

#### Office of the Vice President for Research

## **Institutional Biosafety Committee**

Student Faculty Center, 3340 N Broad Street, Suite 427 Philadelphia PA 19140

Phone: (215) 707-9741 Email: ibc@temple.edu

# TEMPLE UNIVERSITY INSTITUTIONAL BIOSAFETY COMMITTEE IBC Meeting Minutes- Online Meeting

June 17, 2025 12:02 pm

#### **Members**

| X | Black, Dr. Mark- Community Member                      |
|---|--|
|   | Bradley, Carlos- Community Member                      |
|   | Culmer-Butler, Dr. Dorian- Animal Containment Expert   |
| X | Escalante, Dr. Ananias- Scientist                      |
| X | Forste, Dr. Dawn- Animal Containment Expert            |
| X | Lupinski, Gregory- EHRS Executive Director             |
| X | Mettus, Richard- Senior Health & Safety Specialist     |
| X | Mobo, Dr. Ben Hur Jr Occupational Health Administrator |
| X | Moore, Claudia- IACUC Asst. Director                   |
| X | Murray, Krista- IBC Assistant Director                 |
|   | Pultro, Mary- IBC Sr. Coordinator                      |
| X | Rogers, Dr. Thomas- IBC Chair, Scientist               |
| X | Sariyer, Dr. Ilker- Scientist                          |
| X | Sawaya, Dr. Bassel- Scientist                          |
| X | Sulistijo, Dr. Endah- University Biosafety Officer     |
| X | Tsygankov, Dr. Alexander- IBC Vice-Chair, Scientist    |
|   | Whelan, Dr. Kelly- Scientist                           |
| X | Wimmer, Dr. Mathieu- Scientist                         |

X= Present

Quorum was met for this meeting.

#### Guests

Baglia, Frank- Senior Health & Safety Specialist Hao, Lanping- Associate Health & Safety Specialist Khan, Sabina- Senior Health & Safety Specialist Kidder, Abigail- IACUC Analyst

Wright, Simone- IBC Analyst

#### I. Protocols Reviewed

| PI: Thomas, Gareth          | <b>Reg:</b> 11291 | Activity: Rewrite of 10840   | <b>NIH:</b> III-D-1, 2, 3; III-E-1 | BSL: 2 |
|-----------------------------|-------------------|------------------------------|------------------------------------|--------|
| Title: Deleg of Delegiteral | tian in Managas   | g Crystom Hoolth and Discoss | J, III L 1                         |        |

**Title:** Roles of Palmitoylation in Nervous System Health and Disease

**Overview**: Transfection or viral expression of proteins of interest in cultured neurons. Use shRNAs (transfected or virally expressed) to remove a protein of interest. Cas9/CRISPR methods to knock out a gene of interest. Experiments in primary rat or mouse neuron cultured cells are performed using self-inactivating (Sin-) lentivirus, made by the lab after packaging in HEK293T cells. Some reporter gene constructs are delivered in vivo.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. No oncogenes will be used and cDNAs/shRNAs/gRNAs are well detailed. Need administrative modifications regarding use of vincristine and updates to personnel listings.

Final Action: modifications required

PI: Liu-Chen, Lee-Yuan | Reg.: 11289 | Activity: Rewrite of 10839 NIH: III-D-4 **BSL: 2** 

**Title:** In vitro and in vivo Characterization of Kappa Opiod Receptor

Overview: Purchased adeno-associated viral vectors will be used for conditional deletion and mapping of neuronal circuits. Glycoprotein-deleted rabies virus and helper AAV viruses will be used for monosynaptic retrograde tracing in vivo.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Remove animal care procedures which are included in the ACUP protocol. Need to include agents in 5a. Housing rooms must be BSL2 for rabies viral vector. Procedure room numbers need to be updated. Training dates need to be confirmed for staff. NNIH Guidelines sections III-D-1 and III-E-1 need to be checked off.

