

October 16, 2025
Meeting was convened at 11:00 AM
Hybrid Meeting

- Voting Members Present:
- | | | |
|--------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------|
| <input checked="" type="checkbox"/> Cecilia Gerstner (IBC Chair) | <input checked="" type="checkbox"/> Scott Cho (IBC Member) | <input type="checkbox"/> Alton Swennes (Animal Expert) |
| <input checked="" type="checkbox"/> Jeff Clifford (IBC Vice Chair) | <input checked="" type="checkbox"/> David Gillespie (IBC Member) | <input checked="" type="checkbox"/> David Thomas (IBC Member) |
| <input checked="" type="checkbox"/> Debbie Eckert (BSO) | <input type="checkbox"/> Talia Karasov (Plant Expert) | <input checked="" type="checkbox"/> Michael Voight (IBC Member) |
| <input checked="" type="checkbox"/> Chris Hunter (ABSO) | <input type="checkbox"/> John Kriesel (HGT Expert) | <input type="checkbox"/> Tom Wachter (IBC Member) |
| <input type="checkbox"/> Isaac Martineau (BS Specialist) | <input checked="" type="checkbox"/> Karla McHale (IBC Member) | <input checked="" type="checkbox"/> Zemin Zhou (IBC Member) |
| <input checked="" type="checkbox"/> Ricky Bell (IBC Member) | <input checked="" type="checkbox"/> Bart Mickelsen (IBC Member) | <input type="checkbox"/> Wendy Zhu (IBC Member) |
| <input checked="" type="checkbox"/> Neil Bowles (IBC Member) | <input checked="" type="checkbox"/> Kate Modzelewska (IBC Member) | |
| <input checked="" type="checkbox"/> Jessica Brown (IBC Member) | <input checked="" type="checkbox"/> Andy Phillips (IBC Member) | |
| <input type="checkbox"/> Allison Carey (IBC Member) | <input checked="" type="checkbox"/> Robert Sperling (IBC Member) | |

Quorum was present; 7 are required to conduct business.

Conflict of Interest Declaration

Ricky Bell for #19-25.02

Review of September 18, 2025 Minutes

Motion: **Approve**
Vote for Motion: 14 in favor of the motion
3 Abstain

Old Business

#79-25 Gianna Hammer. Antigen Presenting Cells and Inflammation.

PI has not responded to post-review memo. Reminder email sent 9/10/25.

#94-25 MarJanna (MJ) Dahl. Pathogenesis of neonatal chronic lung disease and its co-morbidities. Potential Coxiella Burnetti. BSL2/ABSL2. Renewal.

Pathogenesis of neonatal chronic lung disease and its co-morbidities

Outstanding issues to be resolved which were communicated to PI through post-review memo.

- **Biosafety Manual:**
 - On page 13, PI needs to remove the bullet points with [REDACTED] from the “N95 Fitting” section. Fit tests are now scheduled through RedMed, which they have already appropriately indicated.

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 10/01/25

#96-25 Colin Dale. Characterization of interactions between Sodalis praecaptivus and grain weevils. Sodalis praecaptivus, transgenic weevils. BSL1/ABSL1. Renewal.

Studying interactions between bacterial endosymbionts and their insect hosts - currently focusing on grain weevils of the genus Sitophilus.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

