TEXAS A&M UNIVERSITY
INSTITUTIONAL BIOSAFETY COMMITTEE - COLLEGE STATION
MEETING MINUTES

DATE: *10/22/2025*
TIME: *1:04 PM*
LOCATION: *Zoom*

The meeting for the Texas A&M University (TAMU) Institutional Biosafety Committee (IBC) - College Station was called to order by the Chair at 1:04 PM. This meeting was open to the public.

MEETING ATTENDANCE

Voting members present: 14
Voting members are required for quorum: 9

Voting IBC Members Present

☒ Carlos Gonzalez, IBC Chair
☒ Kurt Zuelke, IBC Vice Chair
☒ Jessica Bourquin, BSO
☒ Lisa Auckland
☒ Noah Cohen
☒ Jason Gill
☒ Tennille Lamon
☒ Kevin Myles
☒ Sanjay Reddy
☐ Penny Riggs
☐ Christina Robertson
☒ Joseph Sorg
☒ William Boyd, Community Member
☒ Mark Burow, Community Member
☒ Dennis Nkaleke, Community Member
☒ Don Plitt, Community Member

Office of Biosafety (OBS) Staff Present:

☒ Merissa Bruns
☒ Cat Carey
☒ Athena Cherry
☒ Susan Gater
☒ Melissa Hinga
☒ Lauren Horton
☒ Jeffrey Lane
☒ Jeni Mathews
☒ Ruchira Mitra
☒ Grant Severson
☒ Megan Shoff
☒ Beatriz A Velez
☒ Jennifer Wier
☒ Todd Wisner
☒ Wendy Wright

Guests Present:
PI Mingyuan Zhu
PI Adelman
Mariana Najjair on behalf of PI Lo
8 additional guests

I. ANNOUNCEMENTS

A. IBC CHAIR

i. The November IBC meeting is rescheduled to 11/19/2025.

B. BIOSAFETY OFFICER

i. Biosafety Fair – 10/31/2025 held at Kleberg Center

II. OLD BUSINESS

A. Updates to the *BSL-1/BSL-2 Biohazardous Waste Disposal Guidelines*, originally approved by the IBC in March 2017, were presented to the committee for review and approval.

Approval of revised *BSL-1/BSL-2 Biohazardous Waste Disposal Guidelines*

Motion to approve pending minor revisions to the arthropod section and footnotes.
13 ayes, **0** nays, and **1** abstentions

III. NEW BUSINESS

A. Notification to the IBC regarding the administrative termination of permits in accordance with SOP OBS-IBSP-113, Escalation Process for IBC Submissions.

a. PI Ramesh Vemulapalli, IBC2018-037, expired 12/06/2024, termination initiated 10/08/2025
b. PI Gerard Toussaint, IBC2019-014, expired 06/16/2025, termination initiated 10/10/2025

IV. REPORTS

A. Institutional Biosafety Program (IBSP):

The IBSP report was presented for committee review. Since the previous meeting for the TAMU IBC - College Station on 09/24/2025:

- 110 submissions were received by the Office of Biosafety for review by the IBC and
- 126 submissions were reviewed and processed by Biosafety Program Staff and approved by the IBC Chair on behalf of the IBC.

These submissions could include any of the following: a simple amendment (room change, personnel, etc.), an initial or 3-year renewal application describing non-recombinant or exempt recombinant studies, administrative actions (including terminations and extensions), and annual reviews. Committee members are encouraged to review these submissions (not requiring full committee review) in iRIS.

B. Incident Reports

An update was provided regarding an incident reported at a previous meeting:

- The Office of Biosafety received a response from the NIH regarding the final report submitted on 7/31/2025. The NIH was satisfied with the response of the OBS and no further information was requested.

A new incident was reported: The incident occurred in an ABSL-3Ag animal holding room during the use of an animal pathogen that has not been shown to infect humans.

- Reported 9/26/2025
- Summary of Incident:

- On 9/26/2025, a researcher experienced a needlestick injury potentially contaminated with a recombinantly modified strain of African Swine Fever virus (ASFV). At the time, the researcher was in an ABSL-3Ag animal holding room with another person who was inoculating pigs with ASFV.
- After the inoculation was completed, the syringe was handed to the researcher, who attempted to draw VirkonS disinfectant into the syringe. During this process, the needle nicked the researcher's thumb, tearing both gloves and breaking the skin.
- The researcher immediately moved to the sink, degloved, and washed their hands with soap and water for 15 minutes while expressing blood from the cut. Standard exit procedures from the ABSL-3Ag room were then followed, including a personal shower.
- The researcher adhered to the minimum quarantine requirements for species susceptible to ASFV as part of the ASFV project.

