INSTITUTIONAL BIOSAFETY COMMITTEE

UNIVERSITY of WASHINGTON

Meeting Minutes

Date: Wednesday, September 18, 2019
Time: 10:00 AM – 12:00 PM

Location: Health Sciences Building, Room T-269

Members Present:

1. Thea Brabb, Comparative Medicine *(Animal Containment Expert)*
2. Lesley Colby, Comparative Medicine *(Animal Containment Expert)*
3. Richard Grant, Washington National Primate Research Center
4. Garry Hamilton (*Community Member*)
5. Kevin Hybiske, Allergy and Infectious Diseases
6. David Koelle, Allergy and Infectious Diseases
7. Stephen Libby, Laboratory Medicine (*IBC Chair*)
8. Susan Parazzoli (Community Member)
9. Jason Smith, Microbiology (*IBC Vice Chair*)
10. Eric Stefansson, Environmental Health & Safety (*Biosafety Officer, Animal Containment Expert*)

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 10:03 a.m. 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 August 21, 2019 meeting.
   - A member made a motion to approve the August 21, 2019 minutes. Another member seconded the motion.
   - The committee voted unanimously to approve the August 21, 2019 meeting minutes. Five members abstained from voting because they were not in attendance at the August 21, 2019 meeting.

4. **OLD BUSINESS:**
   - At the August 2019 meeting, Dr. Neitz's BUA was approved pending a change to BUA letter. This BUA has been sent out.
   - At the August 2019 meeting, Dr. Xia's BUA was approved pending clarification of rat use. This BUA has been sent out.
   - At the August 2019 meeting, Dr. Zhang's BUA was approved pending a successful lab inspection pending. This is still pending.

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
      - Dr. Isoherranen renewed the BUA *Mechanisms of Regulation of Retinoic Acid Homeostasis* working with Baculoviral vectors, non-pathogenic strains of E. coli, and human blood, tissue, body fluids, and cell lines in vitro.
      - Dr. Gale was given approval to perform fractionation extractions from cells infected with Sendai virus or VSV for the BUA *The Host Response to Virus Infection.*
      - Dr. King renewed the BUA *King Lab Research* working with Epstein-Barr virus and human blood, tissue, body fluids, and cell lines in vitro.
      - Dr. Kawas renewed the BUA *The Development of Small Molecule Therapeutics for Treatment of Neurodegenerative Diseases* working with human blood, tissue, body fluids, and cell lines in vitro.
      - Dr. Doulatov added new lab spaces to the BUA *Hematopoiesis from cord blood and pluripotent stem cells.*
      - Dr. Herr renewed the BUA *Volatility of Mutator Phenotypes* working with recombinant or synthetic DNA/RNA (non-viral) enhanced gene delivery methods in vitro.
      - Dr. Vojtech renewed the BUA *Mechanisms of sexual virus transmission* working with Herpes simplex virus 2, Zika virus, and human and non-human primate blood, tissue, body fluids, and cell lines in vitro.
      - Dr. Starita added new lab spaces to the BUA *Brotman Baty Advanced Technology Lab: General Research.*

- Dr. Bruchas added a new lab space to the BUA *Neuromodulation in Affective Behavior.*
- Dr. Rosenberg was approved for a new BUA, *Combinatorial Barcoding for Single-Cell RNA-sequencing,* working with human blood, tissue, body fluids, and cell lines in vitro.
- Dr. Tait Wojno was approved for a new BUA, *Regulation of immunity and inflammation at mucosal surfaces,* using Nippostrongylus brasiliensis and Trichuris muris in vitro and in mice.
- Dr. Fleuriet was approved for a new BUA, Neural Mechanisms for Vision, using adeno-associated viral vectors (adenovirus free), replication deficient Herpes simplex viral vector, and HIV pseudotyped, replication deficient lentiviral vectors in macaques.
- Dr. Yager added the in vitro use of inactivated HIV-1 virus to the BUA *Disposable Protein Detection Test.*
- Dr. Paik renewed the BUA *GNAC facility* working with human feces and Mycobacterium bovis, BCG strain, in mice.
- Dr. Fields renewed the BUA *Development of Protein and Nucleic Acid Technologies* using Bacteriophage in vitro.
- Dr. Greninger added the use of Chimpanzee Herpes Virus for in vitro work to the BUA *Discovery and Characterization of Virus-Host Interactions.*
- 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. **DURC REPORT:** The Dual Use Research of Concern Institutional Review Entity (DURC IRE) did not meet this month because there were no applications to review.