- **SciShield:**
 - In the Recombinant or Synthetic Nucleic Acid Molecules Survey:
 - Exempt Question #8: Update to 'Yes' and include reference to Appendix C-II, Use of E. coli K-12 host-vector systems.
- **Biosafety Manual:**
 - Throughout the manual, references to cleaning with 'Clorox followed by ethanol' are found. Update these descriptions throughout the manual to reference using a freshly prepared 1:10 dilution of bleach, followed by a water rinse. A final rinse with ethanol can be used if desired. This will prevent a potential hazardous mix of bleach and ethanol.
 - Provide SOPs for experimental procedures in Section D.3 (Experimental Standard Operating Procedures) or attach the SOP(s) as an appendix to the manual.
 - An SOP for the injection of bacteria into weevils and subsequent weevil processing was provided in BioRaft in 2017. If this reflects current work practice, insert into Section D.3. of the lab manual (Experimental Standard Operating Procedures) to facilitate this and future IBC reviews.
 - Delete Section I 'Experimental Procedures' as this section has been updated with the current revision and is now located in section D.3.
- **Documentation:**
 - Due to NIH regulations, the IBC is now required to publish minutes from convened meetings, which they provide on the IBC website <https://ibc.utah.edu/meeting-minutes.php> . PI needs to inform us if their IBC registration contains proprietary information that cannot be included in the minutes.
 - The biosafety manual requires annual review by PI and lab staff. The manual was last reviewed in early August 2024 and the annual review for 2025 is now due. PI and all staff should review and sign the biosafety manual attestation roster.

PI has not responded to post-review memo. Reminder email sent 10/9/25.

#97-25 Yang Liu. Cas12a2; Eliminate Selective Targets and DNA Damage Repair Response. Lentivirus, Retrovirus, Murine Leukemia Virus. BSL-2+. New Registration.

Their lab studies DNA damage, repair response, and CRISPR proteins.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

- **Biosafety Manual:**
 - On page 14, Appendices 9 and 10 are referenced, but there are no appendices 9 and 10. PI needs to remove this reference.

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 9/24/25.

#99-25 Sophie Caron. Biased Randomness. Transgenic drosophila BSL-1/ABSL-1. 5-year

Drosophila neuroscience.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

- **SciShield:**
 - The locations where research is conducted must be included with their registration. PI needs to send a list of Rooms and/or Spaces used along with a brief descriptor of how the space is used (i.e. lab, surgical, cell culture, etc.) to the Biosafety Office at biosafety@ehs.utah.edu
- **Documentation:**
 - Due to NIH regulations, the IBC is now required to publish minutes from convened meetings, which they provide on the IBC website <https://ibc.utah.edu/meeting-minutes.php> . PI needs to inform us if their IBC registration contains proprietary information that cannot be included in the minutes.

PI has not responded to post-review memo. BSS was able to add rooms to their profile, but they still need to edit the project form and certify.

#104-25 J. Singleton. A multicenter Phase 1 / 2 double-blind, randomized, sham-controlled dose escalation study to determine safety and tolerability of single dose intrathecal ST-503 gene therapy for refractory pain due to peripheral neuropathy (small fiber predominant, SFN)

Outstanding issues which were communicated to PI through post-review memo.

Agent Information:

- Update Q2b to remove 'Adenoviral vector' as this system does not include an adenoviral vector helper virus.
- Update Q6. Change containment to BSL1.

Agent Administration:

- Q5 indicates use of an 18G needle to withdraw 1ml of ST-503 DP. Q10 indicates the administration uses a 22G stainless-steel spinal needle. Describe the procedure for switching needles and appropriate disposal of sharps, indicating details for the safe handling of sharps.

Risk Assessment:

- Update Question 2 to yes to include risks to Caregivers resulting from potential viral shedding, as described elsewhere in this registration.

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 9/23/25.

Protocols for Review

#102-25 Gabrielle Kardon. Viral effects on muscle and muscle regeneration. Ross River Virus. BSL-2+/ABSL-2. Renewal.

The vertebrate musculoskeletal system is essential for structural support and locomotion. It is composed of muscle, which is surrounded by muscle connective tissue and attached via tendons to bone. The broad aim of their laboratory is to understand the molecular mechanisms and cellular interactions regulating musculoskeletal development, regeneration, homeostasis, disease, and evolution. Their research is centered on two components of the musculoskeletal system: muscle and muscle connective tissue (MCT). They focus on the muscle stem cells because they are required for generating muscle (which is post-mitotic) during development, growth, and regeneration. They focus on the MCT because not only is it critical for musculoskeletal form and function, but it provides the molecular and cellular niche within which muscle stem cells reside. The broad goal of their research is to elucidate the role of muscle stem cells, MCT fibroblasts, and muscle/connective tissue interactions during development of the limb and diaphragm, limb and diaphragm congenital defects, muscle regeneration and homeostasis, and musculoskeletal evolution.

