TEXAS A&M UNIVERSITY
INSTITUTIONAL BIOSAFETY COMMITTEE
MEETING MINUTES

DATE: *06/24/2025*
TIME: *12:33 PM*
LOCATION: *Zoom*

The meeting for the Texas A&M University (TAMU) Institutional Biosafety Committee (IBC) was called to order by the Chair at 12:33 PM. This meeting was open to the public.

MEETING ATTENDANCE

The Texas A&M University IBC had 14 voting members present and 10 voting members are required for quorum to conduct business.

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
☒ Brian Shaw
☒ Joseph Sorg
☐ William Boyd, Community Member
☒ Mark Burow, Community Member
☐ Arthur Davila, 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 Huntley
Ashish Tyagi, on behalf of PI Damodaran
6 additional guests

I. ANNOUNCEMENTS

A. IBC CHAIR

i. A poll will be sent out to find a new time for the August meeting.

B. BIOSAFETY OFFICER

i. Welcome for Ms. Jennifer Wier, a new IBC coordinator in the Office of Biosafety.

II. OLD BUSINESS

A. A final draft of the standard operating procedure (SOP) OBS-IBSP-113-00, "Escalation Process," was presented to the committee for approval.

Approval of SOP

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

III. NEW BUSINESS

A. None.

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 06/24/2025:

- 100 submissions were received by the Office of Biosafety for review by the IBC and
- 89 submissions were reviewed and processed by Biosafety Program Staff and approved by the IBC Chair on behalf of the IBC, including:
  - 0 terminations and
  - 0 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

The incident occurred in a BSL-2 laboratory and involved potential exposure to a non-recombinant risk-group 2 pathogen:

- Reported: 06/05/2025
- Summary of Incident:
  - On 05/29/2025, a student sustained a thumb injury while removing a contaminated scalpel blade that was used to cut fermented sausage previously inoculated with *Salmonella enterica* and Shiga toxin-producing *Escherichia coli*.
  - The student immediately washed the cut with soap and water, applied disinfectant, and covered with a band aid. The individual reported the incident to their PI, who advised them to seek treatment at the Student

Health Center. The student received a tetanus vaccination and a prescription for antibiotic prophylaxis.

- Office of Biosafety Response:
  - On 06/09/2025, Office of Biosafety personnel met with the student to discuss the incident.
    - The student reported that they were using a blade removal tool at the time of the incident. The importance of working slowly and carefully was emphasized, along with the requirement to report any incidents involving biohazardous materials to the Office of Biosafety. Outreach materials from the Biosafety Occupational Health Program were provided to reinforce these safety protocols.
  - On 06/12/2025, Office of Biosafety personnel met with the PI to discuss the incident and the delay in reporting the incident.
    - Office of Biosafety personnel reminded the PI that all incidents involving biohazards must be reported immediately to both the Office of Biosafety and the Biosafety Occupational Health Program. Outreach materials were provided for posting in the laboratory, and the PI was instructed to update incident response training accordingly.
    - The use and training procedures for the blade removal tool were reviewed. It was confirmed that the PI provides adequate training on its proper use.
    - The PI agreed to update the incident response training, ensure all personnel are confident in using safety equipment, and post additional safety signage in the lab.
    - The student involved in the incident reported that the injury has healed without signs of infection.

Approval of Reports

Motion to approve and seconded
14 ayes, **0** nays, and **0** abstentions

V. APPROVAL OF PREVIOUS MEETING MINUTES

TAMU IBC - College Station minutes from the meeting on 05/28/2025 were provided to the committee for review prior to the convened meeting.

Motion to approve as written and seconded
14 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 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. Kurt Zuelke recused himself from voting on protocol IBC2025-020 (JEV).

