



# INSTITUTIONAL BIOSAFETY COMMITTEE

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## UNIVERSITY of WASHINGTON

### Meeting Minutes

**Date:** Wednesday, March 19, 2025

**Time:** 10:00 a.m. – 12:00 p.m.

**Location:** Zoom

- Members Present:**
1. Lesley Colby, Comparative Medicine (*Animal Containment Expert*)
  2. Lesley Decker, Environmental Health & Safety (*Biosafety Officer*)
  3. Erin Heiniger, Department of Bioengineering (*Laboratory Specialist*)
  4. Richard Grant, Washington National Primate Research Center
  5. Kevin Hybiske, Allergy and Infectious Diseases (*IBC Vice Chair*)
  6. Jennifer Iwamoto, Office of Animal Welfare (*Animal Containment Expert*)
  7. David Koelle, Allergy and Infectious Diseases
  8. Stephen Libby, Laboratory Medicine (*Animal Containment Expert*)
  9. Scott Meschke, Environmental & Occupational Health Sciences
  10. Susan Parazzoli (*Community Member*)
  11. Jason Smith, Microbiology (*IBC Chair*)

#### 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

iPSCs: 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 10:00 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 February 19, 2025, meeting.
  - A member made a motion to approve the February 19, 2025, meeting minutes. Another member seconded the motion.
  - The committee voted unanimously to approve the February 19, 2025, meeting minutes, with one abstention.
4. **OLD BUSINESS:**
  - At the February 19, 2025 meeting, Dr. Cornell's BUA was approved pending submission and review of the IACUC protocol. This BUA is still pending.
  - At the February 19, 2025 meeting, Dr. Duan's BUA was approved pending successful completion of the lab inspection. This BUA has been sent.
  - At the February 19, 2025 meeting, Dr. Giacani's BUA was approved pending clarification of whether antibiotic-resistant strains of *T. pallidum* will be used in rabbits and occupational health review if so. Dr. Giacani confirmed no use of antibiotic-resistant strains in rabbits. This BUA is still pending
  - At the February 19, 2025 meeting, Dr. Kojima's BUA was approved pending successful completion of the lab inspection. This BUA is still pending.
  - At the February 19, 2025 meeting, Dr. Sasamoto's BUA was approved pending successful completion of the lab inspection. This BUA is still pending.
  - At the February 19, 2025 meeting, Dr. Theberge's BUA was approved pending successful completion of the lab inspection. This BUA has been sent.
  - At the February 19, 2025 meeting, Dr. Zhang's BUA was approved pending submission and review of the IACUC protocol. This BUA is still pending.
  - At the February 19, 2025 meeting, Dr. Lee's BUA was approved pending completion of required trainings. 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 Sections 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. Liles initiated work with human source material and rDNA in vitro on the BUA *Mechanism in GI diseases: combined role of activin and TGF-beta signaling*. (Section III-F)
    - Dr. Yabuki renewed work with human source material, cells transduced with lentiviral vectors, and rDNA in vitro on the BUA *Antibody Development*. (Section III-E and III-F)
    - Dr. Mougous added a new vivarium space for work with previously approved agents on the BUA *Mechanisms and consequences of interbacterial interactions*.

- Dr. Zhang added work with HIV-1 in vitro at BSL-2w/3 on the BUA *Development of peptoid-based nanomembranes as anti-virus medical countermeasures*.
- Dr. Baker registered work with mouse cells and tissues on the BUA *Institute for Protein Design and Affiliate Investigators*.
- Dr. Wood initiated work with human source material, non-human primate source material, and rDNA on the BUA *Neonatal Neuroprotection*. (Section III-F)
- Dr. Murphy added work with adenoviral vectors in macaques on the BUA *NHP Study*. This research was approved at the June 2024 IBC meeting and was pending IACUC submission. (Section III-D)
- Dr. Woodward took over work previously overseen by Dr. Reniere on the BUA *Redox regulation and virulence in bacterial pathogens*.
- Dr. Cruzen took over work previously overseen by Dr. Hotchkiss on the BUA *WaNPRC Colonies*.
- Dr. Abitua added work with a new species of killifish on the BUA *Abitua: General Research*.
- Dr. Mu added new rooms for work with previously approved agents on the BUA *Combination therapeutic nanoparticles for enhanced cancer treatment*.
- Dr. Chao added work with additional gene inserts on the BUA *In vitro models of retinal degenerative diseases*.
- Dr. Adams Waldorf renewed work with Zika virus in macaques and Sendai virus, Zika virus, Oropouche virus, and human and non-human primate source material in vitro on the BUA *Experimental Model of Viral-Induced Brain Injury*.
- Dr. Arnold added a new room for work with previously approved agents on the BUA *Antibacterial and cancer therapeutic studies*.
- Dr. Polyak lowered the containment level for work with SARS-CoV-2 on the BUA *Virus-Host Interactions in Cell Culture*.
- Dr. Hyde registered work with new wild-type Sindbis virus on the BUA *Pathogenesis studies of alphaviruses and +ssRNA viruses*.
- Dr. Jarvik renewed work with human source material and rDNA in vitro on the BUA *Pacific Northwest Undiagnosed Disease Network*. (Section III-F)
- Dr. Fuller took over work previously overseen by Dr. Hotchkiss on the BUA *Umoja NHP Project*.
- Dr. Wei renewed work with human source material in vitro on the BUA *Transcription factor genes knock-out in human colon cancer cell line and human melanoma cell line by using CRISPR/CAS9 systems*.
- Dr. Wayne added a new room and core facility to work with previously approved agents on the BUA *Design of Immune Cell as biosensors and therapeutic tools*. (Section III-F)
- Dr. Hillesland renewed work with *Desulfovibrio vulgaris*, *Methanococcus maripaludis*, *E. coli*, and rDNA on the BUA *Studying Genetics of Evolution of Desulfovibrio vulgaris and Methanococcus maripaludis*. (Section III-E and III-F)
- Dr. Khaledi added work with non-human primate source material in previously approved rooms on the BUA *Analysis of Human and Mammalian Tissue and Blood Samples for Lysosomal Storage Diseases*.
- The IBC Chair made 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, with one abstention.