All post-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-1, III-D-3, III-D-4, III-D-4-b, III-E-1

Agent: Ross River Virus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Transgenes and Sources: Cre Recombinase from human

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |

Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 Enhanced (BSL-2+) and Animal Biosafety Level 2 (ABSL-2)

Vote for Motion: 16 For Motion | 1 Abstain

#105-25 Sarah Franklin. Regulation of cardiac hypertrophy and failure by the histone methyltransferase Smyd1; Characterization of Smyd family members regulating cardiac physiology and pathology. AAV, Adenovirus. BSL-2/ABSL1. Renewal.

EPIGENETIC REGULATION OF GENE EXPRESSION

In the nucleus, DNA is wrapped around histone proteins (i.e. nucleosomes). This combination of DNA, histones and other proteins is referred to as chromatin. Both the DNA and proteins in this complex are susceptible to modifications which can alter the chromatin structure and consequently influence gene transcription. Changes in gene transcription can influence cell fate and physiology and have been shown to be altered in diseases such as heart failure. Because more people die from heart disease than any other pathology, the Franklin lab is interested in identifying the epigenetic factors that regulate gene transcription in the heart during disease progression. To do this, the lab uses a combination of proteomics, mass spectrometry, biochemistry and molecular biology to elucidate the role of histone isoforms, post-translational modifications and other chromatin binding proteins on chromatin structure and gene accessibility. Additionally, the Franklin lab also determines how these factors contribute to the regulation of heart morphology and physiolog

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-1, III-D-4, III-D-4-a, III-E-3

Agent: AAV

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Transgenes and Sources: Smyd1a from Mouse source

Agent: Adenovirus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Transgenes and Sources: Smyd1a, Smyd1a-N101S, Smyd1b, Smyd5, PRDM116 from mouse sources

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |

Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 1 (ABSL-1)

Vote for Motion: 16 For Motion | 1 Abstain

#106-25 Jesse Rowley. Platelet Responses in Thromboinflammation; Megakaryocyte Involvement in Thromboinflammation; Leukocytes in Thromboinflammation. Multiple agents. BSL-2+/ABSL-2. Renewal.

Their research group studies fundamental mechanisms of infectious, inflammatory and thrombotic diseases. These include syndromes of impaired host defense, such as the leukocyte adhesion deficiencies, and conditions in which unregulated inflammatory or thrombotic responses contribute to pathogenesis and key complications. Some of the latter disorders include acute respiratory distress syndrome, asthma and other inflammatory airway diseases, and

atherosclerosis and its inflammatory and thrombotic complications. Their work is also relevant to other human diseases including cancer. Their approach is to identify and characterize key molecular events using cell biology strategies, in vitro models, and in vitro and in vivo genetic approaches that include knockout mice. Signaling events in vascular and inflammatory cells that become dysregulated in disease is an ongoing focus in their group, and gene regulation is an area of current emphasis. Their studies include mechanisms of signaling to transcriptional events and utilize microarray analysis and other state-of-the-art approaches. They are also investigating signaling to post-transcriptional checkpoints particularly, translational control mechanisms - that regulate the flow of genetic information in inflammatory and thrombotic cells.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-1, III-D-3, III-D-4, III-D-4-a, III-D-4-b, III-D-4-c-(2), III-E, III-E-1, III-E-3

Agent: Dengue Virus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Plasmodium falciparum

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Influenza A, B, and C

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: E. coli

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Staphylococcus aureus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Salmonella enterica

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Pseudomonas aeruginosa

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Streptococcus pneumoniae

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: COVID-19 infected samples

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: CMV

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: Lentivirus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Transgenes and Sources: IFITM3, DRP1, MFN2, FIS1, RASGRP2, U6-sgrna, Cys-sgrna, EF1 Alpha, GFP from human and Cas9 from bacteria