7. **INDIVIDUAL PROJECT REVIEWS**

a. Akilesh, Shreeram, new, *Kidney Disease Genomics*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab is interested in kidney development, structure, and function in health and disease. They will knock down a gene for a metallopeptidase (ADAMTS5) using a lentiviral vector encoding shRNA. All work is in cell culture, although primary human and mouse tissues will be used.
- A successful lab inspection is still required.
- 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. Akilesh pending a successful lab inspection.
- The Committee voted unanimously to approve the draft BUA for Dr. Akilesh pending a successful lab inspection.

b. Chao, Jennifer, renewal, *In vitro models of retinal degenerative diseases*

- The assigned IBC Primary Reviewer presented the Primary Review.

- The goal is to establish in vitro models of retinal degeneration to screen for pro-survival drug compounds. The group will use human and mouse primary cells and cell lines, which will be transfected with DNA/RNA/siRNA/miRNA into plasmids, replication incompetent lentivirus (GFP or eye specific genes), and AAV vectors with the same inserts. They also will be creating induced pluripotent stem cells using transfection of episomal vectors.
- The lab was inspected and no deficiencies were identified.
- 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. Chao.
- The Committee voted unanimously to approve the draft BUA for Dr. Chao.

c. Chen, Eleanor, renewal, *Druggable pathways in rhabdomyosarcoma*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab uses zebrafish, human cells, and mice as tool to study rhabdomyosarcoma, a common pediatric cancer, with the goal to identify novel molecular pathways that are important to drive tumor formation. The long-term goal is to identify drug targets based on the molecular pathways identified in this study to improve survival of patients with rhabdomyosarcoma.
- The lab was inspected and no deficiencies were identified.
- 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. Chen.
- The Committee voted unanimously to approve the draft BUA for Dr. Chen.

d. Doherty, Dan, renewal, *Joubert Syndrome and related disorders*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab works on genetic abnormalities such as Joubert Syndrome, a condition caused by a lack of development of the cerebellum during embryogenesis.
- The most significant biohazards are human blood, cells, fluids and infectious EBV.
- The lab was inspected and all deficiencies were corrected.
- 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. Doherty.
- The Committee voted unanimously to approve the draft BUA for Dr. Doherty.

e. Horwitz, Greg, change, *Neurophysiology of Vision*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab is requesting to add one new Herpes Simplex Virus vector to use as a viral tracer for neural circuit tracing in vitro and in macaques.
- Committee discussion led to a decision to request that the lab test the HSV for resistance.
- The lab was recently inspected, so a new lab inspection was not required for this change.
- All of the required trainings have been completed.
- The IACUC protocol amendment has yet to be submitted, and will require review.
- The draft BUA letter was shown.

- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Horwitz pending IACUC review, testing HSV for resistance, and occupational health recommendations. An update on the status of these items will be given at next IBC.
- The Committee voted unanimously to approve the draft BUA for Dr. Horwitz pending the conditions above.

f. Kueh, Hao Yuan, renewal, *Single-cell analysis of immune cell fate decisions*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab studies fate decisions in T cells and macrophages at the single cell level.
- LCMV use in transgenic mice, gammaretroviral vectors, and lentiviral vectors are the most important biohazardous agents used.
- The lab was inspected and all deficiencies were corrected.
- 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. Kueh.
- The Committee voted unanimously to approve the draft BUA for Dr. Kueh.

g. Lund, Jennifer, renewal, *Evaluating immunity to West Nile virus infection*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This groups evaluates the immune response to West Nile virus infection in a mouse model to investigate the role of regulatory T cells in promoting immune response and the role of host genetics in immunity.
- Mice will be injected with West Nile virus and housed at UW. Their tissue will be fixed before returning to the Fred Hutch Cancer Research Center.
- The lab was inspected and no deficiencies were identified.
- 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. Lund.
- The Committee voted unanimously to approve the draft BUA for Dr. Lund.

h. Ong, Shao-En, new, *Defining Pathway-Specific Kinase Signaling Modules with Proteomics*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab studies canonical cell signaling pathways in order to define pathway-specific signaling modules. Their goal is to identify phosphosignatures of cell signaling pathways for clinical diagnostic.
- Work includes human cell lines, third general lentiviral vectors, and enhanced gene delivery methods.
- The lab was inspected and no deficiencies were identified.
- 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. Ong.
- The Committee voted unanimously to approve the draft BUA for Dr. Ong.

