Institutional Biosafety Committee
University of Nevada, Reno

Meeting Minutes

October 8, 2025

General Information

- The IBC Chair called the meeting to order at 3:00 p.m.
- Meeting minutes approved at the October 2025 IBC meeting
- Meeting conducted via Zoom
- Total voting members present: 10; Quorum: 6

Voting Members Present

1. Cam Tran, Scientist/Chairperson, 014
2. Won-Gyu-Choi, Scientist, plant expert, 002
3. Claudia Rueckert, Scientist/Vice Chairperson, 003
4. Benjamin Weigler, Scientist/Veterinarian/Animal Expert, 009
5. Keith Kikawa, Biosafety Officer, Committee Contact, 010
6. Andrew Nuss, Scientist, 013
7. Robin Trimble, Community Member, 008
8. Shailesh Agarwal, Scientist, 015
9. Seungil Ro, Scientist, 016 (alternate for Member 001)

Voting Members Absent

1. Evan Colletti, Community Member, 004
2. Paul Brett, Scientist, 001
3. Jung Hwan Kim, Scientist, 012

Others Present

1. Jenn Thornton, non-voting committee contact
2. Andy Martin, Senior Lab Safety Specialist, EH&S

Agenda for Full Committee Business

Minutes

Review and approval of minutes for the September 10th, 2025 IBC meeting:

There were no comments or concerns regarding these meeting minutes. A motion was made by 002 and seconded by 014 to approve them. The motion passed unanimously.

Review Prior Business

None

MOUA Reviews

Three-year Protocol Renewals

B2025-30, Baker, Interstitial cells responses to inflammation in GI muscles (COI: no) – BSL2

Renewal of B2022-31: Committee members discussed this submission and there was a motion made by 009 and seconded by 015 to approve this renewal. The motion passed unanimously.

Summary of work being conducted

They want to understand pathways that regulate intestinal pacemaker cell dysfunction from inflammation that leads to GI distress. They're using AAV vectors to express GFP in the target cells and for future studies potentially identifying other cellular components like calcium sensors etc.

Biosafety Level

For mouse work using AAV and transgenic rodents, if they are not administering TTX or any infectious agents, these practices could be conducted at ABSL-1.

They mention using human samples (which are poorly defined) as well as TTX. Both of these agents should be handled at BSL-2.

All lab staff would require annual BBP to work with these human samples. I would like to see the quantity of TTX they plan to use listed somewhere to verify it is below 500mg which is the permissible limit to not be under FSAP regulations. Though, I am not sure if this is a common metric recorded by the IBC

NIH guidelines

They marked III-F-8, presumably for their E. coli. They are using transgenic mice so III-E-3 would be appropriate as well.

Last Assessment and biosafety concerns (look up incident reports)
2/26/2025 by Keith. No biosafety concerns.

B2025-31, Hanigan, Studying the removal of nitrogen, carbon and pathogens from wastewater using different techniques (COI: no) – BSL2

Renewal of B2022-32: Committee members discussed this submission and there was a motion made by 002 and seconded by 008 to approve this renewal. The motion passed unanimously.

Summary of work being conducted
They're adding more people to their wastewater treatment work. Students work with nitrogen, carbon, and pathogen removal from waste streams. They collect wastewater and biosolids which can have numerous microbes which could be concerning like E. coli, but they don't seem to work on recombinant material. Following EPA methods, they use a fume hood for processing instead of a BSC.

Biosafety Level
Most of the agents they include appear noninfectious and could be worked with at BSL-1; however, there is the potential for pathogenic E. coli or other pathogens that could be unanticipated in the waste stream since some of the waste is coming from humans. Therefore, I would feel more comfortable if the lab adhered to BSL-2 practices. I would like further clarification as a fumehood would be insufficient for this BSL-2 work, do they have a BSC they could work in instead and still adhere to EPA methods, or did they mean that work will be conducted in a BSC and not a fume hood.

NIH guidelines
They do not indicate any recombinant or synthetic work, only field sample collection, therefore they do not fall under NIH guidelines for recombinant material.

Last Assessment and biosafety concerns (look up incident reports)
An assessment for Krishna Pagilla was conducted by Keith on 2/26/2025. No biosafety concerns. Lab-related deficiencies have been corrected as of now.

B2025-32, Rueckert, Study of cellular and molecular interactions of arboviruses and mosquito cell lines (COI: 003) – BSL2

Renewal of B2022-27: Committee members discussed this submission and there was a motion made by 013 and seconded by 014 to approve this renewal pending completion of the necessary EH&S training courses. The motion passed unanimously.