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |
Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 Enhanced (BSL-2+) and Animal Biosafety Level 2 (ABSL-2)

Vote for Motion: 16 For Motion | 1 Abstain

#107-25 Joseph Rower. Valganciclovir for CMV ; ETSP Bioanalysis; Personalized Tacrolimus; Quantification of Drugs of Abuse; Service Recharge Center; Cannabis in PrEP; Buprenorphine for Opioid Use Disorder; Cannabis in Mice. Hepatitis C, Cytomegalovirus, HIV. BSL-2/ABSL-1. Renewal.

They are interested in the clinical pharmacology of a number of drugs, especially in children. This includes quantifying drug concentrations in clinically derived samples (blood, tissue, etc)

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

Agent: Hepatitis C

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: CMV

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Agent: HIV-1

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve at Biosafety Level 2 Enhanced (BSL-2+) and Animal Biosafety Level 1 (ABSL-1)
Vote for Motion: 17 For Motion

#109-25 Heejin Yoo. Elucidate the role of salicylic acids for plant immunity; Role of amino acids for plant immunity; Role of volatiles as immune signal in plant in response to bacterial infection. Pseudomonas maculicola. BSL-2/BSL-2P. Renewal.

Their lab research is focused on understanding how plants coordinate metabolic pathways and defense mechanisms to optimize plant growth and defense. Since plants do not have specialized immune cells, plants need to allocate their energy and resource properly to either growth or defense depending on environmental conditions. Their aim is to understand the underlying mechanisms through transcriptional and translational regulation, and metabolic dynamics during plant innate immunity. This research will ultimately enhance their knowledge of molecular mechanisms and interactions between defense signaling and metabolic regulation to optimize or maximize crop yield and disease resistance.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-8
Agent: Pseudomonas maculicola
Tissue Culture Animal Work
Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent | Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism | Antibiotic Resistance
Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene
Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve at Biosafety Level 2 (BSL-2) and Plant Biosafety Level 2 (BSL2-P)
Vote for Motion: 17 For Motion

#110-25 Peter Shen. Characterization of the p97 AAA ATPase; Structural studies of ribosome customization by viral kinases. Vaccinia virus (vaccine strain). BSL-2. Renewal.

They are a basic research lab that characterizes endogenous protein complexes for biochemical studies. Their focus is on eukaryotic proteins, including those derived from budding yeast and human cell lines. They also do work with recombinant expression of proteins in common bacteria lab strains. Their expertise is in structural biology, primarily with the use of electron microscopes to visualize the samples they isolate.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

Biosafety Manual:

- In the Decontamination and Waste Disposal section of the Working with Vaccinia Virus SOP: In the statement '*All reusable equipment (centrifuge rotors, racks, forceps) must be disinfected with Cavicide or 10% bleach and rinsed with 70% ethanol after contact time.*' add a water rinse step in between the bleach and ethanol steps to avoid chemical incompatibility. (pg12)

- Do you use any human cells outside of the biosafety cabinet for microscopy, vitrification, etc.? If so, you must adopt the attached SOP for use of human cells outside of a BSC. The key is pathogen testing to decrease risk of exposure to human pathogens. Please insert this SOP into your biosafety manual.

PI Cites NIH Guidelines: III-E

Agent: Vaccinia

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism

Antibiotic Resistance

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |

Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve with contingencies at Biosafety Level 2 (BSL-2)

Vote for Motion: 17 For Motion

#111-25 Eric Schmidt. Biosynthesis Project; Microbial Ecology-Guided Discovery of Antibacterial Drugs. Acinetobacter baumannii. BSL-2. Renewal.