i. Poolos, Nicholas P., renewal, *Epilepsy and Dendritic Excitability*

- The assigned IBC Primary Reviewer presented the Primary Review.
- The goal of this research is to examine possible mechanisms causing ion-channel dysfunction following acquired results to the brain, and to determine whether

biochemical modification of the HCN1 ion channel in epileptic brain tissue can serve as a molecular biomarker of epileptic brain tissue.
- This project will not involve any work with biohazards until the group can return to Harborview Research & Training. An inspection will take place once the building is reopened.
- 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. Poolos.
- The Committee voted unanimously to approve the draft BUA for Dr. Poolos.

j. Seshadri, Chetan, renewal, *Human Immunity to Mycobacterial Diseases*
- The assigned IBC Primary Reviewer presented the Primary Review.
- This project investigates genetic, molecular, cellular, and immunologic mechanisms of mycobacterial disease pathogenesis with the objective of understanding why people have varying susceptibility to infections like tuberculosis to lead to improved treatment strategies.
- The PI lists work with primary human and non-human primate blood samples as the greatest biohazard risk to lab personnel.
- This renewal still requires a successful lab inspection.
- 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. Seshadri pending a successful lab inspection.
- The Committee voted unanimously to approve the draft BUA for Dr. Seshadri pending a successful lab inspection. One member abstained from the vote.

k. Sniadecki, Nathan J., renewal, *Studying Cellular Mechanics and Mechanotransduction with Microsystems*
- The assigned IBC Primary Reviewer presented the Primary Review.
- This project works to better understand the mechanics of biological cells using engineered tools. Work includes human cell lines transduced with lentiviral vectors containing mCherry-alpha actinin.
- The lab was inspected and no deficiencies were identified.
- 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. Sniadecki.
- The Committee voted unanimously to approve the draft BUA for Dr. Sniadecki.

l. Tang, Gale, change, *Mechanisms of Arteriogenesis in Mice and Rats*
- The assigned IBC Primary Reviewer presented the Primary Review.
- The PI plans to add human vein cell lines to be transfected with AAV-GFP, as well as human vein cell line cultures exposed to fluorescent iron microparticles, in nude rats previously approved.
- The lab was inspected and no deficiencies were identified.
- 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. Tang.

- The Committee voted unanimously to approve the draft BUA for Dr. Tang.

m. Wood, Gwendolyn, renewal, *Multiple projects involving sexually transmitted bacterial pathogens*

- The assigned IBC Primary Reviewer presented the Primary Review.
- This lab studies the pathogenesis and microbiology of sexually transmitted bacterial pathogens, primarily Mycoplasma genitalium.
- Dr. Wood is taking over this renewal BUA from Dr. Totten at the time of BUA renewal.
- The temporary lab space requires a successful inspection. The group's lab spaces in Harborview Research & Training will be inspected once they are able to return to the currently closed building
- 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. Wood pending a successful lab inspection.
- The Committee voted unanimously to approve the draft BUA for Dr. Wood pending a successful lab inspection.

8. SUBCOMMITTEE REPORTS:

n. Maloney, David, renewal, *A Phase 1, Multicenter, Open-Label Study of JCAR017, CD19-targeted Chimeric Antigen Receptor (CAR) T Cells, for Relapsed and Refractory (R/R) B-cell Non-Hodgkin Lymphoma (NHL)*

- Two members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
- This is a renewal BUA application for a current clinical trial. Patients at UWMC are taking part in this multicenter study of autologous T cell therapy for Non-Hodgkin Lymphoma. The patient will be intravenously infused with transduced T cells at UWMC.
- The draft BUA letter was shown.
- A member made a motion to approve the draft BUA letter for Dr. Maloney. Another member seconded the motion.
- The Committee voted unanimously to approve the draft BUA for Dr. Maloney.

10. FOR YOUR INFORMATION:

- **NIH Incident Report:** An individual was collecting blood from a non-human primate using a butterfly needle with a vacutainer holder. The individual noticed blood had collected in the vacutainer housing. Before placing the next tube in the vacutainer, the individual attempted to clean some of the blood from the inside of the vacutainer housing. During the process, the person stuck their finger on the needle inside of the housing. The individual was not following standard operating procedures. This incident has been reported to the NIH OSP and is awaiting a response.
- **Non-Human Primate Feces Disposal:** WaNPRC sewer flushing standard operating procedures are being revisited. An IBC subcommittee will be formed to recommend a proposal for treatment of feces.

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

12. **MEETING ADJOURNED AT APPROXIMATELY 11:34 A.M.**