- Office of Biosafety Response:
  - On 09/26/2025, Biosafety Occupational Health Program staff referred the individual to the Occupational Health Provider (OHP).
    - Although ASFV is not a human pathogen, the OHP recommended the cut be monitored for signs of infection.
    - The researcher has not reported any signs of illness or infection resulting from the injury.
  - On 10/1/2025, biosafety staff met with the researcher, the subject matter expert (SME) for the project who had trained the researcher, the facility training specialist, and the Associate Executive Director (AED) of the research facility.
    - OBS confirmed that the researcher had observed the four-day quarantine.
    - Root cause analysis identified a deviation from SOPs as the cause of the incident.
      - SME trained the researcher to chemically disinfect the syringes prior to placing them in a sharps container in an effort to ensure that an exotic, high-impact animal pathogen was not released from the facility.
      - The additional step involved passing an unprotected needle and directing that needle towards the fingers holding a tube – much like the action taken during recapping a needle – practices that are prohibited in sharps management SOPs, as they introduce more risk of release in a needlestick injury than they prevent.
    - Autoclave cycles are validated for the decontamination of waste, including sharps containers; additional disinfection is not necessary for containment of the virus.
    - All in attendence agreed that the addition of VirkonS disinfection would be removed and that existing sharps management SOPs would be strictly followed, including placing used needles into sharps containers immediately after use.
      - Key personnel have been included in a discussion about following existing sharps SOPs.
      - The Office of Biosafety is working with the facility training specialist to design a robust sharps management training module that will be required of all facility research personnel.

- On 9/26/2025, an immediate notification was made to NIH per Appendix G-II-C-2-q of the *NIH Guidelines*. The final report will be due within 30 days.
- On 9/26/2025, an immediate notification was made to the Federal Select Agent Program and a final Form 3 report was submitted 10/03/2025. No response has been received to date.

Approval of Incident Report

Motion to approve and seconded
13 ayes, **0** nays, and 1 abstention

V. APPROVAL OF PREVIOUS MEETING MINUTES

TAMU IBC - College Station minutes from the meeting on 09/24/2025 were provided to the committee for review.

Motion to approve as written and seconded
13 ayes, **0** nays, and **1** abstention

VI. PROTOCOL REVIEWS

A. The committee reviewed the proposed research, including agent characteristics, experimental manipulations, recombinant or synthetic nucleic acid components, and the training and qualifications of the PI and lab personnel. Final approval is contingent upon confirmation by the IBC Chair or the Office of Biosafety, on behalf of the IBC, that all personnel have completed the required training, facilities meet containment standards, and all necessary modifications have been addressed. Any unresolved issues or significant changes will be brought before the full committee for further review.

B. The IBC Chair reminded all members present to identify any conflicts of interest prior to IBC registrations being reviewed.
   a. Kevin Myles, IBC2019-074
   b. Kevin Myles, IBC2019-081

Protocol #	IBC2019-074
Protocol Type	3-Year Renewal
PI Name	Kevin Myles
Reviewer Summary	Dr. Myles submitted a 3-year renewal to continue his approved research on gene drives in *Aedes aegypti*, *A. albopictus*, and *Drosophila melanogaster,* including new genetic inserts to advance studies, improve their effectiveness, and develop a "braking" system for their reversal.
Section(s) of *NIH Guidelines*	III-D-8, Appendix G-III-B
Recombinant Modifications	

Category/Description	Source RG
Gene Editing / Modification tools	1
Reproductive function / essential genes	1
Developmental function / essential genes	1
Germline-Specific Promoters	1
Constitutive Promoters	1

<table>
<tr><td></td><td>
<table>
<tr><td>Tissue-Specific Promoters</td><td>1</td></tr>
<tr><td>Inducible Promoters</td><td>1</td></tr>
<tr><td>Viral Promoters</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>

Inserts are used to drive expression of transgenes, regulate gene editing systems, and study gene function in the context of insect immunity and vector competence. These inserts expand the tools available for the lab’s current work with gene drives.
All work with genetically modified insects, especially those containing gene drives, is conducted in certified ACL-2+ insectaries. This includes the use of locked environmental chambers and secondary containment for all mosquito cages.
All life stages of arthropods and all liquid and solid waste are autoclaved or otherwise decontaminated before disposal.
SOPs are in place to handle spills, equipment failures, and escape of genetically modified arthropods.
Previously approved BSL-3 work involving viruses remains unchanged. Any approved modifications to viruses are intended to reduce viral transmissibility. No modifications are designed to increase the stability, transmissibility, or the ability of the agent to spread.

