Tuesday, November 18th IBC Meeting
Time: 3:00pm-5:00pm

Zoom Link: https://umsystem.zoom.us/j/99740984885?pwd=J8UiTIAoAnC5IDTY1wfb7Zujrt177E.1

- **Member Introductions**
  - Members in attendance:
    - Michael O'Connor, Jakob Waterborg, Zoey Yi, Eric Anderson, Scott Korte, Tim Sturgis (alternate), Jodi Troup (alternate), Joseph Barbercheck (alternate)
  - Members absent:
    - Gerald Wyckoff, Shizhen Wang, Paul Ramlow
  - Support Staff:
    - Liz De La Rosa, Melissa Hirt
- **Closed Meeting**
  - The November 18th meeting was closed to the public because the discussion addressed confidential matters concerning individually identifiable personnel and proprietary information.
- **Meeting Minutes**
  - Review of August Meeting Minutes – will be publicly posted on the UMKC IBC website
  - **Vote: Approve as written:**
    - **Approved = 8**

- **Informational items / Discussion items**
  - The August meeting minutes reviewed and approved at the November meeting will be the first minutes publicly posted on the UMKC IBC website.

- **Biosafety Officer Updates**
  - DURC Policy
    - No updates on the new policy, additional information is expected in early 2026.
  - New PIs
    - Similar to UMKC IACUC procedures, new PI's will join the IBC meeting to meet the committee and introduce themselves and their research.
  - Biosafety Manual Updates
    - The Biosafety Manual is currently being updated by the BSO, a draft will be shared with the committee for input in December.
  - Service Animal in Laboratories Policy
    - A policy is currently being implemented regarding the inclusion of service animals in laboratories. This policy will be shared with the committee when completed.
  - February Laboratory Safety Awareness Week
    - EHS will schedule a Laboratory Safety Awareness Week during the Spring 2026 semester after the success of previous events.
  - Protocol 21680 Amendment
    - A lab member disclosed that additional risk group 2 biohazardous materials are being stored in the lab, but these materials are not currently approved in the IBC protocol. No work has been conducted with these materials and the BSO informed the lab that an amendment will be required for the storage and use of the additional materials.

- **<u>Protocols for Review:</u>**

  The committee will need to discuss the following for each rDNA Protocol:

BSO pre-reviews of protocols (attached) that require full IBC review are attached at the end of this agenda, as available at time of distribution of the agenda.

1. Agent Characteristics (virulence, pathogenicity, environmental stability)
2. Type of manipulations planned
3. Sources of the inserted DNA sequences (species)
4. Nature of the inserted DNA sequences (structural gene, oncogene)
5. Host(s) and vector(s) to be used:
6. Will an attempt be made to obtain expression of a foreign gene: (Yes, No)
7. If yes, what protein will be produced
8. Containment conditions to be implemented
9. Applicable section of the NIH Guidelines: (use NIH Guide pdf to enter section)

1. **<u>Tabled protocol reviews from prior meeting(s)</u>**
   - **23780 Maitland –** *The biobehavioral role of loneliness in problematic alcohol involvement sex differences*
     - The PI is unable to add personnel at this time as the PI has not yet received funding, and the identity and number of personnel are dependent on receiving funding. The committee discussed the requirement that all personnel are added to the IBC protocol and complete the required training prior to beginning work on the protocol. The BSO should be informed before work is scheduled to begin.
     - **Vote: Conditionally approve provided that all comments above are addressed.**
       - **Approve = 8**

2. **<u>Continuations for (up to) 1 year without changes and Amendments limited to personnel updates, approved for continuation by Chair and BSO</u>** (NOT attached) (CIP= change in personnel)
   - **22260 Kador** – *Tissue Engineered Models and Cell Transplantation for the Retina* – **Continue As Is**
   - **22461 Stylianou –** *Computational Modeling of the Human Elbow, Validation and Application in Orthopaedic Practice* **– Continue As Is**
   - **22283 Cheng –** *Antitumor effect of gene silencing systems* **– CIP**
   - **22463 Wang –** *Structural dynamics of membrane transporters in lipid environments and living cells* – **CIP, added cell line**
   - **22300 McGraw –** *Organ formation in zebrafish* **– Continue As Is**
   - **22462 Honigberg –** *Mechanism regulating initiation of meiosis and biofilm formation in yeast* **– Continue As Is**
     - The PI has retired but was granted Emeritus status as the lab is still active.
   - **22400 Randall –** *Identification and biochemical characterization of peptide-based therapeutics* **– CIP**
   - **22402 Gutheil –** *Human sample metabolomics studies* **– Continue As Is**
   - **22460 Wyckoff –** *Alcohol Abuse and HIV-mediated Neurotoxicity* **– Continue As Is**

   ❖ **All Annual Continuations were approved by the IBC**

3. **<u>Major Amendments for IBC Review</u> (attached)**
   - N/A

4. **<u>Minor Amendments</u> (not attached)**
   - **22401 Mills –** *Collection of Human Teeth* – **Change in PI**