Summary of work being conducted

They're combining previous MOUAs into one. They have three projects: CRISPR/Cas9 expression in mosquitoes and mosquito cells; looking at antiviral genes from mosquitoes and other animals for suppression of viral replication; and mosquito genes and signaling pathways that affect viral replication.

Biosafety Level

They mention working with human. They are using A549, a human cell line, and will require bloodborne pathogen training. Due to using human and NHP cell lines (Vero), this work should be conducted with BSL-2 practices and containment. They are using human infections viruses such as flavi, orthobunya, and alpha viruses, as well as proposed work with West Nile virus, therefore any work with these viruses should be conducted with BSL-2 practices and ACL-2 containment.

The proposed tick work is only done with dead ticks that are not known to be infected. I believe these procedures could be conducted with BSL-1 practices and ACL-2 containment, but would like a second opinion from a more experienced entomologist if possible.

NIH guidelines

They proposed III-D-2; III-D-3; and III-F-8 Appendix CI, CII, which I believe is appropriate for this work.

Last Assessment and biosafety concerns (look up incident reports)

7/17/2025 by Keith. No Biosafety concerns.

New Protocol Reviews

B2025-33, Koh, Spinal cord injury induced overactive bladder (COI: no) – BSL2

New application: Committee members discussed this submission and agreed to table the submittal until the next IBC meeting since the PI was unable to address the committee's initial comments. There was a motion made by 002 and seconded by 014 to table the protocol until the November IBC meeting. The motion passed unanimously.

Summary of work being conducted

I require significantly more context about these procedures, especially the source of the organs they plan to perfuse and expose to TTX, as well as clarification on the feasibility of using the apparently carpeted space for laboratory activities in order to assess this properly.

Biosafety Level
They do not define the source of their organs, but they do mention TTX usage, which would be best performed using BSL-2 practices and containment.

NIH guidelines
The IBC is unable to assess based on the provided information.

Last Assessment and biosafety concerns (look up incident reports)
2/4/2025 by Andy Giddings. Significant electrical and equipment concerns, but no biological concerns. Existing concerns about carpeted space in AHS 100.

MOUA Amendments

Gulia-Nuss, B2023-13, Developing tools for arthropod gene-editing for understanding physiology (COI: 013) - BSL2

Member 013 recused themselves during the discussion due to a conflict of interest with this project. Committee members discussed this submission and approved it as revised. There was a motion made by 003 and seconded by 002. The motion passed unanimously.

Summary of work being conducted
They are looking at developing anti-tick vaccine targets and CRISPR-mediated gene editing techniques for ticks. They also look at factors like insulin signaling that may affect mosquito reproduction. This is an amendment to add Rickettsia buchneri, a tick endosymbiont that they purchased from ATCC, to the Biological Agents section and provided detailed information on it, countermeasures, and its risks in 3I.

They also included that they will use another PI's, Dave Aucoin, IACUC protocol for immunizing mice and developing anti-tick vaccines.

Biosafety Level
Rickettsia buchneri was listed in 3I as a BSL-2 agent, and their arthropod work is listed as conducted under ACL-2 practices and containment, so I affirm these indications: work shall be conducted with BSL-2 practices and containment and ACL-2 practices and containment where appropriate.

Cloning and handling of E. coli alone without other organisms can be conducted at BSL-1

NIH guidelines

III-F-1 was listed and their reasoning for exemption (using K-12) was indicated.

They also mention creating gene-modified arthropods and have checked “yes” to “Will your project involve the use of transgenic animals” which could reasonably fall under NIH guidelines section III-D-4 for Experiments Involving Whole Organisms; however, they clarify that these modified organisms are exempt under III-F-3 since they express content already existing in nature and therefore, I believe this is sufficient to say they are exempt, especially since the amendment was not to add recombinant arthropods or to generate them.

Though, if they are using a vector to introduce stable rather than transient expression of their RNAi system within arthropods, it may fall under NIH guidelines section III-D-4 for transgenic animals.

Last Assessment and biosafety concerns (look up incident reports)

8/4/2025 by Luis. There was a question about records of field-collected ticks, some clutter concerns, incompatible chairs, food identified, and overfilled biohazardous waste which have all been corrected.

