposals involving non-recombinant biohazardous agents requiring BSL-1 and BSL-2 containment, and (3) administrative updates, such as room additions.
  - a. Biosafety Officer Report
    - The IBC Chair sought a motion to approve this month's Biosafety Officer Report.
    - A member made a motion to approve this month's Biosafety Officer Report. Another member seconded the motion.
    - The Committee unanimously voted to approve this month's Biosafety Officer Report.
6. **CATEGORY III-D AMENDMENTS**
  1. Chamberlain, Jeffrey, change, *Gene Therapy for Neuromuscular Disorders*
    - The biosafety officer presented the project.
    - The investigator is already approved for AAV in mice.
    - The assigned IBC member endorsed the biosafety officer's review.

- The draft BUA letter was shown.
- The assigned IBC member made a motion to approve the draft BUA for Dr. Chamberlain.
- The Committee voted unanimously to approve the draft BUA for Dr. Chamberlain.

## 7. INDIVIDUAL PROJECT REVIEWS

2. Adams-Waldorf, Kristina, change, *Experimental Model of Viral-Induced Brain Injury*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - One member declared a conflict of interest.
  - The investigator is requesting to add the use of a recombinant vaccine to be administered to macaques. The vaccine is an attenuated vesicular stomatitis virus that expresses Zika virus envelope proteins.
  - Dr. Adams-Waldorf is already approved for wild-type Zika virus.
  - The lab has recently been inspected and the trainings are all up to date.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Adams-Waldorf.
  - The Committee voted unanimously, with one abstention, to approve the draft BUA for Dr. Adams-Waldorf.
3. Gale, Michael, change, *The Host Response to Virus Infection*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - This is a change application. Dr. Gale is collaborating with Dr. Adams-Waldorf and this change request is to add the same recombinant vaccine as just discussed (an attenuated vesicular stomatitis virus that expresses Zika virus envelope proteins.) The vaccine will not be used in animals on the Gale project.
  - The lab has recently been inspected and the trainings are all up to date.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Gale.
  - The Committee voted unanimously to approve the draft BUA for Dr. Gale.
4. Ailion, Michael, new, *Dense-core vesicles*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - Transgenic *Caenorhabditis elegans* (*C. elegans*), a roundworm, are created and used. Non-human primate cell lines are also used.
  - The lab successfully passed the lab inspection and the trainings are all up to date.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Ailion. The Committee voted unanimously to approve the draft BUA for Dr. Ailion.
5. Kenagy, Richard, change, *Kenagy Lab*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - This is a change request. The investigator is adding adeno-associated viral vectors to be used in vitro.
  - The draft BUA letter was shown.
  - The lab has recently been inspected and the trainings are all up to date.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Kenagy.

- The Committee voted unanimously to approve the draft BUA for Dr. Kenagy.
6. Klavins, Eric, change, *Mammalian cellular computation*
    - The assigned IBC Primary Reviewer presented the Primary Review.
    - This is a change request. The investigator is adding lentiviral vectors to be used in vitro.
    - The draft BUA letter was shown.
    - The lab has recently been inspected and the trainings are all up to date.
    - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Klavins.
    - The Committee voted unanimously to approve the draft BUA for Dr. Klavins.
  7. **Morishima**, Chihiro, change, *Immunological Assay Development*
    - The assigned IBC Primary Reviewer presented the Primary Review.
    - This is a change request. The investigator would like to add non-human primate blood and body fluids from animals experimentally infected with primate lentiviruses.
    - The work will be conducted at BSL-2 with BSL-3 practices.
    - The lab successfully passed the lab inspection and all required trainings have been taken.
    - The SOP for BSL-2 with BSL-3 practices is still in the process of being finalized. The biosafety officer will need to review the final SOP.
    - The draft BUA letter was shown.
    - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Morishima, contingent upon biosafety officer review of the final BSL-2 with BSL-3 practices SOP.
    - The Committee voted unanimously to approve the draft BUA for Dr. Morishima, contingent upon biosafety officer review of the final BSL-2 with BSL-3 practices SOP.
  8. Oberst, Andrew, change, *Programmed Cell Death and Immunity*
    - The assigned IBC Primary Reviewer presented the Primary Review.
    - This is a change request. The investigator is adding adeno-associated viral vectors to be used in vitro and in mice.
    - The draft BUA letter was shown.
    - The lab has recently been inspected and the trainings are all up to date.
    - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Oberst.
    - The Committee voted unanimously to approve the draft BUA for Dr. Oberst.
  9. **Phillips**, Paul, renewal, *Phasic Dopamine Release during Motivated Behavior in Rats*
    - The assigned IBC Primary Reviewer presented the Primary Review.
    - This is a renewal involving adeno-associated viral vectors (AAV) used in rats.
    - The draft BUA letter was shown.
    - The IACUC protocol amendment has not yet been submitted. The approval will be contingent on the biosafety officer's review of the IACUC protocol.
    - The lab successfully passed the lab inspection and all required trainings have been taken.
    - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Phillips.
    - The Committee voted unanimously to approve the draft BUA for Dr. Phillips, pending the submission of the IACUC protocol.