## 6. BSL-3 INACTIVATION REPORT

- Dr. Greninger requested approval for heat treatment inactivation of Highly Pathogenic Avian Influenza H5 samples.
- Dr. Sherman requested approval for boilate heat treatment inactivation of Mycobacterium tuberculosis samples.
- Dr. West requested approval for SV Total RNA lysis buffer treatment inactivation of Burkholderia pseudomallei samples.
- The subcommittee reviewed the procedures and inactivation data provided by the lab and approved their requests.
- The IBC Chair made a motion to approve this month's BSL-3 Inactivation Report.
- The committee voted to approve this month's BSL-3 Inactivation Report.

## 7. DCM ABSL-1 WASTE PRACTICE CHANGES

- A biosafety officer and the biosafety manager shared a presentation on proposed ABSL-1 Waste Practice Changes, including information on previous decisions approved by the IBC, proposed changes, stakeholder and vendor impacts, updated procedure flowcharts, and other documentation to be updated by the changes.
- The IBC Chair made a motion to approve proposed DCM ABSL-1 Waste Practice Changes.
- The committee voted to approve the proposed DCM ABSL-1 Waste Practice Changes, with one recusal.

## 8. INDIVIDUAL PROJECT REVIEWS

- a. Disteche, Christine, renewal, *Molecular Studies of Sex Chromosome Aneuploidy*
  - NIH Guidelines Sections III-D, III-E, and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Disteche lab evaluates the molecular consequences of abnormal numbers of X and Y chromosomes for Klinefelter and Turner syndromes.
  - The lab works with Sendai viral vectors with oncogenic inserts and human source material in vitro at BSL-2 and AAV in mouse cells and E. coli at BSL-1.
  - 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. Disteche.
  - The Committee voted unanimously to approve the draft BUA for Dr. Disteche, pending successful completion of the lab inspection.
- b. Escobar, Thelma, renewal, *Chromatin dynamics in stem cells and immune cell function*
  - NIH Guidelines Sections III-D, III-E, and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Escobar lab studies the biology of hematopoietic stem cells isolated from umbilical cord blood and the mechanisms of chromatin.
  - The lab works with third generation lentiviral vectors and ecotropic gammaretroviral vectors with oncogenes, lab-adapted lymphocytic choriomeningitis virus (LCMV), and human source material at BSL-2, and baculovirus at BSL-1. They also administer

human cells transduced with viral vectors with and without oncogenes and lab-adapted LCMV to mice.

- The lab was inspected, and no deficiencies were noted.
- All required trainings are complete.
- A medical management plan is in place for LCMV.
- 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. Escobar.
- The Committee voted unanimously to approve the draft BUA for Dr. Escobar, pending submission and review of the IACUC protocol.

c. Gottlieb, Geoffrey, renewal, *Antiretroviral Therapy for HIV-2 in Senegal, West Africa*