Their lab focuses on the biosynthesis of natural products in marine animals.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-6, III-E

Agent: Acinetobacter baumannii

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism

Antibiotic Resistance

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |

Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 (BSL-2)

Vote for Motion: 16 For Motion | 1 Abstain

#112-25 Joseph Palatinus. Targeting Protein Trafficking in Arrhythmogenic cardiomyopathy; Mechanisms of inflammation in arrhythmogenic cardiomyopathy. AAV, Coxsackie Virus. BSL-2/ABSL-2. Renewal.

The Palatinus Lab is focused on Noncanonical roles of the C-terminus of Connexin 43 and the alternatively translated products of this protein and specifically their role in trafficking. Additional focus has been on rescuing arrhythmogenic phenotypes by targeting protein trafficking. They utilize state-of-the art molecular biology techniques to address these questions.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

SciShield:

- In the Viral Vector Registration Form-AAV9-pCMV spike, Step 5 Safety:
 - Remove 'vinyl gloves' from the registration
 - Update PPE to include Nitrile Gloves, Eye Protection and Laboratory Coat.

Biosafety Manual:

- Appendix 2: Coxsackie Virus B3 Post-exposure Standard Operating Procedure:
 - Update the question Is this agent replication-defective? To be 'no' as this virus is replication competent.
- Appendix 5: Coxsackie B3 Protocol:
 - Provide details describing how the work is conducted safety with sharps to avoid a percutaneous injury or exposure to personnel.
 - Indicate the precautions taken during IP injection with the insulin needles and during the use of sharps in the dissection of viral infected heart tissue.
 - Indicate the disinfection procedures for the use of non-disposable sharps in this protocol.

Documentation:

- Due to work with viral vectors, provide documentation that personnel have completed the Viral Vector Training within the 3 years, as determined by their job duties.
 - <https://learninghub.utah.edu/#/online-courses/2038d73c-4bd0-4d4d-8a42-5afb8d3b14d5>

PI Cites NIH Guidelines: III-D-4-a, III-D-4-b, III-E

Agent: AAV

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
 Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
 Antibiotic Resistance

Transgenes and Sources: GJA1-20k from mouse and GFP from jellyfish

Agent: Coxsackie Virus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
 Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
 Antibiotic Resistance

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |
 Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve with contingencies at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 2 (ABSL-2)

Vote for Motion: 17 For Motion

#114-25 Natalia Pavlova. Role of the polyglutamine tract in RUNX2 as a sensor of glutamine availability; Glucocorticoids enable metabolic cooperation between cancer-associated fibroblasts and cancer cells. Retrovirus, Lentivirus. BSL-2+/ABSL-1. Renewal.

The research focus of the Pavlova lab is amino acid metabolism in cancer. Solid tumors are typically nutrient depleted as a result of the uncontrolled growth of the cancer cells combined with the insufficient vascularization of tumors. An amino acid glutamine is often found to be particularly profoundly depleted as a result of its role as a building block of not only proteins but also nucleic acids and other cellular macromolecules. They are interested in understanding how various cell types determine the glutamine content of their environment, what adaptations they rely upon to maintain growth even when glutamine supply is low, and how glutamine depletion may broadly influence tumorigenesis-related

phenotypes. They are also working on developing and implementing novel high-resolution approaches to surveil glutamine and other amino acid availability in tumors and other contexts.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-1, III-D-2, III-D-4-a, III-E, III-E-1

Agent: Lentivirus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Transgenes and Sources: RUNX2, PolyQ-1-mGreenLantern, sgRNA Runx2, sgRNA GIs, sgRNA Glul, sgRNA Nr3c1 from mouse

Agent: Retrovirus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Deletions: N-terminal deletion GLUL

Transgenes and Sources: GLUL from mouse; GFP from jellyfish

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |
Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 Enhanced (BSL-2+) and Animal Biosafety Level 1 (ABSL-1)

Vote for Motion: 17 For Motion

#33-23.03 Nels Elde. Amendment to add VSV.

They study the consequences of pathogen-driven evolution on cells and host immunity factors. Protein surfaces at these interfaces often evolve in a manner resembling molecular arms races. They are also interested in cases where pathogens use molecular mimicry to gain advantages against hosts. In addition, they use experimental evolution to determine the evolutionary potential of viruses and understand the rules by which they adapt.

