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

***DATE**: 09/24/2025*
***TIME**: 2:53 PM*
***LOCATION**: Hildebrand Equine Complex/Zoom*

The meeting for the Texas A&M University (TAMU) Institutional Biosafety Committee (IBC) - College Station was called to order by the Chair at 2:53 PM. The meeting was open to the public.

MEETING ATTENDANCE

Voting members present: 15
Voting members 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
☐ Arthur Davila, Community Member
☒ Dennis Nkaleke, Alternate Community Member
☒ Don Plitt, Community Member

Office of Biosafety (OBS) Staff Present:

☒ Merissa Bruns
☒ Susan Gater
☒ Melissa Hinga
☒ Lauren Horton
☒ Jeffrey Lane
☒ Ruchira Mitra
☒ Grant Severson
☒ Megan Shoff
☒ Beatriz A Velez
☒ Jennifer Wier
☒ Todd Wisner
☒ David Perez

Guests Present:

- Principal Investigator (PI) Chakraborty
- Dr. Tracy Clement on behalf of PI Ballard
- Dr. Layla Pires on behalf of PI Bagnato
- Dr. Melissa Kahl-Mcdonagh on behalf of PI Magalhaes
- 6 additional guestsClick or tap here to enter text.

I. ANNOUNCEMENTS

A. IBC CHAIR

i. None.

B. BIOSAFETY OFFICER

i. The November and December IBC meetings are rescheduled to 11/19/2025 and 12/10/2025.

II. OLD BUSINESS

A. At the May 2025 meeting, the committee tabled an amendment submitted by Dr. Tereza Magalhaes, which proposed research on viremia and mosquito transmission of Madariaga virus in horses. Following additional review of the facility space and procedures by subject matter experts, and benchmarking against similar programs and facilities, the amendment was brought back to the committee for consideration.

<table>
<tr><td>Protocol #</td><td>IBC2022-075 (RG-3)</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Tereza Magalhaes</td></tr>
<tr><td>Motion</td><td>Motion to take from the table and seconded</td></tr>
<tr><td colspan="2">15 For 0 Against 0 Abstain 0 Recuse</td></tr>
<tr><td>Reviewer Summary</td><td>A pilot study, which did not involve infectious materials, was conducted at the facility. Several committee members visited the site to observe horse-specific penning modifications and to engage with the research team regarding animal handling and mosquito feeding procedures. The Biosafety Officer, Responsible Official, and facility leadership consulted with researchers and biosafety professionals at peer institutions to identify best practices for conducting equine research in containment. Additionally, the Biosafety Officer and Clinical Veterinarian, both with extensive experience in equine handling, reviewed and clarified expectations for personnel training and oversight related to horse handling.</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>Madariaga virus</td><td>BSL-3</td><td>Yes</td><td>No</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices Facilities</td><td>The committee engaged in extensive discussion regarding the inherent risks associated with equine studies as well as the mitigation strategies in place to prevent the escape or release of infected arthropods.</td></tr>
<tr><td>Laboratory Facilities</td><td>BSL-3, ACL-3, and ABSL-3Ag facilities were fully reverified and certified 01/2025.</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">12 For 1 Against 2 Abstain 0 Recuse</td></tr>
</table>

III. NEW BUSINESS

A. Dr. Angela Bordin was welcomed as an alternate IBC member with expertise in animal research.

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 08/27/2025:

- 123 submissions were received by the Office of Biosafety for review by the IBC and
- 107 submissions were reviewed and processed by Biosafety Program Staff and approved by the IBC Chair on behalf of the IBC, including:
  - 2 terminations and
  - 12 extensions.

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

Updates were provided regarding incidents reported at previous meetings::

- A final report was submitted to NIH regarding the recombinant *Borrelia* needlestick incident on 07/31/2025. NIH response is pending.
- The IBC convened in closed session on 09/19/2025 to review the IBC Investigative Subcommittee's findings and recommended corrective actions related to an adverse event in May.
  - The event did not involve recombinant or synthetic nucleic acid materials.
  - The IBC approved the recommended corrective actions.
  - A summary of the findings and required actions will be sent to the PI.

V. APPROVAL OF PREVIOUS MEETING MINUTES

Minutes from the TAMU IBC - College Station meeting on 08/27/2025 were provided to the committee for review.

Motion to approve as written and seconded
15 ayes, 0 nays, and 0 abstentions

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 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.

