INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
February 19, 2020
3 PM, Plant Biotechnology Bldg., Room 410

MEMBERS PRESENT: Vice-Chair, Elizabeth Fozo (phone); Lori Cole, Doris D'Souza, Paul Dalhaimer, George Dizikes, Reza Hajimorad, Brittany Isabell, Jun Lin, Reggie Millwood, Deidra Mountain, Jae Park, Ling Zhao - (zoom)

Ex-Officio – Ahmad Mitoubsi, Brian Ranger, Jessica Woofter

MEMBERS ABSENT: Marc Caldwell, Melissa Kennedy

OTHERS PRESENT: None

Opening:

The IBC Vice-Chair called the meeting to order at 3:00 PM. The minutes of December 18, 2019, were reviewed and approved as written.

Full Member Review IBC Registrations:

#IBC-11-177-1 (Andreas Nebenfuehr) Recombinant DNA Registration, III-E-2-a, 3-year rewrite
The research covered under Dr. Nebenfuehr's registration is aimed at the functional characterization of myosin motor proteins in plants. His studies involve the cloning and manipulation of myosin coding sequences from Arabidopsis thaliana using standard molecular biology protocols. In addition, fluorescent markers that are based on green fluorescent protein and its derivatives will be employed for various subcellular organelles. Many of the recombinant genes will be transformed into plants (transiently or permanently) to test for their effect on plant cell behavior and/or localization of the encoded protein. Containment was set at BSL-1. The committee approved the registration as written.

#IBC-16-443-1 (Bruce McKee) Recombinant DNA Registration, III-D-4-a, 3-year rewrite
Dr. McKee's research aims to develop better genetic and cytological tools to analyze the proteins involved in meiotic chromosome segregation in Drosophila melanogaster. Specific aims include 1) tagging meiotic proteins so that they are targeted for auxin-induced proteasomal degradation; 2) optimizing the delivery of detectable markers used for immunocytology and protein purification; and 3) introducing targeted mutations at such a high frequency that bi-allelic gene disruption can be achieved in target tissue in nearly 100% of cells (e.g. essential genes with likely roles in chromosome segregation, such as cohesins, condensins, histone chaperones, etc.). Standard molecular tools for generating transgenic Drosophila will be used, including targeted gene editing via CRISPR/Cas9. Containment was set at BSL-1. The committee approved the registration pending an update to the biosafety cabinet certification date; indicating safety glasses will be used in Question 8.4; an update to the spill response; and an update to the medical waste contractor in Question 10.2.

#IBC-16-447-2 (Stephen Kania) Recombinant DNA Registration, III-E, 3-year rewrite
Dr. Kania's research involves the development of a new vaccine to prevent skin infections and other diseases caused by Staphylococcal pseudintermedius. This study aims to produce inactive forms of the proteins and determine their immunogenicity and ability to produce a protective immune response in a mouse model. The genes in this study will be derived from clinical isolates of Staphylococcus pseudintermedius by PCR and/or synthetic genes will be obtained commercially. The later will be based on sequences from this organism and optimized for expression in E. coli. Genes from both sources are to be used. The genes will be cloned in and expressed in E. coli BL21 under the control of the lac promoter. Recombinant protein will be isolated using HIS (nickel resin) affinity chromatography. Procedures will be conducted at Biosafety Level 2. The committee reviewed and approved the registration pending an additional entry indicating the use of *S. pseudintermedius* under hosts; an update of the most current IACUC protocols as well as clarification about animal work indicated in the Technical Summary; and an update to the spill response.

