

INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

September 14, 2022

Zoom Meeting

MEMBERS PRESENT: *Chair*-Elizabeth Fozo, *Vice Chair*-Deidra Mountain, Feng Chen, Lori Cole, Lezlee Dice, George Dizikes, Doris D'Souza, Reza Hajimorad, Brittany Isabell, Jun Lin, Jae Park

Ex-Officio: Bryan Cranmore, Caleb Cummings, Carolina Dolislager, Linda Hamilton, Daniel Thomas, Jessica Woofter

MEMBERS ABSENT: Marc Caldwell, Paul Dalhaimer, Jessica Vélez, Ling Zhao

OTHERS PRESENT: Lindsey Burcham

Opening:

The IBC Chair called the meeting to order at 1:00 PM. The minutes for July 20, 2022, IBC Meeting were reviewed and approved as written with one abstention.

Full Member Review IBC Registrations:

#IBC-19-538-1 (Erik Zinser) Recombinant DNA Registration, III-E-1, 3rd-year rewrite

Dr. Zinser's research focuses on the selective value of added restriction-modification systems to the non-toxic, non-pathogenic marine cyanobacterium *Synechococcus* WH7803. Modification systems will express restriction from other cyanobacteria in *Synechococcus*. These will be grown at different cell densities using a chemostat system in the presence and absence of bacteriophage. Containment was set at BSL-1. The committee approved the registration as written.

#IBC-19-539-2 (Jennifer DeBruyn) Human Derived Materials & Infectious Agents, 3-year rewrite

Dr. DeBruyn's research focuses on characterizing microbial communities associated with human decomposition to better understand decomposition processes. Soil samples will be collected from the Anthropology Research Facility (ARF) near decomposing human donors. Microbes in soils will be enumerated using plate counts and identified by DNA sequencing. Containment was set at BSL-2. The committee approved the registration pending the addition of any personnel that will be working on the project; clarification of why question 6.9 was checked; clarification if donor subjects are handled personnel and, if so, what PPE is worn for sampling; and the addition of the exposure time for the autoclave in PBB 209.

#IBC-22-580-2 (Lindsey Burcham) Human Derived Materials, Infectious Agents, & Recombinant DNA, III-D-1; D-2; D-4, 3-year rewrite

Dr. Burcham's research focuses on studying the opportunistic pathogen, *Streptococcus agalactiae* or Group B Streptococcus (GBS) and aims to identify bacterial and host factors that contribute to successful colonization and subsequent disease. GBS asymptomatically colonizes the lower gastrointestinal tract and vaginal tract in an estimated 20-30% of healthy adults. However, it is also associated with various infections, including but not limited to pneumonia, sepsis, meningitis, urinary tract infections, and adverse pregnancy outcomes. Invasive disease caused by GBS is a threat to newborn babies, and to reduce the risk of infection, people are screened late in pregnancy to determine if GBS is present in the birth canal. The current treatment/prevention of GBS relies on this prenatal screen and administration of prophylactic

antibiotics. These interventions have only slightly decreased the risk of early-onset GBS infection or those occurring immediately after birth. Dr. Burcham's lab aims to use combined approaches to investigate bacterial physiology, virulence, host interactions, and the host inflammatory response to identifying novel targets for reducing colonization and infection. Containment was set at BSL-2. The committee approved the registration pending the addition of all IACUC personnel; correction of typographical errors in the Nontechnical Summary; clarification of experiment procedures in the Nontechnical Summary; the addition of specific targets for insert genes in the rDNA section; clarification in question 6.2 about work being done with *Akkermansia muciniphila* and *Lactobacillus*; checking "yes" for question 6.2; the addition of gene/protein names being considered for deletion/insertion and complementation in the Technical Summary; the addition of doses for the bacteria being used to gavage or for injection; the addition of host cells and animal models; and the removal of Mossman Rooms 625 and 625A.

