INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
April 15, 2020
3:00 PM, Zoom Meeting

MEMBERS PRESENT:	Vice-Chair - Elizabeth Fozo, Marc Caldwell, Lori Cole, Doris D'Souza, George Dizikes, Reza Hajimorad, Melissa Kennedy, Jun Lin, Deidra Mountain, Jae Park, Ling Zhao Ex-Officio – Ahmad Mitoubsi, Scott Moser, Brian Ranger, Jessica Woofter
MEMBERS ABSENT:	Paul Dalhaimer, Brittany Isabell, Reggie Millwood, David White
OTHERS PRESENT:	None

Opening:

The IBC Vice-Chair called the meeting to order at 3:04 PM. The minutes of March 26, 2020, were reviewed and approved pending correction of the new Mossman facility manager's previous location from Ferris State University in Michigan. There was one abstention.

Full Member Review IBC Registrations:

#IBC-08-115-2 (Hwa-Chain Wang) Recombinant DNA Registration, III-D-4-b-(2), 3-year rewrite
Dr. Wang's research aims to understand the role(s) of genes implicated in cancer formation for development of cancer prevention/therapeutic strategies. Specifically, he will be using commercially available, traditional transfection and replication-incompetent retroviral systems to deliver genes of interest (e.g. transcription factor genes, stress-related genes) into mouse and human cell lines for expression. Some transformed cell lines will be xenografted into an animal model for in vivo studies. Dr. Wang The containment level was established at BSL-2. The committee voted to approve the registration pending clarification of retroviral pGFP-VRS-shRNA construct listed in the table in Section 6.2; clarification of viral vector usage in section 6.11; clarification of the term "Class I agent"; clarification for respirator usage; and the correction of Section 11.2 to indicate that the medical contractor Advantra will be used for biohazardous waste.

#IBC-08-323-2 (Shawn Campagna) Human-Derived Materials & Infectious Agent Registration, 3-year rewrite
Dr. Shawn Campagna's research covers the use of several Risk Group 2 organisms including: *Chromobacterium violaceum, Yersinia enterocolitica, Vibrio vulnificus, Vibrio parahaemolyticus, Vibrio cholerae, Salmonella enterica serovar Typhimurium, Proteus mirabilis, Neisseria lactamica, Klebsiella pneumoniae, Helicobacter pylori, Haemophilus influenzae, Edwardsiella tarda, Aeromonas hydrophila, Streptococcus pyogenes, Staphylococcus aureus, Listeria monocytogenes, Enterococcus faecalis,* and human-derived materials from the Forensic Anthropology Center. Organisms will be used for (S)-4,5-dihydroxy-2,3-pentanedione

(DPD) and glucose assays to understand quorum sensing, cell signaling and consequences on metabolism. Briefly, cultures of no more than 50 mL will be grown overnight in appropriate media. Harvesting in some cases will be performed at different periods of times, centrifuged and lysed using standard solvents for chemical analysis by LC- MS. Procedures involving these infectious agents will be carried out using BSL-2 facilities, equipment and practices. The committee tabled the pending the expansion of the project title to encompass work AI-2 and the Anthropology project; review of personnel listed; addition of strain details for items listed in the Section 6.1 table; correction of Section 7.1 to indicate no that human-derived materials are not screened for bloodborne pathogens; clarification in the Technical Summary of microbial communities listed; addition of sample collection and how samples are processed in the laboratory; addition of details regarding drugs in donors from the anthropology study; clarification in Section 9.1 about laboratory locations; updates to the biosafety cabinet certification date; updates to the spill response plan; and the addition of a statement in Section 15.1 that employees handling human-derived materials will be offered the hepatitis B vaccine per TOSHA and UT Biosafety requirements.

#IBC-14-414-1 (Sarah Lebeis) Recombinant DNA Registration, III-E-2-a, 3-year rewrite
Dr. Sarah Lebeis' research covers the isolation and characterization of novel microbes from soil and plant tissue to determine how the immune system in the model plant Arabidopsis thaliana acts to shape root-associate microbial communities. For these studies, Arabidopsis plants with a variety of immune genes knocked out will be grown in domestic soils or microbes isolated from domestic soils (either North Carolina or Tennessee) in greenhouses or designated plant growth chambers. Community composition and function will then be determined by DNA, RNA, and proteins extracted from soils and root tissue. Novel microbes from soil and plant tissue will also be isolated and characterized. The containment level was established at BSL-1/BL-1-P. The committee approved the registration pending the clarification about usage of field soils, naturally occurring microbes, reconstructed microbe communities, and genetically engineered or mutated microbes were used; specific details of the Arabidopsis mutants should be included in the registration; clarification if plants and materials are autoclaved and then placed in Advantra bins in Mossman; and an update to the autoclave validation date.