While experiments based on phylogenetic reconstructions, provide a powerful means of retrospectively studying host-pathogen interactions, experimental evolution offers a prospective view of virus evolution where potential adaptations can be monitored in real-time. Recent advances in deep sequencing coupled with recombinant tools make it possible to quickly determine the genetic basis of a variety of adaptations. They are using experimental evolution to address open questions related to virus evolution, such as mechanisms of rapid evolution and the trade-offs between host range and virulence.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-1, III-D-2, III-D-3, III-D-4-a, III-D-4-b, III-D-4, III-E, III-E-1

Agent: VSV

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |
Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |
Antibiotic Resistance

Transgenes and Sources: luciferase from jellyfish

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve at Biosafety Level 2 (BSL-2)
Vote for Motion: 17 For Motion

#43-23.02 Josh Steffen (SRI Labs). Amendment to add project: Defining Molecular Determinants of Survival and Persistence in Clinical Isolates of Gram-Negative Pathogens. BSL2.

The Science Research Initiative (SRI) program offers College of Science students the opportunity to participate in discovery-based scientific research starting their first day on campus, with no prior research experience required. They will gain research skills that will help them in science classes, learn with College of Science peers, and connect with faculty across the University. The SRI will jumpstart their path of academic success, and give them needed skills to prepare for an internship or a career - whether that's in a research lab, an office, or one of the many other opportunities open to their graduates.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

SciShield:

- Recombinant or Synthetic Nucleic Acid Molecules Survey:
 - Because you are introducing recombinant DNA from risk group 2 organisms (ExPEC) into a nonpathogenic prokaryote (K12 E. coli), you must answer Question 5 as 'yes.'
- Pathogen Registration Form (Bacteria – Extraintestinal Pathogenic Escherichia coli (ExPEC)):
 - Step III: Safety. The form indicates 'yes' for use of a Class II Biological Safety Cabinet. If you are conducting any work with these pathogens outside of a BSC, you must answer 'no' to this question and then specify what work is done in the cabinet and what work is done outside of the cabinet.

Documentation:

- Enrollment in the Occupational Medicine Immunocompetence Program is being extended to the undergraduate students participating in the 'Defining Molecular Determinants of Survival and Persistence in Clinical Isolates of Gram-Negative Pathogens' project. Contact Dr. Andy Phillips [REDACTED] at Occupational Medicine for student enrollment in the Immunocompetence Program. In the email, provide the lab name and all student uNIDs to Dr. Phillips.

Laboratory and Training:

- Members of the IBC will request a meeting with the SRI team to review the laboratory facilities and training provided to the students to confirm safe work with the bacterial pathogens.

PI Cites NIH Guidelines: III-D-1

Agent: E. coli (ExPEC)

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Agent: Klebsiella pneumoniae

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |
Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve with contingencies at Biosafety Level 2 (BSL-2)
Vote for Motion: 15 For Motion | 2 Abstain

#45-24.01 Koushik Roy. Amendment to add LCMV.

The success of vaccines hinges on generating pathogen-specific antibody and memory B-cells (MBCs). Antibodies are produced by plasma cells (PCs), and the presence of MBCs speeds up the response to pathogen invasion. Both PCs and MBCs are generated from activated B-cells (ABCs).

The NFkB transcription factor is essential for humoral immunity, and NFkB family members (cRel and RelA) are important in B-cells Biology is well established. cRel is required for B-cells proliferation, RelA is required for PCs, and both are required for MBCs generation. However, how the proportion of ABCs, PCs, and MBCs are regulated remains unknown.

The overarching hypothesis of this project is that the distinct dynamic control of NFkB family members generates distinct temporal phases that phase B-cell fate decisions and thus B-cell population dynamics. NFkB has been shown to exhibit distinct, stimulus-specific dynamic control that regulates a distinct gene expression program. Mis-regulation of NFkB dynamics leads to B-cell mediated diseases such as B cell lymphoma. However, it is not known how each phase of NFkB dynamics may be directing the generation of PCs and MBCs.

