Boston University
Institutional Biosafety Committee (IBC)
February 14, 2020 Meeting Minutes
Location: Medical Campus, E-720, 72 East Concord Street
Start time: 10:00am End time: 11:12am

This meeting is open to the public.
Members Present: I. Afasizheva, R. Ingalls, B. Slack, C. Abraham, R. Timmerman, V. Britton, C. Sulis, R. Morales, S. Kurnick, R. Davey, E. Muhlberger, T. Winters, X. Brown (via Zoom), R. Georgiadis (via Zoom; left 11:00 am), R. Varada (via Zoom; left 11:00 am)
Guests Present: R. Corley, P. Urick, N. Yun, S. Benjamin, A. Ahmad, M. Auerbach (via Zoom), K. Tuohey
Staff Present: J. Hutchinson (via Zoom), S. Ghosh, S. Jao (via Zoom), C. McGoff

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I. BMC Response to Novel Coronavirus Outbreak

BMC's Hospital Epidemiologist briefly commented on how BMC is approaching the novel coronavirus outbreak from an infection control standpoint.

II. Protocol Review

1. Bhz – Amendment

BUA	(PI)	Title	BSL	ABSL	Campus
1823		Storage, Propagation and Distribution of Francisella tularensis Storage, Propagation and Distribution of Yersinia pestis Receipt and Storage of the 2019 novel Coronavirus and other coronaviruses	3	N/A	BUMC

Primary Reviewer: Inna Afasizheva	Secondary Reviewer: Shannon Benjamin
Additional Reviewer: Bob Timmerman	
Applicable NIH Guidelines: N/A	

Meeting Comments: The PI is proposing to receive and store 2019n-CoV and MERS-CoV. It was clarified that two (2) individuals mentioned in the protocol are EHS staff; one is the Responsible Official for select agents and the other his alternate, their only role is to verify inventory. It was noted that per Facilities, BSL-3 piping is made of Polypropylene which is acceptable for bleach disposal. It was noted that EPA registered disinfectants should be used and members discussed whether bleach was a EPA registered disinfectant. Members discussed that to ensure that appropriate disinfectants are used (and to promote consistency), that EHS should provide investigators with a recommendation. Members discussed that the protocol should include details regarding response in the event that tubes are discovered to be broken upon arrival. It was noted that agent specific training and an Agent Information Sheet are being developed.

- Indicate N/A for ABSL.
- Indicate if the disinfectant to be used (bleach) has been recommended by EHS as an appropriate disinfectant.
- Include language on how breakage of tubes will be handled.

The PI was not present for the vote.

Motion: Conditional Approval (Administrative Review)	For: 15	Against: 0	Abstain: 0	Absent: 0

