December 2025 Institutional Biosafety Committee Meeting Minutes

Element	
Institution	Auburn University
Meeting Date	Wednesday, December 10, 2025
Meeting Time	1:30 PM – 2:50PM
Meeting Type	Hybrid (In Person and Zoom)
IBC Members Present	Present: Kevin Huggins, IBC Member, IBC Chair Catherine Situma, IBC Secretary Deepika Suresh, BSO Ruediger Hauck, IBC Member, Faculty Rep Andrea Loewen, IBC Member, Institutional Policy Zachary Noel, IBC Member, Plant Expert Pat Rynders, IBC Member, Veterinarian/Animal Expert David Acker, IBC Alternate Member, Alternate for Situma Niki Johnson, IBC Non-voting Member (*Ex officio*) Not Present: Kassie Conner, IBC Member, Plant Expert Julio Garcia, IBC Member, Local Non-Affiliated Miranda Reed, IBC Member, Faculty Rep E.N. Burson, IBC Member, Local Non-Affiliated
Quorum	The IBC has 11 voting members, and 6 members are required to conduct business.
Other Individuals in Attendance	Valerie Riggins – IBC Administration Adrienne Booker – IBC Administration Nicholas May – Risk Management and Safety Daniel Kroeger – Faculty, Anatomy, Physiology & Pharmacology James Gillespie – Faculty, Pathobiology Jennifer Panizzi – Faculty, Anatomy, Physiology & Pharmacology
Call to Order	The IBC Chair called the meeting to order at 1:30 PM.
Conflicts of Interest, if Applicable	Zachary Noel recused himself from the vote for Dr. Mark Liles' IBC registration due to his involvement as a Co-Investigator on the registration.
Review and Approval of Previous Meeting Minutes	August 6, 2025 Motion: To approve the August 6, 2025 meeting's minutes as written. • Votes for: 7 • Votes against: 0 • Abstain: 0

NEW IBC REGISTRATIONS	
PI Name(s)	Daniel Kroeger

BUA Number	New Registration - SPROTO202500000064
Project Overview	Transgenic mouse lines will be used to investigate the role of sleep in health and disease. The mouse lines are chemogenetically activated to assess the role of sleep in Alzheimer's disease and PTSD to provide data that will ultimately benefit human patients.
NIH Guidelines Section	Section III-E-3-a Section III-F-8-C-VII Section III-F-8-C-VIII
Risk Assessment and Discussion	• The transgenic animal models were not created at AU. They will be purchased from an external lab. • The animal model already expresses cre-recombinase and will be used for chemogenetic experiments. • In some cases, the cre-mouse line will be crossed with a mouse line that expresses Alzheimer's disease-related proteins to assess the effects of extra sleep on the progression of Alzheimer's disease. • Breeding of the mice will be done in BSL-1 containment (Housed in sealed boxes on ventilated racks within the restricted access vivarium) to obtain the numbers needed for the protocol. • The genetically engineered mice used will either overexpress or modulate neuronal activity related to sleep, induce Alzheimer's disease-related proteins, or under express sleep disorder narcolepsy. • The disease modeled in mice is neither infectious nor contagious. It cannot be transmitted from mice to humans through contact, bites, or bodily fluids. • The animals will be maintained with proper cage labeling and accurate animal numbers to prevent any accidental escape. • After the experiments, all materials will be autoclaved or incinerated and disposed of. • No additional containment beyond standard ABSL-1 laboratory safety procedures is required. Monitoring and periodic review will ensure continued compliance and safety.
Training	All lab personnel have completed the required Laboratory Safety, Biological Safety, Managing Regulated Waste and NIH Guidelines training. The PI will conduct any protocol specific biosafety training and containment training.
Occupational Health Representative Review if Applicable	N/A
Biosafety Level Assignment	BL1-N
IBC Vote	A motion was made to approve the registration pending the following changes or conditions are met. • Clarify if there will be any transport between laboratory and vivarium, and how. • Confirm with the facility PPE requirements and decontamination/waste disposal procedures.

