University of Toledo

Institutional Biosafety Committee

Date: September 17, 2026

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	Yes	Yes	Yes	No
Dudley, Richard	Yes	Yes	Yes	No
Gray, John	Yes	Yes	Yes	Yes
Kalinoski, Andrea L.	Yes	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	Yes	Yes	Yes	Yes
Shupp, Andrew Charles (Alt)	No	No	Yes	Yes
Taylor, Roger Travis	No	Yes	Yes	Yes
Wooten, Ronald Mark	No	Yes	Yes	Yes
Guests : None				
IBC staff: Dissanayake, Ravindika				

Quorum: Present

There were (10) voting members present, and (7) members are required to conduct business.

Call to Order: The IBC Vice Chair called the meeting to order at 12.04 pm

Review and approval of previous minutes:

Date of the meeting minutes to be approved. July 16, 2026

- **Discussion**: None
- **Motion**: The committee approved the unredacted modified July meeting minutes as written.
- **Votes**: For/Against/Abstain: 10/0/0

Old Business: None

New Business/Additional Topics: None

Protocol Review

IBC #500200-New submission	**P.I.:** Dr. Heather Conti/ Dr. Divya Sankaran (new PI)	**Training:** IBC Laboratory Safety Training IBC Biosafety Training	**Biosafety Level Assignment:** BSL-2
Title: Understanding transcriptional networks of murine T cell generation during normal development and in developmental disorders at different ages.			
Project Overview: T cell development is fundamental to immune system establishment, yet how this process changes with age remains unclear. In adults, T cells or thymocytes develop in the thymus over 3-4 weeks, while in neonates, thymocytes arise from a distinct developmental origin and differentiate rapidly in just 1-2 weeks to produce functionally distinct CD8+ T cells. How neonatal thymocytes "remember" their distinct origin leading to their unique development and immune response is poorly understood. Investigating the underlying molecular mechanisms is key to improving health and combating infectious diseases.			
NIH Guideline Section NIH Guidelines Section III-D			
Risk Assessment and Discussion Types of biological materials and hazards associated with this protocol include viruses, viral vectors, bacteria (*E.coli*), and mouse tissues and peripheral blood. The committee discussed the proposed precautions outlined in the protocol, including PPE requirements, handling of aerosol-generating equipment, safe handling and disposal of sharps, and biohazardous waste procedures, and determined that the proposed precautions are appropriate and sufficient for the approved work.			
Occupational Health Representative review (if applicable): • Please contact the BSO to schedule a BSL-2 lab inspection. • Update room numbers • Update contact information on the ABSL2 door sign			
IBC vote: A member made a motion for Modifications required for approval, then Designated Member Review (Primary Reviewer, Secondary Reviewer, and Attending Veterinarian). Another member seconded. The required modifications were:			

1. Add animal experiments
2. Please include transport in dedicated vehicle with appropriately labeled biohazard containers with no stops between facilities (MC and HSC) in the FACS SOP.
3. Should again include the use of viral vectors. While they are replication incompetent, there is a risk for personnel exposure that could lead to insertion into the personnel genome, including putative oncogenes
4. Please add the Flow Cytometry Core facility if sorting
5. Add pBA409 to the vector list
6. Add DH5a *(E. coli*) and NEB Stable (*E. coli*) to Section D.5
7. Add Listeria where appropriate in section E,H and F.
8. In E.2.2, please again state the risk for insertion into personnel genome.
9. Add the types of tissue to be collected: thymus, spleen, bone marrow, and fetal liver from embryos at different developmental ages.
10. In F.2.1, please include reference to Appendix H or the current BMBL Guidelines.
11. Add IACUC protocol numbers
12. H.3.2.1. please explain what is done to the animal for infection/treatment.
13. Please change H.3.4 to Yes since hazardous material will be shed.
14. Create separate door signs for lymphocytic choriomeningitis virus (LCMV) and Listeria.

