**The University of Texas Health Science Center at Houston (UTHealth Houston)**
**Institutional Biosafety Committee**
**October 9, 2025**
**Minutes**

**Meeting Attendance:**

| Voting Members | Non-Voting Members |
|---|---|
| **Dr. Catherine Denicourt (Chair)** | **Dr. Joy Harrison** |
| **Dr. Eric Brown** | **Dr. Kristin King** |
| **Dr. Nancy Crider** | **Dr. Mary Robinson** |
| **Dr. Carolyn Grimes** | **Mr. Zack Becker** |
| **Dr. Nicholas Justice** | **Mr. Felipe Munoz** |
| **Dr. Ashish Kapoor** | **Ms. Rebecca Kairis** |
| **Dr. Yang Liu** | **Ms. Allison Lino** |
| **Dr. Yahuan Lou** | **Ms. Meredith Mills** |
| **Dr. Emma Napoli** | |
| **Dr. Duc Nguyen** | |
| **Dr. Eunsu Park** | |
| **Mr. Spencer Chichester (SM)** | |
| **Mr. Jesus Duran Ramirez (SM)** | |
| **Mr. Petko Ivanov (CM)** | |
| **Mr. Imad Khalil (CM)** | |
| **Ms. Marivonne Rodriguez (CM)** | |

*Voting members had to leave the meeting, and this is reflected in the approval count.



1. **Call to Order**

   The meeting was called to order by Dr. Denicourt at 3:01 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 (September 11, 2025)**

   Approved = 16
   Opposed = 0
   Abstained = 0

4. **IBC Administrative Items**

   - Reminder of Annual IBC Member Training
   - Update on "Modernizing and Strengthening Oversight of Biosafety"
   - NIH flagging potentially dangerous *Gain of Function* – IBC approved communication to faculty with active IBC protocols.

**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-25-089 – Dr. Michelle Rivera-Davila – "UTHealth Turner Syndrome Research Registry"

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 = 16
Opposed = 0
Abstained = 0

The protocol was presented and approved with no additional recommendations.

IBC-25-093 – Dr. Zhiqiang An – "Cancer drug resistance mechanisms in the HER/ErbB signalling pathways and Proteolytic cleavage of antibodies and its applications in designer cancer therapeutics" AND "ErbB signalling pathways" AND "Discovery and Characterization of Novel Anti-endotrophin Monoclonal Antibodies as Drug Leads for Cancer Therapy" AND "Counteracting Tumor Evasion of Antibody Immunity by a Novel Therapeutic Strategy" AND "New Antibody Therapy for Treating Leukemia" AND "Therapeutic Monoclonal Antibody Lead Optimization and Development Core (CPRIT Core Grant RP150551)" AND "Validation of LILIRB family of receptors and cancer targets and development of LILIRB targeting antibodies for cancer treatment" AND "Development of Hemichannel-Targeting Antibody Therapies for Breast Cancer Bone Metastasis" AND "Advanced Cancer Antibody Drug Modalities Core Facilities" AND "ITIM-receptors for cancer treatment" AND "Antibodies targeting S2 domain of the SARS-CoV-2 spike protein" AND "Targeting immunosuppressive myeloid cells in tumor microenvironment" AND "Reprogramming myeloid cells to inhibit cancer development" AND "Study TREM2 iso2 knockin only iPS induced microglia in Alzheimer's disease." And "Study long-term effect of TREM2-219 (iso2) in 5xFAD mice via AAV" and "mouse cancer parental and stable cell lines for antibodies evaluation on tumor growth"

Containment Level: BSL-2; ABSL-1 (no vector administration to mice)
NIH Section: III-D-1-a, III-D-2-a, III-D-4-b, III-F-6
Training status: Personnel listed on the protocol are due for required safety training
Approved = 16
Opposed = 0
Abstained = 0

The protocol was presented and approved pending completion of required safety training. The committee recommends separating the work into separate protocols if more work is added or at the next 5-year renewal.

