THE UNIVERSITY OF UTAH

**INSTITUTIONAL BIOSAFETY COMMITTEE**
**MEETING MINUTES**

September 17, 2026
Meeting was convened at 11:00 AM
Hybrid Meeting

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

**Invited Guests:**

- [redacted] Lena Ho Laboratory

Quorum was present; 7 are required to conduct business.

**Conflict of Interest Declaration**

Ricky for protocol #73-26.

**Review of August 20, 2026 Minutes**

Motion: **Approve**
Vote for Motion: 15 in favor of the motion
6 Abstain

**Old Business**

**#127-22.03 Yue Lu. A digital microfluidic approach to rapidly determine the sterility of biopharmaceutic delivery vesicles; digital microfluidic methods to monitor the human gut microbiota. Amendment to add new projects with many bacterial agents. BSL-2.**

The Digital Pharmaceutics Laboratory aims to develop and apply state-of-the-art technologies to understand disease pathologies and treatment response as well as develop treatment strategies for cancer, infectious disease, and beyond.

PI responded to post-review memo. Approval is pending training verification. Reminder email sent 7/30/26.

**#29-24.10 Allison Carey. Amendment to add Mycobacterium tuberculosis and Mycobacterium bovis.**

Their lab is focused on the genetics and genomics of pathogenic mycobacteria, including the global health pathogen Mycobacterium tuberculosis and a group of environmental mycobacteria called 'non-tuberculous mycobacteria' (NTM). They seek to understand how bacterial genetic diversity impacts clinically relevant phenotypes including antibiotic resistance, pathogenesis, and vaccine escape. They use advanced bacterial genetic tools including transposon mutagenesis and barcoding combined with in vitro models as well as mouse and cell culture models of infection to address these questions.
Specific comments in the lab-specific BSL-3 manual have been provided. Establishment of BSL-3/ABSL-3 Facility Governance policy is still underway. The protocol is approved on the contingencies that: 1) comments are addressed in

the lab-specific BSL-3 manual to the satisfaction of the BSL-3 Operations Team, 2) BSL-3/ABSL-3 Facility governance is finalized and approved by the VPR, 3) the facility is commissioned and operational.

**#48-26 Nitin Phadnis. Molecular basis of speciation in Drosophila; Molecular basis of segregation in Drosophila.**

Understanding the genetic and molecular basis of speciation in Drosophila.
PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 8/25/26.

**#52-26 Nels Elde. Evolutionary potential of a model poxvirus; Investigating horizontal gene transfer in coronaviruses; Defining the antiviral effector repertoire of divergent species; Co-evolution of Guanylate Cyclase C and uroguanylin in mammals; Infection Biology in Zebrafish.**

They study the consequences of pathogen-driven evolution on cells and host immunity factors. 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.

PI has responded to post-review memo. Waiting on PI training before granting approval. Email reminder 9-25-26

**#59-26 Robert Bowles. Engineering Adipose Derived Stem Cells for IVD Tissue Engineering; CRISPR Epigenome Editing for Regulation of Pain Due to Degenerative Intervertebral Discs; Determing the Influence of Specific Gene Defects on the Development of Superficial Fibrosing Disorders; CRISPR Rekgulation of a Novel Gene ZNF865 to Modulate Cellular Activity and Senescence.**

They are investigating tissue engineering and gene therapy methods for treatment of back pain and intervertebral disc degeneration. Specifically they are using CRISPR techniques to look into how they can reprogram cells within and surrounding the intervertebral disc to either modulate inflammation, improve tissue production, or decrease neuronal sensitization as methods to prevent disc degeneration and decrease back pain. Additionally, they are heavily investigating the novel gene, ZNF865, and its potential use in a range of degenerative conditions.