<table>
<tr><td>Protocol #</td><td>IBC2025-025</td></tr>
<tr><td>Protocol Type</td><td>Initial</td></tr>
<tr><td>PI Name</td><td>Jason Huntley</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Huntley submitted an application to work with microcystin toxin (MCT), naturally occurring Risk Group 1 (RG1) bacteria, and enzymes that cleave MCT in Escherichia coli. The primary goal is to investigate the ability of various RG1 bacteria to degrade MCT, identify MCT-degrading enzymes, and develop and test biofilters for effective toxin removal.</td></tr>
<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>E. coli, non-pathogenic</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>2</td><td>Microcystin toxin</td><td>BSL-2</td><td>No</td><td>No</td></tr>
<tr><td>3</td><td>RG1 Lake Erie bacteria</td><td>BSL-1</td><td>No</td><td>No</td></tr>
<tr><td>4</td><td>Francisella tularensis ssp. holarctica Live Vaccine Strain (LVS)</td><td>BSL-2, storage only</td><td>No</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>MCT cleavage enzymes</td><td>1</td></tr>
<tr><td>1</td><td>Expression vectors</td><td>1</td></tr>
<tr><td>1</td><td>Purification tags</td><td>1</td></tr>
<tr><td>1</td><td>Selectable markers</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>

Only the non-pathogenic E. coli will be recombinantly modified.
All work, including MCT, manipulation of bacteria, and recombinant work will be conducted at BSL-2 containment.

MCT stock solutions will be dissolved in a chemical fume hood and aliquoted into small volumes for experiments.
All subsequent handling of MCT will be conducted within a BSC or chemical fume hood.
MCT will not be expressed or purified.
Bacterial cultures will be spiked with low concentrations of MCT to determine their ability to break down the toxin.
An SOP detailing all safety procedures has been provided.

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</table>

	• Novel Lake Erie bacteria have been sequenced, and no toxins or pathogenic genes were identified. However, these agents will continue to be worked with under BSL-2 containment. • Culture concentrations of MCT will not exceed 25ppb, which is below the EPA recreational limit • *F. tularensis* ssp. holarctica LVS has been excluded from the CDC Select Agents list.
Training and Expertise of Research Personnel	The PI has worked in BSL-2 and BSL-3 laboratories for over 30 years. He has been working with MCT and associated algal blooms for many years, with multiple publications and a patent related to this work. Dr. Huntley has trained dozens of graduate students, medical students, postdoctoral fellows, and other trainees in his 15 years as a faculty member. He served as the Director of the University of Toledo BSL-3 laboratory for 13 years and actively served on the University of Toledo IBC Committee for 12 years.
Biosafety Occupational Health	BOHP Annual Enrollment
Motion	*Motion to approve and seconded*
14 For 0 Against 0 Abstain 0 Recuse	

Protocol #	IBC2021-009
Protocol Type	Amendment
PI Name	Chendil Damodaran
Reviewer Summary	Dr. Damodaran submitted an amendment requesting approval to use mouse breast cancer cells expressing a luciferase reporter gene in animals. This study aims to evaluate the effect of naturally derived compounds on tumor growth and metastasis.
Section(s) of *NIH Guidelines*	III-D-3, III-D-4
Characteristics of Agent(s) or Material(s)	see table below
Recombinant Modifications	see table below
Risk Assessment, Mitigations, and Work Practices	• The commercially available mouse breast cancer cell line 4T1-Luc2, which has been transduced with a luciferase reporter gene using a 3rd generation, replication incompetent, self-inactivating lentiviral vector (LVV), will be used in this study. o Luciferase expression is driven by the human EF1 alpha promoter to obtain high expression for signal detection. The promoter is ectopically expressed across a broad host range.