Final Action: modifications required

PI: Mohsin, Sadia **Reg.:** 11292 **Activity:** Rewrite of 10678 **NIH:** III-D-1, 2, **BSL: 2** 3, 4; III-E-3

Title: Paracrine Modulation of Cardiac Repair Processes by Cortical Bone Derived Stem Cells Overview: Study interaction of cortical bone derived stem cells to determine the consequences for repair in the heart following myocardial damage. Use of purchased AAVs and adenovirus in vivo. CBSCs carrying purchased lentiviral vectors will be used in vivo. Diphtheria toxin to be used in

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Need additional information regarding toxin use. Need to describe why and how the AAV and lentiviral vectors will be used. Need description of how human stem cells will be used as well as source of cells. Clarify abbreviations. Update training information. Correct room numbers to be used and add procedures for moving BSL2 animals from location to location. Administrative edits include adding and removing drugs and toxins on form and marking III-D-4 on the registration. This will need to be reviewed by the full committee again.

Final Action: modifications required

PI: Borriello, Lucia **Reg.:** 11037 **Activity:** Amendment NIH: III-D-3, BSL: 2 4; III-E-3

**Title:** Understanding the Mechanisms of Metastasis

Overview: Add lentiviral plasmid with fluorescent tag to transfect previously approved breast cancer cell lines.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Need more detail to confirm how breast cancer cells will be transfected. Need to confirm whether this is only in vitro work or if there will be in vivo work, and if so, include more details. Include assurance statement that if in the future the plasmid will be used for lentiviral vector production and use, an amendment will be submitted.

Final Action: modifications required

| PI: Elrod, John | Reg.: 11101 | Activity: Amendment | <b>NIH:</b> III-D-1, 2, 3, 4; | BSL: 2 |
|-----------------|-------------|---------------------|-------------------------------|--------|
|                 |             |                     | III-E-1, 3                    |        |

Title: Mitochondrial Calcium Exchange in Heart Disease

**Overview:** This lentiviral plasmid will be modified to target Cal-ID (V5) in mitochondria to study proteins that are in proximity of calcium signaling. The lentivirus will be purchased and used to infect human HEK293 and ventricular tissue cells along with mouse primary neuron cells to explore proteins.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Procedures were previously approved, just obtaining a new plasmid.

Final Action: approved

| PI: Grana, Xavier | <b>Reg.:</b> 11160 | Activity: Annual Renewal | <b>NIH:</b> III-D-1, 2, | <b>BSL:</b> 2 |
|-------------------|--------------------|--------------------------|-------------------------|---------------|
|                   |                    | -                        | 3; III-E-1              |               |

**Title:** 1. Unraveling the Complexity of PP2A/B55 Substrate Specificity, a Major Eukaryote Ser/Thr Phosphatase; 2. Role of PP2A in Cancer

**Overview:** Adding plasmids with CRISPR technology system to add fluorescent tags to genes in normal human and cancer cell lines.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Need to specify target genes and add safety training records for new lab member.

Final Action: modifications required

| PI: Kang, Shin | <b>Reg.:</b> 11017 | Activity: Annual Renewal | NIH: III-D-4; III-E- | BSL: 1 |
|----------------|--------------------|--------------------------|----------------------|--------|
|                |                    |                          | 1, 3                 |        |

Title: AAV-Mediated Gene Delivery for Neuron and Oligodendrocyte Modification

**Overview:** New expression plasmid to express Cas9 fusion to eGFP in mouse neuroblastoma cell culture.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Plasmid map indicates genetic material for a toxin is included in the map; this may need NIH approval. This plasmid could be used to generate a new mouse line- they need to state whether this will be done. The mouse cell lines are fine and could be approved. Lab may want to consider whether they can pull the plasmid work out and include it as an amendment on their other protocol since they already work with similar materials there.

Final Action: modifications required

| PI: Safak, Mahmut   | <b>Reg.:</b> 11173 | Activity: Amendment | <b>NIH:</b> III-D-1, 2, 3; | <b>BSL:</b> 2+ |  |
|---|--------------------|---------------------|----------------------------|----------------|--|
|   |                    |                     | III-E-3                    |                |  |
| Title: Machanism of PMI NP Pagganization by IC Virus OPEA Protain |                    |                     |                            |                |  |

**Title:** Mechanism of PML-NB Reorganization by JC Virus ORF4 Protein

**Overview:** New expression plasmids will be used in transfection assays.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Adding 3 plasmids- already have the procedures approved in registration form.