Outstanding corrections to be made, which were communicated to PI through post-review memo.
**SciShield:**

- In the Project Form *'CRISPR Epigenome Editing for Regulation of Pain Due to Degenerative Intervertebral Discs'*
    - The IBC has adjusted the containment of this project from ABSL2+ to ABSL1+ to align with the ABSL2 stepdown procedure indicated in the biosafety manual.
    - ABSL1+ containment is defined as ABSL-2 containment which is reduced to ABSL-1 containment at 72 hours following the final viral vector injection to the animal model.
    - This change has been made in SciShield by the Biosafety Office.
    - Certify SciShield to capture the containment change as well as changes applied during pre-screen response.

**Documentation:**

- The individuals listed below are listed as active personnel on the Project Form(s) in SciShield. All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table. Complete the applicable training modules:
- Only personnel listed in the table and who have completed all required training requirements will be approved for work under this registration.
- To update active personnel, PI needs to log in to SciShield and revise the personnel listed on the Project Form(s).
- Information on training can be found at: https://ibc.utah.edu/training.php

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 9/11/26.

**#60-26 Keren Hilgendorf. Ciliary Signaling in Preadipocytes; Identification of Signal Transduction Pathways Regulating the Breast Cancer Microenvironment in the Context of Obesity.**

Their lab explores how physiological signals regulate stem cell differentiation. One major focus of the lab is to study the molecular mechanisms regulating adipogenesis. To do this, they use a combination of animal models and cell culture

techniques. They are particularly interested in understanding how the primary cilium, an antenna-like signaling organelle, senses and organizes signal transduction pathways to regulate stem cell fate.

Outstanding issues to be resolved which were communicated to PI through email.

**SciShield:**

- Provide the current IACUC protocol number for project titled *Identification of signal transduction pathways regulating the breast cancer micoenvironment in the context of obesity*, 20-10009 is still listed as the IACUC number. Update this information to the current IACUC number.
- In the Viral Vector Registration Form for Lentivirus:
    - Step 5 Safety: *Provide details for their method of disinfection…* Update references to 'hood' to be 'biosafety cabinet' or 'BSC' to avoid inadvertent use of a chemical fume hood.
        - Currently, it is stated that all lentiviral work will be conducted in designated 'hood'
- In the Viral Vector Registration Form for Retrovirus:
    - Step 5 Safety: *Provide details for their method of disinfection…* Update references to 'hood' to be 'biosafety cabinet' or 'BSC' to avoid inadvertent use of a chemical fume hood.
        - Currently, it is stated that all retroviral work will be conducted in designated 'hood'

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 8/20/26.

**#62-26 Charlie Murtaugh. Regulation of pancreas development and tumorigenesis.**

They are studying pancreatic developmental and disease biology, using a combination of in vivo mouse models and in vitro culture of primary cells and cell lines.

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

- **SciShield:**
    - In the *'Recombinant or Synthetic Nucleic Acid Molecules Survey'*, the table associated with question 7-D-i indicates the use of 'Transgenic Arthropods'.
        - If this is done in error, PI needs to update the table.
        - If transgenic arthropods are intended to be included with this registration, contact the biosafety office for next steps.
    - In the Project From *'Regulation of pancreas development and tumorigenesis'*
        - Verify the provided IACUC number 2042 listed is current.
- **Biosafety Manual:**
    - Section B Background. Step 3:
        - Incorporate the following information for retrovirus and lentivirus post-exposure prophylaxis:
            - Visit the Occupational Medicine Clinic. Post-exposure prophylaxis (PEP) should be administered as soon as possible, within 72 hours following any exposure to prevent integration. The following post-exposure prophylaxis regimens are available:
                - Preferred single-tablet regimen:
                    - Bictegravir (50 mg)/tenofovir alafenamide (25 mg)/emtricitabine (200 mg) (Brand name: Biktarvy) once daily
                - Preferred multi-tablet regimen:
                    - Dolutegravir (Brand name: Tivicay) 50 mg taken once a day for 7 days
                    - Tenofovir disoproxil fumarate/emtricitabine (Brand name: Truvada) 300 mg taken once a day for 7 days
    - Section B.2 Administrative Procedures: Hepatitis B vaccination records are maintained in digital format by the Occupational Medicine Team. Delete the paragraph beginning *'However, if an employee chooses to decline vaccination, the employee must sign a declination form.'*
    - Section B.3. Training:
        - Remove 'Initial EHS Animal Biosafety Level 2 Training: repeated every 3 years' as ABSL-2 containment is not included with this registration.
        - Include "Initial Viral Vector Training: Repeated every 3 years"
    - Remove Appendix 4. Hepatitis B Vaccination Attestation forms are digitally managed by the Occupational Medicine Program.
    - Important note -- The IBC has concerns about reliance on UV disinfection in the biosafety cabinet. Per university policy, the use of UV lights inside a biosafety cabinet is okay to have, but it shall not be

