INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
April 20th, 2022
3:00 PM, Zoom Meeting

MEMBERS PRESENT:	Chair- Elizabeth Fozo, Vice Chair-Stephen Kania, Lori Cole, Lezlee Dice, George Dizikes, Doris D'Souza, Reza Hajimorad, Brittany Isabell, Deidra Mountain, Jessica Vélez, Ling Zhao Ex-Officio – Caleb Cummings, Bryan Cranmore, Linda Hamilton, Ahmad Mitoubsi, Sandra Prior, Sarah Pruett, Brian Ranger, Jessica Woofter
MEMBERS ABSENT:	Marc Caldwell, Feng Chen, Paul Dalhaimer, Jun Lin, Jae Park
OTHERS PRESENT:	Hameeda Sultana, Vincent Pantalone

Opening:

The IBC Chair called the meeting to order at 3:01 PM. The minutes of March 22nd, 2022, were reviewed and approved as written.

Full Member Review IBC Registrations:

#IBC-17-451-2 (Paul Dalhaimer) Human Derived Materials, Infectious Agents, Recombinant DNA, III-D-1-a, 3-year rewrite
Dr. Dalhaimer's study covers how HeLa cells respond to Group A streptococcus (GAS) pathogens in two conditions: media with serum from obese humans and media with serum from lean humans. They propose an approach where they will monitor how the HeLa cells respond to GAS pathogens as we traverse from obese to lean media conditions. The main analysis method is RNA sequencing of the HeLa cells after taking up GAS pathogens in obese versus lean conditions. The committee approved the registration by Designated Member Review pending the addition of the source of transfected HeLa cells and JRS4 cells; the removal of nanoparticle references in the summaries; providing additional technical information regarding methods and handling of agents; providing clarification about plasma use; the addition of a hepatitis B vaccine offer statement in the Health Surveillance section.

#IBC-22-577-1 (Vincent Pantalone) Infectious Agents, New Registration
Dr. Pantalone was present to discuss their research covering the field trial test on the yield of three transgenetic lines of soybeans. Once the plants have started growing, they will be tagged to mark which transgenic plants are part of the conventional border row. The plants will be harvested by hand. After harvesting the seeds, the rest of the plant will be pulled and bagged to be autoclaved. The mass of the seeds will be measured for yield. Potentially, the plants will also be screened to confirm that the transgene is present. This procedure will be done in the lab using traditional molecular biology techniques. The seed protein and oil content could be measured. The biosafety containment level was set to BSL-1. The committee approved the registration as

written.

#IBC-22-578-2 (Daleniece Jones) Infectious Agents, New Registration
Dr. Jones' research covers the study of how contamination, survival, and transmission of certain pathogens occur in humans. The molecular characteristics of those pathogens will contribute significantly to understanding pathogen attribution, virulence, and resistance, resulting in preventative recommendations. The focus is on the microbial ecology of potential alternative sources of non-foodborne pathogen exposures. The study will be conducted in two phases. Phase 1 will include conducting abstraction and analyses of data from enteric disease case report forms of laboratory-confirmed pathogen infection cases in Tennessee administered, formulating supplementary questions as an addendum for confirmed cases, and conducting telephone interviews of selected cases. Phase 2 will include recruiting subjects for household environmental sample collection and performing in-house sample collection; conducting molecular microbiological analyses of environmental samples and clinical isolates. The committee tabled this registration pending further clarification procedures, collection of pathogens, and if IRB approval is needed in the Non-technical Summary; the addition of Listeria monocytogenes serotype and E. coli O157:H7 and the antibiotic resistance profiles for Salmonella and S. Enterica serovars in the Infectious Agents section; clarification about routine identification, the addition of genus and species of pathogens, clarification of sample collection methods, and control group serotypes in the Technical Summary; the addition of bleach shelf life; clarification about transportation of high-risk and TDH samples; and the addition of statement indicating exposure risks to women when working with Listeria monocytogenes.

