



# INSTITUTIONAL BIOSAFETY COMMITTEE

UNIVERSITY *of* WASHINGTON

## Meeting Minutes

**Date:** Wednesday, May 18, 2016

**Time:** 10:00 AM – 12:00 PM

**Location:** Health Sciences Building T-269

- Members Present:**
1. Thea Brabb, Comparative Medicine (*Animal Containment Expert*)
  2. H.D. "Toby" Bradshaw, Biology (*Plant Expert*)
  3. Lesley Colby, Comparative Medicine (*Animal Containment Expert*)
  4. Richard Grant, Washington National Primate Research Center
  5. Stephen Libby, Laboratory Medicine (*IBC Chair*)
  6. Matthew R. Parsek, Microbiology
  7. Jason Smith, Microbiology (*IBC Vice Chair*)
  8. Eric Stefansson, Environmental Health & Safety (*Biosafety Officer*)

### 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 10:02 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 April 20, 2016 meeting.
  - A member made a motion to approve the April 20, 2016 minutes. Another member seconded the motion.
  - The committee voted unanimously to approve the April 20, 2016 meeting minutes.
4. **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.
- Dr. Hawkins and Dr. Varani each added a flow cytometry core facility to their respective BUA approvals.
- Dr. Davis received a new BUA involving baculovirus and non-pathogenic strains of *Escherichia coli*.
- Dr. Bammler received a new BUA involving human source material.
- Dr. Barker-Haliski received a new BUA to work with non-recombinant murine encephalomyelitis virus (TMEV).
- Dr. Polyak added wildtype Zika virus to his BUA.
- Dr. Pepper added non-recombinant respiratory syncytial virus (RSV) to her BUA.
- Dr. Patton renewed a BUA to work with non-recombinant *Chlamydia trachomatis* and *Trichomonas vaginalis*.
- Dr. Adams Waldorf added a new room to her BUA.
- 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.

5. **CATEGORY III-D AMENDMENTS**

1. Giachelli, Cecilia, change, *Engineering Osteoclasts to Prevent Medication-Related Osteonecrosis of the Jaw*
  - The biosafety officer presented the project.
  - Dr. Giachelli is transferring agents (viral vectors) from another BUA to this one.
  - 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. Giachelli. A second is not needed since he endorsed the review.
  - The Committee voted unanimously to approve the draft BUA for Dr. Giachelli.

2. West, Timothy Eoin, change, *Host genetics and response to infection*
  - The biosafety officer presented the project.
  - Dr. West is transferring agents (*Burkholderia* species) from another BUA to this one.
  - 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. West. A second is not needed since he endorsed the review.
  - The Committee voted unanimously to approve the draft BUA for Dr. West.

## 6. INDIVIDUAL PROJECT REVIEWS

3. Berger, Susanna, renewal, *Strategies to improve the adoptive transfer of T cells*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The overall goal of the project is to test strategies and examine safety for using modified T cells to target malignancies in a non-human primate model.
  - Non-human primate cells transduced with gammaretroviral and lentiviral vectors are administered to non-human primates.
  - All of the lab inspection issues were resolved. The required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Berger. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Berger.
4. Brockerhoff, Susan, renewal, *Photoreceptor Mutations in Zebrafish*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Brockerhoff lab studies signaling and regulatory mechanisms in cone photoreceptors within the retina to eventually aid in curing human blindness.
  - Transgenic zebrafish are created and used.
  - All of the lab inspection issues were resolved. The required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Brockerhoff. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Brockerhoff.
5. Disteche, Christine, new, *Molecular studies of sex chromosome aneuploidy*
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The overall goal of the project is to evaluate the molecular consequences of an abnormal number of X or Y chromosomes focusing on two common disorders, Klinefelter and Turner syndromes.
  - Adeno-associated viral vectors, human cells, and recombinant DNA with enhanced gene delivery methods are used.
  - All of the lab inspection issues were resolved. The PI does not have current biosafety training.
  - The draft BUA letter was shown.
  - One question on the BUA application needs to be edited.

- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Disteche. A second is not needed since she is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Disteche pending completion of the biosafety training by the PI.
6. Frevert, Charles, renewal, *Gene-targeted mouse models to study versican*
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The overall goal of the project is to determine how host proteoglycans regulate immune detection and elimination of bacterial and viral pathogens in the lung.
  - Transgenic mice are used as in vivo models. Respiratory syncytial virus, *Pseudomonas aeruginosa*, *Salmonella enterica*, avirulent *Coxiella burnetii*, and lentiviral vectors are used. Human, non-human primate, and mouse cells lines are also used.
  - The lab inspection is scheduled for May 19. The required trainings have been completed.
  - The draft BUA letter was shown.
  - There are two questions on the BUA application that need to be corrected.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Frevert. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously, with one abstention, to approve the draft BUA for Dr. Frevert pending completion of the lab inspection and resolution of any outstanding findings.
7. Gottlieb, Geoffrey, renewal, *Antiretroviral Therapy for HIV-2 Infection in Senegal*
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The project aims are to determine the efficacy of antiretroviral drugs and characterize mechanisms by which HIV-2 evolves resistance to these inhibitors.
  - Human source materials is used as well as recombinant human immunodeficiency virus (HIV) and non-recombinant simian immunodeficiency virus (SIV).
  - All of the lab inspection issues were resolved. The required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Gottlieb. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Gottlieb.
8. Harwood, Caroline, renewal, *Harwood Research Projects*
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The Harwood lab focuses on how bacteria integrate diverse environmental signals and diverse metabolic modules to function at the whole cell level.
  - Several Risk Group 1 and Risk Group 2 microorganisms are used including *Acinetobacter*, *Burkholderia*, and *Pseudomonas*.
  - A discussion occurred regarding the anaerobic chamber used in the lab. The biosafety officer and an industrial hygienist consulted with the lab about a back-up method to test hydrogen levels in the chamber since the hydrogen sensor is currently broken. The lab is using a pre-mixed gas mixture with 4% hydrogen which is below the flammable limit. The back-up method of testing was approved until the sensor is repaired.

