

INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
March 26, 2021
10:00 AM, Zoom Meeting

MEMBERS PRESENT: Vice Chair-Stephen Kania, Lori Cole, Feng Chen, Lezlee Dice, George Dizikes, Reza Hajimorad, Brittany Isabell, Jun Lin, Deidra Mountain, Jae Park

Ex-Officio – Bryan Cranmore, Linda Hamilton, Ahmad Mitoubi, Sandra Prior, Sarah Pruett, Brian Ranger, Jessica Woofter

MEMBERS ABSENT: Elizabeth Fozo, Marc Caldwell, Paul Dalhaimer, Doris D'Souza, Melissa Kennedy, Ling Zhao

OTHERS PRESENT: Dallas Donohoe

Opening:

The IBC Vice-Chair called the meeting to order at 10:00 AM. The minutes of February 17, 2021 were reviewed and approved as written. There were no abstentions.

Full Member Review IBC Registrations:

#IBC-06-288-1 (Juan Jurat-Fuentes) Recombinant DNA, III-D, 3-year rewrite

Dr. Jurat-Fuentes' registration rewrite covers the expression of various insect gut epithelial proteins in 1) common lab strains of *Escherichia coli* for purposes of purification and antisera development, 2) various insect cell lines to assess their ability to act as functional receptors for the Cry toxins of *Bacillus thuringiensis* and 3) characterizing insecticidal mode of action. The committee voted to approve the registration pending correction of autoclave validation dates, updating the waste contractor information, and clarification of dsRNA containment measures. The containment was set at BSL-1. The committee approved the registration pending clarification of outcomes in the nontechnical summary; correction of typographical errors in the technical summary; the addition of information regarding procedures and biosafety measures for the use of dsRNAs for bioassays testing gene silencing and insect mortality; the addition of information about bispecific nanobodies; and an update to the biosafety cabinet certification date.

#IBC-06-298-2 (Doris D'Souza) Infectious Agents & Human Derived Materials, 3-year rewrite

Dr. D'Souza covers methodologies for the detection and inactivation of multiple foodborne pathogen isolates, development of mitigation strategies to control microbes in ready-to-eat products, and methods to study stress responses and gene expression of various Risk Group 2 bacterial (e.g., EHEC, *Salmonella spp.*, *Listeria spp.*, *Shigella spp.*) and viral (e.g., noroviruses, caliciviruses, hepatitis A virus) pathogens. The containment was set at BSL-2. The committee approved the registration as written.

#IBC-13-410-2 (Dallas Donohoe) Recombinant DNA, Infectious Agents, & Human Derived Materials, Amendment

Dr. Dallas' registration studies the effects of high fiber diet on colonic health and during inflammatory states such as ulcerative colitis. This study aims to determine how a diet that enhances butyrate levels modulates the colonic repair process in the presence or absence of IL-1 receptor signaling. Additionally, the study aims to elucidate whether p38 modulates butyrate oxidation in colonocytes to impact the colonic injury and repair process. Lastly, the study looks at the role of cellular metabolism in Bovine Coronavirus Infection of HCT-8 colon cells. The containment level was set at BSL-2. The committee voted to approve the amendment pending the addition of students working in the lab to the personnel section; inclusion of the BSV work in the non-technical summary; clarification about centrifugation procedures for Question 7.3; additional information on cell lines used; confirmation that the -80 degree freezer is in Room 301D; addition of disinfection procedures for goggles and safety glasses; identification of disinfectants used; and the addition of the autoclave validation dates.

Designated Member Review IBC Registrations:

#IBC-21-563-2 (Paul Dalhaimer) Nanoparticles, New registration

Dr. Dalhaimer's registration studies the development of a universal vaccine against all three strains of coronaviruses that combines either immunogenic or epitopes predicted to be immunogenic in the RBD of *S. glycoproteins* from MERS-CoV, SARS-CoV, and SARS-CoV-2 (COVID-19) viruses on a single nanoparticle. The containment was set to BSL-2. The committee approved the registration through DMR pending clarification of the protein in the *Leptospira* peptide; inclusion of IACUC-related information; and removal of the fume hood from the biosafety cabinet list.