depended on to disinfect the hood nor left running for longer than 30 minutes. A chemical disinfectant must be used for disinfection, such as bleach.

- **Documentation:**
  - To comply with NIH regulations, the IBC is 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 needs to verify laboratory signage (BSL2/ABSL2 Warning sign) is up to date. Updated signage can be requested on SAM https://sam.ehs.utah.edu/ehsa/
  - Due to the risks associated with the agents used in their laboratory, enrollment in the Occupational Medicine Hepatitis B program and the Immunocompetence program is required, regardless of vaccination status.
    - Contact Dr. Andy Phillips (XXX@XXX.edu) with Occupational Medicine for access to the health screening questionnaire in Open Range.
    - In the email, provide the lab name and all lab personnel [redacted] to Dr. Phillips.
    - Once contact with Dr. Phillips has been obtained this item is considered complete by the IBC.
  - All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.
    - Personnel who are no longer participating in the project must be removed from the registration in SciShield.
    - To update active personnel, PI needs to log in to SciShield and revise the personnel listed on the Project Form(s).

Information on training can be found at: https://ibc.utah.edu/training.php

PI responded to post-review memo 9/14/26. Corrections subject to verification by Biosafety Office.

**#65-26 Brenda Bass. Elucidating Roles and Mechanisms of Double Stranded RNA Mediated Pathways.**

The Bass lab studies double-stranded RNA (dsRNA) and dsRNA binding proteins. Projects involve in vitro studies to understand the catalytic strategies of dsRNA binding proteins and the specific interactions they make with dsRNA. In vivo studies typically are performed in C. elegans.
Outstanding issues to be resolved which were communicated to PI through email.

- All personnel listed on this registration, **including the Principal Investigator**, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.
  - Personnel who are no longer participating in the project must be removed from the registration in SciShield.
  - To update active personnel, PI needs to log in to SciShield and revise the personnel listed on the Project Form(s).
  - Information on training can be found at: https://ibc.utah.edu/training.php

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 9/11/26.

**#128-25.02 Randy Peterson. Amendment to add conotoxin work.**

The Peterson lab is using the tools of chemical biology to investigate complex in vivo phenomena. By conducting high-throughput screens with intact, living zebrafish, small molecules can be discovered that alter virtually any biological process. The lab is applying this approach in three areas: 1) developmental biology, including cardiovascular development and germ cell development; 2) disease physiology, including heart failure, anemia, and neurodegenerative diseases; and 3) animal behaviors. In each of these areas, the novel small molecules discovered are providing new biological insights and/or novel therapeutic opportunities.

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

- **Biosafety Manual:**

- Section I, in the procedures cleaning up conotoxin, include the use of 1% Contrex EZ solution or 6% concentration of sodium hypochlorite (undiluted bleach normally comes in a 5% or 6% sodium hypochlorite concentration).
- Section I, provide details about where the ZebraBox is located in relation to the fume hood and how to transport the well plate to the reader. Focus on details such using a plastic film or sticker to cover and seal the top of the plate, reducing the risk for spills should the plate be dropped.
- Include details for a spill outside of containment or within the ZebraBox.

PI responded to post-review memo. Responses were evaluated by BSO and ABSO. Approval granted 9/3/26.

**Protocols for Review With 3 Year Approval**

**#72-26 Xiaoyang Zhang. Gene regulation in lung cancer.**

They are interested in studying gene regulation in lung squamous cell carcinoma and esophageal squamous cell carcinoma with the ultimate goal of identifying novel targets for those cancer types.