Total Votes: 10, For: 10, Against: 0, Abstain: 0

IBC #108689-Renewal	**P.I.:** Dr. Erin Prestwich	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Analysis of Nucleic Acid Modifications in Bacteria Including *Pseudomonas aeruginosa*

Project Overview:

Pseudomonas aeruginosa is a common bacterium that can be found in soil, water, skin flora, and man-made environments. It can cause disease in animals and immunocompromised people. The Prestwich laboratory will study *P. aeruginosa*-derived nucleic acids from in vitro cultures to learn about the effects of nucleic acid modifications in this organism and determine whether any of the associated pathways can be potential antibiotic targets. It is desired to compare the nucleic acid modifications of wild type *P. aeruginosa* with those of transposon deletion mutants to find the genes and proteins active in modifying the different types of nucleic acids. DNA and RNA modifications will be analyzed. The stress responses and ability to form biofilms of the wild type vs. the mutants will also be examined to determine whether the presence of the functional nucleic

acid modifying enzymes and nucleic acid modifications will affect the fitness and biofilm forming ability of the different strains.
They will also co-culture macrophages and mammalian cell lines and *P. aeruginosa* to understand more about inflammation and infection. They also want to use *C. elegans* as a model to study virulence in different *P. aeruginosa* cell variants, subpopulations, and mutants

NIH Guideline Section

Section II. Section II-A. Section II-A-1

Risk Assessment and Discussion

Types of biological/chemical hazards associated with this protocol include different strains of *P. aeruginosa,* E.coli, *Staphylococcus epidermidis,* Plasmids, mammalian cell lines,*Caenorhabditis elegans* N2 and *Mus musculus* Bl6 that had been infected with *P. aeruginosa.*
Pseudomonas infections usually only occur in people with cystic fibrosis or as hospital acquired infections. There are cases of skin rashes from contact with PA in unchlorinated pools. No laboratory infections have been reported. Eye and skin infections can occur as a result of *P. aeruginosa* infections.
Secondary wound infections occur in patients with decubiti, eczema, and tinea pedis. These infections may have a characteristic blue-green exudate with a fruity odor.
Pseudomonas is a common cause of hot tub or swimming pool folliculitis. Patients present with pruritic follicular, maculopapular, vesicular, or pustular lesions on any part of the body that was immersed in water.
Pseudomonal bacteremia produces distinctive skin lesions known as ecthyma gangrenosum.
Pseudomonas also has emerged as an important source of burn wound sepsis. Invasive burn wound sepsis is defined as the bacterial proliferation of 100,000 organisms per gram of tissue, with subjacent involvement of subjacent unburned tissue.
Both eye and skin infections can and will be avoided by proper PPE including protective eyewear, gloves, closed toed shoes, and lab coat. The lab has eye wash stations, sinks to wash hands, and a biosafety cabinet which are used to prevent potential infections.

Occupational Health Representative review (if applicable):

- None

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 you testing particular transposon insertion mutants or is this a library of many transposon mutants form which you have yet to select ones of interest? If the former then I think it would be worth listing which knockout mutants you are planning to work with. Although most knockouts are likely to be less virulent, it is also possible that they could be more virulent.
2. Where will the mouse infections be performed?
3. In B.3, you list "Mus musculus Bl6 that had been infected with P. aeruginosa". PLease address this contradictions, if you are not using live animals in this protocol.
4. Correct typo in Section F

Total Votes: 10, For: 10, Against: 0, Abstain: 0

[Dr. Gray joined the meeting at 12.25 PM, total voting number 11, quorum was maintained]

IBC #500091-Renewal	**P.I.:** Dr. Matam Vijay Kumar	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-1

Title: Plasmodium infection of mice.

Project Overview:

The research team is interested in investigating the role of chronically elevated bile acid and bilirubin content in blood in parasite infection, more specifically, in malaria. They believe the alterations in the erythrocytes of the cholestatic mice may confer an advantage against malarial parasite infection. Likewise, they are interested in using *Plasmodium yoelii* (*P. yoelii*), a widely used rodent malaria model, supplied by BEI Resources to test their hypothesis that chronic exposure to bile acids in blood may alter erythrocyte membrane morphology to protect against malaria infection.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved.

Risk Assessment and Discussion

Types of biological/chemical hazards associated with this protocol include Parasite infection (i.e., *Plasmodium*) and animal tissue and blood.

Potential sources of risk are through aerosols, needle sticks, and biohazard waste disposal. The committee discussed the proposed precautions outlined in the protocol such as PPE requirements, 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):

- None

IBC vote:

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

1. Injections should be handled with BSL2 precautions when the agents are being injected. A sign must be posted on the door during the injection (the sign will be provided). After infections, animals can go back to ABSL1.