	• Clarify which strains will be bred and list vendor special considerations as applicable. • Clarify where animals will be housed. • Include the genus. • Clarify what activities are occurring in each location. • Provide details on what measures are in place to ensure that mice will not escape. • Votes for: 7 • Votes against: 0 • Abstain: 0

PI Name(s)	Jennifer Panizzi
BUA Number	New Registration - SPROTO202500000067
Project Overview	Previously-generated and characterized zebrafish transgenic animals will be bred and maintained for use in experimental protocols. These animals were generated to express fluorescent proteins in tissues of interest, to be monitored in live developing embryos under a fluorescent microscope.
NIH Guidelines Section	Section III-D-4
Risk Assessment and Discussion	• Zebrafish already containing fluorescent protein coding sequences, stable transgenes were created previously. • This protocol will be used to maintain and breed the fish that will be used for various research experiments. • Embryos will be used to screen for effects of novel therapeutics, and the embryos and tissues will be collected for further analysis in the lab. • Fish are confined to aquarium tanks or Petri dishes at all times and the drains are screened. • Access to the lab and the animal room is restricted. • The animals will be maintained with proper aquaria labeling and accurate animal numbers to prevent any accidental escape. • After the experiments, all materials will be autoclaved, bleached, and/or incinerated and disposed of. • No additional containment beyond standard BSL-1 and ABSL-1 laboratory safety procedures. Monitoring and periodic review will ensure continued compliance and safety.
Training	All lab personnel have completed the required Laboratory Safety, Biological Safety, Managing Regulated Waste and NIH Guidelines training. The PI will conduct any protocol specific biosafety training and containment training.
Occupational Health Representative Review if Applicable	N/A
Biosafety Level Assignment	BL1-N

IBC Vote	A motion was made to approve the registration pending the following changes or conditions are met. • Detail the type(s) of experimental procedures that will be conducted using the transgenic fish. • Describe the procedures that are in place to prevent accidental release of transgenic fish, the impact of a potential release, and actions taken should it occur. • Provide exact primary and secondary containment measures that will be used during transport. • Provide more detail on decontamination and waste disposal processes. Include information about autoclave. • List source(s). • Votes for: 7 • Votes against: 0 • Abstain: 0

PI Name(s)	James Gillespie
BUA Number	New Registration - SPROTO202500000066
Project Overview	This project aims to generate recombinant filamentous bacteriophages displaying short peptide sequences fused to phage structural proteins using standard phage display vectors and cloning techniques. These engineered phages will serve as immunogens to produce hyperimmune plasma in horses, generating polyclonal equine antibodies targeting Gram-negative bacteria and *Candida* species for potential use as passive immunotherapy against antimicrobial-resistant infections.
NIH Guidelines Section	Section III-D-2-a Section III-D-4-a Section III-F-8-C-II
Risk Assessment and Discussion	• This work involves the construction and propagation of recombinant bacteriophages displaying short AMR-derived peptide epitopes in non-pathogenic *E. coli* K-12 strains. • The peptides are short (<15 AA), non-functional, and cannot confer resistance. • Host-restricted to Phages+ *E. coli*. • The constructs do not: Encode full antimicrobial resistance genes, enhance pathogenicity, or expand host range. • The intramuscular administration of recombinant AMR-displaying bacteriophages poses no infectious risk to animals or personnel. • The intramuscular administration route limits shedding, and phages do not replicate in animals. • Primary risk related to endotoxin contamination from phage preparations originates from E. coli, and it is mitigated by removal using Triton X-114 extraction, quantified using chromogenic LAL assay, sterility testing before administration, and aseptic formulation procedures. • The intramuscular administration route limits shedding, and phages do not replicate in animals. • Being conservative regarding AMR-related sequences, ABSL-2 practices will be adopted at equine unit as a precautionary administrative control.

	• Equine plasma will be collected by plasmapheresis using standard protocols. • Antibody titer measurements will be monitored by an AMR peptide-specific indirect ELISA to immobilized peptide antigens. • Inhibitory activity of the polyclonal antibodies against our selected pathogens (C. albicans, A. baumannii, or K. pneumoniae) will be studied as a passive immunotherapy to treat antimicrobial-resistant bacterial infections. • After the experiments, all materials will be autoclaved or bleached and disposed of. • No additional containment beyond standard BSL-1 laboratory safety procedures and ABSL-2 measures will be followed at the equine unit, as a precautionary administrative control is required. Monitoring and periodic review will ensure continued compliance and safety.
Training	All lab personnel have completed the required Laboratory Safety, Biological Safety, Managing Regulated Waste and NIH Guidelines training. The PI will conduct any protocol specific biosafety training and containment training.
Occupational Health Representative Review if Applicable	N/A
Biosafety Level Assignment	BL1 and BL2-N
IBC Vote	A motion was made to approve the registration pending the following changes or conditions are met. • Add the location for flowcytometry. • List the selected pathogens that will be used in Polyclonal antibody protection assay. • Provide a justification for ABSL-1 or BSL-1 containment. • Include information about physical injury risk. • List the exact source of the material. • Specify what type of tissue or blood will be collected and used. • Specify the type of cell line and unit (e.g., vial). • Provide the ATCC catalog #s. • If agents will be cultured in the laboratory, add procedure details, and if they are used in assays/cloning. • Clarify the E. coli strain being used. • Include the animal species involved in the project. • Provide more detail on decontamination and waste disposal processes. • Votes for: 7 • Votes against: 0 • Abstain: 0