#IBC-14-415-2 (Tessa Calhoun) Infectious Agent Registration, 3-year rewrite
Dr. Tessa Calhoun's research covers the mechanisms of microbial resistance to membrane-targeting drugs such as daptomycin and amphotericin B. Her registration proposed growing small-volume cultures of Enterococcus faecalis, Escherichia coli, and Saccharomyces cerevisiae, exposing to antibiotics and stains, preparing/fixing slides, and evaluating drug-membrane interactions using nonlinear microscopic techniques. The committee approved the registration as written with containment set at BSL-1 for most procedures (BSL-2 for aerosol-producing procedures with E. faecalis). The committee approved the registration pending an updated to the biosafety cabinet certification date and the correction of Section 10.2 to indicate that the medical contractor, Advantra, is used for biological hazardous waste treatment.

#IBC-14-420-1 (Neal Stewart) Recombinant DNA Registration, III-E-2-a, 3-year rewrite
Dr. Neal Stewart's research covering the development of gene activation and repression targeting biotechnology. Briefly, a transcriptional activator and repressor system derived from Neurospora crassa will be used to selectively turn on/off bioreporter (pporRFP) gene expression. The system will be tested on tobacco leaves (Nicotiana tabacum). Standard Agrobacterium-based plant

transformation techniques will be used. Containment was set at BSL-1/BL- 1-P. The committee approved the registration pending correction of minor typographical errors and the medical contractor as Advantra in Section 11.3.

#IBC-20-542-2 (Stephen Kania) Infectious Agent Registration, New registration
Dr. Kania's research covers the study of extremophiles from Yellowstone National park and their novel antimicrobial effectiveness against infectious organisms of clinical concern. His study will include the use of *Pseudomonas aeruginosa, Staphylococcus pseudintermedius, Staphlococcus aureus,* and other unknown environmental isolates. Containment was set at BSL-2. The committee approved the registration with the contingency that the committee be notified formally by amendment of any new pathogenic organisms that be used in this study.

Designated Member Review IBC Registrations:

None.

Old Business:

Administrative Report

i. *Contingencies*
Following up on March 26, 2020, IBC Meeting, Dr. Hajimorad's registration (#05-207-1) was corrected to include a clarification for the use of *Shewanella oneidensis* and Clover yellow virus vectors; the correction of typographical errors; and the addition of further clarification in the technical summary. Dr. Su's registration (#05-232-2) was corrected to include the use of human foreskin cell lines in the technical summary. Dr. Zhong's registration (#14-416-2) was corrected to include a clarification about whether nonpathogenic or pathogenic strains are being used (in particular whether or not MRSA is being used for Staphylococcus aureus and what strains are being used for Escherichia coli); clarification of volumes and procedures used in the technical summary; updates to the biosafety cabinet certification date; and clarification of whether signage will be posted outside the lab entry indicating risks to pregnant staff.

ii. *Administrative Approvals*
None.

iii. *Administrative Terminations*
Dr. Maria Cekanova terminated registration (#09-395-2) on 3/30/2020. All recombinant constructs and transgenic plant stocks associated with the project will remain in secure storage in case they are needed in the future. Dr. Faith Critzer her registration (#13-399-2) and arrangements to securely store, transfer or destroy the registered biological hazards.

iv. *Administrative Exemptions:*
None.

v. *Accidents, Injuries/Exposures:*

None.

vi. Laboratory Report (Hamilton)
None.

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

COVID-19 Contingency Planning
Brian gave the committee a brief update about ongoing requests from the research contingency planning group about working from and throttling back on research. The team is starting to negotiate the ramp up procedures for when the university reopens and what challenges faculty and staff might encounter.

New Business:

Reappointment
Brian reminded the committee members that position reappointments would be coming due this fiscal year and that they should notify him as soon as possible if they wish to be replaced or to continue serving on the committee.

The meeting was adjourned at 4:48 PM. The next meeting scheduled for May 20, 2020 via Zoom.