</td></tr>
<tr><td>Biosafety Occupational Health</td><td>BOHP Annual Enrollment</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">12 For 0 Against 1 Abstain 1 Recuse</td></tr>
</table>

<table>
<tr><td>Protocol #</td><td>IBC2025-058</td></tr>
<tr><td>Protocol Type</td><td>Initial</td></tr>
<tr><td>PI Name</td><td>Hui-Wen Lo</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Lo submitted an initial IBC application to investigate the correlation between the presence of transcription factor Glioma-associated Oncogene homolog 1 (tGLI1) in breast cancer cells and metastasis to the brain. Initial investigations revealed that tGLI1 is present at higher levels in brain metastases than in primary breast tumors. The PI will use luciferase-expressing human breast cancer cells with tGLI1 knockdown in an in vivo model to simulate cancer growth.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-F, III-E, III-D-4</td></tr>
<tr><td>Characteristics of Agent(s) or Material(s)</td><td>
<table>
<tr><th>#</th><th>Agent</th><th>BSL</th><th>In vivo</th><th>Recombinant</th></tr>
<tr><td>1</td><td>E. coli, K-12 strains</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>2</td><td>E. coli, non-pathogenic strains</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>3</td><td>Animal cells (transfected)</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>4</td><td>Human cells (transfected)</td><td>BSL-2, ABSL-2</td><td>Yes</td><td>Yes</td></tr>
</table>
</td></tr>
<tr><td>Recombinant Modifications</td><td>
<table>
<tr><th>Agent #</th><th>Category/Description</th><th>Source RG</th></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td><table>
<tr><td>1-4</td><td>Fluorescent and bioluminescent reporters</td><td>1</td></tr>
<tr><td>1-4</td><td>tGLI1 Full length and truncated mutants</td><td>1</td></tr>
</table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>
E. coli strains being utilized are non-pathogenic.
The study involves the use of tGLI1, an oncogene, in vivo. Animals will be anesthetized during injections to reduce the risk of sharps injury.
All individuals involved will be trained in animal care, handling, and emergency procedures due to the nature of the oncogenic material being administered.
Aerosol-generating procedures (pipetting, centrifugation, sonication) will be conducted inside of a BSC.
Transport of biohazards will occur in primary and secondary containers containing a biohazard symbol.
All surfaces will be decontaminated daily with 70% alcohol and spills will be treated with 10% bleach according to the TAMU Biosafety Manual.
</td></tr>
<tr><td>Training and Expertise of Research Personnel</td><td>Dr. Lo has more than 30 years of research in breast cancer and glioblastoma and more than 25 years of experience working with in vivo mouse models, including orthotopic, intracardiac, and xenograft tumor models. She is actively involved in translational research and preclinical evaluation of targeted therapies and drug combinations.</td></tr>
<tr><td>Biosafety Occupational Health</td><td>BOHP Annual Enrollment
Annual Bloodborne Pathogen Training</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">14 For 0 Against 0 Abstain 0 Recuse</td></tr>
</table>