IBC-25-094 – Dr. Zhiqiang An – "Viral and bacterial studies in Dr. An lab" AND "Epstein-Barr virus (EBV) specific monoclonal antibodies from memory B cells of naturally infected individuals, to support EBV vaccine development" AND "Development of potent multivalent pan-influenza neutralizing antibodies" AND "Generation and characterization of Hantavirus-specific and Henipavirus-specific antibodies from naive human ScFv phage-display library"

Containment Level: BSL-2;  protocol does not involve animals
NIH Section: III-D-1-a, III-D-2-a
Training status: Personnel listed on the protocol are due for required safety training
Approved = 16
Opposed = 0
Abstained = 0

The protocol was presented and approved, pending completion of required safety training and periodic screening to confirm BCG via PCR.

IBC-25-097 – Dr. Holger Eltzschig - Hypoxia-Inducible Factors and MicroRNAs in Viral Pneumonia-Associated ARDS and A Phase 2-3 Trial of Vadadustat for Treating Hospitalized Patients with Pathogen-Associated ARDS.

Containment Level: BSL-2; protocol does not involve animals
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-26-004 – Dr. Karan Kaval – "Elucidating the role of host-derived bile salts on the regulation, expression and assembly of virulence factors in Listeria monocytogenes"

Containment Level: BSL-2; protocol does not involve animals
NIH Section: III-D-1-a, III-D-2-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-26-005 – Dr. Zhichao Xu – "Modeling Enhancer Hijacking in Cancer via Genome Engineering and Single-Cell Sequencing"

Containment Level: Enhanced BSL-2 for human viruses, amphotropic or VSV-g envelope pseudotyped viruses expressing transgenes with known oncogenic potential or a biological toxin. Enhanced BSL-2 containment is defined in the protocol; protocol does not involve animals
NIH Section: III-D-1-a, III-D-2-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-26-006 – Dr. Dongjoo Choi – "Studying astrocyte functions in Alzheimer's disease via viral tools in mice"

Containment Level: BSL-1; ABSL-1 (AAV stereotaxic administration)
NIH Section: III-D-4-a, III-E-3-a, III-F-8
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-26-008 – Dr. John Hancock – "Molecular and Spatial Analysis of Plasma Membrane

Nanodomains" CPRIT RP170233 "K-ras Spatiotemporal Dynamics: Novel Therapeutic Targets" AND "Development of a novel K-Ras therapeutic. CPRIT DP150065" AND "Decoding the structures and lipid binding specificity of small GTPase membrane Anchors" AND "Phosphatidylserine acyl chain remodeling regulates KRAS spatial distribution and function on the plasma membrane" AND "Regulation of KRAS plasma membrane targeting by defined glycosphingolipids. RO1 GM151280-01" AND "KRAS spatiotemporal dynamics: lipid glycosylation as a novel therapeutic target"

Containment Level: BSL-2; ABSL-2 for 5 days for mice receiving lentiviral vector; ABSL-1
NIH Section: III-D-1-a, III-D-2-a, III-D-4-a, III-F-8
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-26-010 - Dr. Holger Eltzschig – "Rodent model to study prevention or treatment methods of viral pneumonia-induced ARDS"

Containment Level: BSL-2; ABSL-2
NIH Section: III-D-1-a, III-D-4-b, III-E-3-a (no genetic modification of RG2 pathogens)
Training status: Personnel listed on the protocol are current on safety training requirements
Approved = 10*
Opposed = 0
Abstained = 0

The protocol was presented and approved with no additional recommendations.

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

Containment Level: BSL-1; ABSL-1
NIH Section: III-D-4-a
Training status: Personnel listed on the protocol are current on safety training requirements
Approved = 10*
Opposed = 0
Abstained = 0

The protocol was presented and approved with no additional recommendations.