<table>
<tr><td>Protocol #</td><td>IBC2023-008</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Mahul Chakraborty</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Chakraborty submitted an amendment to use the FLP-FRT recombination system in Drosphila melanogaster to elucidate the roles of mutations and structural variations in natural populations.</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>DNA recombinase enzymes</td><td>1</td></tr></table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>Flippase, and related enzymes will be used to recombine and reorient DNA sequences.
Mutated genes identified in the natural population will be expressed in a laboratory strain with a known genetic background.
This allows for standardized testing and evaluation of the fitness effects of specific mutations.
Recombinant DNA will be injected into embryos by a commercial vendor; flies will be received by the PI for testing.
Since the mutations replicate naturally occurring variants, no additional risk to fly populations is anticipated.
Appropriate containment and trapping methods are in place to manage any escaped flies.</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">14 For 0 Against 1 Abstention 0 Recuse</td></tr>
</table>

<table>
<tr><td>Protocol #</td><td>IBC2023-017</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Vanderlei Bagnato</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Bagnato submitted an amendment to conduct in vivo research involving previously approved recombinant Staphylococcus aureus express fluorescent or colorimetric markers. The objective of this work is to assess the impact of photodynamic therapy and photosensitizing agents on the modified bacterial strains. The amendment also includes a request to perform in vitro studies using non-recombinant Rhizopus oryzae.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-D-1, 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>S. aureus</td><td>BSL-2, ABSL-2</td><td>Yes</td><td>Yes</td></tr><tr><td>2</td><td>R. oryzae</td><td>BSL-2</td><td>No</td><td>No</td></tr></table></td></tr>
</table>

Risk Assessment, Mitigations, and Work Practices	• *S. aureus* work in mice will follow the same procedures previously approved for recombinant *Pseudomonas aeruginosa*.
	  o *S. aureus* strain is commercially available and no further modifications are planned.
	• Mice will be anesthetized and inoculated via intratracheal instillation within a biosafety cabinet (BSC).
	• Mice will be manipulated in designated work areas exclusively for imaging purposes.
	  o Although this procedure has a low potential to create splashes or aerosols, personnel will wear N95 respirators. After imaging, the surfaces will be cleaned with Sani-cloth AF3 or other appropriate disinfectant.
	• *R. oryzae* will be handled exclusively within the BSC and no *in vivo* work is planned.
	  o An appropriate sporicidal disinfectant will be used.

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

Jason Gill out at 4:02 PM.

Protocol #	IBC2018-084
Protocol Type	Amendment
PI Name	Johnathan Ballard
Reviewer Summary	Dr. Ballard submitted an amendment to add work with recombinantly modified, non-pathogenic *Eschericia coli*, human cells, and animal cells, including non-human primate (NHP) cells and tissues. The purpose of this work is to develop 2-D and 3-D models such as organoids, micro-physiological systems, and tissue chips. Modifications will utilize previously approved fluorescent markers and PI-specific CRISPR/Cas9 guide RNAs. The PI operates a core facility and plans to expand services to include organoid production.
Section(s) of *NIH Guidelines*	III-E and III-F
Characteristics of Agent(s) or Material(s)	<table><tr><th>#</th><th>Agent</th><th>BSL</th><th>In vivo</th><th>Recombinant</th></tr><tr><td>1</td><td>Human cells (transfected)</td><td>BSL-2</td><td>No</td><td>Yes</td></tr><tr><td>2</td><td>NHP cells and tissues (transfected)</td><td>BSL-2</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>E. coli, non-pathogenic strains</td><td>BSL-1</td><td>No</td><td>Yes</td></tr></table>
Risk Assessment, Mitigations, and Work Practices	• Work will exclude cells or tissues from chimpanzees. • Agent specific training addresses risks associated with human and NHP cells and tissues. • All transfection procedures involving animal cells and tissues will be conducted in accordance with the PI's approved IBC protocols. • All work with human and NHP materials will be done in certified BSCs and centrifuges with safety caps/rotors.

	• Safe sharps procedures will be followed (e.g. no recapping needles, avoiding glass). • A locking mechanism is installed on the biohazard waste container where BSL-2 waste will be stored until pick-up by CMP. • Solid waste will be autoclaved by CMP using validated equipment.
Training and Expertise of Research Personnel	TIGM personnel have completed all required BSL-2 and lab-specific training. Senior staff have 20 years of experience working with cell and tissue culture applications including human cells and 3-D micro-physiological systems research in BSL-2 settings.
Biosafety Occupational Health	BOHP Annual Enrollment BBP Annual Training
Motion	*Motion to approve and seconded*
13 For 0 Against 1 Abstain 0 Recuse	

Dennis Nkaleke out at 4:05 PM.

Protocol #	IBC2022-039
Protocol Type	3-Year Renewal
PI Name	Xin Yan
Reviewer Summary	Dr. Yan submitted a 3-year renewal to continue their approved work and proposed two additions: the expression of mammalian fatty acid binding proteins (FABP) in non-pathogenic *Eschericia coli* strains to study how they interact with ligands and the extraction of lipids from human cell lines to study chemical structure.
Section(s) of *NIH Guidelines*	III-E and III-F
Characteristics of Agent(s) or Material(s)	

#	Agent	BSL	*In vivo*	Recombinant
1	*E. coli*, non-pathogenic strains	BSL-1	No	Yes
2	Human cell lines	BSL-2	No	No

Recombinant Modifications

Agent #	Category/Description	Source RG
1	Inducible promoters	1
1	Lipid trafficking and signaling proteins	1
1	Fusion tags	1