Old Business:

Administrative Report

i. Contingencies

Following up on February 17, 2021, IBC Meeting, Dr. D'Souza's registration (#06-298-2) was corrected to include a clarification of purpose/rationale, research design, project procedures, and outcome measures; addition of the recombinant DNA section; addition of human-derived material sources; clarification about opportunistic fecal sample collection; updates to the biosafety cabinet information; and clarification about current fecal sample collection and pretreatment for the shipment before Advantra disposal. Dr. Sultana's registration (#21-555-2) was corrected to include LGTV-infected ticks will be generated by feeding naïve ticks on mice infected through parenteral administration of the virus; checking Question 7.5 to indicate the use of sharps; the addition of the IACUC number; checking Question 7.6 to indicate centrifugation will occur in the lab; the addition of a statement to the Technical Summary that the safety precautions for minimizing risk at the ABSL2 level for tick containment; the addition to the Technical Summary about IACUC related procedures; revision of Question 10.1 to indicate work done in the lab animal facility; addition of the biosafety cabinet information for the lab animal facility; and checking Question 10.5 to indicate needles will be used. Dr. Neelakanta's registration (#21-559-2) was corrected to include *Borrelia*-infected ticks generated by feeding naïve ticks on

mice infected through intradermal administration of *Borrelia*; addition of a statement in the Technical Summary addressing safety precautions for minimizing risk at the ABSL2 level for tick containment; the addition of the IACUC number; and the addition of biosafety cabinet information for the lab animal facility. Dr. Neelakanta's registration (#21-560-2) was corrected to include a brief statement in the Non-technical Summary about animal work related to this application; the addition of a statement to the Technical Summary about IACUC related procedures; the addition of a statement in the Technical Summary addressing safety precautions for minimizing risk at the ABSL2 level for tick containment; the addition of the IACUC number; the addition of biosafety cabinet information for the lab animal facility; and revising Question 10.1 to include information about the lab animal facility room. Dr. Sultana's registration (#21-562-2) was corrected to include a clarification in the Non-technical Summary that the corresponding IACUC is not under review; checking Question 7.8 to indicate centrifugation will occur in the lab; the addition of a description for cleaning safety glasses in Question 10.5; and the removal of needles from Question 10.6.

ii. *Administrative Approvals*

The Biosafety Officer administratively approved Dr. Cabana's registration (#09-389-2) for its 3rd-year renewal covering the use of human derived materials that include Archaeological mortuary specimens (long-deceased humans), blood, body fluid, skin, hair, fingernails, saliva, human teeth, human cellular material found within soils from various locales. The IBC Chair administratively approved Dr. Zhong's amendment to registration (#14-416-2) covering the addition of food-grade nanomaterials. The Biosafety Officer administratively approved Dr. Baccile's amendment to registration (#20-556-2) covering the addition of human-derived materials (HeLa, HEK-293, and Jurkat) as well as updates to the lab biosafety level (BSL-2) and biosafety cabinet information. The Biosafety Officer administratively approved Dr. Stewart's new registration (#21-564-2) covering the use of cadaver fluids.

iii. *Administrative Terminations*

Dr. Jain's registration (#13-411-1) was administratively terminated, and all covered materials were destroyed and discarded. Dr. Chen's registration (#14-22-2) was administratively terminated, and all covered materials were destroyed and discarded. Dr. Budke's registration (#17-448-1) was administratively terminated, and all covered materials were destroyed and discarded. Dr. Lin's registration (#17-504-2) was administratively terminated, 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)*

Jessica notified the committee that the final draft was forwarded to Memphis OIT to incorporate in the iMedRIS training site (<https://imedris-training.uthsc.edu/>). Once the form is on the training site, committee members can access the form for testing.

New Business:

Revised System Biosafety Policy (Ranger)

Brian notified the committee of revisions to Biological Safety System Policy, SA0450, recently posted to PolicyTech. The changes include updates to definitions, select agents/toxins program requirements, roles and responsibilities, non-compliance reporting expectations, and regulatory references.

Microsoft Teams Demo for BSL-3 Teams Group (Woofter)

Jessica provided the committee with a brief tutorial on how to access and navigate Microsoft Teams through the Office 365 website.

The meeting adjourned at 11:03 AM. The next meeting scheduled is for April 21, 2021, via Zoom.