#IBC-22-579-2 (Hameeda Sultana) Infectious Agents, New Registration
Dr. Sultana was present to discuss their research on human/animal cases of encephalitis and neurological manifestations. Very few studies have elucidated the role of host molecules associated with flavivirus-induced neurological manifestations. In this study, using vertebrate host molecules and a mouse model, they would like to identify and characterize the important factors critical for developing flavivirus-induced changes in the peripheral and central nervous system. The biosafety containment level was set to BSL-2. The committee approved the registration contingent upon IACUC approval and pending the addition of specific information regarding CVM Room A333, Mossman as a backup location, CVM A227 autoclave information, and the addition of the most current autoclave validation date.

Old Business:

Administrative Report

i. Contingencies
Following up on March 22nd, 2022, IBC Meeting, Dr. Mariano Labrador-San Jose's registration (#06-291-1) was amended to include a correction of the NIH review classification from III-F to III-D-4-a and the correction of the biosafety level for Mossman room 541C1 to BSL-1. Dr. Richard Gerhold's registration (#13-397-2) was amended to include an update of the personnel listed on the registration, defining the ELISA acronym in the non-technical summary; correcting minor typographical errors in the infectious agents table; removal of expired IACUC# 2636; listing of current approved IACUC protocols; the

addition of RNA for Parelaphostrongylus tenuis and Elaeophora schneideri in the technical summary; and an update to the biosafety cabinet certification date. Dr. Hameeda Sultana's registration was retracted and restored to its previous version.

ii. *Administrative Approvals*
Dr. Scott Lenaghan's registration (#19-535-1) was amended to include McCord Hall Room G053 (BSL-1) and solid/non-sharp waste location Food Safety and Processing Bldg. Room 21A. The Biosafety Officer approved the amendment on 4/6/2022. Dr. Scott Lenaghan's registration (#20-543-2) was amended to include updates to lab locations from FSP 115 to McCord Hall 113 and the biosafety cabinet certification date. The Biosafety Officer approved the amendment on 4/11/2022.

iii. *Administrative Terminations*
None.

iv. *Administrative Exemptions:*
None.

v. *Accidents, Injuries/Exposures:*
None.

vi. *Laboratory Report (Hamilton)*
None.

vii. *iMedRIS Update, Manual Reviews, & System Orientation (Woofter)*
None.

New Business:

<u>New Lab Safety Specialist (Hamilton)</u>
Linda Hamilton introduced Daniel Thomas, the new lab safety specialist, to the committee. Daniel previously worked at the Molecular Pathology Laboratory Network with Dr. Quigley as Biosafety Officer and performed personnel management.

<u>Personnel Changes to IBC (Ranger)</u>
Brian Ranger reminded the committee that appointments do not expire until 2023. The committee should notify Brian if any members wish to leave the committee. Dr. Kania will be leaving at the end of June from the committee and will be replaced as Vice-Chair by Dr. Deidra Mountain. Brian also notified the committee that Caleb Cummings would be replaced as ex officio by Daniel Thomas.

<u>BL1-P Greenhouse Management Clarification/Update (Ranger)</u>
Brian notified the committee that the Department of Biochemistry & Cellular and Molecular Biology has a new faculty member that will possibly be working with a transgenic plant corn model. Brian discussed containment with Dr. von Arnim and Jeff Martin, greenhouse manager at Senter Hall and Hesler. This discussion further opened a conversation with the Office of Science

Policy at NIH about requirements for greenhouse containments at Biosafety Level 1 – Plants (BL1-P). BL1-P research experiments involving other organisms requiring a containment level less than BL1-P may be conducted in the greenhouse concurrently with experiments requiring BL1-P containment, provided that all work is done under BL1-P greenhouse practices. There are no special considerations for affluent or run-off treatment. Physical containment is basic for the greenhouse. If transgenic plants are used, they have to be devitalized and decontaminated by some method such as autoclaving at disposal. Under this definition, all other work concurrently working in the greenhouse would have to be treated like transgenic corn. However, as long as some demonstrated assessment says there is no reasonable risk of transgenic gene flow outside of the greenhouse, the other plants can be used at the researcher's discretion. Brian wanted to prepare and make the committee aware of the parameters for future registrations of transgenic plants under BL1-P containment.

June 15th In-Person Meeting Poll (Woofter)

Jessica Woofter reminded the committee to complete the June 15th In-Person Meeting Poll to accurately capture attendance numbers.

The meeting adjourned at 4:46 PM. The next meeting scheduled is for May 18, 2022, via Zoom.