Final Action: approved

| <b>PI:</b> Sariyer, Ilker | <b>Reg.:</b> 11165 | <b>Activity:</b> Amendment | <b>NIH:</b> III-D-1, 2, 3 | <b>BSL:</b> 2+ |
|---------------------------|--------------------|----------------------------|---------------------------|----------------|

Title: Alternative Pre-mRNA Splicing Regulation by HIV-1, Opioids, and Alcohol

**Overview:** Adding another lentiviral vector. Will use the approved lentiviral packaging approach and perform the experiments in the same human normal and cancer (glioblastomas and neuroblastomas) cell lines previously approved.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Adding another lentiviral vector plasmid for knockdown expression. 2 similar systems already approved. Cell lines previously approved.

Final Action: approved

| PI: Sharma, Pawan | Reg.: 11221 | Activity: Amendment | <b>NIH:</b> III-D-1, 3; III- | BSL: 2 |
|-------------------|-------------|---------------------|------------------------------|--------|
|                   |             |                     | E-1. 3                       |        |

Title: E3 Ubiquitin Ligase RNF145 in Airway Smooth Muscle Functions and in Asthma

Overview: Use streptozotocin to induce diabetes in vivo.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Adding streptozotocin to protocol. Need additional information on how it will be used. Need to correct room numbers in amendment. Other modifications are fine.

Final Action: modifications required

| PI: Sriram, Uma | <b>Reg.:</b> 11086 | Activity: Annual Renewal | NIH: III-D-4; III- | <b>BSL:</b> 2+ |
|-----------------|--------------------|--------------------------|--------------------|----------------|
|                 |                    |                          | E-3                |                |

Title: Role of Kallikrein-Kinin System in Systemic and Neuropsychiatric Lupus

**Overview:** Adding pristane to induce lupus in vivo. Gene overexpression using a commercially synthesized adenoviral vector to accelerate lupus disease in vivo. Adding rooms for exposure procedures as well as human blood for cell culture in vitro and in vivo work.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Need additional details on procedures with pristane as well as with human blood work. Need to correct rooms to be used throughout document.

Final Action: modifications required

| PI: Torres-Ayuso, Pedro | <b>Reg.:</b> 11055 | Activity: Amendment | <b>NIH:</b> III-D-1, 4; | BSL: 2 |
|-------------------------|--------------------|---------------------|-------------------------|--------|
| -                       |                    | -                   | III-E-1, 3              |        |

Title: Exploring the Understudied Kinome for Novel Targets in Squamous Cell Carcinomas

**Overview:** Add two new lentiviral vector backbones and 4 lentiviral plasmids used in squamous cell carcinoma cell lines investigate mechanisms of cancer cell proliferation. These are commercially available.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Adding plasmids from Addgene; will utilize same cells as previously approved for in vitro work.

Final Action: approved

| PI: Whelan, Kelly                       | <b>Reg.:</b> 11170 | Activity: Amendment | <b>NIH:</b> III-D-1, 2, 3, 4; III-E-3 | BSL: 2 |  |  |
|---|--------------------|---------------------|---------------------------------------|--------|--|--|
| Title: Mechanisms of Esophageal Biology |                    |                     |                                       |        |  |  |

Overview: Adds (1) Interleukin-13 treatment and (2) single cell-RNA-sequencing (scRNA-Seq). Both changes will be used on human esophageal squamous cell carcinoma, human esophageal keratinocyte, and esophageal adenocarcinoma cell lines that are approved in the parent protocol.

**Discussion:** The IBC reviewed the procedures, containment level, facilities to be used, lab member training, containment procedures and work practices. Adding treatment process and sequencing method; will utilize same cells as previously approved. Adding core lab to approved locations.

Final Action: approved

#### II. Minutes Reviewed

Minutes from the March 18, 2025, April 15, 2025, and May 20, 2025 meetings were reviewed and approved unanimously.

#### III. Old Business

None

#### IV. New Business

Dr. Rogers thanked the committee for their work and dedication over the years. The committee thanked him for his leadership and wished him the best in his upcoming retirement.

### V. Adjournment

The motion to adjourn the meeting was approved unanimously; the meeting adjourned at 1:30pm.

Respectfully submitted,

Krista Murray

Krista Murray

Institutional Biosafety Committee Assistant Director