- NIH Guidelines Sections III-D and III-F
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Gottlieb lab studies drug resistant lentiviruses, HIV-1 and HIV-2, SIV, Simian Immunodeficiency Virus, and Human T-lymphotropic virus type 1 and 2 and identifies natural mutations and genetic manipulation of multiple genes that are targets of antiretroviral drugs.
- The lab works with HIV-1, HIV-2, Human T-lymphotropic virus type 1 and 2, and Simian Immunodeficiency Virus in vitro at BSL-2w/3 practices and human source material at BSL-2.
- The lab was inspected, and all deficiencies have been corrected.
- All required trainings are complete.
- A medical management plan is in place for HTLV.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Gottlieb.
- The Committee voted unanimously to approve the draft BUA for Dr. Gottlieb.

d. Greenberg, Peter, renewal, *Quorum sensing (QS) in Burkholderia mallei*

- NIH Guidelines Sections III-D, III-E, and III-F
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Greenberg lab studies quorum sensing in various bacterial species.
- The lab works with various RG2 microorganisms involved in quorum sensing including *A. xylosoxidans*, *P. aeruginosa*, *S. maltophilia*, *S. Typhimurium*, *L. monocytogenes*, rDNA, and select agent excluded strains of *B. pseudomallei* Bp82 and *Y. pestis* KIM6 at BSL-2.
- The committee discussed the antibiotic-resistant Risk Group 2 (RG2) bacteria and the recommended frontline antibiotics for potential infections. It was agreed that the BUA letter should include a note emphasizing the necessity for lab members to be aware of any resistant strains they are working with in the event of an exposure.
- 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. Greenberg.
- The Committee voted unanimously to approve the draft BUA for Dr. Greenberg, pending addition of BUA letter comment stating that lab members must know what antibiotic-resistant bacterial strains they are working with in case of lab exposure.

- e. Harwood, Carrie, renewal, *Harwood Research Projects*
- NIH Guidelines Sections III-D, III-E, and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Harwood lab studies signaling and gene regulation in bacteria.
  - The lab works with recombinant RG 2 *Acinetobacter* and *Pseudomonas* species and *Burkholderia seminalis* at BSL-2 well as recombinant RG 1 bacteria at BSL-1.
  - The lab was inspected, and no deficiencies were noted.
  - 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. Harwood.
  - The Committee voted unanimously to approve the draft BUA for Dr. Harwood.
- f. Manicone, Anne, renewal, *MMPs in Repair and Immunity*
- NIH Guidelines Sections III-D, III-E, and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Manicone lab studies how immune cells regulate lung injury and resolution and how enzymes shape the immune response.
  - The lab works with third generation replication deficient lentiviral vectors and AAV with oncogenic inserts, wildtype Risk Group 2 microorganisms, and human source material at BSL-2.
  - The lab administers influenza virus, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, and AAV with oncogenes to mice at BSL-2
  - 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. Manicone.
  - The Committee voted unanimously to approve the draft BUA for Dr. Manicone.
- g. Merz, Alex, renewal, *Bacterial interactions with mammalian cells*
- NIH Guidelines Sections III-D, III-E, and III-F.
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Merz lab researches how bacteria cells adhere to human cells as part of the infection process and studies how human cells respond to the attachment.
  - The lab works wildtype and recombinant *Neisseria gonorrhoeae* and meningitidis and *Pseudomonas aeruginosa* at BSL-2 as well as recombinant RG 1 *Neisseria muscoli* and *Acinetobacter baylyi*. They also use third generation lentiviral vectors in human and NHP cells.
  - A discussion took place regarding which antibiotic resistances were being conferred to *Neisseria*; the committee agreed that the PI must clarify that beta lactam resistance is not being conferred to *Neisseria meningitidis*.
  - The lab inspection is scheduled for after the IBC meeting.
  - The required trainings are still pending.
  - Occupational health requirements are in place for *Neisseria meningitidis*.
  - The draft BUA letter was shown.

- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Merz.
  - The Committee voted unanimously to approve the draft BUA for Dr. Merz, pending successful completion of the lab inspection, required training, and confirmation that the PI is not conferring resistance to beta lactams in Neisseria.
- h. Mitchell, Patrick, change, *Evolutionary, genetic, and molecular basis of host-pathogen interactions*
- NIH Guidelines Section III-D
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Mitchell lab proposes to add work with wildtype and recombinant SARS-CoV-2 strains at BSL-2.
  - A lab inspection was not required as the lab was recently inspected.
  - All required trainings are complete.
  - There are occupational health requirements for work with SARS-CoV-2.
  - The draft BUA letter was shown.
  - The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Mitchell.
  - The Committee voted unanimously to approve the draft BUA for Dr. Mitchell.
- i. Nahmani, Marc, renewal, *Structure and Function of Neuronal Microcircuits*
- NIH Guidelines Sections III-D, III-E, and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Nahmani lab studies the structure of neural synapses on a nanoscale and how modifications to the structures can lead to disease states.
  - The lab works with AAV with oncogenic inserts and human source material at BSL-2, as well as AAV, transgenic C. elegans and transgenic Drosophila at BSL-1.
  - 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. Nahmani.
  - The Committee voted unanimously to approve the draft BUA for Dr. Nahmani, pending successful completion of the lab inspection.
- j. Sancak, Yasemin, change, *The role of mitochondrial calcium uptake in health and disease*
- NIH Guidelines Sections III-D
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Sancak lab proposed to add use of AAV in mice to their protocol.
  - The application mentioned adenoviral vectors in addition to AAV. The committee agreed that the PI must confirm that the change is to add AAV in mice and not adenoviral vectors.
  - A lab inspection was not required as all work takes place inside a vivarium.
  - 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. Sancak.
  - The Committee voted unanimously to approve the draft BUA for Dr. Sancak, pending confirmation that only AAV in mice is being added to the project.
- k. Smith, Jason, renewal, *Antiviral Mechanisms of Defensins*