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

#	Agent	BSL	*In vivo*	Recombinant
1	Mouse breast cancer cell lines (transduced)	BSL-2, ABSL-2*	Yes	Yes

Recombinant Modifications:

Agent #	Category/Description	Source RG
1	Fluorescent, luminescent, and colorimetric markers	1

<table>
<tr><td></td><td>

- The animals will be sedated for the orthotopical injection of the 4T1-Luc2 cells at BSL-2 and housed at ABSL-2 for a minimum of 72 hours*.
  - Thereafter, animals may be transferred to ABSL-1 housing.
  - One week post injection, animals may be transported by vivarium staff for imaging procedures.
- Sharps precautions will be followed, including no recapping of needles, at all times.

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<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">14 For 0 Against 0 Abstain 0 Recuse</td></tr>
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<tr><td>Protocol #</td><td>IBC2025-020 (JEV)</td></tr>
<tr><td>Protocol Type</td><td>Initial</td></tr>
<tr><td>PI Name</td><td>Kurt Zuelke</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Zuelke submitted an application to investigate the factors important for infection, replication, and transmission of Japanese Encephalitis Virus (JEV) in North American swine, wildlife, and arthropod vectors.</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>Japanese encephalitis virus</td><td>BSL-3, ACL-3, ABSL-3Ag</td><td>Yes</td><td>No</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>

- Japanese encephalitis virus is an RG3 arthropod-borne flavivirus endemic to Asia where it is the most important cause of viral encephalitis in humans and a significant cause of reproductive and neonatal loss in swine.
  - Many species are susceptible to natural JEV infection, including swine, equids, birds, cattle, sheep, goats, dogs, cats, wild mammals, reptiles, amphibians, and humans, with all but swine and birds being considered dead-end hosts.
  - Although JEV is exotic to the Americas, studies have shown that native mosquitoes are competent vectors, and North American domestic swine can become infected and shed the virus under experimental conditions.
  - In recent years, JEV has been classified as a re-emerging virus due to the rise of novel strains and overall geographic expansion. Despite the apparent threat this pathogen poses to the U.S., very little is known about how it behaves in animal and mosquito hosts.
  - Initial studies aim to determine factors important for the infection, replication, and transmission of JEV in North American mosquitoes and animals.
  - Japanese encephalitis virus would pose a potential economic risk if released into the environment. The facility was specifically designed to perform this kind of high-impact research.
- Only wild-type virus will be used; no recombinant modifications are planned.

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	In vitro work includes routine isolation, culture, and analyses of virus and/or samples obtained from infected animals and arthropods. - Mosquitoes may be infected either through an *in vitro* blood meal containing the virus or by feeding on infected animals. - Animals may be infected through direct injection of the virus or via live blood feeding with infected mosquitoes. - Animals will be sedated during experimental infection. - During blood feeding, mosquitoes are contained within a mesh-sealed cup and are never removed from the container while in the animal room. - Animals will have a person directly monitoring them, assuring/maintaining proper placement of the mosquito feeder throughout the entire procedure. - Mosquitoes are counted in the ACL-3 insectary before and after transport to the animal room. - Mosquito transport occurs in tertiary containment. - Pre-filters in animal rooms are checked for the presence of mosquitoes during every filter change. - Infected mosquitoes are kept in specialized containment and are counted before and after every handling. - Mosquitoes are handled in a specialized screened-in area within the containment insectary. - Insects are chilled for immobilization prior to handling and dissection. - Work practices are in place to ensure the agent is contained within laboratories and animal rooms until thoroughly decontaminated. - The facility has BSL-3, ACL-3 and ABSL-3Ag SOPs for standard containment procedures, including entry/exit, large animal management, equipment usage, disinfection/decontamination, etc. Agent-specific SOPs have been provided and reviewed. - Animals are transported to necropsy suite for euthanasia and necropsy according to SOPs. - BSL-3/ACL-3 PPE includes facility clothing and shoes, Tyvek suits, Powered Air Purifying Respirators (PAPRs), and double gloves. - ABSL-3Ag PPE includes facility clothing, Tyvek coveralls, hair covers, boots, double gloves (including cut-resistant gloves when appropriate), and respiratory protection (PAPRs). - Personal showers are required when exiting animal rooms. - Decontamination practices are described in established SOPs. - An effluent decontamination system and a thermal tissue digester are in place. Appropriate cycles have been validated and are regularly verified. - Autoclave cycles are validated and are verified using biological indicators with every load of waste. - Approved surface decontaminants and how to use them are described in SOPs. 1% Virkon-S is used in animal rooms. Cavicide and 10% household bleach may also be used in bench labs and insectary. - This project is in collaboration with subject matter experts, who will provide expertise in working with the virus, infected mosquitoes, and the susceptible animal species.
Training and Expertise of	Dr. Zuelke has extensive (>15 yrs) experience working with large animals, including cattle, sheep, and swine in ABSL-3/3Ag settings, and resident veterinarians have extensive large animal clinical experience.