**7. Conditionally Exempt Protocol Reviews**

IBC-26-007 – Dr. Laura Goetzl – "Fetal neuronal extracellular vesicle biomarkers of in-utero effects of maternal cannabinoid use and human fetal brain development and neurobehavioral outcomes"

IBC-26-009 - Dr. Gloria Heresi - "Biorepository for present and future studies to learn and understand re-emergent and emerging infectious diseases in Pediatrics (BIO FUTURE BIOBANK)" AND "Molecular Luminescence for Respiratory Pathogens"

**8. Protocol Updates**

**a. Significant updates:**

IBC-21-061 – Dr. Mark Burish - "The Will Erwin Headache Research Center study of cluster headache and trigeminal neuralgia (WEC): A cellular model of cluster headache: human fibroblasts to study circadian rhythms"

- **Removal of rDNA and bioagent:** lentiviral vector
- **Addition of rDNA work:** plasmid transfection of HEK293 cells for protein expression
- **Addition of animal work:** AAV for animal model project

Containment Level: BSL-2; ABSL1
NIH Section: III-D-1-a, III-D-4-a
Training status: Personnel listed on the protocol are current on safety training requirements
Approved = 10*
Opposed = 10
Abstained = 0

The protocol was presented and pending clarification of the AWC protocol.

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IBC-24-037 – Tae Jin Lee – "MicroRNA therapy for cancers"

- **Add work:** In vitro experiments using oncolytic HSV-1 and lentivirus. In vivo (mouse) experiments using oHSV-1.
- **Add bioagents:** Vero cells, E. coli Stbl3, Murine glioma cells (GL261, 4C8, 005, CT2A), HEK293FT cells, Human GBM patient-derived primary GBM cells (GSC7-2, GSC 8-11, GSC6-27, GSC13, GSC2-14, GSC231, GBM43-miR-Ctrl, GBM43-miR-433), HSV-1 (F-strain, oncolytic strains rHSVQ, rHSVQ-Luc), Lentiviral vector (pCDH based- or pLenti-teton)
- **Remove title:** "Extracellular vesicles for targeted disease therapy"
- **Add bolded title**
- **Add personnel:** Jiyeon Kim
- **Add location:** MSE R132
- **Remove location**: MSB 7.510

Containment Level: BSL-2; ABSL-2 for 72 hours when receiving replication-

incompetent HSV-1
NIH Section: III-D-2-a, III-D-4-a
Training status: Personnel listed on the protocol are due for required safety training
Approved = 10*
Opposed = 0
Abstained = 0

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

**b. Administrative updates:**

IBC-21-014 – Dr. Joo Eun Jung – "Role of Astrocyte in Brain Rejuvenation" AND "Pathobiology of ICH in Aging"
- **Removal of personnel:** Lidiya Obertas
- **Addition of location:** MSB 7.617, MSB 7.617A

IBC-21-025 – Dr. Jose Perez – "Fungal regulatory systems directing mammalian host colonization"
- **Removal of personnel:** Hailey Nussbaum, Mazen Oneissi
- **Addition of personnel:** Elena Lindemann-Perez, Trung Vu
- **Addition of location:** MSE R617, R209A

IBC-21-034 – Dr. Jayhun Lee – "Developmental Regulation of Parasite Survival and Immune Evasion by Schistosoma"
- **Addition of personnel:** Gregory Mendez and Jun-dae Kim

IBC-21-077 – Dr. Dianna Milewicz – "Role of Rare Copy Number Variants in Bicuspid Aortic Valve" "AND "Genetic Predisposition to Thoracic Aortic Aneurysms/Dissections" AND "The role of YY1AP1 in the pathogenesis of fibromuscular dysplasia" AND "Fibromuscular Dysplasia Project" AND "Identification and Characterization of Novel Genes for Moyamoya Disease" AND "Animal models of aortic aneurysms and dissections (ACT2A model)" AND "Loss of Pericentrin Leads to Increased Smooth Muscle Cell Proliferation (Pericentrin knockout mice)" AND **"A novel nuclear role for smooth muscle alpha-actin." AND "Nuclear skeletal muscle alpha-actin and intranuclear rod myopathy." AND "A molecular link between smooth muscle cell metabolism and differentiation."**
- **Addition of bolded title**
- **Addition of work:** Work related to the addition of pre-made AAV9 targeting L2HGDH to in vivo studies. An overexpression virus (AAV9-L2HGDH) and a knockdown virus with shRNA against L2HGDH will be used.
- **Addition of rDNA:** AAV (AAV9-L2HGDH), sgRNA vectors (pSPgRNA, pU6-pegRNA,pEF-PE2,p53DD, RNP)
- **Addition of bioagent:** AAV (AAV9-L2HGDH)
- **Removal of personnel:** Amelie Pinard, Anita Kaw, Kaveeta Kaw, Zhen Zhou

