

INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
December 10, 2020
12:00 PM, Zoom Meeting

MEMBERS PRESENT: Chair –Elizabeth Fozo, Vice Chair-Stephen Kania, Marc Caldwell, Feng Chen, Lori Cole, Lezlee Dice, George Dizikes, Doris D'Souza, Reza Hajimorad, Melissa Kennedy, Jun Lin, Deidra Mountain, Jae Park, Ling Zhao

Ex-Officio – Linda Hamilton, Ahmad Mitoubi, Brian Ranger, David White, Jessica Woofler

MEMBERS ABSENT: Paul Dalhaimer, Brittany Isabell

OTHERS PRESENT: TingTing Xu

Opening:

The IBC Chair called the meeting to order at 12:00 PM. The minutes of October 21, 2020, were reviewed and approved as written. There were four abstentions.

Full Member Review IBC Registrations:

#IBC-06-274-2 (Steven Ripp) Human-Derived Materials & Recombinant DNA (rDNA), III-D-4-b, 3-year rewrite

Dr. Ripp's registration covers the development of bioluminescent bioreporter mammalian cell lines responsive to estrogens and androgens. The bioreporter will be derived from codon-optimized lux-containing cassettes. Both traditional transfection and lentiviral vector transduction will be used to transform target cells. The resultant recombinant cell lines will then be used for xenografting (mouse model) so that tumor formation and treatments can be visualized in vivo (bioreporter expression induced by exposure to estrogens and androgens). Containment was set at BSL-2 for work with lentiviral vectors and human cell lines. The committee voted to approve the registration pending the expansion of the nontechnical summary to include a broader description for promoters used; removal of Dr. Stephenson's IACUC protocol and the addition of a new protocol number; addition of the animal facility location; addition of biosafety cabinet certification dates; and the correction of Section 11.2 to indicate waste removal is processed through a medical contractor (Advantra).

#IBC-08-334-1 (Gladys Alexandre) Recombinant DNA (rDNA), III-E, 3-year rewrite

Dr. Alexandre's registration covered basic recombinant techniques to analyze the function of various genes involved in chemotaxis and associated signal transduction pathways in the bacterium *Azospirillum brasilense*. Several intermediate cloning and DNA manipulation steps will be performed in non-pathogenic *E. coli*. Procedures will be conducted at BSL-1. The committee approved the registration pending correction of the project title to accurately summarize research; the addition of outcome measures related to the project in the nontechnical summary; and the addition of a description in the technical summary regarding risk assessment

of chemotaxis and subcellular localization observations are performed as well as use of recombinant proteins.

#IBC-20-557-2 (Paul Dalhaimer) Recombinant DNA (rDNA) & Nanoparticles, III-D, New Registration

Dr. Dalhaimer's registration covers the study of PEO-based nanoparticles (NPs) binding to SR-BI, the major receptor for high density lipoprotein (HDL). This is a possible NP entry point into mammalian cells that express SR-BI including macrophages and hepatocytes. A crystal structure of LIMP-2, which is homologous to SR-BI, has been determined. This study aims to determine if these mutations also block the binding of NPs to SR-BI and plasmids are to be expressed separately in HeLa cells to determine NP binding. The committee voted to table this registration pending completion of the technical summary, the completion of human-derived section, updates to the biosafety cabinet certification dates, clarification that CVM Central Sterilization will launder lab coats, update of the shelf life for the ethyl/isopropyl alcohol surface disinfectant, updates to the spill response plan, assurance that appropriate lab personnel have been trained to complete dry ice shipping procedures, and the correction of Section 11.2 to change solid/non-sharp waste disposal will be processed by a medical contractor (Advantra).

Designated Member Review IBC Registrations: None

Old Business:

Administrative Report

i. Contingencies

Following up on October 21, 2020, IBC Meeting, Dr. Lin's registration (#05-265-2) was edited to include the addition of methods used in the fundamental and contemporary approaches to studying the target bacterial pathogens in the Non-technical Summary; inclusion of *Campylobacter* strains, insert genes, and DNA source in Section 6; checking the human/animal/plant tissue box in Section 7.1; correcting minor typographical errors and specifying bacterial cells in the Technical Summary; verification of shipping permits for Section 9.9; and autoclave validation information for the Shiga toxin listed in Section 10. Dr. Boder's registration (#10-330-2) was edited to include the correction of the review category in Section 6.1 from III-F-8 to III-D-2-a; selecting BSL-2 for room 718a listed in Section 9.1; the addition of a Hepatitis B vaccination offer in Section 10.2. Dr. Trinh's registration (#17-450-2) was edited to include the addition of the Invitrogen document described in Section 7.1; correction in Technical Summary to read "108 or 109 cfu's/ml of *S. aureus* at an OD 600 less than 2"; further clarification of pCasSA from the vector list in the Technical Summary; clarification in the Technical Summary of whether genes are introduced via electroporation of *C. albicans*; the correction of facilities listed in Section 10.1; and the addition of biosafety cabinet certification dates. Dr. Baccile's registration (#20-556-1) was edited to include the clarification of personnel listed in Section 3; clarification of rDNA cell growing procedures; the correction of shelf-life stability for bleach from 2 months to 1 week in Section 8.7; checking the contractor box in Section 10.1; and completion of sharps waste information in Section 11. Dr. Wang's registration (#20-558-2) was edited to include the completion of training requirements; the clarification of molecular techniques used for DNA breaks or elimination mapping involving rDNA

technologies or procedures; checking BSL-2 for Section 6.5; the addition of cleaning procedures with a 50% bleach cloth that is soaked for 24-48 hours in bleach before disposal; the correction of the biosafety spill response in Section 8.8; clarification in Section 8.9 of how A. suum is received in the lab; checking the contractor box in Section 10.2; completion of the biohazardous sharps waste in Section 11; and the addition of a description of anaphylaxis risk in Section 14.1.

ii. *Administrative Approvals*

The IBC Chair administratively approved Dr. Hazen's amendment to registration (#20-549-2), covering the addition of study personnel and minor changes to collection and disinfection procedures. The Biosafety Officer administratively approved Dr. Frank Loeffler's amendment to registration (#20-547-2) covering the addition to the technical summary that the saliva testing surveillance lab staff enters the test results into a secure electronic data interface that is shared between the Student Health Center and the testing lab ("web app").

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)*

Jessica provided the committee with the draft comments and worked on incorporating the changes into a final draft.

New Business:

None

The meeting adjourned at 1:07 PM. The committee voted to reschedule and combine the January meeting. The next meeting scheduled is for January 20, 2021, via Zoom.