PI requested a later review date. Has been moved to November agenda.

#19-25.02 JB Lubin. Amendment to add bacterial sepsis agents.

Their lab is dedicated to understanding of how the intersection of diet and microbial metabolism in the infant microbiome impacts neonatal infection and immunity. Their research is focus on mouse models of infant microbial communities and incorporates microbiology, genetics, biochemistry, bioinformatics and immunology.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-D-4-a, III-D-4-b, III-D-4-c-(2)

Agent: Streptococcus agalactiae

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Agent: Staphylococcus epidermidis

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Agent: Listeria Monocytogenes

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance

Agent: Klebsiella pneumoniae

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism | Antibiotic Resistance
Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene
Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 2 (ABSL-2)
Vote for Motion: 16 For Motion | 1 Abstain

#47-25.02 Jason Shepherd. Amendment to add lentivirus.

Brains have an amazing ability to learn and store information for long periods - in some cases, a lifetime. A major challenge in neuroscience is to understand how neuronal networks are sculpted by experience and how proteins/genes contribute to circuit modification. The goal of their research is to understand information storage, from the molecular level and gene program, through in vivo neuronal networks, and how these processes go awry in neurological disorders. Their lab utilizes coordinated biochemical, cell biological, electrophysiological and imaging studies both in vitro and in vivo.

Outstanding issues to be addressed which were communicated to PI through post-review memo.

SciShield

- In the Viral Vector Registration Form-Cas13-sgRNA Lenti
 - Step 5 Safety: Remove the sentence 'Insertional mutagenesis is of low risk.'

Biosafety Manual:

- In the Lentivirus injection into animal model protocol:
 - To reduce exposure to infectious sharps, revise the statement 'Each glass needle is disposable and will be bleached in 1:10 dilution of fresh bleach before being placed into the sharp disposal biohazardous waste' to indicate direct disposal of the sharp into biohazardous waste (i.e. sharps container) directly, without disinfection in bleach solution. (pg 74).

PI Cites NIH Guidelines: III-D-1, III-D-3, III-D-4-a, III-D-4-c-(2), III-E, III-E-1, III-E-3.

Agent: Lentivirus

Tissue Culture Animal Work

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent | Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism | Antibiotic Resistance

Transgenes and Sources: Cas 13-2A-mCherry, Cas13d: pSLQ5428_pHR_EF1a-mCherry-P2A-Rfx_Cas13d-2xNLS-3xFLAG, scramble gRNA: gScramble_triple3_X2KS55, SUV39H1 gRNA: gSUV39H1_triple3_J78944 from mouse

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene
Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve with contingencies at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 2 (ABSL-2)

Vote for Motion: 16 For Motion | 1 Abstain

Protocols for Review, Requiring IBC Notice Simultaneous with Initiation

#108-25 Julie Hollien. Cell mechanisms for responding to stress; Characterization of Mammalian Endosomal Microautophagy. BSL-2. Renewal.

They study how cells respond to stress affecting the protein secretory pathway, particularly how cells regulate mRNA stability and gene expression in response to stress and how this affects the cell's ability to survive.

All pre-screen comments were resolved and no additional concerns were raised during the meeting.

PI Cites NIH Guidelines: III-E

Agent: Human Cell Lines and Tissues

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization | Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve at Biosafety Level 2 (BSL-2)

Vote for Motion: 15 For Motion | 2 Abstain

Protocols for Review, Requiring IBC Approval Before Initiation, Transfer of rsNA into Humans

#115-25 Russell Butterfield. A Phase 1/2, Open-label, Dose-escalation Study to Evaluate the Safety, Tolerability, and Biological Activity of EPI-321, an AAVrh74-delivered Epigenetic Editing Therapy in Adult FSHD Patients. BSL-1.