<table>
<tr><td>Research Personnel</td><td>Access is dependent upon completion of initial training. Ongoing and hands-on training and mentoring is provided and documented. Staff will be trained and mentored to work with the virus, as necessary.

Subject matter experts collaborating on the project will provide training and expertise for specific procedures.</td></tr>
<tr><td>Biosafety Occupational Health</td><td>BOHP enrollment, medical fitness clearance to work at BSL-3, and medical respiratory protection clearance required for access to laboratories.

There is a vaccine for JEV, which will be offered to all personnel with access to rooms containing virus.

JEV is part of the BOHP exposure response plan, which includes public health reporting responsibilities and contact information.</td></tr>
<tr><td>Motion</td><td>Motion to approve and seconded</td></tr>
<tr><td colspan="2">13 For 0 Against 0 Abstain 1 Recuse</td></tr>
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<tr><td>Protocol #</td><td>IBC2024-036</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Jared Bard</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Bard submitted an amendment to add work using a cytoplasmic polypeptide, VACWR169, from Vaccinia Virus to study how it inhibits translation by expressing it in their previously approved human cell lines, Eschericia coli, Saccharomyces cerevisiae, baculovirus, insect cell lines, and animal cell lines. The purpose is to characterize the protein's interaction with host cells.</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-D-2, III-D-3</td></tr>
<tr><td>Recombinant Modifications</td><td><table><tr><th>Category/Description</th><th>Source RG</th></tr><tr><td>Synthetic VACWR169 from Vaccinia Virus</td><td>2</td></tr></table></td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>VACWR169 protein from Vaccinia virus, an RG2 virus inhibits cap-dependent and cap-independent protein synthesis/translation.
Vaccinia virus itself is not used in any of the proposed work. The targeted protein will be identified from computational screening and then synthesized.
No lentiviral vectors (LVVs) will be used for incorporating the viral protein into human cells and the human cells used will not have been previously modified using LVVs.
The transfections into human cells will either use transient expression from plasmids or integration into the genome using transposon based systems.
Protein expression will be done using the flashBAC™ baculoviral vector system, with the lacZ gene for β-galactosidase reporter gene expression in insect cells.</td></tr>
</table>

