

## INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

March 22, 2022

11:00 AM, Zoom Meeting

MEMBERS PRESENT: Chair- Elizabeth Fozo, Vice Chair-Stephen Kania, Paul Dalhaimer, Feng Chen, Lori Cole, Lezlee Dice, George Dizikes, Doris D’Souza, Reza Hajimorad, Brittany Isabell, Jun Lin, Jessica Vélez, Ling Zhao

Ex-Officio – Caleb Cummings, Bryan Cranmore, Linda Hamilton, Ahmad Mitoubsi, Sarah Pruett, Brian Ranger, Jessica Woofter

MEMBERS ABSENT: Marc Caldwell, Deidra Mountain, Jae Park

OTHERS PRESENT: Richard Gerhold, Bryce Burton

### Opening:

The IBC Chair called the meeting to order at 11:00 AM. The minutes of February 16, 2022, were reviewed and approved as written.

### Full Member Review IBC Registrations:

#### **#IBC-06-291-1 (Mariano Labrador-San Jose) Recombinant DNA, III-D-4-a, 3-year rewrite**

Dr. Labrador’s research focuses on the role of genome organization in gene expression and genome stability using *Drosophila* as a model system. Specifically, the study involves gene expression, DNA repair, and cell cycle regulation by chromatin insulator proteins in *Drosophila melanogaster*. Briefly, transgenic flies are created by microinjecting constructs of a *Drosophila* gene of interest (e.g., suppressor of the hairy wing) in a commonly used vector (*Drosophila* pUST). Similar constructs are also prepared for in vitro studies in *Drosophila* S2 cells. Containment was set at BSL-1. The committee approved the registration pending 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.

#### **#IBC-13-397-2 (Richard Gerhold) Infectious Agents, 3-year rewrite**

Dr. Gerhold was present to discuss their study investigating the ecology and epidemiology of parasites in wild and domestic animals. The study focuses on wild turkey diseases, avian protozoa, *Toxoplasma gondii*, and nematode parasites of cervids (such as *Trichomonas gallianae* and *Histomonas meleagridis*). To determine if transmission potentials from commercial poultry litter are associated with wild turkey diseases and potential population decline, the lab utilizes histology, PCR, and other techniques on birds collected by Tennessee Wildlife Resources Agency from various locations in Tennessee. The lab will also utilize an enzyme-linked immunosorbent assay (ELISA) to create a live animal test for *Parelaphostrongylus tenuis* and *Elaeophora schneideri*. The lab containment level is set to BSL-2. The committee approved the registration pending 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 *Parelaplostrongylus tenuis* and *Elaeophora schneideri* in the technical summary; and an update to the biosafety cabinet certification date.

### **Designated Member Review IBC Registrations**

#### **#IBC-21-562-2 (Hameeda Sultana) Recombinant DNA, Infectious Agents, & Human Derived Materials, Amendment**

Dr. Sultana was present to discuss their research covering the study of molecular mechanisms at the flavivirus-mosquito-vertebrate host interface and the transmission of pathogens by the vectors. Her amendment will cover the study of the pathogenesis with WNV/HSF11 and ZIKV. Sultana laboratory works with mosquito-borne flaviviruses such as Dengue Virus (serotypes 1-4; DENV1-4), Zika Virus (ZIKV), and West Nile Virus (WNV). Experiments related to DENV, ZIKV, and WNV will be performed at Biosafety Level-2 (BSL2) laboratories (A329 and A329A), making them ideal model pathogens to study molecular mechanisms of flavivirus-vector-host interactions. The committee is reviewing the amendment through designated review pending the following changes:

- Verification that all study personnel listed are accounted for in Section 3 for research staff.
- The non-technical summary requires the PI to write a brief narrative highlighting the purpose/rationale, research design/procedures, and outcome measures for each project that the general population can understand.
- Technical Summary changes:
  - Removal of language stating that there is no risk of infection from animal shedding and that removal of language in the Technical Summary regarding that mosquitos are the only possible route of disease when the data is not definitive.
  - Clarification of transport of contaminated bedding, cages, etc., protocols that will occur during the experimentation and upon experimental completion. Options include:
    - Purchase of a portable autoclave for inactivation of agents remaining with dirty cages;
    - Use of disposable cages;
    - Dirty cages packaged/bagged in double-containment and transported to the autoclave in A227 in the CVM (needs validation) prior to returning to the LAF.
    - Dirty cages are packaged/bagged in double-containment, transported to the LAF, and using the autoclave. The autoclaved cage would then have the contents dumped in the cage dump station, and the empty cage run through the cage washer
  - Provide details of the cage housing facility/incubator.
  - Provide enough details for the IBC to give an appropriate risk assessment for the procedures being performed.
- Facilities and Procedures Section changes:
  - The removal of room B12 from the registration as it does not meet the airflow requirements.

- The registration should list Mossman LAF as an alternative site.
- CVM A333 must be approved as a satellite animal facility by IACUC prior to any experimentation commencing.
- Additional Notes:
  - If approved by IBC, the registration is limited only to the agents and procedures listed. The addition of any other agents or procedures must be approved by IBC first.
  - CVM A333 is currently not approved for RG-3 agents. The addition of RG-3 agents must be approved and could only occur after the facility is up to date on its certifications. Further, future work with RG-3 agents in that space may limit the ability to work with animals as proposed. Re-evaluation of the ABSL-2 procedures in that space would need to occur and be approved if RG-3 agents are proposed in the future.

## **Old Business:**

### Administrative Report

#### *i. Contingencies*

Following up on February 16, 2022, IBC Meeting, Dr. Rachel McCord's registration (#16-437-2) was corrected to include a shortened non-technical summary with layman language and the inclusion of human-derived materials in the rDNA host table. Dr. Scott Lenaghan's registration (#19-535-1) was corrected for minor typographical errors in the non-technical summary, clarification of procedures regarding the handling of transgenic plants prior to autoclaving, the addition of prime before UTR in the technical summary, and clarification about "natural bioconfinement" in the last paragraph of the technical summary. Dr. Hameeda Sultana's amendment to (#21-562-2) is pending designated member review and the correction of Question 7.3 to indicate "Yes" for centrifugation; an addition to the Technical Summary, a statement that cages are completely enclosed, a description of risk prevention measures, clarification about animal care plan, correction of minor typographical errors; correction of Question 10.6 to indicate the use of scalpels; and the addition of an IACUC-approved animal facility.

#### *ii. Administrative Approvals*

Dr. Colleen Crouch's registration (#22-576-2) was approved administratively by the Biosafety Officer for the use of commercially available human-derived cell lines that may include but are not limited to breast cancer models (BT474, HCC-1806, HCC-1954, JIMT-1, MCF-7, MDA-MB-231, HCC70, MDA-MB436) and prostate cancer models (22Rv.1, PC3, DU145).

#### *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:**

Introduction of Caleb Cummings (Linda Hamilton)

Linda notified the committee that Lab Safety Services had hired a new Laboratory Safety Specialist, Caleb Cummings. He will be joining the committee as an ex-officio member.

Sharps Management SOP Update (Linda Hamilton)

Linda provided the committee with a brief update on the Sharps Management SOP. The document went to IACUC for review, and they requested some additional information. After revisions have been completed, it will return to the April IACUC meeting for further review.

Committee Reappointments (Brian Ranger)

Brian reminded the committee that 3-year commitments to the IBC will end in June, and contact him if members are considering stepping down from the committee.

The meeting adjourned at 12:33 PM. The next meeting scheduled is for April 20, 2022, via Zoom.