University of Toledo

Institutional Biosafety Committee

Date: July 10, 2025

Meeting time: 12.00 pm- 2.00 pm

Meeting type: Hybrid (Microsoft Teams and HEB 233)

Attendees/Roster:

Member	Attended	Voting	Scientific	Affiliated
DeLaSerna, Ivana	Yes	Yes	Yes	Yes
Dinardo, Robert S	No	Yes	Yes	No
Dudley, Richard	Yes	Yes	Yes	No
Gray, John	No	Yes	Yes	Yes
Kalinoski, Andrea L.	No	Yes	Yes	Yes
Leisner, Scott M.	Yes	Yes	Yes	Yes
Peseckis, Steven M.	Yes	Yes	Yes	Yes
Pillai, Mahesh R	Yes	Yes	Yes	Yes
Rohrs, Skylar Lee	Yes	Yes	Yes	Yes
Root, Lisa Jane	Yes	Yes	Yes	Yes
Shemshedini, Lirim	No	Yes	Yes	Yes
Shupp, Andrew Charles (Alt)	Yes	Yes	Yes	Yes
Taylor, Roger Travis	No	Yes	Yes	Yes
Wooten, Ronald Mark	Yes	Yes	Yes	Yes
Guests: N/A				
IBC staff: Dissanayake, Ravindika, Ph.D.				

Quorum:

Present

The IBC has (13) voting members, and (7) members are required to conduct business.

Call to Order: The IBC Chair called the meeting to order at 1.35 pm

Review and approval of previous minutes:

- Dr. Dissanayake informed the committee that the meeting minutes of the June meeting are still in progress. Committee agreed to review the minutes at a future meeting.

Review of Prior Business/Biosafety officers report:

- Mr. Rohrs updated the committee on the progress of the [redacted]

Protocol Review

IBC #500181-New Submission	**P.I.:** Dr. William Sigler.	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2
Title: Veterinary clinic microbial air quality			
Project Overview: The PI is planning to collect air samples from multiple rooms within a veterinary clinic to determine airborne densities of heterotrophic bacteria and *Staphylococcus aureus.* Objectives: 1. Determine the impact of time of the day on airborne densities of heterotrophic bacteria and *Staphylococcus aureus* in a veterinary clinic. 2. Determine the impact of room activity/location on airborne densities of heterotrophic bacteria and *Staphylococcus aureus* in a veterinary clinic.			
NIH Guideline Section Not applicable. Recombinant and Synthetic DNA are not involved			
Risk Assessment and Discussion Types of biological hazards associated with this protocol are as follows, 1. Field collected airborne *Staphylococcus aureus* 2. *Staphylococcus aureus* subspecies derived from ATCC 33591 (positive control) Potential sources of risk are through aerosol inhalation, skin contact, and sharps injuries and environmental contamination of surfaces and equipment. The committee discussed the proposed precautions outlined in the protocol such as PPE requirements, waste disposal procedures, handling of aerosol generating equipment, safe handling and disposal of sharps and determined that the proposed precautions are appropriate and sufficient.			

Occupational Health Representative review (if applicable):

Biosafety officer has already inspected and certified the lab space.

IBC vote:

A member made a motion for 'Modifications required for approval, then Designated Member Review (Chair Only)'. Another member seconded. The required modifications were:

1. Clarify more on hazards
2. Add positive control and add all the bacteria to the table in Section E.1.
3. Add risks associated with collecting and culturing unintentional biological agents during air sampling.
4. Fix text formatting for readability. I.e., remove reference numbers from whatever source this was copied. Also, define acronyms.
5. Remove ABSL2 statement from Section E.3 as this does not involve infecting animals.

Total Votes: 8, For: 8, Against: 0, Abstain: 0

IBC #500182-New Submission	**P.I.:** Dr. Jennifer Hill	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Mechanisms Underlying GLP-1 Modulation of the Gut Microbiome and Hypertension in PCOS

Project Overview:

The research team is interested in the causes of Polycystic Ovary Syndrome (PCOS) and hypothesize that the gut microbiota plays an important role in its pathophysiology. They will be performing anaerobic culturing of [redacted] to be used for future vivo studies. The research team plans to seek approval for in vivo studies at a later time.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved

Risk Assessment and Discussion

Types of biological hazards associated with this protocol are as follows,

1. [redacted] bacteria

Potential sources of risk are through aerosol inhalation, skin contact, and sharps injuries and environmental contamination of surfaces and equipment. The committee discussed the proposed precautions outlined in

the protocol such as PPE requirements, waste disposal procedures, handling of aerosol generating equipment, safe handling and disposal of sharps and determined that the proposed precautions are appropriate and sufficient.

Occupational Health Representative review (if applicable):

The lab space must be inspected and certified by the biosafety officer.

IBC vote:

A member made a motion for 'Modifications required for approval, then Designated Member Review (Chair, Primary reviewer and Secondary reviewer)'. Another member seconded. The required modifications were:

1. Animal experiments are not clear. Explain the in-vivo experiments that will be conducted

Total Votes: 8, For:8, Against: 0, Abstain: 0

IBC #– 108630 Renewal	**P.I.:** Dr. Youngwoo Seo	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Transport and Fate of Cyanotoxins in Drinking Water Systems

Project Overview:

The research team is assessing the potential exposure risk to the population and/or developing remediation strategies of cyanotoxin contamination within the potable water supply. This requires the ability to monitor and simulate the dynamics through the urban water infrastructure.