Outstanding issues which were communicated to PI through email.

- All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.
  - https://ibc.utah.edu/training.php

PI Cites NIH Guidelines: III-D-1, III-D-3, III-E-1
Agent: Lentiviral vector
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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: KLF5, MYC, TP63, SOX2, sgRNA from human source

Risk Assessment: Sharps☐ | Vortexing ☒ | Sonicating☐ | Cell Sorting☐ | Centrifuging☒ | Oncogene ☒
Risk Mitigation: Biosafety Cabinet☒ | Fume Hood☒ | Sealed Rotor or Safety Buckets☒ | Anesthetization☐ | Restraints ☐ | Safer Sharps☐ | Enhanced PPE ☒ | Treatment Available ☒ | Vaccine Available ☐
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Solid front rear closing gown, Double Gloves, Safety Glasses
Motion: Approve with contingencies at Biosafety Level 2 Enhanced (BSL-2+)
Vote for Motion: 20 For Motion | 1 Abstain

**#73-26 June Round. Commensal bacterial modulation of host immune responses and intestinal disease.**

The mammalian intestine is home to a variety of bacterial, fungal, and viral organisms. While the mammalian immune system has evolved to recognize and eliminate micro-organisms, these commensal organisms are allowed to remain. It has become increasingly clear that these commensals are not just passive bystanders in host immunity but rather play an active role in shaping host responses. The goal of this project is to utilize the commensal micro-organisms as model symbiotic organisms to understand how bacteria can shape host health. I hypothesize that these organisms harbor molecules that will influence healthy immune responses to protect from intestinal and systemic disease. Additionally, they are interested in how the host actively shapes and tolerates these communities. They have therefore focused on a few key immune pathways and have genetically manipulated these pathways in mice so that they can analyze the microbial communities within these animals. They also study how these microbial communities influence other intestinal diseases such as colorectal and pancreatic cancer and how intestinal disease influences other systemic sites such as the brain. Their goal is to identify protective bacterial organisms that could potentially be used as therapeutics in the future.

Outstanding issues which were communicated to PI through email.

- All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.

PI Cites NIH Guidelines: III-D-4, III-D-4-a, III-D-4-b, III-D-4-c-(2), III-E-3
Agent: Candida albicans
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Actinomyces bowdenii
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Bacteriodes fragilis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Citobacter rodentium
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Fuscbacterium nucleatum
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Klebsielle pneumoniae
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Poryphyromonas gingivalis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Parabacteriodes distasonis

Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Akkemansia muciniphila
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Aldercreutzia muris
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Microbial Vesicles
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Cholera Toxin
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☐ |
Restraints ☒ | Safer Sharps☒ | Enhanced PPE ☒ | Treatment Available ☒ | Vaccine Available ☐
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Double Gloves, Safety Glasses
Motion: Approve with contingencies at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 2 (ABSL-2)
Vote for Motion: 20 For Motion | 1 Abstain
Treatment options for commensal bacteria are available but not recommended because they typically clear up on their own and these bacteria typically only cause issues in immunocompromised and pregnant people.

**#74-26 Denise Dearing. Mammalian genomics and microbiomes.**

Their research focuses on understanding how animals deal with natural toxins present in their diets. They study both the role of the liver in metabolizing dietary toxins in addition to the role of gut microbes.