2. Bhz – New Protocol

BUA	(PI)	Title	BSL	ABSL	Campus

2422		Examination of coronavirus infection in cells	3	N/A	BUMC
Primary Reviewer: Robin Ingalls		Secondary Reviewer: Shannon Benjamin			
Additional Reviewers: Elke Muhlberger; Jim Keeney					
Applicable NIH Guidelines: N/A					
Meeting Comments: The PI is proposing in vitro cell culture work with two (2) coronaviruses (MERS-CoV and SARS-CoV-2); the study will focus on cellular response to the pathogens. No sharps or animals will be used, no rDNA work is proposed. Members discussed that agent-specific training should be provided to all personnel. It was noted that use of an N-95 has been replaced with use of a PAPR in the revised application, which is appropriate. It was noted that most work will be done in a BSC while wearing a PAPR. Members discussed that strains do not need to be listed as they are of equal pathogenicity. It was noted that the CDC has provided interim laboratory biosafety guidelines and that the site should be monitored for changes. The BSL-3 BSO commented on risk assessment and noted that risk assessment was difficult given that the novel coronavirus is not well characterized, and that best practice is to follow guidelines for other coronaviruses. • Clarify what liquid waste will be generated, how it will be collected, inactivated, and final disposition. • Indicate use of an EHS recommended disinfectant; concentration must be provided. Information should be consistent throughout. • Clarify the source(s) of the viruses (including the NEIDL virus repository if appropriate). • Remove: “There are already IBC- and BPHC-approved SOPs in place for virus inactivation at BSL3”. It was noted that this is not accurate and the provided link not appropriate. Provide the SOP’s that will be followed for inactivation. If the SOP’s have not been validated; provide documentation supporting the efficacy of proposed methods. Contact EHS for validated SOP’s and/or for SOP templates that could be adapted. • Confirm if only pipetting of infectious liquids will be done. Clarify if vortexing or centrifugation will be done (for instance during inactivation); all laboratory procedures must be indicated and consistent throughout. • The PIs CPR/First Aid Training needs to be updated. • When describing use of the autoclave, reword language so that it reflects procedures described in SOP #: SAF-SOP-0102 Autoclave Use in BSL-3 or reference the SOP. • The following PPE should be used per EHS: PAPR; disposable scrubs; coveralls; facility specific shoes; double gloves; shoe covers; sleeve covers; cover front gown. Ensure use of PPE is consistent throughout. All lab personnel should participate in retraining conducted by EHS on proper donning and doffing of PPE and lab exit.					
Motion: Conditional Approval (Reviewers and Chair Review)		For: 13	Against: 0	Abstain: 0	Absent: 2

3. rDNA/Bhz – Amendment

BUA	(PI)	Title	BSL	ABSL	Campus
2342		Identification of inhibitors of Hemorrhagic fever virus infection	4	N/A	BUMC
Primary Reviewer: Elke Muhlberger		Secondary Reviewer: Nadya Yun			
Additional Reviewer: Jim Keeney					
Applicable NIH Guidelines: Section III-D-1. Experiments Using Risk Group 2, Risk Group 3, Risk Group 4, or Restricted Agents as Host-Vector Systems Section III-D-1-c. Describes experiments with recombinant BL4 agents to be conducted at BSL4 containment.					
Meeting Comments: The PI is proposing to conduct drug screening studies to identify potential growth inhibitors of the novel coronavirus. Work is planned in BSL-4 containment for practical purposes only, given that the lab					

otherwise works in BSL-4 containment. It was noted that 2019-nCoV and MERS viruses can be used safely in the BSL4 using BSL-4 practices and procedures. The BSL-4 BSO noted that the disinfectant (5% MicroChem, commonly used in BSL-4) is appropriate to use for coronaviruses (Huajun Zhang, et al., 2018). Agent-specific training needs to be provided to personnel and staff. The PI clarified that coronaviruses will be stored with BSL-4 agents and inventoried.

- Describe how the coronaviruses will be transported from BSL3 to BSL4. Specifically, describe the procedures of how the outer container will be decontaminated. Consider use of an escort until the container is placed in the chemical shower of the BSL4 lab.
- List all inactivation procedures that will be used to inactivate coronaviruses prior to the removal of inactivated material from the BSL4. Add documentation showing that the chosen inactivation procedures effectively inactivate coronaviruses. All used inactivation procedures must also be sufficient to inactivate BSL4 viruses in the lab.
- Transfection of cells with coronavirus genomic RNA can lead to the production of infectious virus. Describe safety procedures that ensure that viral RNA from inactivated material cannot be used to generate infectious virus (e.g. destruction of viral RNA or restricted access to inactivated samples).
- Virus inventory: Although MERS CoV and 2019-n CoV are not classified as select agents, it was recommended to document the possession of virus stocks and frozen material in the BSL4 virus inventory using FreezerPro.
- Provide the current BSC certification date.

The PI was not present for the vote.

Motion: Conditional Approval (Administrative Review)	For: 11	Against: 0	Abstain: 0	Absent: 3	Recuse: 1