



INSTITUTIONAL BIOSAFETY COMMITTEE

UNIVERSITY *of* WASHINGTON

Meeting Minutes

Date: Wednesday, May 17, 2023

Time: 10:00 AM – 12:00 PM

Location: Zoom

- Members Present:**
1. Jim Boonyaratanakornkit, (Allergy and Infectious Diseases)
 2. Thea Brabb, Comparative Medicine (*Animal Containment Expert*)
 3. Jason Cantera (*Community Member*)
 4. Lesley Colby, Comparative Medicine (*Animal Containment Expert*)
 5. Lesley Decker, Environmental Health & Safety (*Biosafety Officer*)
 6. Erin Heiniger, Department of Bioengineering (*Laboratory Specialist*)
 7. Kevin Hybiske, Allergy and Infectious Diseases (*IBC Vice Chair*)
 8. David Koelle, Allergy and Infectious Diseases
 9. Stephen Libby, Laboratory Medicine (*Animal Containment Expert*)
 10. Scott Meschke, Environmental & Occupational Health Sciences
 11. Susan Parazzoli (*Community Member*)
 12. Jason Smith, Microbiology (*IBC Chair*)
 13. Elyse Verstelle, Department of Immunology (*Laboratory Specialist*)

Commonly Used Abbreviations

AAV: adeno-associated viral vector

BSL: Biosafety level

BSL-2w/3: BSL-2 with BSL-3 practices

BSO: Biosafety officer

BUA: Biological Use Authorization

DURC: Dual Use Research of Concern

IACUC: Institutional Animal Care and Use Committee

IBC: Institutional Biosafety Committee

iPS: induced pluripotent stem cells

NHP: non-human primate

NIH: National Institutes of Health

PI: Principal Investigator

rDNA: Recombinant or synthetic DNA/RNA

RG: Risk Group

SOP: standard operating procedure

Source material: blood, tissue, body fluids, and cell lines

1. **CALL TO ORDER:** The Institutional Biosafety Committee (IBC) Chair called the meeting to order at 10:02 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 April 19, 2023, meeting.
 - A member made a motion to approve the April 19, 2023, minutes. Another member seconded the motion.
 - The committee voted unanimously, with one member abstaining and one member recusing, to approve the April 19, 2023, meeting minutes.
4. **OLD BUSINESS:**
 - At the April 19, 2023, meeting, Dr. Brockerhoff's BUA was approved pending successful completion of the lab inspection. This BUA is still pending.
 - At the April 19, 2023, meeting, Dr. Scott's BUA was approved pending successful completion of the lab inspection response. This BUA has been sent.
 - At the April 19, 2023, meeting, Dr. Stewart's BUA was approved pending successful completion of the lab inspection. This BUA is still pending.
 - At the April 19, 2023, meeting, Dr. Wood's BUA was approved pending successful completion of the lab inspection and clarification of the antibiotic resistance work and potential development of a medical management plan. This BUA is still pending.
 - At the April 19, 2023, meeting, Dr. Veessler's BUA was approved pending updates to the BUA letter. This BUA has been sent.
 - At the April 19, 2023, meeting, Dr. Goss's BUA was approved pending successful completion of the lab inspection and required training. This BUA has been sent.
5. **BIOSAFETY OFFICER (BSO) REPORT:** The Biosafety Officer Report includes projects involving: (1) recombinant or synthetic nucleic acids covered under section III-E and III-F of the *NIH Guidelines*, (2) non-recombinant biological agents requiring BSL-2 with BSL-3 practices containment or lower, and (3) administrative updates, such as room additions.
 - a. Biosafety Officer Report
 - Dr. Wakimoto added and removed rooms for previously approved work to the BUA *Developmental Genetic Analysis of Fertilization Pathways in Drosophila*.
 - Dr. Pepper was approved for in vitro work with cells pre-approved by EH&S and the IBC for BSL-1, BSL-2, and BSL-2w/3 containment practices to the BUA *Cell Analysis Facility*.
 - Dr. Gardiner renewed in vitro work with rDNA and non-pathogenic E. coli strains on the BUA *Bone cell regulation* (III-E and III-F).
 - Dr. Wordeman renewed in vitro work with rDNA, non-pathogenic strains of E. coli and human source material on the BUA *Microtubule Dynamics and Error Correction* (III-E and III-F).
 - Dr. Frevert renewed in vitro work with cells pre-approved by EH&S and the IBC for BSL-1, BSL-2 containment practices, SARS-CoV-2, and human and NHP source material to the BUA *Use of BSL2 agents in Histology and Imaging Core*.