Outstanding issues to be addressed which were communicated to the PI through a post-review memo.
**Biosafety Manual:**

In Section D.3.a Collection of Biological Materials: Standard Operating Procedures (BSL-2)
o In the subsections: “For feces:” “For ear tissue:” Add the additional PPE listed in Field Safety Plan (leather gloves, N95 mask)

PI Cites NIH Guidelines: N/A
Agent: Potential for hantavirus and woodrat commensal bacteria
Tissue Culture ☐ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☒ | Restraints ☒ | Safer Sharps☐ | Enhanced PPE ☒ | Treatment Available ☐ | Vaccine Available ☐
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Leather Gloves, Safety Glasses, N95 mask
Motion: Approve with contingencies at Biosafety Level 2 (BSL-2) and Animal Biosafety Level 1 (ABSL-1)
Vote for Motion: 20 For Motion | 1 Abstain

**#75-26 Elisa Margolis. Colonization of Vancomycin-resistant Enterococci and Extended Spectrum Beta-lactamase Klebsiella sp.**
They investigate how multi-drug resistant organisms, such as Vancomycin Resistant Enterococcus (VRE), persist. They study how antibiotic and other clinical treatments alter multi-drug resistant organism colonization in order to prevent colonization and improve infection prevention strategies.

Outstanding issues to be addressed were communicated to PI through post-review memo.
**SciShield:**
- In the Pathogen Registration Form – Enterococcus faecium
  - Step 2 Project Information: Update the questions 'Will this agent be used as a host or vector for recombinant DNA experiments?' to be 'Yes' to capture the transposon work.

**Biosafety Manual**
- In Section E. Laboratory-Specific Standard Operating Procedures
  - Provide detailed step-by-step SOPs for the experiments:
    - Evaluating methods to extract DNA from hard to extract species and validating microbiome DNA extraction is even across multiple community members.
    - Determining the ability to block colonization of multi-drug resistant organisms.
    - Preparation and use of the transposon libraries.
    - The SOPs should include; the step-by-step process a researcher would follow to conduct an experiment, the species of animal model used, a description of the experimental procedure(s), a description of the laboratory biological safety containment used for the injection (e.g., indicate if a biosafety cabinet will be used during the injection), precautions for needle safety, and a brief overview of the injection process, including the route of administration and safety devices used during injection.

- The IBC Committee is requesting justification for including non-commensal, highly pathogenic microorganisms in their DNA extraction experiments (e.g. Acinetobacter baumanni, Clostridium botulinum, Candida auris, Pseudomonas aeruginosa, Staphylococcus aures (MRSA)
- The IBC would prefer the use of less pathogenic microorganisms for these validation experiments
  - Provide justification for the use of the current microbes or substitute them with less pathogenic alternatives.

**Documentation:**
- Due to the risks associated with the agents used in their laboratory, enrollment in the Occupational Medicine Immunocompetence program is required, regardless of vaccination status.
  - Contact Dr. Andy Phillips (XXX@XXX.edu) with Occupational Medicine for access to the health screening questionnaire in Open Range.
  - In the email, provide the lab name and all lab personnel [redacted] to Dr. Phillips.
  - Once contact with Dr. Phillips has been obtained this item is considered complete by the IBC.
- All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.

PI Cites NIH Guidelines: III-D-1, III-D-4
Agent: Enterococcus faecalis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐

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

Agent: Staphylococcus aureas
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☒

Agent: Staphylococcus spp.
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐

Agent: Streptococcus spp.
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐

Agent: Acinetobacter baumannii
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☒
Insertions: Fluorescent reporter

Agent: Clostridium spp.
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐

Agent: Fusobacterium nucleatum
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Enterobacter spp.
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Citrobacter
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Bacteroides fragilis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Parabacteroides distasonis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Porphyromonas
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Peptostreptococcus
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: Prevotella
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☐ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐

Agent: VRE
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐

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

Risk Assessment: Sharps☒ | Vortexing ☒ | Sonicating☐ | Cell Sorting☐ | Centrifuging☒ | Oncogene ☐
Risk Mitigation: Biosafety Cabinet☒ | Fume Hood☐ | Sealed Rotor or Safety Buckets☒ | Anesthetization☐ | Restraints ☐ | Safer Sharps☒ | Enhanced PPE ☐ | Treatment Available ☒ | Vaccine Available ☐
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Tabled
Vote for Motion: 20 For Motion | 1 Abstain

**#76-26 Behrad Noudoost. Functional and structural connectivity of visuals and prefrontal cortex.**

Their lab studies the neural basis of changes in visual processing during attention, eye movements, and working memory in macaque monkeys. They specifically suggest that dopamine (DA)-mediated persistent prefrontal cortical (PFC) activity sent directly to visual areas is a basis for the modulation of visual representations according to the content of working memory (WM), providing a specific neural mechanism whereby the imbalance of PFC DA produces the coincident attention and WM impairments often observed in cognitive disorders such as ADHD.