The objectives of this research project are

1. to elucidate abiotic and biotic degradation kinetics of cyanotoxins under relevant conditions in the water infrastructure (pH, chlorine residual, organic matter compositions/concentrations, pipe materials, temperature, etc.)
2. to understand the fate and transport of cyanotoxins in both engineered water systems (water treatment processes and water treatment waste storage systems) and natural environment (both source water and soil that receive irrigated lake water or drinking water treatment residuals)
3. to evaluate the effectiveness of bioaugmentation (inoculation of bacteria to a targeted system) of cyanotoxin-degrading bacteria and biomass for cyanotoxin removal in long term storage lagoons for water treatment residuals,
4. to elucidate the influence of chemical and microbial population dynamics on cyanobacteria and their toxins in lagoons
5. to study the effect of algaecide treatment on water quality.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved

Risk Assessment and Discussion

Biological hazards that are associated with this protocol are as follows,

1. Microcystins, anatoxin-a, and BMAA
2. Microcystis aeruginosa strains.
3. Concentrated samples that contain cyanophages

The PI mentions that all experiments will be done in a fume hood with appropriate PPE.

Occupational Health Representative review (if applicable):

N/A

IBC vote:

A member made a motion for 'Modifications required for approval, then Designated Member Review (Chair Only)'. Another member seconded. The required modifications were:

1. Are these microcystins form biofilms. How is it going to be monitored?
2. Please address the potential sources of risk to personnel (aersol generation, needle sticks, etc.) and/or the environment.
3. Add collection sites
4. If the microcystins are isolated from the collected samples add to Section G.1 with each source.
5. Refer BMBL 6th edition for Section E.2.1 and E.3.1
6. Describe how the collected samples are stored before and after isolation and any safety measures/precautions used.

Total Votes: 8, For:8, Against: 0, Abstain: 0

IBC #500057 – Renewal	**P.I.:** Dr. Matam Vijay Kumar	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Collection of Blood from Cholestatic Liver Disease Patients

Project Overview:

The study team has previously observed that the red blood cells (RBCs) in cholestatic mice are more resistant to osmotic hemolysis. Considering the obstruction of bile flow from the liver to the gallbladder ultimately leads to spillover of bile acids into the blood leading to elevated plasma bile acids (i.e. cholemia), they hypothesize that the resistance to hemolysis may be bile acid-induced. Since bile acids are hydrophobic, detergent-like molecules, they believe that chronic exposure to bile acids may alter the membranes of RBCs in cholestatic patients conferring resistance to hemolysis. This project aims to

investigate alterations in the red blood cell membranes of cholestatic individuals which may provide protection against anemia and anemia-associated diseases.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved

Risk Assessment and Discussion

The project involves working with human blood, which carries a potential risk of exposure to bloodborne pathogens.

To circumvent this, all experiments involving human blood will be performed within the confines of a biosafety cabinet (BSC). Additionally, all human blood samples will be handled with extreme precaution (e.g. nitrile gloves, laboratory coats, N95 face masks). Additionally, after all work with samples, all laboratory personnel will wash their hands with antiseptic soap in warm water for at least 30 seconds and all areas working with blood samples will be cleaned with 10% household bleach. In the event of face/eye exposure to human blood samples, 2 working eye wash stations are located within our laboratory for immediate access.

Occupational Health Representative review (if applicable):

N/A

IBC vote:

A member made a motion for 'Modifications required for approval, then Designated Member Review (Chair)'. Another member seconded. The required modifications were:

1. Please address whether you are still acquiring human samples and if so, what is the status of the IRB protocol?

Total Votes: 8, For:8, Against: 0, Abstain: 0

IBC #500063 – Renewal	**P.I.: Dr**. Bina Joe	**Training:** IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-1

Title: The role of gut microbes in regulating blood pressure

Project Overview:

The research team has found that *Coprococcus* and *Veillonela* are positively and negatively correlated with the efficacy of antihypertensive drug in the hypertensive rats. The objective of current research is to culture the bacteria in anaerobic chamber and test their capability for antihypertensive drug metabolism in vitro and in vivo (in hypertensive rats). The gut microbes that will be cultured and tested in vitro and in vivo (in hypertensive rats) include: Coprococcus and Veillonela dispar.

NIH Guideline Section Not applicable. Recombinant and Synthetic DNA are not involved
Risk Assessment and Discussion The to-be-purchased bacteria are categorized as BSL1 at ATCC. These are the bacteria found in the gut microbiota of both humans and rats. Purchased bacteria will be cultured in an anaerobic chamber and orally gavaged to rats to establish the model for investigation.
Occupational Health Representative review (if applicable): N/A
IBC vote: A member made a motion for 'Modifications required for approval, then Designated Member Review (Chair)'. Another member seconded. The required modifications were: 1. Please explain how Appendix H of BMBL relates to the tissues and cell cultures portion of this research 2. States ABSL1, but then in the justification you state ABSL2. Address this discrepancy. 3. Please clarify whether these are bacteria or plasmids. Total Votes: 8, For:8, Against: 0, Abstain: 0

New Business/Additional Topics: none

Review of incidents: none

Inspections/Ongoing oversight: none

IBC training for members: none

Public comments: none

Adjournment: The IBC Chair moved to adjourn the meeting at 2.13 PM. The next meeting scheduled is for July 21, 2025 at 12.00 PM via MS Teams and in-person (HEB 233).