- Dr. Kalani was approved for in vitro work with human source material to the BUA Determinants of Incident *Stroke Cognitive Outcomes and Vascular Effects on Recovery (DISCOVERY)*.
- Dr. Greninger renewed in vitro work with clinical samples from patients suspected to be infected with SARS-CoV-2, rDNA, Respiratory syncytial virus (RSV), Human T-lymphotropic virus type 1, and HIV to the BUA *Clinical Virology Testing in Support of Clinical Trials, Research, and Diagnostics (III-F)*.
- Dr. Pan was approved for in vitro work with human and NHP source material on the BUA *Biodemography Lab*.
- Dr. Werth renewed in vitro work with human source material and bacteria working at BSL-1 and BSL-2 on the BUA *Pharmacokinetics and pharmacodynamics of antimicrobial agents on common bacterial pathogens*.
- Dr. Ceballos Ochoa was approved for in vitro work with human source material on the BUA *Characterization of volatile organic compounds (VOCs) exposure and related protein adductomic signatures to evaluate a local public health intervention in safer degreasers*.
- Dr. Marsillach Lopez was approved for in vitro work with human source material on the BUA *Human blood biomarkers of exposure and disease*.
- Dr. Totah renewed in vitro work with non-pathogenic strains of E. coli, human source material and rDNA on the BUA *Investigating pathophysiological reasons that influence cardiovascular disease (III-E and III-F)*.
- Dr. Rathod renewed in vitro work with non-pathogenic strains of E. coli, rDNA, human source material and Plasmodium falciparum on the BUA *Genomic Tools to Characterize Hypermutating Plasmodium falciparum (III-F)*.
- Dr. Sweet renewed in vitro work with human source material on the BUA *WISH HMC Facility*.
- Dr. Wang renewed in vitro work with human and NHP source material on the BUA *Optical imaging of microstructures and microcirculations in tissue*.
- Dr. Johnstone added a room and removed rooms for previously approved work to the BUA *Factors Regulating Aqueous Outflow in Glaucoma*.
- Dr. Abitua added additional room and registered new gene inserts for previously approved work to the BUA *Abitua: General Research (III-D)*.
- Dr. Sokourenko added work with pathogenic strains of E. coli in mice to the BUA *Molecular Adaptation of Uropathogenic E. coli; Properties of Bacterial Adhesins; Pathogenic Adaptation of Microbial Adhesins, New Statistical Methods for Neutral Phylogenetic Reconstruction; Mechanism of Acquisition and Spread of antimicrobiola resistance; Epidemiology and clonality of SARS-CoV-2, including SNP-based typing*.
- The IBC Chair 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

- One project received approval for the use of botulinum neurotoxin. It does not meet the DURC definition.
- The IBC Chair sought a motion to approve this month's DURC Report.

- A member made a motion to approve this month's DURC Report. Another member seconded the motion.
- The Committee unanimously voted to approve this month's DURC Report.