Outstanding issues to be addressed were communicated to the PI through a post-review memo.
**SciShield:**

- Verify that the list of personnel affiliated with the project is accurate.

**Biosafety Manual:**

- In Section I, provide an SOP for the transport of AAV [redacted].

**Documentation:**
- All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.

PI Cites NIH Guidelines: III-D-4, III-D-4-a
Agent: AAV
Tissue Culture ☐ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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: GFP, ChR2, ArchT, Chrimson, Cre, mCherry, tdTomato, YFP from Aequrea Victoria, bacterial, and microphage sources

Agent: Potential exposure to Herpes B
Tissue Culture ☐ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☐ | 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) and Animal Biosafety Level 2 (ABSL-2)
Vote for Motion: 20 For Motion | 1 Abstain

**#77-22 Ryan Moreira. Autoresistance to enterococcal cytolysin.**

Research in their lab focus on the synthesis and biosynthesis of natural products for the purpose of discovering new bioactive materials with novel action mechanisms. They use a combination of molecular biology and organic chemistry to make molecules and they use practice microbiology when testing them.

Outstanding issues were communicated to the PI through a post-review memo.
**SciShield:**
The Pathogen Form for Enterococcus:

- Step I: Pathogen Information: In the question, '*Where will they obtain the infectious agent?'* Update this section to provide collaborator information.
- Step III: Safety. *Will Centrifuge Safety Cups be used with this agent?"* Change to "Yes"
- Capture these changes with the "Review and Continue" tab followed by "Save and Continue."

**Biosafety Manual:**

- Section C (pg 11), delete the first paragraph on the page that starts with *Recombinant e. faecalis strains used in the laboratory…handled at BSL2'* as this is not relevant for the research.
- Section E (pg 15), Laboratory Specific Standard Operating Procedures:
    - Culture and Manipulation: Indicate the procedures done in the BSC vs the open bench
    - Procedure: Expand the SOP provided, to include the containment for each procedure (open bench vs BSC) and additional details for the IBC to understand the procedure and to evaluate risks.
        - The SOP should include the step-by-step process a researcher would follow to conduct an experiment.
- Page 17, Centrifugation: It is currently stated that "sealed rotors, safety cups or other appropriate containment will be used *when available."* Remove "when available" as use of this equipment this is a requirement.

PI Cites NIH Guidelines: N/A
Agent: Enteroccocus faecalis FA2-2
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Insertions: pAM714, pAM9055
Risk Assessment: Sharps☐ | Vortexing ☒ | Sonicating☒ | Cell Sorting☐ | Centrifuging☒ | Oncogene ☐
Risk Mitigation: Biosafety Cabinet☒ | Fume Hood☐ | Sealed Rotor or Safety Buckets☒ | Anesthetization☐ | 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 1 (ABSL-1)
Vote for Motion: 20 For Motion | 1 Abstain

**#78-26 Lena Ho. Elucidating the Role of Novel Microproteins in Metabolic Regulation.**

They are investigating the contribution of novel genes to mitochondrial function and metabolic control through in vitro biochemical and genetic methods, as well as in vivo rodent models of whole animal physiology.

Outstanding issues communicated to the PI through post-review memo.
**SciShield:**

- Add the transgenic animals used in their lab to the table titled “Transgenic/Recombinant Animals Used in Lab.”

**Biosafety Manual:**

- Post Exposure Prophylaxis is required for work with lentiviral vectors. PI needs to refer to this study for more information. https://pubmed.ncbi.nlm.nih.gov/38913827/
- In the SOP for injecting AAV into animals, PI needs to add specific details about when a biosafety cabinet is used and how sharps are handled (example, needle will be placed in sharps container immediately after use).