Omar, B2024-06, Physiological mechanisms of protein kinase A regulation (COI: no) – BSL1

Committee members discussed this submission and approved it as revised. There was a motion made by 009 and seconded by 010. The motion passed unanimously.

Summary of work being conducted

They are studying the regulation and subcellular localization of protein kinase A (PKA)in adrenal and neuronal tissue. My understanding is that PKA is bound to “AKAP11” and other anchoring molecules within compartments of cells, which allows it to localize to different areas and phosphorylate things through cAMP signaling leading to numerous cellular effects. This amendment has some administrative changes (adding/removing staff, changing locations of freezers) and adds AAV injection to mice. The AAV is used to deliver mouse-specific CRISPR-Cas9 to cells which will label targeting molecules like AKAP11 with GFP and biotinylation sites. Later in the mouse’s life, (adolescent and adult stages) they will inject biotin and then harvest tissues (presumably brain, blood, and adrenal glands) for downstream analysis. This lets them track interactions and localization of AKAP11 in different stages of development and perhaps in response to different stimuli.

Biosafety Level

They are adding work with AAV which, while it can be neurotropic and cross the blood-brain barrier, is typically worked with BSL-1 practices and BSL-1 containment. Lentiviral work and work with human cell lines should be done with BSL-2 practices and containment. Additionally, staff working on this project and/or with Lentiviruses must complete BBP training.

Cloning and handling of E. coli alone without other organisms can be conducted at BSL-1

NIH guidelines

III-F-1 was listed and their reasoning for exemption (using K-12) was indicated.

They are using transgenic rodents and have indicated III-E-3.

They are also using Lentiviruses, and have indicated both III-E-1 and III-D-1.

If they are using lentiviruses to infect cells in cell culture, and argument could be made for III-D-3, but since they have not adjusted their lentivirus protocol in this amendment to indicate tissue culture use, this doesn't seem to be the case.

I feel the indicated guidelines are appropriate, especially since they are not modifying their lentiviral section.

Last Assessment and biosafety concerns (look up incident reports)

1/24/2024 by Keith. No biosafety issues. An assessment shall be scheduled with the PI for this year.

Parvin, B2024-44, Organoids and molecular technologies for medical applications (COI: no) – BSL2

Committee members discussed this submission and approved it contingent on clarification about the specific materials that will be acquired from SFARI. There was a motion made by 009 and seconded by 010. The motion passed unanimously.

Summary of work being conducted

Their work is investigating tumor suppression in organoid models with the goal of uncovering fibroblast-mediated suppression and reprogramming factors and also methods to identify bacteria. To accomplish this, they are engrafting human tumor lines in NOD-SCID mice and presumably their MMTV-PyMT mice. For this amendment, they are adding new cells taken from the Safari foundation. They intend to collect specimens, make organoids, and examine endpoints. Also added new staff.

Biosafety Level

Materials in 3I should be handled at BSL-2, which they have indicated for most of the entries.

They did not identify a BSL for the “human clones”, “cancer-associated fibroblasts”, and “lentiviruses”, but all of these should be worked with BSL-2 practices and BSL-2 containment.

They mentioned the “requirement for their stock of human cells is BSL-1”, but since they are human cells, these should be handled and stored with BSL-2 practices and BSL-2 containment. Additionally, all staff will need to be trained in bloodborne pathogens.

For work such as breeding and husbandry of naïve mice and cloning or isolation of plasmids from E. coli, this work could be conducted with A/BSL-1 practices and A/BSL-1 containment.

Designated Member Reviews (DMRs)

None

Closed Protocols

None

Agenda for Administrative Business

Administrative Amendments

1. Baker, B2024-08, GI motility pattern regulation
   Amendment: Updating personnel
2. Burkin, B2024-52, Muscular Dystrophy
   Amendment: Updating personnel
3. Cobine, B2024-26, Mechanisms underlying motility in visceral smooth muscles
   Amendment: Update study personnel
4. Frese, B2024-03, Impact of dietary carbohydrates of key human gut microbes and human epithelial cell lines
   Amendment: Update study personnel
5. Lee, B2024-29, Novel and repurposed agents against Candida biofilms
   Amendment: Update study personnel
6. Parvin, B2024-44, Normalizing tumor microenvironment and identifying microbiome
   Amendment: Update study personnel
7. Ward, B2023-02, Pacemaker activity in the human stomach
   Amendments: Update personnel; Room location updated

Other Business

Approval update from last meeting

Meeting Close-out

Next meeting: October 8th, 2025

Time adjourned: 3:46 p.m.