7. INDIVIDUAL PROJECT REVIEWS

- a. Brown, Mary Beth, renewal, *Maximizing Benefit and Minimizing Cardiotoxicity of Exercise for Duchenne Muscular Dystrophy (DMD)*
- Section III-D
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Brown lab aims to measure the acute and chronic effects of exercise in the Duchenne Muscular Dystrophy (DMD) rat and optimize the regimen for young DMD patients based on results.
 - This lab works with AAV in rats.
 - A lab inspection was not required as the in vivo space was recently inspected.
 - All required trainings are complete.
 - This project has an IACUC protocol in review.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Brown.
 - The Committee voted unanimously to approve the draft BUA for Dr. Brown, with one member not submitting a vote.
- b. Campos, Carlos, renewal, *Viscerosensory contributions to behavior*
- Section III-D
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Campos lab aims to understand neuronal signaling and neurosynaptic mechanisms, in the larger context of neuronal physiology and memory.
 - This lab works with AAV and rabies viral vector (avian pseudotyped) in mice.
 - A committee member requested a brief overview of the safety mechanisms of the rabies virus vector (avian pseudotyped) and an overview was provided.
 - The lab was inspected, and all deficiencies have been corrected.
 - All required trainings are complete.
 - The IACUC protocol is still pending.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Campos.
 - The Committee voted unanimously, with one member recusing, to approve the draft BUA for Dr. Campos.
- c. Duthie, Malcolm, renewal, *Novel immunization strategies to protect against infectious diseases*
- Section III-D
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The goal of the Duthie lab's research is to develop improved vaccines and immune therapies through the development of improved delivery platforms and formulations.
 - The lab uses wildtype enterovirus D, Zostavax varicella-zoster vaccine, influenza virus-like particles, and recombinant with enhanced gene delivery methods in mice.
 - A lab inspection was not required as all work takes place inside a vivarium.

- The required trainings are still pending.
 - There are occupational health requirements for work with the Zostavax vaccine.
 - This project has an IACUC protocol in review.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Duthie.
 - The Committee voted unanimously to approve the draft BUA for Dr. Duthie.
- d. Fowler, Douglas, renewal, *Large-Scale Phenotyping of Tumor Suppressor Variant in Human Cells*
- Sections III-D, III-E, and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The goal of the Fowler lab's research is to measure and understand how mutations in proteins due to diseases like cancer, Alzheimer's and Parkinson's disease impact the functions of those proteins.
 - The lab transduces human and mouse cell lines with AAV, gammaretroviral (ecotropic), and lentiviral vectors in vitro.
 - A lab inspection has been performed and is still pending a response.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Fowler.
 - The Committee voted unanimously to approve the draft BUA for Dr. Fowler pending successful completion of the lab inspection response.
- e. Frevert, Charles, renewal, *Proteoglycans and Influenza Infection: Gene-targeted mouse models to study versican*
- Section III-D
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The goal of the Frevert lab's research is to determine how a family of proteins called proteoglycans help regulate the ability of the immune system to detect, eliminate, and recover from lung viral infections.
 - The lab works with mouse-adapted influenza virus strains in vitro and in mice. They also use third generation lentiviral vectors to transduce mouse cells. The lentiviral vectors and transduced cells are administered to mice.
 - The lab was inspected, and all deficiencies have been corrected.
 - All required trainings are complete.
 - There are occupational health requirements for work with influenza virus.
 - The IACUC protocol is still pending.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Frevert.
 - The Committee voted unanimously to approve the draft BUA for Dr. Frevert.
- f. Hoffman, Lucas, renewal, *Microbiology of people with cystic fibrosis and other chronic infections*
- Sections III-D and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Hoffman lab identifies members of the microbial community that are present in clinical samples from children and adults with chronic infections, such as cystic fibrosis.