Outstanding issues which were communicated through a post-review memo to PI.

Risk Assessment:

- Change the answer to Question 1 to “While there are no known diseases associated with AAV, insertional mutagenesis is a theoretical possibility due to the ability of AAV to integrate into the host cell genome.”

PI Cites NIH Guidelines: III-C

Agent: EPI-321

Tissue Culture Animal Work Human Gene Transfer

Agent Characteristics: Attenuated/Vaccine Strain | Replication Incompetent | Replication Competent |

Second Generation | Third Generation | Expanded Tropism | Narrowed Tropism | Wild Type Tropism |

Antibiotic Resistance | AAV Based | Adenovirus Based | Lentivirus Based

Risk Assessment: Sharps | Vortexing | Sonicating | Cell Sorting | Centrifuging | Oncogene

Risk Mitigation: Biosafety Cabinet | Fume Hood | Sealed Rotor or Safety Buckets | Anaesthetization |

Restraints | Safer Sharps | Enhanced PPE | Treatment Available | Vaccine Available

Disinfectant: Freshly Prepared 1:10 Dilution of Bleach

PPE: Laboratory Coat, Gloves, Safety Glasses

Motion: Approve with contingencies at Biosafety Level 1 (BSL-1)

Vote for Motion: 10 For Motion | 12 Abstain

Pending Protocols

#98-25 Xinbo Yang. Electronics Scrap Recycling Advancement Prize (E-SCRAP). Cellulosimicrobium funkei. BSL-2. New Registration.

The lab investigates bioleaching processes, focusing on the use of microorganisms to extract and recover metals from ores, mine waste, and other secondary resources.

Outstanding issues to be resolved which were communicated to PI through post-review memo.

- **SciShield:**
 - In the table of Bacteria Used in Lab: Add *Cellulosimicrobium funkei*
 - In the Project Form, Electronics Scrap Recycling Advancement Prize (E-SCRAP):
 - Verify the list of personnel is accurate and includes all personnel working with this project.
 - Include, in the checkboxes, the laboratory space WBB 322.
 - If additional rooms/spaces are required, contact the Biosafety Office for assistance.
 - Add a Pathogen Registration Form for *Cellulosimicrobium funkei*.
- **Biosafety Manual:**
 - In Section E.
 - Include the use of secondary containment while shaking the culture to prevent a spill should a vessel be damaged during shaking, as well as to mitigate aerosol generation.
 - Steps 3 and 5:
 - Due to increased toxicity in the presence of arsenic, neither ethanol or bleach are recommended as a disinfectant when gallium arsenic is present in the sample. PI needs to choose a liquid quaternary ammonium (QUAT) without alcohol as the primary disinfectant. An example, available from Fisher Scientific, is SaniZide Germicidal Solution.
 - Clarify if needles (or other sharps) are used in the procedure. If so, complete the template Annual Review of Safe Sharps as an appendix in the biosafety manual.
 - Step 6: Clarify if all shaking/incubation steps are conducted in a fume hood.
- **Documentation:**
 - Due to NIH regulations, the IBC is now required to publish minutes from convened meetings, which they provide on the IBC website <https://ibc.utah.edu/meeting-minutes.php>. PI needs to inform us if their IBC registration contains proprietary information that cannot be included in the minutes.
 - One requirement\ of a BSL2 containment laboratory is the availability of an eye wash station located within the laboratory space. Provide a statement that an OSHA compliant eye wash station is available in the laboratory.
 - Contact Dr. Andy Phillips [REDACTED] at Occupational Medicine for enrollment in immunocompetence. Provide him with the lab name and all lab personnel uNIDs.

PI has not responded to post-review memo. Reminder email sent 10/9/25.

Lab/Protocol Closures

None

Spills and Incidents

None

Other Business

Update on NIH Initiative to Modernize Biosafety Oversight

Meeting concluded at 12:17 PM

Next IBC meeting will be held on November 20, 2025