- NIH Guidelines Sections III-D, III-E, and III-F
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Smith lab studies how defensin antimicrobial peptides function to inhibit or enhance pathogenesis by a variety of viruses and bacteria.
- The lab works with lentiviral vectors, third-generation lentiviral vectors with oncogenic inserts, adenoviral vectors, recombinant human and simian viruses, recombinant Salmonella Typhimurium, human and NHP source material, human papillomavirus (HPV), K. pneumoniae, and influenza virus at BSL-2. They also work with AAV, and recombinant RG1 animal viruses at BSL-1.
- The lab was inspected, and all deficiencies have been corrected.
- All required trainings are complete.
- A medical management plan is in place for influenza virus and HPV.
- The draft BUA letter was shown.
- The IBC Primary Reviewer made a motion to approve the draft BUA for Dr. Smith.
- The Committee voted unanimously to approve the draft BUA for Dr. Smith, with one recusal.

I. Soden, Marta, new, *Circuits of Motivated Behavior*

- NIH Guidelines Sections III-D and III-F
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Soden lab studies connections in the brain involved in motivation behavior.
- The lab works with AAV and canine adenoviral vectors in mice. They also use tetrodotoxin in vitro.
- The lab inspection is scheduled for after the IBC meeting.
- 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. Soden.
- The Committee voted unanimously to approve the draft BUA for Dr. Soden, pending successful completion of the lab inspection.

m. Stevens, Kelly, renewal, *Liver Regenerative Technologies*

- NIH Guidelines Sections III-D, III-E, and III-F
- The assigned IBC Primary Reviewer presented the Primary Review.
- The Stevens lab researches cell-based treatments for patients with organ failure due to heart and liver disease by studying primary cells, embryonic stem cells, and induced pluripotent stem cells.
- The lab transplants human and mouse cells transduced with AAV with oncogenic inserts and with third generation lenti viral vectors with oncogenic inserts into mice and rats at ABSL-2. Murine cells transfected with rDNA are implanted into mice and rats at ABSL-1. They also work with adenoviral vectors in vitro and in mice at BSL-2.
- The lab inspection is scheduled for after the IBC meeting.
- 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. Stevens.
- The Committee voted unanimously to approve the draft BUA for Dr. Stevens, pending successful completion of the lab inspection.



- n. Van Voorhis, Wesley, renewal, *Drugs for Apicomplexa parasites, Toxoplasma, and Cryptosporidium*
- NIH Guidelines Sections III-D, III-E and III-F
  - The assigned IBC Primary Reviewer presented the Primary Review.
  - The Van Voorhis lab develops new therapeutic drugs needed for infectious parasites.
  - The lab works with *Cryptosporidium parvum*, *C. tyzzeri*, and *Toxoplasma gondii* in vitro and in mice at BSL-2. They work with SARS-CoV-2 and human and NHP source material at BSL-2.
  - 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. Van Voorhis.
  - The Committee voted unanimously to approve the draft BUA for Dr. Van Voorhis, pending IACUC submission.

**10. FOR YOUR INFORMATION:**

- EH&S has investigated and submitted a report to the NIH for a spill involving recombinant strains of *Salmonella enterica* serovars Typhimurium and Paratyphi A. While visually examining a plate from below, a drop of culture fluid spilled over the edge of the plate and dripped onto a researcher's cheek. No culture fluid contacted the researcher's eyes, mucosal membrane, or non-intact skin. The researcher performed 15 minutes of first aid washing and consulted with the UW Employee Health Center for follow-up care and monitoring. The lab purchased a plate stand with mirrored bottom to eliminate having to lift a plate above eye level. EH&S asked the lab to create a written procedure to include eye/face protection if plates are lifted to view from below.

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

**12. MEETING ADJOURNED AT APPROXIMATELY 12:05 p.m.**