Boston University
Institutional Biosafety Committee (IBC)
July 15, 2025 Meeting Minutes
Location: Zoom and/or by phone
Start time: 12:00 PM End time: 12:59 PM

Members Present: R. Ingalls, E. Muhlberger, W. Lu, V. Gouon-Evans, T. Winters, R. Morales, N. Dey, J. Keeney, V. Britton, X. Brown, J. Celenza, V. Britton, S. Ghosh
Guests Present: J. Wood, P. Richmond, A. Ellis, C. Fernald
Staff Present: C. McGoff, L. Campbell

I. Review of June 17, 2025 IBC Meeting Minutes

No concerns were voiced.
Motion: Approved
For: 12; Against: 0; Abstain: 1; Absent: 0

II. New Business:

A. IBC Office Updates: No office updates.
B. Review of Research Occupational Health Program (ROHP) Report and Environmental Health and Safety (EHS) Report: No incidents to report.

III. Protocol Review

1. rDNA/Bhz – Annual Renewal

BUA	(PI)	Title	BSL	ABSL	Campus
1888	Elke Muhlberger	Host response to filovirus, henipavirus, and bunyavirus infections	4	N/A	BUMC

Primary Reviewer: Robin Ingalls	Secondary Reviewer: Tom Winters Additional Reviewer: Jim Keeney
Applicable NIH Guidelines: Sections III-D-1-c, III-D-1A	
Meeting Comments: The goal of the protocol is to study virus and cell specific factors that contribute to the virulence of risk group 4 viruses (negative strand RNA viruses) including filoviruses, henipaviruses, arenaviruses, or Crimean-Congo hemorrhagic fever virus with the goal of identifying potential targets for antiviral therapies. Work involves cultivating viruses, determining titer, and infecting a variety of eukaryotic cells including human cell lines, NHP cell lines, bat cell lines, primary human cells (such as iPSCs, hepatocytes). Recombinant DNA work is used to make recombinant virus clones with specific gene mutations or to express reporter genes. Prior amendments have been consolidated into the body of the application. All work is performed in BSL4 and all SOPs are cited. All inactivation procedures have been approved. IRB approval for the use of primary human cells is indicated. No major changes have been made in this annual renewal. No concerns were noted. The committee did not recommend this protocol for an additional one year annual renewal however, PI may submit amendments and three-year renewal, as required. *PI recused herself from voting on this protocol.*	

Motion: Approved	For: 12	Recuse: 1	Against: 0	Abstain: 0	Absent: 0

2. rDNA/Bhz – Annual Renewal

BUA	(PI)	Title	BSL	ABSL	Campus
2645	Nancy Sullivan	Evaluation of medical countermeasures in rodents	4	4	BUMC

Primary Reviewer: Robin Ingalls	Secondary Reviewer: Elke Muhlberger Additional Reviewer: Jim Keeney
Applicable NIH Guidelines: Sections III-D-1-c, III-D-4-a, III-D-4-b	
Meeting Comments: The goal of this protocol is to study a number of risk group (RG4) viruses including Ebola virus, Sudan virus, Tai Forest virus, Bundibugyo virus, Reston virus, Marburg virus and Ravn virus with the goal of	

developing and refining animal models and conducting rigorous testing of medical countermeasures including vaccines candidates. The protocol involves use of rodents, and describes the generation of viral stocks, challenge models, and biological sampling. A number of approved SOPs are referenced. All inactivation procedures have been approved. There are only very minor changes in this annual renewal since this protocol was reviewed and approved at annual renewal which includes removal of personnel and updating BCS certification dates. The committee did not recommend this protocol for an additional one year annual renewal however, PI may submit amendments and three-year renewal, as required. The following will be communicated to the PI:

- Since [redacted] will no longer perform any hands-on animal work for this project but will serve as an advisor for animal work and as ARS director, committee suggested that her title and descriptive role be changed to Director of ARS and Co-Investigator, respectively.

Motion: Conditional Approval (Admin Review)	For: 13	Recuse: 0	Against: 0	Abstain: 0	Absent: 0

3. rDNA/Bhz – New Application

BUA	(PI)	Title	BSL	ABSL	Campus
2693	Joshua Mcgee	Keylicon Bio - Developing novel RNA therapeutics	2	2	CRC

Primary Reviewer: Pinghua Liu	Secondary Reviewer: Sajal Ghosh

Applicable NIH Guidelines: Section III-D-2-a; Appendix E-III, B-II

Meeting Comments: This is a submission from a BU tenant company Keylicon Biosciences. The goal of this protocol is to develop better long-lasting RNA therapeutics and vaccines. The approach includes development, improvement and biological testing of self-amplifying RNA (saRNA) in animal model. They do not grow any viruses for their work. They will use BSL2 lab for their cell culture work and nanoparticle production. PPE to be used includes lab coat, disposable gloves, eye protection and surgical mask. Liquid waste will be treated with bleach at a final concentration of 10% for 30 min and solid waste will be disposed of in red biohazard box. The company do not have a biosafety cabinet (BSC) of their own yet. Until they get their own, they will use collaborator's BSC. The following will be communicated to the PI:

- Please clarify the role of [redacted] in the protocol. If he is not involved in the laboratory work or in management of any biosafety related activities, his name does not need to be listed in the personnel list of this protocol. However, if he is listed, he must go through all biosafety trainings required for this protocol through Scishield.
- Add room [redacted] in [redacted] and ASC in BUMC or CILSE as appropriate.
- Please state the detail of the biosafety cabinet that is being used currently even if it belongs to a collaborator. Provide its location information in the laboratory procedures section.
- Please be aware that there are different set of requirements for establishing IACUC approval for animal work proposed in a tenant company protocol. Please contact IACUC office for proper procedures. Once IACUC application related to this work has been submitted, please let IBC office know.
- Please provide additional brief description of how the progress of animal work will be evaluated, if animal tissue material will be brought back to the lab and if there will any biosafety concerns with those materials.