<table>
<tr><td></td><td>The transfer vector is not capable of expression in mammalian cells, but is selected for high titer baculovirus production.
• All material containing the genetic information for the viral proteins (including DNA, E. coli, and transfected human cell lines) and the purified proteins will be treated as biohazards.
• Sharps precautions will be strictly followed to avoid exposure through parenteral inoculation.
• Disposable plastic materials will be used to minimize the risk of contamination and will be autoclaved before disposal.
• All work with mammalian cells containing the protein will be conducted in Class II Type A2 biosafety cabinet (BSC).</td></tr>
<tr><td>Biosafety Occupational Health</td><td>BOHP Annual Enrollment
BBP Annual 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>IBC2020-137</td></tr>
<tr><td>Protocol Type</td><td>Amendment</td></tr>
<tr><td>PI Name</td><td>Dzmitry Kurouski</td></tr>
<tr><td>Reviewer Summary</td><td>Dr. Kurouski submitted an amendment to add research with recombinant mouse prion protein ($rPrP^{C}$) in non-pathogenic Eschericia coli. The goal of the project is to develop a nanoparticle-based sensor for the high-throughput, nondestructive, label-free, and highly sensitive detection of infectious prions in biological matrices. Confirmation of the developed sensor will be done using bodily fluids sourced from deer positive for Chronic Wasting Disease (CWD).</td></tr>
<tr><td>Section(s) of NIH Guidelines</td><td>III-E</td></tr>
<tr><td>Characteristics of Agent(s) or Material(s)</td><td>
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<tr><th>#</th><th>Agent</th><th>BSL</th><th>In vivo</th><th>Recombinant</th></tr>
<tr><td>1</td><td>E. coli, non-pathogenic</td><td>BSL-1</td><td>No</td><td>Yes</td></tr>
<tr><td>2</td><td>Blood, urine, and saliva from deer positive for CWD</td><td>BSL-2</td><td>No</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>Full length mouse prion (PrP^{C}), non-aggregated</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Risk Assessment, Mitigations, and Work Practices</td><td>• The recombinant mouse prion protein $rPrP^{C}$ encompassing residues 23-230 will be provided by a colleague and expressed following published protocols.
• Murine prions are species specific; there is no evidence of murine prions crossing the species barrier to humans.
• The mouse prion protein will be fibrillated to form the $rPrP^{SC}$ following published prtocols.</td></tr>
</table>

	- There is no evidence of CWD crossing the species barrier to humans. However, to reduce any exposure risks, extra measures will be used with CWD positive samples. - A restricted access room dedicated to prion work has been designated for prion expression, purification, and fibrillization. - CWD positive samples will be kept in a locked refrigerator/freezer in the prion room. Preparatory tasks will be done prior to the addition of prion proteins. All manipulations will be done inside of a Class II Type A2 BSC including pipetting, vortex mixing or stirring, and thin layer chromatography blot preparation. - The bacterial expression of the murine $rPrP^c$ will be done in parafilm sealed flasks inside the prion room. - Disposable utensils and supplies will be utilized as much as possible, and only disposable items will be used for work with animal fluids potentially containing CWD. - All reusable materials and utensils will be soaked in 2N NaOH for 1 hour, followed by neutralization and then autoclaving at 132-134°C for 1 hour. - The autoclave will be verified with biological indicators appropriate for the temperature. - Liquid waste will be collected in a glass container and submerged in 2N sodium hydroxide (NaOH) for a minimum of 1 hour contact time, followed by neutralization. - Solid waste will be collected in different colored biohazard waste bags labeled "Prion Waste" to be picked up by a contracted waste management company for incineration. - Surfaces will be sprayed with 2N NaOH and allowed 1 hour contact time before being wiped clean with water. - Adherence to a reduction or elimination of sharps and all sharps precautions will be followed to reduce opportunities for accidental injection. - PPE will include double gloves, disposable gowns, and face shields. Outer gloves will be changed regularly. - SOPs have been prepared by the PI and graduate students for the project plan, work practices, and waste handling. All SOPs have been reviewed.
Training and Expertise of Research Personnel	The PI has 10+ years of experience working with prion-like proteins. The graduate student has been training with prion-like proteins for 2 years to prepare for working with the animal prions. The work is being conducted in consultation with a colleague with more than 20 years of experience working with prions.
Biosafety Occupational Health	BOHP Annual Enrollment BBP Annual Training
Motion	*Motion to approve and seconded pending requirements* *Requirements:* Pending lab certification and lab-specific training confirmation.
14 For 0 Against 0 Abstain 0 Recuse	

V. <u>MAJOR MOTIONS OR POINTS OF ORDER</u>

None.

VI. MEETING ADJOURMENT

The IBC meeting was adjourned at 1:31 PM.