

The University of Texas Health Science Center at Houston (UTHealth Houston)
Institutional Biosafety Committee
November 13, 2025
Minutes

Meeting Attendance:

Voting Members

Dr. Catherine Denicourt (Chair)
Dr. Eric Brown
Dr. Nancy Crider
Dr. Carolyn Grimes
Dr. Nicholas Justice
Dr. Ashish Kapoor
Dr. Yang Liu
Dr. Yahuan Lou
Dr. Duc Nguyen
Dr. Eunsu Park
Dr. Scott Patlovich
Dr. Brett Perkison
Mr. Spencer Chichester (SM)
Mr. Jesus Duran Ramirez (SM)
Mr. Imad Khalil (CM)

Non-Voting Members

Dr. Joy Harrison
Dr. Kristin King
Dr. Mary Robinson
Mr. Zack Becker
Mr. Alan Lucas
Ms. Rebecca Kairis
Ms. Allison Lino
Ms. Meredith Mills

1. Call to Order

The meeting was called to order by Dr. Denicourt at 3:02 PM.

2. Conflicts of Interest

The Chairperson reminded the committee about the conflict of interest procedure. She also reminded the committee members that all protocols that are discussed at the meeting are to be considered confidential and are not to be discussed outside of the meeting with non-IBC members.

3. Review Previous Meeting Minutes (October 9, 2025)

Approved = 13
Opposed = 0
Abstained = 2

4. IBC Administrative Items

Dr. Emma Napoli will be departing from the IBC Committee. The Chair, BSO, and Biosafety Manager are currently coordinating to identify a replacement with the same area of specialty.

Recombinant or Synthetic Nucleic Acid Molecules Research Applications Review

During the review the committee assessed the containment levels as well as the facilities, procedures, practices and training and expertise of the personnel involved in recombinant or synthetic nucleic acid molecules research. The committee also reviewed agent characteristics, types of manipulations planned, sources of the inserted nucleic acid sequences, the nature of the inserted nucleic acid sequences and whether an attempt will be made to obtain expression of a foreign gene, and if so, the protein that will be produced. Furthermore, the PI must determine the applicable section(s) of the *NIH Guidelines*.

5. Clinical Protocol Reviews (HGT)

None

6. Protocol Reviews

IBC-25-098 – Dr. Holger Eltzschig – “The role of miRNA targets for the prevention or treatment of Coronavirus Disease 2019 (COVID-19) - associated ARDS”

Containment Level: BSL-2 enhanced; ABSL-2 enhanced

NIH Section: III-D-1-a, III-D-2-a, III-F-1, III-F-8

Training status: Personnel listed on the protocol are due for required safety training

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved, pending completion of required safety training.

IBC-25-100 – Dr. Alemayehu Abebe – “Organizational dynamics of Ras nanoclusters at single molecule resolution”

Containment Level: BSL-2; protocol does not involve animals

NIH Section: III-D-1-a

Training status: Personnel listed on the protocol are current on safety training requirements

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved with no additional recommendations.

IBC-25-101 – Dr. Kyoji Tsuchikama – “Novel Antibody-Drug Conjugate Linker Technologies for Multidrug Loading” AND “Dual-Loading ADCs for Combating Cancer Drug Resistance and Heterogeneity” AND “Chemically Generated Bispecific Antibody-Drug Conjugates for Treating Triple-Negative Breast Cancer” AND “Chemical approaches for generating blood-brain barrier-permeable antibody conjugates” AND

“Antibody-dual drug conjugates for eradicating triple-negative breast cancer with heterogeneity” AND “Optimization of antibody drug conjugate design to maximize the therapeutic window for glioblastoma therapy” AND “Targeting leukemia stem cells with the novel antibody drug conjugate” AND “Exploration of neoantigen-directed immune-stimulating antibody conjugates for cancer therapy” AND “DLL3-Directed Antibody-Drug Conjugate Targeting KDM4A as a Novel Therapy for Neuroendocrine Neoplasms”

Containment Level: BSL-2; ABSL-1

NIH Section: III-D-1-a

Training status: Personnel listed on the protocol must complete safety training

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved, pending completion of required safety training.