BUA Site Assessment: The lab currently doesn't have a BSC in their own space. They plan to use it in [redacted] lab or in a CRC core facility. Fume hoods certified till 06/26. The lab need to add [redacted] and BUMC ASC space. The PI will likely use a BSC and a microfluidic device in [redacted] The lab currently doesn't have a microfluidic device, but they plan to purchase it later. The lab may also use a BSC in one of the shared facilities in CRC. Nanoparticles used in the lab are either pre-synthesized by a vendor or are synthesized in-house; they are non-toxic to humans.

Motion: Conditional Approval (Admin Review and review by Veterinary expert of the IBC)	For: 13	Recuse: 0	Against: 0	Abstain: 0	Absent: 0

4. rDNA/Bhz –New Application

BUA	(PI)	Title	BSL	ABSL	Campus
2581	Diane Joseph-Mccarthy	Bioengineering Technology & Entrepreneurship Center (BTEC): Molecular, Cellular, & Tissue Engineering Suite	1	N/A	CRC

Primary Reviewer: Xin Brown	Secondary Reviewer: Ron Morales

Applicable NIH Guidelines: Sections III-E-1 and III-F-8 (as detailed in Appendix C).

Meeting Comments: This goal of this new protocol is to provide experimental learning opportunities for students enrolled in the Bioengineering Technology and Entrepreneurship Center (BTEC) course in Boston University. The protocol proposes to establish training modules for routine plasmid transformation using fluorescent and luminescent reporter constructs and protein expression in bacteria and yeast. PI and student supervisor will receive training from Biomedical Engineering senior lecturer [redacted] on techniques that they are not familiar with. Committee noted that no biological safety cabinet will be used in the protocol. Instead, all bacteriological work will be performed in "HEPA-filtered benchtop workstation with automatic and manual UV sterilization capabilities". Since no biohazardous bacteria or yeast will be grown for this protocol, such a benchtop workstation should be sufficient for the proposed work.

BUA Site Assessment: Training to the student assistants will be provided by [redacted] and [redacted] All trainings are current. No BSC is needed for the work mentioned in the protocol. Fume hood certified till 02/26. Multiple sharps containers and 2 spill kits are available in the lab space. Two centrifuges in the lab are in good working condition.

Motion: Approved	For: 13	Recuse: 0	Against: 0	Abstain: 0	Absent: 0

5. rDNA/Bhz – Three-Year Renewal

BUA	(PI)	Title	BSL	ABSL	Campus
2392	Maria Medalla	Circuit structure and dynamics in prefrontal-limbic networks	2	2	BUMC

Primary Reviewer: Valerie Gouon-Evans	Secondary Reviewer: Colleen Thurman

Applicable NIH Guidelines: Sections III-D-1-a, III-D-4-a, III-E-1, Appendix B-V, Appendix G-II-B, Appendix Q-1

Meeting Comments: The goal of this protocol is to understand how two areas in the prefrontal cortex (PFC) of the brain, the lateral prefrontal cortex (LPFC) and anterior cingulate cortex (ACC), transmit information between each other and integrate cognitive-emotional information using Rhesus monkey (NHP) model by infusing anatomical tracer (light sensitive channel) or viral vectors into various brain regions to label neuronal signaling. All procedures involving NHPs are performed according to approved IACUC protocol and are conducted in IACUC approved space in [redacted] and [redacted] following ABSL-2 biosafety guidelines of the IACUC and Animal Science Center. Risk of Herpes B-virus exposure through contact with NHP is mitigated by following universal precautions assuming as if the animals are actively shedding the virus, although such shedding is extremely rare. A small amount of tetrodotoxin (well below the CDC allowable limit) is maintained in the lab for experiments requiring blocking of action potential. The replication incompetent viral vectors used in the protocol are received from viral vector core facilities and transported to the animal facility in sealed sterile tubes placed in a leak-proof and shatter-proof container. The protocol provides very detailed description of how animal tissues are collected and processed, PPE used, liquid and solid wastes are handled, sharps are handled and work surface are decontaminated. The following will be communicated to the PI:

- BBP training updated required for [redacted] and [redacted]

• ROHP clearance is required for [redacted] and [redacted] If [redacted] is no longer in the protocol, please remove her from the list. • Please provide an updated biosafety cabinet certification date. • Please indicate that liquid waste containers will be picked up when 75% full instead of 'full containers'. • Please note that NHP solid waste for incineration is packed out by ASC, but not incinerated by ASC. BUA Site Assessment: Biosafety cabinet and fume hood are duly certified. Third generation lentiviral vectors from Vector builder will be used. Tetrodotoxin is stored in locked cabinet. Human brain samples are currently not stored in the lab but will be transported from CRC to BUMC when needed. Cut resistant gloves should be used while handling cryotome/microtome/vibratome blades. Wescodyne disinfectant is not used by the lab. All reusable sharps in lab are stored in secondary containment.					
Motion: Conditional Approval (Admin Review)	For: 13	Recuse: 0	Against: 0	Abstain: 0	Absent: 0

IV. List of Protocols reviewed by DMR (not discussed in the meeting)

A list of protocols that were reviewed by DMR was displayed in the meeting.