10. **Rosenfeld**, Michael, renewal, *C. pneumoniae* and Atherosclerotic Plaque Destabilization
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The investigator studies the role of *Chlamydia pneumoniae* in atherosclerosis using transgenic and knockout mouse models.
  - The investigator still needs to retake the bloodborne pathogens training and submit the site-specific bloodborne pathogen exposure control plan.
  - The lab inspection is also pending.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Rosenfeld.
  - The Committee voted unanimously to approve the draft BUA for Dr. Rosenfeld, pending completion of the lab inspection and bloodborne pathogen training.
11. Van Voorhis, Wesley, change, 1. Immune Response: Chagas 2. Biochemistry of Protein Prenylation 3. Plasmodium falciparum Protein Farnesyltransferase Inhibitors 4. Drugs for Toxoplasma and Cryptosporidium 5. Giardia
- The assigned IBC Primary Reviewer presented the Primary Review.
  - This is a change request to add recombinant *Shigella flexneri*. *S. flexneri* is a risk group 2 organism that can cause acute bloody diarrhea in human hosts. BSL-2 containment will be used.
  - The lab has recently been inspected and the trainings are all up to date.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Van Voorhis.
  - The Committee voted unanimously to approve the draft BUA for Dr. Van Voorhis.

#### **SUBCOMMITTEE REPORTS:**

12. Fuller, Deborah, renewal, *Immunogenicity and Efficacy of DNA Vaccines and Therapies Against Influenza*
- Three members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
  - This is a renewal application from an experienced virology laboratory working on DNA vaccines for influenza, HIV, and flaviviruses (Dengue and Zika).
  - Wildtype Dengue and Zika virus are used on the project. They have two unusual strains of influenza A virus, A/Vietnam/H5N1-delta H5-PR8 and A/Hong Kong/H9N2-PR8. Per a previous IBC review and memo detailing the recommended handling of these viruses (dated 1/28/15), work with these viruses in mice (including mouse adaptation) will be done at ABSL-3, and in vitro work will be done at BSL-2 with BSL-3 practices (for the A/Vietnam strain) or BSL-2 (for the A/Hong Kong strain). Lab personnel who have received FluMist or who suffered a flu-like illness must refrain from working with these viruses for 7 days. They have a CDC permit for these influenza strains.
  - The draft BUA letter was shown.
  - A member made a motion to approve the draft BUA letter for Dr. Fuller. Another member seconded the motion.
  - The Committee voted unanimously to approve the draft BUA for Dr. Fuller.

#### **13. WaNPRC Waste**

- Three members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
- The IBC was approached by the Washington National Primate Research Center (WANPRC) to evaluate an alternative method of non-human primate waste treatment from animals that have been administered recombinant or wild type Simian Immunodeficiency Virus (SIV) or derivatives.
- An IBC subcommittee was formed to evaluate this proposal and present their recommendations at the February 15, 2017 IBC meeting for review. The considerations taken into account include the National Institutes of Health (NIH) Guidelines for recombinant DNA waste, local requirements for treatment and disposal of biomedical and chemical waste, and worker safety.
- Currently, animal technicians manually remove bedding and waste from cage pans, and the waste is bagged and autoclaved prior to disposal in the solid waste stream. The IBC subcommittee reviewed the WANPRC proposal for chemical decontamination of waste prior to disposal via sanitary sewer from animals that have been administered SIV, Human Immunodeficiency Virus (HIV), and Simian/Human Immunodeficiency Virus (SHIV) during the course of research.
- The IBC determined the following:
  1. The use of CIP100 at a final concentration of 1% for a minimum of 10 minutes is sufficient to inactivate potential primate retroviruses in the waste.
  2. Waste from NHPs that have received SIV, HIV, or SHIV constructs can be treated by CIP100 at 1% final concentration for a minimum of 10 minutes, then discharged to the sewer.
  3. NHPs that have received any other agent/organism/virus of any type many NOT be treated with CIP100 and sewered. It must continue to be collected and autoclaved.
  4. Any other agent to be considered for CIP100 inactivation must be subjected to the same inactivation assays as described in this report and submitted to the IBC for approval prior to discharge.
  5. Cages of NHPs must be clearly marked to alert animal technicians which cages can be treated by chemical disinfection. Cages that do not qualify must be clearly marked.
- The IBC voted that the following next steps are required prior to IBC approval to modifying the way non-human primate waste from retroviruses infected non-human primates.
- Next Steps:
  1. A standard operating procedure (SOP) must be submitted to the IBC via EH&S documenting the final methods for CIP100 treatment of NHP waste and how cages will be identified. The Primate Center must explain how employees will be trained to perform the decontamination correctly and how performance will be monitored. All personnel performing the decontamination must be trained and training documented.
  2. The Primate Center will submit a quarterly report to the IBC NHP Waste Subcommittee that verifies the method used to disinfect the NHP waste is performing as described. If NHPs are being infected with SIV, HIV, or SHIV constructs, then the absence of these viral constructs must be demonstrated on a quarterly basis. Specific assays will be developed to detect the particular retroviral agent used and then methods reported.
  3. Once final approval is given and at the initiation of this treatment methodology, the Primate Center will conduct a test to ensure there are no retroviruses (lentiviruses) detected in the treated waste from animals that have been administered viral agents. This initial test then starts the quarterly reporting cycle and will be repeated. Results of these tests will be sent to EH&S Research & Occupational Safety (ehsbio@uw.edu). The

WaNPRC will also maintain a copy of these results. If the results are positive, that is there is positive detection of retroviral particles by plaque assay or by qPCR, the IBC Chair and the Assistant Director for Research and Occupational Safety must be notified immediately.

4. Changes and updates to the appropriate SOPs and testing methods will be updated on a regular basis and provided to the IBC Chair, and to the EH&S Research and Occupational Safety Office.

5. The Environmental Program will submit approval on the pH waste evaluation for meeting the legal sewer permit requirements.

- The Committee voted unanimously to approve the motion.

**ISSUES FROM THE FLOOR & PUBLIC COMMENTS:**

There were no issues from the floor, and no public comments.

**MEETING ADJOURNED AT APPROXIMATELY 11:59 a.m.**