Old Business:

Administrative Report

i. Contingencies

Following up on July 20, 2022, IBC Meeting, Dr. Elizabeth Fozo's registration (#10-352-2) was administratively corrected to include an updated biosafety cabinet certification date and corrected for typographical errors. Dr. Steven Wilhelm's registration (#13-404-1) was reviewed via Designated Member Review (DMR) and corrected to include additional detail on how the effect of microcystin affects the physiology of cells in the Nontechnical Summary; additional detail regarding aspects of the research in the Technical Summary; an update of autoclave validation dates; and the correction of minor typographical errors.

ii. Administrative Approvals

The Biosafety Officer approved the following registration updates for the months of August to September: Dr. Shigetoshi Eda's registration (#06-276-2) was approved on 9/6/2022 to include updates to personnel, the addition of infectious agents (*Shigella flexneri*, *Salmonella enterica* serovars, *Staphylococcus aureus*, *Listeria monocytogenes*, *L. ivanovii*, *L. innocua*, *Vibrio parahaemolyticus*, *Yersinia enterocolitica*, *Pseudomonas aeruginosa*, *Salmonella choleraesuis*), an update to the biosafety cabinet certification date, updates to the biological spill response, and an update to the health surveillance statement. Dr. Ling Zhao's registration (#09-344-2) was approved on 9/1/2022 to include updates to the personnel listed, grant information, the addition of human white preadipocyte line and human skin samples with underneath fat tissue, and an update to the biosafety cabinet certification date. Dr. Neal Stewart's registration (#12-382-1) was approved on 7/25/2022 to include updates to personnel, lab locations (PBB 343 and 345), and autoclave validation dates. Dr. Oudessa Kerro DeGo's registration (#15-430-2) was approved on 9/1/2022 to include updates to personnel, grant information, the removal of *Trueperella pyogenes* and *Streptococcus dysgalactiae*, the addition of IACUC numbers (2394-1221, 2655-1221, 2870-0322, 2790-1020), the addition of Brehm 330C, and an update to the biosafety cabinet certification date. Dr. Ahmed Bettaieb's registration (#15-432-2) was approved on 8/2/2022 to include the addition of Mossman 527, 541E, 541E1, Mossman Animal Facility, and Jessie Harris Animal Facility. Dr. Deidra Mountain's registration (#18-527-2) was approved on 8/17/2022 to include personnel updates, IACUC protocol #2880-0522, and the addition of UTMCK Room R223. Dr. Elizabeth Barker's registration (#19-540-2) was approved on 8/9/2022 to include adding a PANC-1 cell line.

iii. *Administrative Terminations*

Dr. Jay Whelan's registration (#14-425-2) was administratively terminated on 8/15/2022. Dr. Frank Loeffler's registration (#20-547-2) was administratively terminated on 8/12/2022.

iv. *Administrative Exemptions:*

Dr. Benjamin Parker's registration (#22-582-E) was administratively approved by the Biosafety Officer on 7/26/2022 involving the inactivation of Apns1 by CRISPR-Cas9 assisted non-homologous end joining. Because the procedure does not involve the introduction of recombinant DNA into the host, it is exempt from IBC review per Sections I-B and III-F-1 of the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules.

v. *Accidents, Injuries/Exposures:*

None.

vi. *Laboratory Report:*

None.

vii. *iMedRIS Update, Manual Reviews, & System Orientation:*

None.

Review of Charter & SOPs

The IBC Chair notified the committee that the Charter and SOPs were added to the Teams group for final review. Previous revision requests have been incorporated into the documents. The committee must vote on the documents at the next IBC meeting.

New Business:

Dr. Trinh's MTA for additional Candida species

Linda notified the committee that a couple of MTA requests from Dr. Trinh. The first submitted request was for extra plasmids under the existing BSL-2 containment for the current registration. The second request for additional Candida species was approved for BSL-1 containment. USDA ARS indicated that three species (*C. albicans*, *C. dubliniensis*, and *C. glabrata*) would be considered BSL-2 from the original list. The committee decided that once the species were received, an amendment listing the additional species as BSL-2 would not require a full review and could be approved administratively by the Chair.

IBC Meeting Schedule

Jessica notified the committee that the October meeting poll was available to determine the next meeting date.

IBC Registration Form

Jessica notified the committee that changes to the registration platform would be coming soon, and the committee would need to decide on the workflow and changes to the IBC registration form. The IBC Chair requested a Word document version of the current registration form.

The meeting adjourned at 2:15 PM. The next meeting scheduled is for October 25, 2022, from 2:30 – 4:30 PM EST, meeting in person at Blount Hall, Room A004, and via Zoom.