Total Votes: 11, For: 11, Against: 0, Abstain: 0

IBC #500107-Renewal	**P.I.:** Dr. Stanislaw Stepkowski	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Verification of the induction in antibody response against the SARS-CoV-2 virus by Pfizer and Moderna vaccines in kidney transplant patients.

Project Overview:

Kidney transplant recipients have weak immune system and thus the efficacy of the SARS-CoV-2 vaccines, though demonstrated in healthy people, is not certain in these patients. The purpose of this research is to establish the immunological response against coronavirus antigens in kidney transplant recipients who received a vaccine against coronavirus, compared to healthy vaccinated people.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved.

Risk Assessment and Discussion

Human tissue (blood, including peripheral blood mononuclear cells) is going to be the only source of biological hazard in the project.
Potential hazards of working with human blood include risks of exposure to blood-borne pathogens, especially Hepatitis B and HIV. To mitigate this risks, the laboratory where assays will be performed is limited access and is equipped to address any possible incidents of exposure. The study personnel are vaccinated against Hepatitis B and trained to observe the required biosafety practices, such as not recapping needles, using appropriate laboratory attire, and using the biosafety cabinet where necessary. Laboratory

attire, including closed-toed shoes and long pants (not shorts), is worn in the lab at all times; lab coats and gloves are worn when performing bench work, and when the bench work involves working with materials potentially presenting any chemical or biological hazard, including assays included in this project, face coverings and goggles are worn. The phlebotomy procedure is going to be performed by a trained nurse in a clinical setting.

Occupational Health Representative review (if applicable):

- If you have not received a spill kit, please reach out to the BSO.

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. The IRB study was closed 10/4/24. Is the study team only working with existing samples that were collected when the IRB protocol was active?
2. If the IRB is expired and the samples are stored only for 30 days, please clarify if sample analysis is still occurring.

Total Votes: 11, For: 11, Against: 0, Abstain: 0

[Dr. Dudley left the meeting at 12.55 PM, total voting number 10, quorum was maintained]

IBC #500111-Renewal	**P.I.:** Dr. Zahoor Shah	**Training:** IBC Biosafety Training and IBC Laboratory Safety Training	**Biosafety Level Assignment:** BSL-2

Title: Use of Caco-2 cell for identifying intestinal inflammation.

Project Overview:

A spontaneously immortalized human intestinal epithelial cell line (Caco-2) will be grown in a standard incubator at 37 °C and 5% CO2 atmosphere, for use in intestinal inflammation studies, and drug permeability studies. The outcome measures will be nitric oxide (NO), Cell viability Assay, quantitative polymerase chain reaction (qPCR), and Western blotting experiments. The study team will use trimethylamine and trimethylamine n-oxide in the cells and study the mechanisms of inflammation.

NIH Guideline Section

Not applicable. Recombinant and Synthetic DNA are not involved.

Risk Assessment and Discussion

Types of biological/chemical hazards associated with this protocol include Human Cell Line: Caco-2 and Treatment: Trimethylamine and Trimethylamine N-Oxide or LPS. Primary hazards to personnel working with these agents relate to accidental percutaneous or mucous membrane. Extreme caution will be taken with contaminated needles or sharp instruments. Even though organisms routinely manipulated at BSL-2 are not known to be transmissible by the aerosol route, procedures with aerosol or high splash potential that may increase the risk of such personnel exposure will be conducted in primary containment equipment, or in devices such as a BSC or safety centrifuge cups. Personal protective equipment will be used as appropriate, such as splash shields, face protection, gowns, and gloves. Secondary barriers, such as handwashing sinks and waste decontamination facilities, are available to reduce potential environmental contamination.

Occupational Health Representative review (if applicable):

- Update training.
- Please detail in the exposure plan the emergency procedures (ie: flush with water, report to the nearest emergency dept, report exposure to biosafety officer, etc) and the risk assessment and hazard communication.

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. Add FACS Experiments in detail and update to the most recent SOP for FACS Sorting
2. Please remove pathogens listed below if not actually a risk from experiments. List potential risks from your cell lines only (as in F.2.2.)
3. Correct the list of locations

Total Votes: 10, For: 10, Against: 0, Abstain: 0

Biosafety Officers' Report:

- Mr. Rohrs informed the committee that he is working on the biosafety plan. He will send the committee once the plan is finalized.

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 12.59 PM. The next meeting is scheduled for October 15th, at 12.00 PM via MS Teams and in-person (HEB 233).