INSTITUTIONAL BIOSAFETY COMMITTEE

UNIVERSITY of WASHINGTON

Meeting Minutes

Date: Wednesday, April 20, 2016
Time: 10:00 AM – 12:00 PM

Location: Foege N-130A

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. David Koelle, Allergy and Infectious Diseases
5. Stephen Libby, Laboratory Medicine (*IBC Chair*)
6. Scott Meschke, Environmental & Occupational Health Sciences
7. Matthew R. Parsek, Microbiology
8. Jason Smith, Microbiology
9. Eric Stefansson, Environmental Health & Safety (*Biosafety Officer*)
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 10:10 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. **GUEST PRESENTATION:** The IBC Chair introduced David Russell, a UW hematology professor. He discussed the potential oncogenicity of adeno-associated viral (AAV) vectors. There were two Nature Genetics papers published recently (one authored by David Russell) that pointed to a potential link between AAV and hepatocellular carcinomas. David Russell explained although there is some level of risk of an AAV vector integrating near an oncogene, no tumors are seen in the vast majority of studies. In Dr. Russell's opinion, BSL-1 containment is appropriate for AAV.

4. **APPROVAL OF MINUTES:**
    - The IBC Chair sought a motion to approve the minutes from the March 16, 2016 meeting.
    - A member made a motion to approve the March 16, 2016 minutes. Another member seconded the motion.
    - <u>The committee voted unanimously, with three abstentions, to approve the March 16, 2016 meeting minutes.</u>

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.
        - Dr. Gale added wild-type Sendai virus to his approval letter.
        - Dr. Thummel, Dr. Yabuki, and Dr. Mao each renewed a BUA involving human cell lines.
        - A new BUA letter was issued to Dr. Opp in response to the IBC's decision in January that BSL-2/ABSL-2 containment is required for working with mouse-adapted influenza viruses. A discussion occurred about the rooms used on this project. One of the rooms has positive air pressure relative to the corridor. Generally negative air pressure is required. The IBC would like to review the SOPs that were submitted by the investigator. This project will be up for renewal next month. The biosafety officer will check with Facilities Services about the air flow. For now, the project will not be voted on and will be removed from the BSO report.
        - Dr. Eisenberg renewed a project involving human and non-human primate cell lines.
        - Dr. Theberge, Dr. Vavilala, and Dr. Daggett each received a new BUA letter for human cell lines.
        - Dr. Zheng renewed a BUA involving baculovirus and non-pathogenic strains of Escherichia coli.
        - Dr. Cui added *Clostridium sporogenes* used in mice to her BUA letter.
        - Dr. Chamberlain, Dr. Pun, Dr. Garden, Dr. Moritz, Dr. Byers, Dr. Dorschner, Dr. Kenagy, Dr. Hotchkiss, and Dr. Paik each added a new room to their respective BUA letters.

- Dr. Klatt added the culturing of non-human primate fecal samples for several species of bacteria.
- Dr. Juul, Dr. Klatt, and Dr. Adams-Waldorf each received a new approval to work with wildtype Zika virus and human and non-human primate source material.
- Dr. Veesler received a new approval to work with wildtype Zika virus.
- A member made a motion to approve this month's Biosafety Officer Report. Another member seconded the motion.
- The Committee unanimously voted, with two abstentions, to approve this month's Biosafety Officer Report.

6. CATEGORY III-D AMENDMENTS

1. Klatt, Nichole, change, *Probiotic Use as an Adjuvant in HIV Vaccine*

- The biosafety officer presented the project.
- Dr. Klatt is transferring the agents from one BUA (which will be closed and archived) to this BUA. No agents in animals have been transferred.
- The assigned IBC member endorsed the biosafety officer's review.
- Dr. Klatt needs to take the online biosafety training.
- The draft BUA letter was shown.
- The assigned IBC member made a motion to approve the draft BUA for Dr. Klatt. A second is not needed since he endorsed the review.
- The Committee voted unanimously to approve the draft BUA for Dr. Klatt, contingent on completion of the biosafety training.

2. Mougous, Joseph, change, *Type VI secretion-dependent interbacterial interactions*

- The biosafety officer presented the project.
- Dr. Mougous is adding two species of bacteria, *Staphylococcus epidermidis* and *Streptococcus intermedius*, for in vitro use. The Mougous lab has already been approved for several *Staphylococcus* and *Streptococcus* species.
- 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. Mougous. A second is not needed since he endorsed the review.
- The Committee voted unanimously to approve the draft BUA for Dr. Mougous.

7. INDIVIDUAL PROJECT REVIEWS

3. Bajjalieh, Sandra, renewal, *Cell Biology of the Neuron*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The overall goal of the goal of the Bajjalieh lab is to identify the molecular events that produce and regulate neuronal function.
- Lentiviral vectors and human and non-human primate cells are 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. Bajjalieh. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Bajjalieh.

4. Darvas, Martin, change, *Genetic analysis of mouse behavior*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The PI studies the genetic basis for behavior in mice. The investigator is already approved for AAV and now would like to use lentiviral vectors.
- The lab has recently been inspected. All of the required trainings have already been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Darvas. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Darvas.