IBC-26-015 – Dr. Jiyang Cai – “Disease mechanisms of age-related macular degeneration”

Containment Level: BSL-2; ABSL-1

NIH Section: Not applicable

Training status: Personnel listed on the protocol are current on safety training requirements

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved, contingent upon legal review of the proposed use of fetal cells. After the meeting, the protocol was amended to withdraw the fetal cells and use commercially available, adult-derived human induced pluripotent stem cell (iPSC)- derived retinal pigment epithelial (RPE) cells. SCRO was notified.

IBC-26-016 – Dr. Yuying Liu – “Probiotic-derived ecto-5-nucleotidase for humanized graft-versus-host diseases”

Containment Level: BSL-2, ABSL-1

NIH Section: Not applicable

Training status: Personnel listed on the protocol are current on safety training requirements

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved with no additional recommendations.

IBC-26-018 – Dr. Roger Arce – “Effects of Oral Biofilm on immune recognition during periodontitis”

Containment Level: BSL-2, ABSL-2

NIH Section: Not applicable

Training status: Personnel listed on the protocol must complete safety training

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved, pending completion of required safety training.

7. Conditionally Exempt Protocol Reviews

IBC-25-099 – Dr. Melvin Klegerman – “BADAS: Bacillus Calmette-Guerin Vaccination as defense against SARS-CoV-2. A Randomized Placebo-Controlled Trial to Protect Health Care Workers by Enhanced Trained Immune Responses.”

IBC-26-012 – Dr. Long Jun Wu – “Immunostaining on de-identified FFPE brain slices from patients”

IBC-26-014 – Dr. Xiaoming Du – “Bilateral Prefrontal and Insular TMS for Depression in Schizophrenia”

IBC-26-017 – Dr. Alan Prossin – “IV IL-1ra to Reduce Post-Op Pain, Opioid Analgesic Dose, and Opioid Analgesic Treatment Duration.”

8. Protocol Updates

a. Significant updates:

IBC-24-073 – Dr. Long Jun Wu – “Studying microglia functions in health and diseases via viral tools and plasmid containing nanoparticles in mice”

- **Addition of rDNA work in animal model:** Adeno-associated virus vector (expressing tetanus toxin administered to mice) to inhibit vesicular exocytosis via cleaving the synaptobrevin protein, a key component of the SNARE complex responsible for fusing synaptic vesicles with the cell membrane to release neurotransmitters.

Containment Level: BSL-2; ABSL1*

NIH Section: III-B-1, III-D-1-a, III-D-4-a

Training status: Personnel listed on the protocol are current on safety training requirements

Approved = 15

Opposed = 0

Abstained = 0

The protocol was presented and approved, pending approval by the NIH OSP*.

b. Administrative updates:

IBC-21-076 – Dr. Ali Azhdarinia – “Molecular Imaging Probe Development”

- **Addition of bioagents:** Human pancreatic neuroendocrine cancer cells (QGP-1)

IBC-23-048 – Dr. Eunhee Kim – “Understanding the vascular complication and formation in stroke and brain arteriovenous malformation”

- **Addition of bioagents:** Monoclonal Antibodies (VCAM1, ICAM1, E-selectin, and IgG isotype control)
- **Addition of animal strains:** new mouse strains (Csf1fl/fl, Colla1-cre, Colla1-cre;Csf1fl/fl, Cx3cr1-cre/ERT2;Csf1rfl/fl, Cx3cr1-cre, Cx3cr1-cre;Csf1rfl/fl, and Csf1r+/-)

IBC-24-041 – Dr. Qingchun Tong – “Central Mechanisms of Energy Balance” AND “Mechanisms Underlying Glucose-lowering effects of Leptin in Type 1 Diabetes” AND “Sim1 Neurons and Bodyweight Regulation” AND “Leptin and Central Control of Thermoregulation” AND “GABAergicRip-Cre Neurons in Glucose Homeostasis” AND “Role of GABAergic Input to POMCNeurons in Body Weight Regulation” AND “To Deconstruct a Hypothalamic Neurocircuit for Feeding and Grooming” AND “A Direct LH to PVH Projection for Antagonistic Regulation of Feeding” AND “To Study the Function of non-AgRP Neurons in Body Weight Regulation” AND “Genetically Dissecting Basal Forebrain Circuits Underlying Eating Disorders” AND “To explore the mechanism underlying developmental compensations in PVH neurons” AND “A novel MC4R neural pathway in feeding” AND “Neural pathways for obesity development by AgRP neurons” AND “Genetically dissecting neural circuits underlying anorexia nervosa” AND “Hypothalamic CRH neurons in diet-induced obesity” AND “Genetic Dissection of A Unique Population of Appetite Stimulatory Neurons in the Hypothalamus” AND “A neural basis underlying diet-induced obesity and leptin resistance”