- The lab works with many RG 1 and 2 bacteria including recombinant versions of *Pseudomonas aeruginosa* and *Staphylococcus aureus*. They also process clinical samples such as sputum, feces, and bronchoalveolar lavage.
- A discussion occurred regarding antibiotic resistance studies. The committee asked that the PI provide more information about the antibiotic resistance they are studying in the *P. aeruginosa* and *S. aureus* and if they are introducing any antibiotic resistance to front line therapeutics.
- The lab inspection is scheduled for after the IBC meeting.
- All required trainings are complete.
- Occupational Health Comments: For use of *Streptococcus pneumoniae* (pneumococcus), the PI or supervisor must offer the vaccine to personnel who have direct contact with the agent, infected animals, or contaminated items.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Hoffman.
- The Committee voted unanimously to approve the draft BUA for Dr. Hoffman pending a successful lab inspection and clarification on the antibiotic resistance used in the recombinant *P. aeruginosa* and *S. aureus*.

g. Hoppins, Suzanne, renewal, *Mitochondrial Behavior*

- Sections III-D, III-E, and III-F.
- The assigned IBC Primary Reviewer presented the Primary Review.
- The overall goal of the Hoppins lab is to study the behavior of mitochondria including the mechanism of mitochondrial movement on microtubules and the mechanism of mitochondrial fusion using biochemical and biological techniques.
- The lab creates transgenic *C. elegans* worms and uses ecotropic gammaretroviral and lentiviral vectors as well as human and non-human primate cell lines.
- A lab inspection has been performed and is still pending a response.
- All required trainings are complete.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Hoppins.
- The Committee voted unanimously to approve the draft BUA for Dr. Hoppins pending successful completion of the required training and lab inspection response, with one member not voting.

h. Kollman, Justin, new, *Cryo-FIB Helicobacter Pylori*

- Section III-D.
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Kollman lab aims to investigate the cellular structure of *H. pylori* at high resolution and to understand the molecular machinery that gives the bacterium its unique helical shape.
- This lab works with *Helicobacter pylori* in vitro.
- A lab inspection has been performed and is still pending a response.
- The required trainings are still pending.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Kollman.
- The Committee voted unanimously to approve the draft BUA for Dr. Kollman pending completion of the lab inspection response, with one member not submitting a vote.

- i. Lee, Kelly, change, *Structural studies of enveloped viruses and plasmodia*
- Sections III-D and III-E
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Lee lab is adding work involving the expression, purification, and biophysical and structural biological characterization of recombinant protein fragments (ectodomain only) that are originally derived from avian influenza virus strains.
 - A lab inspection was not required as the lab was recently inspected.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Lee.
 - The Committee voted unanimously to approve the draft BUA for Dr. Lee, with one member not submitting a vote.
- j. Moussavi-Harami, Farid, renewal, *Cardiomyopathy Mechanisms and Therapies*
- Section III-D, III-E, and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Moussavi-Harami lab aims to understand mechanisms involved in genetic and acquired cardiac cardiomyopathies and to test novel therapies.
 - This lab works with AAV, rDNA, and non-pathogenic strains of E. coli in vitro.
 - A lab inspection has been performed and is still pending a response.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Moussavi-Harami.
 - The Committee voted unanimously to approve the draft BUA for Dr. Moussavi-Harami pending successful completion of the lab inspection response, with three members not submitting a vote.
- k. Palmiter, Richard, renewal, *Genetics Mouse Behavior*
- Sections III-D and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Palmiter lab aims to elucidate neural circuits that control behavior using mouse genetics and viral transduction.
 - This lab works with AAV in vitro and in mice. They also work with rDNA and non-pathogenic strains of E. coli in vitro only.
 - A lab inspection has been performed and is still pending a response.
 - All required trainings are complete.
 - This project has an IACUC protocol in review.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Palmiter.
 - The Committee voted unanimously to approve the draft BUA for Dr. Palmiter, with three members not submitting a vote.
- l. Parsek, Matthew, renewal, *Responses of Pseudomonas aeruginosa to other bacteria in the CF Lung*
- Sections III-D, III-E and III-F