- **22282 Konorev –** *Smad3 as a Novel Target for Therapeutic Angiogenesis* – **Addition and removal of transgenic mice strains.**
- **22942 Koulen –** *Function of calcium channels and their associated proteins* **– CIP**
- **22660 Eum –** *Combined effect of CYP gene polymorphisms and phenoconversion on escitalopram metabolism and exposure* **– CIP**
- **22020 Yu –** *Development of Sustained Release Glaucoma Delivery Implants* **– CIP**
- **23120 Muzzio –** *Engineering micro and nanomaterials for guiding cell adhesion, migration, proliferation, and differentiation* **– CIP**
- **22160 Gutheil –** *Metabolite characterization and antibacterial testing against BSL-II microorganisms* – **Additional agents, microorganisms**
- **22242 Niroobakhsh –** *Novel Biomaterials Cytotoxicity* – **CIP**
- **22463 Wang –** *Structural dynamics of membrane transporters in lipid environments and living cells* – **CIP, added cell line**

5. **Terminations** (not attached; requested by PI or automatic due to end of 3-year approval period)
   - **22-11 (21940) Spletter –** *RNA-binding protein function in Drosophila muscle development*
   - **22-12 (21841) Price –** *Novel circadian mutant of Drosophila*

6. **New Protocols** (attached)
   - **24181 Gargvanshi –** *Bacterial Metabolites as Novel Anti-Leishmanial Agents*
     - This is a new PI who previously was a post-doctoral student in Dr. Cox and Dr. Gutheil's lab.
     - The biosafety cabinet needs recertification. The committee discussed needing to know the dose at which the material would lead to infection, impacting the risk assessment. The amounts in culture need to be clarified.
     - **Vote: Conditionally approve provided that all comments above are addressed.**
       - **Approve = 8**

7. **3-year Renewals** (attached)
   - **21940 Spletter** - *RNA-binding protein function in Drosophila muscle development*
     - The PI is applying for another grant, so the protocol aims have expanded with additional experiments.
     - **Vote: Approve following addressing a few minor comments.**
       - **Approve = 8**
   - **21841 Price -** *Novel circadian mutant of Drosophila*
     - There are no updates or changes with this renewal besides providing responses to questions that were left unanswered.
     - **Vote: Conditionally approve provided that all comments above are addressed.**
       - **Approve = 8**

Pre-review of protocols are listed below. Recombinant protocols with Appendix A-1 require answers to all NIH-specified questions.

- **Tabled Protocols**

Protocol 23780 (New Submission)
Title: The biobehavioral role of loneliness in problematic alcohol involvement sex differences.
IBC Reviewer: Zoey Yi (UMKC BSO)

PI: Dr. Daniel Maitland

The committee will need to discuss the following issues:

1. Agent Characteristics (virulence, pathogenicity, environmental stability)
   [] Bacteria: [ ] Viruses [ ] Fungi [x] Other: Human Blood

2. Type of manipulations planned
- Human blood collection for analysis of inflammation biomarkers (analysis at University of Kansas Medical Center)

3. Sources of the inserted DNA sequences (species)
   N/A

4. Nature of the inserted DNA sequences (structural gene, oncogene)
   N/A

5. Host(s) and vector(s) to be used:
   N/A

6. Will an attempt made to obtain expression of a foreign gene: (Yes, No)
   No

7. If yes, what protein will be produced
   N/A

8. Containment conditions to be implemented
   BSL-2

9. Applicable section of the NIH Guidelines: (use NIH Guide pdf. to enter section)
   N/A

10. Other
    Tabled August 2025: see comments in eCompliance
    IRB approval required
    Research personnel information and all required training must be completed prior to beginning work. Please inform the BSO once funding is secured and work is planned to begin.

- **New Protocols**

Protocol 24181 (New Submission)
Title: Bacterial Metabolites as Novel Anti-Leishmanial Agents
IBC Reviewer: Zoey Yi (UMKC BSO)
PI: Dr. Shivani Gargvanshi

The committee will need to discuss the following issues:

1. Agent Characteristics (virulence, pathogenicity, environmental stability)

[X] Bacteria: *Streptomyces griseus, Bacillus subtilis, Pseudomonas fluorescens, Micromonospora echinospora, Nocardia asteroides* [ ] Viruses [ ] Fungi [X] Other: *Leishmania major, Leishmania donovani,* Human cell line (THP-1)

2. Type of manipulations planned
- Bacterial strains will be cultured in liquid and solid media to produce secondary metabolites.
- Leishmania promastigotes will be incubated with bacterial metabolite extracts in 96-well plates for drug susceptibility testing, with viability assessed by colorimetric or fluorometric assays.
- Active compounds will also be tested on intracellular amastigotes in infected macrophage cell lines (e.g., RAW 264.7, THP-1).