#IBC-20-541-2 (Deb Miller) Infectious Agents, New registration
Dr. Miller's research covers the study of the global amphibian population declines concerning fungal skin pathogens. Her research will challenge Eastern newts (*Notophthalmus viridescens*) with *Batrachochytrium salamandrivorans (Bsal)* and additional pathogenic bacteria such as *Aeromonas hydrophila* and the probiotic *Pseudomonas fluorescens*. Containment was set at BSL-2. The committee voted to table the registration for Designated Member Review pending clarification of which strains are pathogenic and probiotic in Question 5.1 and the Technical Summary; addition of background information regarding listed organisms in Question 6.1; clarification about pathogen preparation in regards to centrifugation and small volume resuspension in Question 6.3; correction of grammatical errors in Technical Summary; clarification of dosage and concentration of the fungal and bacterial organisms used in the Technical Summary; clarification about Ranavirus usage in the Technical Summary; addition of research lab location for benchwork in Question 8.1; and the addition of goggles for PPE in Question 8.4.

Designated Member Review IBC Registrations: None

Old Business:

Administrative Report

i. *Contingencies*
Following up on the December 18, 2019, IBC Meeting, Dr. Jain's registration (#13-411-1) corrected terminology in his nontechnical summary and also added 6% sodium hypochlorite (bleach) 1:10 (vol:vol) final dilution as the liquid disinfection that would be used in the lab. Dr. Budke's registration (#17-448-2) was corrected to include a statement in the technical summary that all materials used would be contained within a growth chamber as well as removing the autoclave information and indicating that a medical contractor, Advantra, would be used for waste.

ii. *Administrative Approvals*
Dr. Doris D'Souza's registration (#06-298-2) was amended to include human stool, canine fecal samples, and updates to personnel and biosafety cabinet certification dates. This was approved by the Biosafety Officer on 1/30/2020. Dr. Steven Ripp's registration (#06-274-2) was amended to include the use of adenovirus-associated viral vectors, AAV-OTp_NPY-phlurino. This was approved by the IBC Chair on 2/11/2020. Dr. Dallas Donohoe's registration (#13-410-2) was the 3rd year rewrite for the use of colorectal and cervical cancer cells as well as FHC and HepG2 cell lines. This was approved by the Biosafety Officer on 2/11/2020.

iii. *Administrative Terminations*
Dr. Stephen Kania's registration (#16-436-2) was terminated on 1/29/2020 and all covered materials were destroyed and discarded.

iv. *Administrative Exemptions:*
None.

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

vi. *Laboratory Report (Hamilton)*
None.

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

Onsite Systems
Jessica gave the committee a brief update on progress with demoing the Onsite Systems registration form. She is working with Onsite Systems to schedule another demo for the committee.

New Business:

Biosafety Cabinet Contractor

Brian notified the committee that several labs had raised concerns about EOC1, a company that is contracted to recertify biosafety cabinets for the UT campuses. There has been a high level of failing biosafety cabinets reported as well as the lack of communication by the company in regards to the reports provided and scheduling. Brian is working with Procurement Services for a Request of Qualified Suppliers, which is a list of approved vendors that can be used at UT departmental discretion. Brian suggested contacting him directly for recommendations for qualified field certifiers. The committee requested to get updates on the established list of certifiers.

AAALAC Site Visit

Dr. Lori Cole gave the committee a brief overview of the AAALAC site visit findings. There were four site reviewers with agriculture backgrounds that visited the UTK/UTIA area and extension facilities. Their findings reported seven mandatory items that would need to be addressed by OLAC and IACUC. None of the findings involved issues with the Biosafety Program.

Updates on the Occupational Health Nurse Position

Dr. Lori Cole notified the committee that they have had 3 candidates apply so far. Two of the three candidates have canceled and only one was interviewed so far. They received seven additional applicants and the hiring committee is currently reviewing the applications.

New Lab Audit Procedures for Main Campus

Brian notified the committee about new laboratory inspection procedures for the main campus. The Lab Safety Services Office is dropping the self-assessment requirement and reviewing labs once a year frequency for both chemical and biological hazard assessments.

The meeting was adjourned at 4:09 PM. The next meeting scheduled for March 18, 2020, will need to be rescheduled due to it falling on Spring Break. The next meeting has been tentatively scheduled for March 26, 2020, from 2:30 – 4:30 pm in the Plant Biotechnology Bldg., Room 410. A zoom link will also be sent out to committee members.