- Some lab inspection issues still need to be resolved. The required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Harwood. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Harwood pending resolution of outstanding lab inspection findings.
- 9. Hernandez, Rafael, renewal, *Assessing bacterial and host contributions to *Mycobacterium marinum* pathogenesis in frogs and fish***
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The Hernandez lab seeks to understand the host-pathogen interactions that underlie pathogenesis of *Mycobacterium tuberculosis* and other mycobacterial diseases using several *Mycobacterium* species in a zebrafish model.
  - Several *Mycobacterium* species and other Risk Group 2 microorganisms are used in a zebrafish model. Only in vivo work is performed at UW. All in vitro work is performed at Seattle Children's Research Institute. Transgenic zebrafish are created.
  - A lab inspection was not required since all work is performed in the Comparative Medicine vivarium which is on a regular inspection cycle. All required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Hernandez. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Hernandez.
- 10. Kwon, Young, new, *Regulation of growth and wasting***
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The overall goal of the project is to understand organ growth and wasting in development and disease by identifying proteins affecting these processes.
  - *Drosophila melanogaster* is used for genetic screening. Human and *Drosophila* cells are used, and transgenic *Drosophila* flies are generated.
  - All of the lab inspection issues were resolved. The required trainings have been completed.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Kwon. A second is not needed since he is the Primary Reviewer.
  - The Committee voted unanimously to approve the draft BUA for Dr. Kwon.
- 11. Manicone, Anne, renewal, *MMPs in Repair and Immunity***
- The assigned IBC Primary Reviewer presented the Primary Review.
  - The Manicone lab is interested in the role of matrix metalloproteins in immune cell function and tissue repair following injury, particularly in the lung.
  - The lab uses adeno-associated viral vectors and adenoviral vectors. Several bacteria are used as well as mouse-adapted influenza strains.
  - A discussion occurred regarding practices used by one of the Manicone lab staff in the vivarium. OAW and the biosafety officer will observe the staff member and provide re-training as necessary until practices are demonstrated correctly. The IBC will also send a letter of counsel to the PI.

- All of the lab inspection issues were resolved. The required trainings have been completed.
- The draft BUA letter was shown.
- The PI needs add some hazardous substances (cigarette smoke) to the BUA application.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Manicone. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Manicone pending completion of the retraining and letter of counsel.

**12. Opp, Mark, renewal, *Rodent models of central nervous system – immune system interactions***

- The assigned IBC Primary Reviewer presented the Primary Review.
- The overall goal of the project is to identify the role of interactions between and among neuronal populations and astrocytes and how they relate to neuroinflammation.
- The lab uses adeno-associated viral vectors and mouse-adapted influenza strains in vitro and in mice.
- The lab is working on an SOP for decontaminating special animal cages to be approved by the biosafety officer.
- All other lab inspection issues were resolved. The required trainings have been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Opp. A second is not needed since she is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Opp pending implementation of the decontamination SOP.

**13. Seshadri, Chetan, change, *Human Immunity to Mycobacterial Disease***

- The assigned IBC Primary Reviewer presented the Primary Review.
- The focus of the Seshadri lab is to examine innate and learned immunity of non-human primates and humans to bacterial pathogens.
- The lab is adding lentiviral vectors and non-human primate source material to their existing BUA. FACS cell analysis will be done on fixed cells only.
- A lab inspection was not needed. The required trainings have been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Seshadri. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Seshadri.

**14. Sokurenko, Evgeni, renewal, *Molecular Adaptation of Uropathogenic E.coli; Pathoadaptive Evolution of Salmonella; Properties of Bacterial Adhesions; Pathogenic Adaptation of Microbial Adhesions; New Statistical Methods for Neutral Phylogenetic Reconstruction***

- The assigned IBC Primary Reviewer presented the Primary Review.
- The Sokurenko lab studies the adhesion systems of *Salmonella*, *E.coli*, and *Klebsiella* and the clonal diversity of *Enterobacteriaceae* species.
- Several species of Risk Group 2 bacteria are used, and pathogenic *E.coli* strains are used in mice.

- All of the lab inspection issues were resolved. The required trainings have been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Sokurenko. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Sokurenko.

**15. Sweet, Ian, renewal, *Islet Cell and Functional Analysis Core of Diabetes Endocrinology Research Center***

- The assigned IBC Primary Reviewer presented the Primary Review.
- The Sweet lab focuses on research related to diabetes mellitus and other metabolic disease and is also a core that provides islet cells to other investigators.
- Adenoviral vectors are used as well as human and non-human primate cells.
- All of the lab inspection issues were resolved. The required trainings have been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Sweet. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Sweet.

**FOR YOUR INFORMATION:**

- The IBC Charter has been updated and is posted on the EH&S website. It now includes the vice chair position and DURC requirements.
- WaNPRC waste subcommittee update: NIH feedback was received that waste from animals that have received recombinant agents must be decontaminated prior to leaving the facility. The subcommittee is still in progress.
- In response to the committee's request at the previous meeting, an NIH inquiry was sent and NIH OBA feedback received regarding biocontainment levels for recombinant Risk Group 1 agents in whole animals, section III-D-4-A. The NIH responded that this category of research must be approved at a minimum of biosafety level-2 unless there is specific approval granted from the NIH.

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

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

**MEETING ADJOURNED AT APPROXIMATELY 11:45 a.m.**