3. Sources of the inserted DNA sequences (species)
   N/A

4. Nature of the inserted DNA sequences (structural gene, oncogene)
   N/A

5. Host(s) and vector(s) to be used:
   N/A

6. Will an attempt be made to obtain expression of a foreign gene: (Yes, No)
   N/A

7. If yes, what protein will be produced
   N/A

8. Containment conditions to be implemented
   BSL-2

9. Applicable section of the NIH Guidelines: (use NIH Guide pdf. to enter section)
   N/A

10. Other:
    See comments in eCompliance.

- **3-year Renewals**

Protocol 21940 (Renewal 22-11)
Title: RNA-binding protein function in *Drosophila* muscle development
IBC Reviewer: Zoey Yi (UMKC BSO)
PI: Dr. Maria Spletter (UMKC)

The committee will need to discuss the following issues:

1. Agent Characteristics (virulence, pathogenicity, environmental stability
   [X] Bacteria: *E. coli* [ ] Viruses [ ] Fungi [x] Other: recombinant and transgenic *Drosophila melanogaster*

2. Type of manipulations planned

- **Transgenic flies will be ordered from the Rainbow Transgenic Fly Facility**
    - Altered expression of Bru1, Rbfox1, Me31B, Mettl3 and Mbl genes
        - Gene modifications through mutagenesis with the QuikChange procedure in standard *E. coli* vectors
    - Generate reporter constructs to monitor select alternative splicing events
    - May generate isoform-specific endogenous mutants using CRISPR
    - siRNA and Gal4-UAS binary expression to manipulate transgenic flies
    - PCR is used to amplify nucleic acids for Illumina or Nanopore sequencing
    - Nuclear localization (NLS), nuclear export (NES), mitochondrial targeting (HLA), and nuclear lamina targeting (KASH) sequences from characterized Drosophila protein domains.
    - Utilize synthetic molecular tags including FLAG, HA, SNAP, or HALO for live-cell imaging

3. Sources of the inserted DNA sequences (species)
   Bru1, Mbl, Rbfox1, Mettl3 – *Drosophila*
   GFP – jellyfish (*Aequorea victoria*)
   RFP – *Discosoma* sp.
   Nuclear localization (NLS), nuclear export (NES), mitochondrial targeting (HLA), and nuclear lamina targeting (KASH) sequences from characterized Drosophila protein domains.
   Synthetic molecular tags including FLAG, HA, SNAP, or HALO.

4. Nature of the inserted DNA sequences (structural gene, oncogene)
   Bru1, Mbl, Mettl3, Me31B, and Rbfox1 are RNA-binding protein genes
   Targeting sequences (NLS, NES, etc.)
   Epitope and fluorescent tags: GFP, RFP, FLAG, HALO, HA, SNAPf; these are non-toxic marker or affinity tags used for visualization, purification, or localization studies

5. Host(s) and vector(s) to be used:
   Host: *Drosophila, E. coli*
   Vector: *Drosophila* and *E. coli* cloning vectors

6. Will an attempt be made to obtain expression of a foreign gene: (Yes, No)
   Yes

7. If yes, what protein will be produced:
   Modified Bru1 protein (with GFP, RFP, HALO, FLAG, HA, or SNAPf tags, localization signals, or functional alterations)

8. Containment conditions to be implemented
   BSL-1

9. Applicable section of the NIH Guidelines: (use NIH Guide pdf. to enter section)
   Non-exempt: **III-E-other** – experiments do not fall under any of the specific exempt or non-exempt categories

10. Other:

Amendment: Additional experiments added with NIH grant application: Aims to characterize cytoplasmic Bru1 function, particularly its potential role in RNA granules.
Addition of SNAPf and HALO tag for live imaging and multiple colored fluorescent labels.

Protocol 21841 (Renewal 22-12)
Title: Novel circadian mutant of Drosophila
IBC Reviewer: Zoey Yi (UMKC BSO)
PI: Dr. Jeff Price (UMKC)

The committee will need to discuss the following issues:

1. Agent Characteristics (virulence, pathogenicity, environmental stability)
   [ ] Bacteria [ ] Viruses [ ] Fungi [x] Other: recombinant *Drosophila melanogaster*

2. Type of manipulations planned
- **Genetically altered *Drosophila* will be ordered from Rainbow Transgenic Fly facility**
    - Altered expression of DBT, BDBT, and PER genes
        - Gene modifications through mutagenesis with the QuikChange procedure in standard *E. coli* vectors
    - rDNAs will be introduced transiently or permanently into the *Drosophila* S2 tissue culture line and permanently as transgenes in flies
        - siRNA used in transgenic fly and cell culture experiments

3. Sources of the inserted DNA sequences (species)
   Drosophila

4. Nature of the inserted DNA sequences (structural gene, oncogene)
   Circadian regulatory genes

5. Host(s) and vector(s) to be used:
   Vectors: *E. coli* and *Drosophila* cloning vectors
   Hosts: *E. coli*, *Drosophila* cell culture, *Drosophila* flies

6. Will an attempt made to obtain expression of a foreign gene: (Yes, No)
   No

7. If yes, what protein will be produced
   N/A

8. Containment conditions to be implemented
   BSL-1

9. Applicable section of the NIH Guidelines: (use NIH Guide pdf. to enter section)
   Non-exempt: III-E-other – experiments do not fall under any of the specific exempt or non-exempt categories

10. Other

Returned for modification, please see comments in eCompliance.

Next Meeting date: Tuesday, February 3rd, 2026