Risk Assessment, Mitigations, and Work Practices	• Modifying non-pathogenic *E. coli* for expression of the proposed proteins does not increase the risk profile. • All BSL-2 containment and work practices are in place, including a certified BSC and a centrifuge with sealable rotors.
Biosafety Occupational Health	BOHP Annual Enrollment BBP Annual Training
Motion	*Motion to approve and seconded*

13 For 0 Against 0 Abstain 0 Recuse

Protocol #	IBC2018-062
Protocol Type	Amendment
PI Name	Cecilia Tamborindeguy
Reviewer Summary	Dr. Tamborindeguy submitted an amendment to use a Potato Virus X (PVX) vector to deliver candidate virulence genes LsoA and LsoB from *Candidatus liberibacter* solanacearum (Lso) into *Nicotiana benthamiana* plants through *Agrobacterium* infiltration assays.
Section(s) of *NIH Guidelines*	III-E, III-E-2a
Characteristics of Agent(s) or Material(s)	<table><tr><th>#</th><th>Agent</th><th>BSL</th><th>*In vivo*</th><th>Recombinant</th></tr><tr><td>1</td><td>PVX</td><td>BSL-1</td><td>Yes</td><td>Yes</td></tr></table>
Recombinant Modifications	<table><tr><th>Agent #</th><th>Category/Description</th><th>Source RG</th></tr><tr><td>1</td><td>Lso virulence genes</td><td>1</td></tr></table>
Risk Assessment, Mitigations, and Work Practices	• *C. liberibacter* solanacearum is a destructive pathogen of solanaceous crops, transmissible by psyllids and not culturable *in vitro*.. • *C. liberibacter* solanacearum has two haplotypes, LsoA and LsoB, of which LsoB is more virulent. • The PI has identified virulence genes that are specific to LsoA or LsoB haplotypes. • *N. benthamiana* plants will be challenged with the LsoA gene via the PVX Agrobacterium system. Once the virus is systemic, these plants will be placed inside a cage and challenged with psyllids expressing the haplotype LsoB bacteria. • Similar experiments will be repeated with the LsoB gene and psyllids contaminated with haplotype LsoA bacteria. • This is initial proof of concept work and the PI is also testing delivery assays. • The plants will be housed inside the PI's lab. All plant material and soil will be autoclaved at the end of the experiment. The pots will be bleached and washed for reuse.
Motion	*Motion to approve and seconded*
12 For 0 Against 1 Abstain 0 Recuse	

Protocol #	IBC2017-104
Protocol Type	Amendment
PI Name	Clint Magill
Reviewer Summary	Dr. Magill submitted an amendment to generate knock out mutations of *Colletotrichum sublineola* to identify the efficacy of candidate effector genes in host pathogenicity of sorghum using detached leaf assays.

<table>
<tr><td>Section(s) of NIH Guidelines</td><td>III-E</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>C. sublineola
(Texas isolate)</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</td><td>Fungal effectors</td><td>1</td></tr>
<tr><td>1</td><td>Hygromycin</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>

C. sublineola is a highly destructive fungal pathogen that causes anthracnose in sorghum. It infects all above-ground tissues of the plant leading to heavy yield loss.
Effector-Triggered Susceptibility (ETS): Pathogenic fungi secrete effectors to suppress the host's basal defense system, known as PAMP-triggered immunity (PTI). This allows the pathogen to successfully colonize the host.
The PI has identified candidate effector gene sequences in the Texas isolate of C. sublineola. These sequences will be cloned and challenged in detached sorghum leaves in his lab.
Hygromycin, an aminoglycoside antibiotic, is not used to treat sorghum infected with C. sublineola. Instead, it is used as a tool in molecular research to genetically transform the fungus.
All plant material and petri plates will be autoclaved at the end of the experiment.

</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>
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<table>
<tr><td>Protocol #</td><td>IBC2019-023</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>James Sacchettini</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Sacchettini submitted an amendment to work with recombinant Adeno-Associated Viral Vectors (AAVs) to deliver human gene ATP7A in mice in order to advance research in Menkes disease. Formulated AAV doses will be received from collaborators.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-F, 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>AAV</td><td>BSL-1,
ABSL-1</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>
<tr><td>1</td><td>Human copper regulatory gene</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Viral Vectors</td><td>AAV, replication incompetent</td></tr>
</table>

Risk Assessment, Mitigations, and Work Practices	• The human ATP7A gene encodes an enzyme critical for regulating copper levels; mutations cause Menkes disease, resulting in impaired copper absorption and distribution, severe neurodegeneration and developmental delays in early infancy. • AAVs will be administered stereotaxically in anesthetized mice. • The transgene expressed is not expected to interfere with normal cellular processes. • Personnel will be trained in sharps handling and safety procedures.
Motion	*Motion to approve and seconded*
13 For 0 Against 0 Abstain 0 Recuse	

VII. MAJOR MOTIONS OR POINTS OF ORDER

None.

VIII. MEETING ADJOURNMENT

The IBC meeting was adjourned at 4:16 PM