<table>
<tr><td>Protocol #</td><td>IBC2025-063</td></tr>
<tr><td>Protocol Type</td><td>Initial</td></tr>
<tr><td>PI Name</td><td>Mingyuan Zhu</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Zhu submitted an application to work with recombinant Escherichia coli K-12 strains, Agrobacterium tumefaciens, and Oryza sativa to study how rice roots grow and the molecular regulators that control their internal growth patterns. CRISPR/Cas9 will target hormones and genes regulating cell wall synthesis and root growth.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-E, III-E-2a, III-F</td></tr>
<tr><td>Characteristics of Agent(s) or Material(s)</td><td><table>
<tr><th>#</th><th>Agent</th><th>BSL</th><th>In vivo</th><th>Recombinant</th></tr>
<tr><td>1</td><td>E. coli, K-12 strains</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>2</td><td>A. tumefaciens</td><td>BSL-1</td><td>Yes</td><td>Yes</td></tr>
<tr><td>3</td><td>O. sativa</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
</table></td></tr>
<tr><td>Recombinant Modifications</td><td><table>
<tr><th>Agent #</th><th>Category/Description</th><th>Source RG</th></tr>
<tr><td>1-3</td><td>Plant root regulating hormones</td><td>1</td></tr>
<tr><td>1-3</td><td>Genes involved in plant cell wall synthesis and expansion</td><td>1</td></tr>
<tr><td>1-3</td><td>O. sativa root specific promoters</td><td>1</td></tr>
<tr><td>1-3</td><td>All fluorescent and colorimetric markers</td><td>1</td></tr>
<tr><td>1-3</td><td>Antibiotic and herbicide selectable markers</td><td>1</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td><table><tr><td>1-3</td><td>Gene editing tools</td><td>2</td></tr></table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>
Kanamyacin and hygromycin will be used for selection of transformants and do not increase the risk profile of any of the agents.
The A. tumefaciens strains used are standard for plant transformation and have been modified to use for delivery of binary vectors.
Target genes are associated with circumnutation of the root tip, including HK1 in the ethylene pathway; additional targets will be discovered through RNA sequencing, BLAST searches, etc., for CRISPR/Cas9 knock-down or stable transformation to enable fluorescent imaging of root growth.
No gene drive constructs will be developed.
Transgenic plants will only be grown in the laboratory or growth chambers, with containment measures in place for pollen and seeds. Seeds will be stored in locked facilities. Plants and seeds will be transported in primary and secondary containment. All transgenic plant waste will be autoclaved and pots or containers will be disinfected with 10% bleach for 30 minutes.
</td></tr>
<tr><td>Training and Expertise of Research Personnel</td><td>Dr. Zhu has 11 years of experience working with recombinant DNA and transgenic plants. He previously held a post-doc position at Duke University. He has completed the required NIH Guidelines for Principal Investigators training and has prepared a laboratory-specific biosafety manual.</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">14 For 0 Against 0 Abstain 0 Recuse</td></tr>
</table>

<table>
<tr><td>Protocol #</td><td>IBC2019-081</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Zach Adelman</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Adelman submitted an amendment to work with genetically modified Hermetia illucens (Black Soldier Fly) engineered to express novel enzymes and proteins. The new research aims to: 1) express enzymes from various insects (e.g., beetles, termites) to enable larvae to digest cellulose, hemicellulose, lignocellulose, and plastics; and 2) express human gut proteins, such as intrinsic factor, to enhance the micronutrient uptake (e.g., vitamin B12) of the larvae, thereby improving their nutritional value for use in animal feed.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-D-4</td></tr>
<tr><td>Recombinant Modifications</td><td><table>
<tr><th>Category/Description</th><th>Source RG</th></tr>
<tr><td>Cellulose/plastic-degrading enzymes (insect-derived)</td><td>1</td></tr>
<tr><td>Human gut proteins (e.g., intrinsic factor, transporters)</td><td>1</td></tr>
</table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>
All insect work is done in facilities that meet minimum requirements for BSL-1/ACL-2 containment
Horizontal gene transfer risk is low and is mitigated through containment protocols.
Insectaries are secured with escape-proof infrastructure.
All biohazardous waste materials are autoclaved prior to disposal.
</td></tr>
</table>

Biosafety Occupational Health	BOHP Annual Enrollment
Motion	*Motion to approve and seconded*
13 For 0 Against 0 Abstain 1 Recuse	

Kevin Myles left the meeting at 1:40 PM.