- The assigned IBC Primary Reviewer presented the Primary Review.
 - The Parsek lab aims to understand the molecular complexities of *Pseudomonas aeruginosa*.
 - This lab works with *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Burkholderia thailandensis*, *Vibrio fischeri* in addition to other RG 1 and 2 bacteria in vitro.
 - The lab inspection is scheduled for after the IBC meeting.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Parsek.
 - The Committee voted unanimously to approve the draft BUA for Dr. Parsek pending successful completion of the lab inspection response and an update to the BUA letter, with three members not submitting a vote.
- m. Stella, Nephi, renewal, *AAV for mice brain imaging*
- Sections III-D, III-E and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Stella lab aims to better understand how G-protein coupled receptors (GPCRs) function in the context of stress, depression, addiction, and pain.
 - This lab works with AAV in mice and in vitro. They also work with rDNA in vitro only.
 - A lab inspection was not required as the lab was recently inspected.
 - All required trainings are complete.
 - This project has an IACUC protocol in review.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Stella.
 - The Committee voted unanimously to approve the draft BUA for Dr. Stella, with three members not submitting a vote.
- n. Wang, Edith, renewal, *Regulation of gene expression in cell proliferation and differentiation*
- Sections III-D, III-E and III-F
 - The assigned IBC Primary Reviewer presented the Primary Review.
 - The Wang lab aims to understand the function of proteins in the transcription factor complex TFIID and to understand how mutations in these control proteins alter function and lead to human disorders.
 - The Wang lab works with baculovirus, non-pathogenic strains of *E. coli*, rDNA, insect and rodent cells and human source material in vitro.
 - The lab was inspected, and all deficiencies have been corrected.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Wang.
 - The Committee voted unanimously to approve the draft BUA for Dr. Wang, with three members not submitting a vote.

8. SUBCOMMITTEE REPORTS:

- o. Liao, John, new, *An Open-Label Phase 1 Study To Evaluate The Safety And Efficacy Of Ab-1015 In Patients With Platinum-Resistant Epithelial Ovarian Cancer*
 - Section III-C

- Two members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
 - This is a new application for a first-in-humans, single-site, industry-sponsored (Arsenal Bio), phase 1 dose escalation trial.
 - All required trainings are complete.
 - The draft BUA letter was shown.
 - A member made a motion to approve the draft BUA letter for Dr. Liao. Another member seconded the motion.
 - The Committee voted unanimously to approve the draft BUA for Dr. Liao, with three members not submitting a vote.
- p. Sims, Amy, renewal, *Evaluation of multi-omics data in SARS-CoV 2 infected cells*
- Sections III-D and III-F
 - Four members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
 - The Sims lab aims to understand the host response to the highly pathogenic human coronavirus SARS-CoV-2.
 - This lab works with lentiviral vectors, SARS-CoV-2, rDNA, and human source material.
 - All required trainings are complete.
 - A medical management plan is in place for SARS-CoV-2.
 - The draft BUA letter was shown.
 - A member made a motion to approve the draft BUA letter for Dr. Sims. Another member seconded the motion.
 - The Committee voted unanimously to approve the draft BUA for Dr. Sims, with three members not submitting a vote.
- q. Sims, Amy, renewal, *Evaluation of CoV lipidomics data and How MERS-CoV regulates the innate immune response in primary human lung cells*
- Sections III-D and III-F
 - Four members of the IBC served as the Subcommittee Reviewers. One of the Subcommittee Reviewers presented the Subcommittee Report.
 - The Sims lab aims to understand the host response to highly pathogenic human coronaviruses including severe acute respiratory syndrome coronavirus (2002 SARS-CoV 1 strain) and Middle East respiratory syndrome coronavirus (MERS-CoV).
 - This lab works with Middle East respiratory syndrome coronavirus (MERS-CoV), SARS-CoV-1, rDNA, and human and NHP source material.
 - All required trainings are complete.
 - A medical management plan is in place for MERS-CoV and SARS-CoV-1.
 - The draft BUA letter was shown.
 - A member made a motion to approve the draft BUA letter for Dr. Sims. Another member seconded the motion.
 - The Committee voted unanimously to approve the draft BUA for Dr. Sims, with three members not submitting a vote.

10. FOR YOUR INFORMATION: There was no additional information.

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

12. MEETING ADJOURNED AT APPROXIMATELY 11:35 A.M.