

INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
June 30, 2021
1:00 PM, Zoom Meeting

MEMBERS PRESENT: Chair - Elizabeth Fozo, Vice Chair-Stephen Kania, Lori Cole, Feng Chen, Paul Dalhaimer, Lezlee Dice, Brittany Isabell, Melissa Kennedy, Deidra Mountain, Jae Park

Ex-Officio –Linda Hamilton, Ahmad Mitoubssi, Jessica Woofter

MEMBERS ABSENT: Marc Caldwell, George Dizikes, Doris D'Souza, Reza Hajimorad, Jun Lin, Ling Zhao

OTHERS PRESENT: Hameeda Sultana, Girish Neelakanta

Opening:

The IBC Chair called the meeting to order at 1:02 PM. The minutes of May 19, 2021, were reviewed and approved as written.

Full Member Review IBC Registrations:

#IBC-21-570-2 (Paul Dalhaimer) Recombinant DNA, Infectious Agents, & Nanoparticles, III-D-1-a, 3-year rewrite

Dr. Dalhaimer was present to discuss his registration covering the study of elongated nanoparticles (NPs) made from poly-ethylene-oxide-poly-butadiene (PEO-PBD), which bind the major high-density lipoprotein (HDL) receptor, scavenger class receptor B I (SR-BI). These NPs must be elongated in one dimension to have a high affinity for SR-BI. The elongated NPs are called filomicelles because they are micelles whose shape resembles filoviruses. Certain viruses bind HDL. The HDL then directs the virus to SR-BI, where it enters cells. A subset of these viruses are hepatitis C virus (HCV) and SARS-CoV-2 (SARS2). They bind HDL in the blood and subsequently enter cells through SR-BI. Their study proposes to transiently block SR-BI with our NPs to lower the ability of these two viruses to enter cells. They will test the efficacy of our approach in vitro. The committee approved the registration pending corrections to the HCV reference in the nontechnical summary; clarification of cell types used in the recombinant DNA section; checking “Yes” for centrifugation on Question 7.8; inclusion of specific information regarding the nanoparticle description, formation, and delivery; the addition of specific disinfectants and their contact times in the spill response; the removal of the on-site autoclave information and the addition of the medical contractor Advantra as the appropriate disposal method; and the addition of the COVID vaccination recommendation in the health surveillance section.

Old Business:

Administrative Report

- i. *Contingencies*
Following up on May 19, 2021, IBC Meeting, Dr. Maria Prado corrected their registration (#12-381-2) to include the change of the title to reflect the broad scope of the work being performed; clarification about animal work being conducted, and the inclusion of IACUC protocols; the addition of a statement under Insert Genes indicating potential future cloning or deletion of genes involved in biofilm formation; addition of *S. uberis* and *E. coli* strains in the Infectious Agents section; and checking “Yes” on question 7.6 to indicate that animals will be used in conjunction with an infectious agent. Dr. Chunlei Su corrected their registration (#21-566-2) to include clarification that samples submitted for other tests will be obtained from diagnostic labs; checking “Yes” for question 6.9 to indicate environmental samples are a part of the study; clarification about animal trapping and animal tissue transportation; the addition of Dr. Rajeev’s lab information; the addition of sample storage locations; and the addition of language describing reagent transfer.
- ii. *Administrative Approvals*
Dr. Jill Maples’ registration (#21-569-2) was approved administratively by the Biosafety Officer on 6/1/2021, covering the use of umbilical cord-derived mesenchymal stem cells.
- iii. *Administrative Terminations*
None.
- iv. *Administrative Exemptions:*
The Biosafety Officer administratively approved Dr. Bode Olukolu’s registration (#18-525-E) on 4/19/2021.
- v. *Accidents, Injuries/Exposures:*
None.
- vi. *Laboratory Report (Hamilton)*
None.
- vii. *iMedRIS Update, Manual Reviews, & System Orientation (Woofter)*
Jessica notified the committee that the current draft form needs review and revision by the chairs and Brian before allowing the rest of the committee to review it.

BSL-3 Administrative Documents

Drs. Neelakanta and Sultana were present to discuss the BSL-3 Administrative document drafts with the committee. The documents included the Biosafety Agreement Form, Biosafety Incident Report Form, Biosafety Level 3 Visitor Clearance Form, BSL-3 Training Documentation Form, BSL-3 Weekly Room Care Log, BSL-3 Spill Response Log, BSL-3 Visitor Entry/Exit Log, Eyewash Weekly Checklist, *Orientia tsutsugamushi* Risk Communication Form, Powassan virus Risk Communication Form, Quarterly Centrifuge Inspection Log, and *Rickettsia rickettsia* Risk Communication Form. Dr. Neelakanta commented that they will be holding off on the *Orientia tsutsugamushi* work but will be continuing with the Powassan virus and *Rickettsia rickettsia* work. The committee approved the documents as written.

BSL-3 Emergency Response Plan

Drs. Neelakanta and Sultana were present to discuss the BSL-3 Emergency Response Plan document draft with the committee. It was discussed that landlines should be installed within the lab and having a dedicated UT-owned cellphone in the anteroom. Internet and a plate reader might be needed in the future, and these items might require a DUO authentication log in request. Therefore a cellphone should be added inside the lab as well. A graduate student and one Post-doctoral research associate will be working within the BSL-3. In this situation, both staff members will be paid research staff and covered under risk management's policies. It was mentioned that no Graduate Teaching Assistants (GTAs) would work within the department. The storage rack in the anteroom will be continued to be used and include the BSL-3 manual, dedicated lab shoes, biohazard bags, and extra PPE. There were a couple of items regarding the BSL-3 plan diagram. Signage will need to be added to the adjacent laboratory indicating that the door from the BSL-3 lab should not be blocked. The doors leading into the BSL-2 lab adjacent to the anteroom that have key locks should be changed to magnetic locks to permit egress in the case of an emergency. The committee approved the document pending fixing the emergency exit protocols, establishing a hard phone line in the hot zone and cell phones in the anteroom and hot zone.

BSL-3 SOP Documents

Drs. Neelakanta and Sultana were present to discuss the BSL-3 SOP document drafts with the committee. The SOP documents include BSL-3 Entry/Exit, BSL-3 Standard Microbiological Practices, Personal Protective Equipment, Sharps and Pipette Management, Limiting Aerosol Release, Biological Safety Cabinet & Centrifuge, Decontamination and Disinfection of Potentially Contaminated Materials & Surfaces, Biohazardous Waste Management, Training, Medical Surveillance Program, HVAC & Facility Verification and Maintenance, Integrated Pest Management, Incident & Exposure Response, Spill Response, and Transport of Non-Infectious Samples on Campus. Under the HVAC & Facility Verification and Maintenance SOP, item V-1 should be amended to exclude the ventilation and filtration activities from the Principal Investigator's list of responsibilities. Item V-7 in the same document should include "Work order number (if available)" in the requested log items. Under the Personal Protective Equipment SOP, respiratory protection will include the use of N-95s. Under the Limiting Aerosol Release document, clarification about the type of centrifuge is needed, and the associated procedures will need to be updated. The committee approved the documents pending the items noted earlier and the inclusion of the centrifuge procedures.

BSL-3 Lab Roles and Responsibilities

Drs. Neelakanta and Sultana were present to discuss the BSL-3 Lab Roles and Responsibilities document draft with the committee. The committee approved the document as written.

New Business:

Farewell to Dr. Kennedy

The committee thanked Dr. Kennedy for her years of service on the Institutional Biosafety Committee.

The meeting adjourned at 2:43 PM. The next meeting scheduled is for July 20, 2021, via Zoom.