5. Greenberg, Everett Peter, renewal, *Quorum Sensing in Burkholderia mallei*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The lab studies the molecular mechanism and evolution of quorum sensing and response.
- Recombinant DNA is used in a variety of pathogens, including *Burkholderia thailandensis, Proteus mirabilis, Pseudomonas aeruginosa*, and *Staphylococcus aureus*.
- Human cells as well as sputum from cystic fibrosis patients will also be used.
- Chemical hazards and radionuclides are also used on this project. An industrial hygienist and radiation safety officer have reviewed the project as well.
- The draft BUA letter was shown.
- There are still two questions on the BUA application that need to be completed. Also, the investigator needs to clarify whether or not he is using a room in the T-wing.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Greenberg. 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. Greenberg, pending completion of two questions on the BUA application and clarification of which rooms are used.

6. Neumaier, John, renewal, *Regulation of Serotonin Receptors*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The Neumaier lab studies the regulation of the serotonin system in order to better understand its role in an array of behaviors that relate directly to human disease and dysfunction.
- Adeno-associated viral vectors, canine adenoviral vectors, and herpes simplex viral vectors are used in mice and rats.
- The lab inspection and the training have been completed.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Neumaier. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Neumaier.

7. Smith, Jason, renewal, *Antiviral Mechanisms of Defensins*

- One member declared a conflict of interest.
- The assigned IBC Primary Reviewer presented the Primary Review.

- Defensin antimicrobial peptides are a component of the innate immune system that are capable of neutralizing bacteria, fungi, and some viruses. This project seeks to understand how these molecules function in mucosal defense to alter viral and bacterial infection and pathogenesis.
- Influenza viruses and lentiviral vectors are used on the project, as well as a variety of wildtype Risk Group 2 bacteria are used in vitro. Mouse adenovirus is used in mice.
- The draft BUA letter was shown.
- The lab inspection and required trainings have been completed.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Smith. 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. Smith.

8. Stevens, Kelly, renewal, *Regenerative Technologies*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The Stevens lab is interested in regenerative medicine for heart and liver disease.
- Human primary cells as well as induced pluripotent stem cells are used in a rat model. Lentiviral vectors will also be used to transduce cells with fluorescent proteins and indicators.
- The lab inspection and 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. Stevens. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Stevens.

9. Van Voorhis, Wesley, renewal, *1. Immune Response: Chagas 2. Biochemistry of Protein Prenylation 3. Plasmodium falciparum Protein Farnesyltransferase Inhibitors 4. Drugs for Toxoplasma and Cryptosporidium*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The overall goal of the project is to develop therapeutic drugs against the various protozoan pathogens, using a combination of crystal structures derived from drug-target proteins overexpressed in E. coli K12 strains, and in vitro and in vivo (mice and rats) testing of new drugs.
- Several protozoan species are used on the project, including Cryptosporidium parvum, Trypanosoma brucei, Trypanosoma cruzi, and Plasmidium berghei.
- The lab inspection and all of 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. Van Voorhis. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Van Voorhis.

10. Woodrow, Kim, renewal, *Primate Models to Evaluate HIV Preventions and Strategies*

- One member declared a conflict of interest.
- The assigned IBC Primary Reviewer presented the Primary Review.
- This is a BUA renewal for an ongoing program to test safety and efficacy of antiretroviral compounds that are formulated with nanofibers and then applied to mucosal surfaces to prevent or inhibit SHIV (simian/human immunodeficiency virus) infections in macaques.

- Primate lentiviruses including SHIV are used on this project in an in vivo macaque model.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Woodrow. A second is not needed since he is the Primary Reviewer.
- The Committee voted unanimously to approve the draft BUA for Dr. Woodrow.

OTHER VOTING ITEMS:

- The biohazardous waste management plan has been updated. References to trace chemo waste were added, and the definition of regulated medical waste was added. The wording in the definition of "steam sterilization" was changed to match the Seattle Municipal Code. The IBC ruling to allow direct sewering of waste from animals not experimentally exposed to any biohazardous agents or recombinant DNA was incorporated in the animal bedding & waste section.
- The Committee voted unanimously, with one abstention, to approve the biohazardous waste management plan.

FOR YOUR INFORMATION:

- EH&S has developed draft autoclave guidelines and a template SOP for autoclaving biohazardous waste. The intention is to provide training on safe use and operation for all autoclave users, and to be a user-friendly tool to help labs/facilities meet the regulatory requirements for proper sterilization of biohazardous waste. During lab inspections, the biosafety officers will verify that laboratories autoclaving biohazardous waste have an SOP in place and have trained staff on the guidelines.
- The EH&S manager of program operations gave a presentation about biosafety cabinets and canopy alarms.

ISSUES FROM THE FLOOR & PUBLIC COMMENTS:
There were no issues from the floor, and no public comments.

MEETING ADJOURNED AT APPROXIMATELY 12:00 p.m.