**Other Items**

- The proposed BSL-2+ space has been denied by the IBC, citing the need for a handwashing sink and eyewash to be WITHIN the space, not close by. The IBC recommends the laboaratory should contact the Health Sciences Research Space office to find a suitable room for the proposed experiments.

PI Cites NIH Guidelines: III D-1, III D-3, III D-4, III D-4-a
Agent: Lenti viral vector
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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: smORF22L, SMIM12, SMIM26, UQCC6 from human sources

Agent: AAV
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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: iCre recombinase, tdTomato from synthetic sources

Risk Assessment: Sharps☒ | Vortexing ☒ | Sonicating☐ | Cell Sorting☐ | Centrifuging☒ | Oncogene ☐
Risk Mitigation: Biosafety Cabinet☒ | Fume Hood☐ | Sealed Rotor or Safety Buckets☒ | Anesthetization☐ | 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 1 (ABSL-1)
Vote for Motion: 18 For Motion | 3 Abstain

**#79-26 Mark Fisher. Antimicrobial peptide resistance in Yersinia pestis KIM6+.**
They are focused on using microbial genetics to dissect the complex interaction between an avirulent strain of Yersinia pestis and its arthropod vectors. They are currently investigating the genetic basis of antimicrobial peptide resistance in Y. pestis and the role this plays in flea colonization.

Outstanding issues were communicated to the PI through a post-review memo.
**SciShield:**

- In the Project Form.
  - Include the recently added bacterial strains into the 'Description of Experimental and Procedural Details' section of this project.
- In the Pathogen Registration Form – Yersinia pestis
  - Step III Safety: Indicates that the bacteria are sensitive to a final sodium hypochlorite concentration of 1%.
    - To prepare a 1% final concentration of sodium hypochlorite, check the bleach bottle to determine the stock sodium hypochlorite concentration and prepare the appropriate dilution to achieve a final 1% sodium hypochlorite concentration (typically a 1:5 dilution).

**Biosafety Manual:**

- Due to the use of human source material (e.g. human cell lines), an Exposure Control Plan (ECP) must be included in the biosafety manual. Incorporate Section D and Appendix 10 of the template biosafety manual

https://ibc.utah.edu/_resources/documents/templates/biosafety_level_2__manual_template2024.docx into their current biosafety manual. This can be included as an appendix or by creating section C.8.

- In Section B. Background:
  - Include information relevant to the bacterial strains added to SciShield into this section. Specifically, Aeromonas spp., Citrobacter spp., Enterobacter spp., Moraxella spp., Neisseria spp., Sphingomonas spp.
  - On page 9, for Yersinia pestis Methods of Disinfection and Inactivation, indicate the appropriate dilution for a final 1% sodium hypochlorite concentration (typically 1:5).
- In Section C.1 Training.
  - Update the link provided to the Institutional Biosafety Manual to the current manual https://ibc.utah.edu/biosafety-policies.php
  - Include Bloodborne Pathogens training completed at initial assignment and annually thereafter.
- In Section F.2 Laundry:
  - The address for the Hospital Laundry and Linen Services has changed from the School of Medicine. PI needs to update the address in their biosafety manual with the following:
    - "The University of Utah Hospital can be used to clean contaminated clothing and other articles that require laundering. Linen Services can be found in the lower level of the Acute Care Building in the University Hospital, 801-213-2478."
- In Section I Experimental Procedures:
  - Include SOPs for the bacteria added in Section B.