- **Addition of rDNA:** AAV-retroFlp-GFP; AAV-TRE-DIO-NachBac-mCherry; AAV-TRE-mCherry for injection into mouse brain (BSL1/ABSL1; III-D-4-a)

IBC-24-080 – Dr. Jiaqian Wu – “The function roles of regulatory molecules in the differentiation of neural stem cells and oligodendrocytes” AND “Identifying novel molecular targets for chronic spinal cord injury” AND “Identifying Novel Potential Therapeutic Targets for Chronic SCI Gliosis”

- **Addition of rDNA/Bioagents:** 1) AAV9-CAG-mCherry, 2) AAV9-pCAG-Flex-Zeb2os shRNA-eGFP (AAV-Zeb2os KD), 3) AAV9-pCAG-lncRNA shRNA-eGFP (AAV-lncRNA KD for unknown lncRNAs), 4) AAV9-pCAG-Flex-eGFP (AAV-ctrl) in vitro and in vivo, III-D-4-a, III-F-1
- Addition of mouse strains: APPNL-F/NL-F: GFAP-Cre, APPNL-F/NL-F, GFAP-cre/ERT2:R26tdt. ABSL-1 housing
- Addition of personnel: Chia-Chen Lu, Vijayalakshmi Kancharla, Juan Herrera

IBC-26-011 – Dr. Changqing Ju – “Targeting Hepatocyte Genes Using AAV8-Cre Virus Packaging System”

- **Addition of rDNA:** Addition of rDNA: AAV8[PG2509 - 791YLX_ssAAV.TBG669p.Sox9.WPRE3.SV40LpA] in mice (BSL-1/ABSL-1; III-D-4-a)

9. BSL-3 Update

Based on today’s approved protocol for Dr. Eltzschig, regular BSL-3 commissioning is not needed. Biosafety will meet with the stakeholders to determine the scope of work (BSC certification, validation of airflow, and facility maintenance). Biosafety will continue to be surveyed monthly.

10. Biological Safety Program Activity Report

The Biological Safety Program Activity Report was included in the packet for review.

There was one incident involving a potentially infectious recombinant material. While removing a cryovial from Liquid Nitrogen storage, the vial “exploded,” resulting in a cut to the right hand and a splash to the face. Initially, we were concerned about exposure to cells transfected with lentivirus to express the human oncogene K-RAS. Biosafety provided the lentiviral pathogen data sheet to Employee Health. During follow-up, 1. The vial did not rupture; the bottom skirted part of the vial ruptured, but the contents of the vial were not compromised. 2. Cells were hamster cells transfected with mutant RAS (V12), no retrovirus was used in generating the cell line. Recommended use of thermal gloves and eye protection and also provided the guidance document on liquid nitrogen handling. This is a borderline reportable incident, so it was reported to the NIH OSP. No response due to the government shutdown.

11. Environmental Protection Program Activity Report

The Environmental Protection Program Safety Program Activity Report was included in the packet for review.

12. Other Items

Dr. Eltzschig’s laboratory is inquiring about using the laboratory space used for SARS-CoV-2 animal work for infection and housing of mice infected with murine-adapted Influenza A (IBC-26-010). SARS-CoV-2 and Influenza A studies would not occur at the same time. All established protocols for the location would apply. IBC and AWC must be amended.

13. Next Meeting

The meeting is scheduled for December 11, 2025, via Microsoft Teams from 3:00 PM to 4:00 PM.

14. Adjournment

The meeting was adjourned by Dr. Denicourt at 4:05 PM.

APPROVED