Protocol #	IBC2019-097
Protocol Type	3-Year Renewal
PI Name	Linglin Xie
Reviewer Summary	Dr. Xie submitted a 3-year renewal to continue approved research and seeks to add work with lentiviral vectors (LVVs) in order to study liver disease and hepatocellular carcinoma. This work will be performed in mouse and human cell cultures.
Section(s) of *NIH Guidelines*	III-D-3
Characteristics of Agent(s) or Material(s)	# / Agent / BSL / *In vivo* / Recombinant: 1 / Lentiviral Vectors / BSL-2 / No / Yes
Recombinant Modifications	Agent # / Category/Description / Source RG: 1 / Colorimetric reporter / 1; 1 / Mitochondrial membrane protein / 1
Viral Vectors	Lentiviral Vectors, 3rd generation, replication incompetent
Risk Assessment, Mitigations, and Work Practices	• The lentiviral vectors are replication incompetent and co-express a colorimetric reporter. • The mitochondrial membrane proteins include Vdac3, a porin found in the outer membrane. • Cell culture work will be conducted in a BSC and standard BSL-2 PPE will be worn at all times • Contaminated equipment, supplies, and culture media will be decontaminated with 10% bleach or autoclaved.
Biosafety Occupational Health	BOHP Annual Enrollment
Motion	*Motion to approve and seconded*
13 For 0 Against 0 Abstain 0 Recuse	

Characteristics of Agent(s) or Material(s):

#	Agent	BSL	*In vivo*	Recombinant
1	Lentiviral Vectors	BSL-2	No	Yes

Recombinant Modifications:

Agent #	Category/Description	Source RG
1	Colorimetric reporter	1
1	Mitochondrial membrane protein	1

Protocol #	IBC2020-108
Protocol Type	Amendment
PI Name	Carolyn Cannon

<table>
<tr><td>Reviewer Summary</td><td>Dr. Cannon submitted an amendment to add work with recombinantly modified Staphylococcus aureus. The proposed study will investigate an antimicrobial compound, C58, which is naturally produced by microbes. The research team will utilize a cardiolipin knockout mutant of S. aureus to determine if C58 binds to cardiolipin. They hypothesize that C58 binding to cardiolipin inhibits septation, ultimately killing the bacterial cell. A lack of specific binding in the mutant strain would strongly suggest that cardiolipin is the primary target for C58 during bacterial cell division.

The PI also plans to evaluate antimicrobial agents targeting Pseudomonas aeruginosa. One approach involves testing the activity of R-pyocins produced by P. aeruginosa against sensitive bacterial strains in wound and pneumonia infection models. A second approach, distinct from traditional antibiotics that kill bacteria and can lead to resistance, focuses on neutralizing virulence factors that otherwise render the pathogen harmful to the host. This "disarming" strategy is intended to provide a more effective means of bypassing or slowing the development of antimicrobial resistance.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-D-1</td></tr>
<tr><td>Characteristics of Agent(s) or Material(s)</td><td><table><tr><th>#</th><th>Agent</th><th>BSL</th><th>In vivo</th><th>Recombinant</th></tr><tr><td>1</td><td>S. aureus</td><td>BSL-2</td><td>No</td><td>Yes</td></tr><tr><td>2</td><td>Antimicrobial compounds against P. aeruginosa</td><td>BSL-2</td><td>Yes</td><td>No</td></tr></table></td></tr>
<tr><td>Recombinant Modifications</td><td><table><tr><th>Agent #</th><th>Category/Description</th><th>Source RG</th></tr><tr><td>1</td><td>Cardiolipin KO</td><td>2</td></tr><tr><td>1</td><td>Fluorescently tagged C58 antimicrobial compound</td><td>1</td></tr></table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>Fluorescently tagged C58 antimicrobial will be added to separate petri plates containing wild-type and cardiolipin knockout S. aureus.
R-type pyocins are being explored and developed as a promising therapeutic strategy for P. aeruginosa infections with the expectation that they will demonstrate potent, specific antibacterial activity in wound and pneumonia infection models.
Lab-created smectite clay infused with gallium ions Ga(III) will be tested to determine how efficiently the gallium interferes with the ability of pyocyanin and pyoverdines - virulence factors secreted by P. aeruginosa- to enter host cells and bind iron.
If the gallium infused clay successfully traps and inactivates pyocyanin and pyoverdine, it will then be tested on chronic infection models to determine if it can effectively treat drug resistant P. aeruginosa. The R-pyocins are highly target specific and are not harmful to host cells.
BSL-2 precautions will be used for all experiments for the infection models.</td></tr>
<tr><td>Biosafety Occupational Health</td><td>BOHP Annual Enrollment</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">13 For 0 Against 0 Abstain 0 Recuse</td></tr>
</table>

VII. MAJOR MOTIONS OR POINTS OF ORDER

None.

VIII. MEETING ADJOURMENT

The IBC meeting was adjourned at 1:51 PM.