PI Name(s)	Mark Liles
BUA Number	New Registration - SPROTO202500000065

Project Overview	This project will involve genetically engineered PGPR strains that may improve these strains for agricultural use. This research will evaluate the naturally occurring and genetically engineered PGPR strains for improved plant pathogen biocontrol and/or plant growth-promoting abilities. PI will conduct disease biocontrol and plant growth promotion assays under lab and growth chamber conditions in which the PGPR strain is applied onto a soybean or other seed to prevent disease and induce better plant growth.
NIH Guidelines Section	Section III-E-2-a Section III-F-8-C-V

Risk Assessment and Discussion	• There are 3 objectives to this protocol:
	  ○ Adapt top-performing, broad-spectrum Bacillus velezensis strain(s) to select for increased metabolite production as well as bio-control potential in crops against plant pathogens.
	  ○ The Bacillus strains will be genetically engineered to express recombinant proteins, including green fluorescent protein (GFP), or other biosynthetic gene clusters (BGC), which will be conducted at a 3rd party corporation.
	  ○ The top-performing Bacillus PGPR strains will be shipped to AU under an appropriate permit to conduct studies under lab and growth chamber conditions.
	• The plant experiments are conducted in a contained plant growth chamber where the seeds are inoculated with Bacillus cultures or spore preparations, with or without pathogen inoculation.
	• The room where the growth chambers are placed has restricted access.
	• The plant pathogens (fungal or oomycetes) and PGPR's used for the experiments are BSL-1.
	• The antibiotic strain obtained from the 3rd party will be used only for culture-based comparisons for estimating antibiotic activity against fungal or oomycete pathogens under laboratory conditions.
	• Any flowering of the plants will be harvested before maturity inside the growth chamber.
	• No breeding or cloning of plants occurs.
	• After the experiments, all materials will be autoclaved or incinerated and disposed of.
	• The lab operates under BSL-2 conditions as a precautionary measure. No additional containment beyond standard BSL-1 laboratory safety procedures is required. Monitoring and periodic review will ensure continued compliance and safety.

Training	All lab personnel have completed the required Laboratory Safety, Biological Safety, Managing Regulated Waste and NIH Guidelines training. The PI will conduct any protocol specific biosafety training and containment training.
Occupational Health Representative Review if Applicable	N/A
Biosafety Level Assignment	BL1-P

IBC Vote	A motion was made to approve the registration pending the following changes or conditions are met. • Update 1010 to 10^10. • Include R. solani in the list of microorganisms. • Delete nitrogenase and other biosynethetic gene clusters since they are not mentioned again. • Clarify how and when soybeans will be used, and how these bio-engineered agents will be introduced into the plants. • List location where mass spectrometry will occur, what is being transported, and how it will be contained. • List details for transportation to autoclave. • Check "Yes" for Centrifugation. • Provide details for sharps management. • Clarify if the Bacillus agent is non-pathogenic. • List source(s) of agents. • Remove E. coli if it will not be used at AU. • Provide details about the growth chambers and containment (i.e., number of treatments, method of inoculation, sample collection, etc.). • Describe how plants will be discarded. • Provide more detail on decontamination and waste disposal processes. • Votes for: 6 • Votes against: 0 • Abstain: 1

ADDITIONAL IBC TOPICS	
Review of Prior Business	None
New Business/Additional Topics	None
Review of Incidents if Applicable	Nothing To Report
Inspections/Ongoing Oversight	Not Discussed During This Meeting. This Will Be Discussed Quarterly.
IBC Training if Applicable	The committee was reminded to complete yearly NIH training.
Public Comments if Applicable	There were no public comments.
Adjournment	The IBC Chair moved to adjourn the meeting at 2:50 PM. • Votes for: 7 • Votes against: 0 • Abstain: 0