- **Addition of personnel:** Jose Esparza Pinelo, Kiara Bornes, Alexis Richard, Xiaoli Cai, Shuvra Roy, Jeison Garcia Serrano, Ernesto Calderon Martinez, Gopika Rajanikanth

IBC-23-082 – Dr. Nicholas Justice – "Transformation of the stress response into motor behavior by the external globus Pallidus" AND "Postpartum expression of CRF receptors by Oxytocin neurons" AND "Investigating the anatomy and function of converging cholinergic inputs to central stress circuits" AND "Dorsal Striatal CRF and Alcohol Release" AND "Direct activation of CRF neurons by Abeta disrupts the stress response in Alzheimer's Disease"

- **Removal of personnel:** Lierni Ugartemendia Ugalde
- **Addition of personnel:** Armin Shirzadian

IBC-24-039 – Dr. Thu Tran – "MicroRNA Profile in Neonatal Hypoxic Respiratory Failure"

- **Addition of personnel:** Ragini Nair, Brenna Servantes

IBC-25-074 – Dr. Zhongcong Xie – "Effects of anesthesia and surgery on brain function"

- **Addition of rDNA:** Lipid nanoparticles (PIEZO2, AGT, and AGTR1A siRNA), AAV (rAAV-hSyn-mCherry-WPRE-hGH polyA, AAV-hSyn-EGFP, rAAV-hSyn-Cre-WPRE-hGH polyA, AAV-hSyn-DIO-hChR2(H134R)-EYFP-WPRE-hGH polyA).
- **Addition of bioagent:** AAV (rAAV-hSyn-mCherry-WPRE-hGH polyA, AAV-hSyn-EGFP, rAAV-hSyn-Cre-WPRE-hGH polyA, AAV-hSyn-DIO-hChR2(H134R)-EYFP-WPRE-hGH polyA), Recombinant human ACE2 protein, Synthetic human Angiotensin II peptide, Lipid nanoparticles (PIEZO2, AGT, and AGTR1A siRNA)
- **Addition of animal strain:** Mice (Ai14 reporter)
- **Addition of work:** Addition of in vivo work related to AAV and LNP addition.
- **Addition of personnel:** Xiang Li, Chen Wu

## 9. BSL-3 Update

The following update was provided via email due to the meeting's length: There are no updates regarding BSL-3 activities.

## 10. Biological Safety Program Activity Report

The following update was provided via email due to the meeting's length: The Biological Safety Program Activity Report. As a reminder, we have updated the format starting September 2025.

In September, we had 3 injuries involving CLAMC personnel. One was a mouse bite (non-infectious), and 2 were related to animal equipment. We trained 15 new biosafety professionals from other institutions in our Biosafety Officer Course. Our staff also attended several training sessions, primarily focused on the new NIH policy.

A summary of 2025 BSL2 survey violations: The top 10 violations noted in order are in regards to required safety training, 18 inch clearance of items from the ceiling; updated chemical inventories, cloth chairs, lack of secondary containment for liquid waste containers (chemical and biological waste), food/drink present in the labs, BSC not being certified annually, unsecure gas cylinders, and full sharps containers. We will continue to evaluate effective program improvement to help reduce these violation issues.

**11. Environmental Protection Program Activity Report**

The following update was provided via email due to the meeting's length: The Environmental Protection Program Activity Report was not included in the packet because of a delay in receiving data from Stericycle.

**12. Other Items**

The following update was provided via email due to the meeting's length: October is Biosafety and Biosecurity Month. This year’s activity is to reestablish a biological material “inventory” that will capture risk group 2 or above biological agents, toxins or potentially infectious materials such as human samples. This updated survey will capture information for the U.S. National Authority for Containment of Poliovirus and DURC/PEPP materials.

**13. Next Meeting**

The meeting is scheduled for November 13, 2025, via Microsoft Teams from 3:00 PM to 4:00 PM.

**14. Adjournment**

The meeting was adjourned by Dr. Denicourt at 4:29 PM.