**Documentation:**

- To comply with NIH regulations, the IBC is 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 needs to verify laboratory signage (BSL2/ABSL2 Warning sign) is up to date. Updated signage can be requested on SAM https://sam.ehs.utah.edu/ehsa/
- Due to the risks associated with the agents used in their laboratory, enrollment in the Occupational Medicine Hepatitis B program and the Immunocompetence program is required, regardless of vaccination status.
  - Contact Dr. Andy Phillips (XXX@XXX.edu) with Occupational Medicine for access to the health screening questionnaire in Open Range.
  - In the email, provide the lab name and all lab personnel [redacted] to Dr. Phillips.
  - Once contact with Dr. Phillips has been obtained this item is considered complete by the IBC.
  - The Pneumococcal vaccine is available to personnel who would like to receive it. Follow up with Dr. Phillips for next steps.
- All personnel listed on this registration, including the Principal Investigator, are required to complete the applicable training modules identified in the Training Profile table (below). IBC approval will be withheld until personnel records are accurate and all required training requirements have been satisfied.

PI Cites NIH Guidelines: III-D-1, III-D-2, III-E
Agent: Acinetobacter
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Aeromonas
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Burkholderia
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Citrobacter

Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Enterobacter
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Enterococcus
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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 ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Klebsiella
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Moraxella
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Neisseria
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Proteus
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Providencia
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Pseudomonas
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ |
Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒|
Antibiotic Resistance ☐
Agent: Serratia
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐

Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Staphylococcus
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Streptococcus
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Xanthomonas
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Yersinia
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☒ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: sphingomonas
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Achromobcter
Tissue Culture ☒ | Animal Work ☐ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☐ | Restraints ☐ | Safer Sharps☐ | Enhanced PPE ☐ | Treatment Available ☒ | Vaccine Available ☐
Disinfectant: Freshly Prepared 1:10 Dilution of Bleach; fresholy prepared 1:5 dilution of bleach for Yersinia
PPE: Laboratory Coat, Gloves, Safety Glasses
Motion: Approve with contingencies at Biosafety Level 2 (BSL-2)
Vote for Motion: 20 For Motion | 1 Abstain

**#80-26 Wayne Potts. Manipulation of transmission and host genetic diversity to understand the evolution and spread of virulent infectious disease.**

Their lab studies the evolutionary processes responsible for the extreme genetic diversity of histocompatibility (MHC) genes. They utilize interdisciplinary approaches involving immunology, host-parasite coevolution, behavior, sexual selection and kin selection.

Outstanding issues were communicated to the PI through a post-review memo.
**SciShield:**

The IBC is declining to approve any work with influenza virus in the semi-natural enclosures mentioned in the Pathogen Registration Forms. PI needs to remove references to this enclosure. If they wish to revisit this in the future, additional experimental detail will need to be provided.

**Biosafety Manual:**

- The IBC is requesting additional information in the SOP 'Infection of Mice' to include:
- The step-by-step process describing the experimental procedures that a researcher would follow to conduct an experiment.
- Include a description of any animal restraint that is used (physical, chemical) in the animal handling process.
- Indicate which steps of the procedure are done within a biological safety cabinet (BSC), beginning with dosing the animal and concluding with harvest of tissues in the vivarium.
- Include a step by step description of any downstream procedures using infectious material in the laboratory (e.g. DNA isolation for PCR, cell culture plaque assay)

PI Cites NIH Guidelines: III-D-3, III-D-7
Agent: Recombinant Influenza H1N1 and H3N2
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Salmonella typhimurium LT2
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Plasmodium yoelii
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Friend virus
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☐ | 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: 21 For Motion | 0 Abstain

**#19-25.03 JB. Lubin. Amendment to add Akkermansia ssp. Desulfovibrio piger, Citrobacter rodentium, and Candida ssp.**

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.
PI has not responded to pre-screen memo.

**SciShield:**

- Describe the use of Candida in a relevant project form. In the description include a brief description and rationale for the of use of Candida in the gut. The IBC is concerned of the use of Candida auris due to its significant morbidity and mortality in hospital-acquired infections and its antifungal resistance.
- In all of the Pathogen Registration Forms:
  - Step 3 Safety:
    - Remove reference to 'skirt' being worn as proper laboratory attire.
    - Update required PPE to include Lab coat, nitrile gloves, safety glasses.
    - Update to indicate centrifuge safety cups are used with all Risk Group 2 materials.
- Provide individual Pathogen Registration Forms for each Candida species as the Risk Assessment is different for each of the listed strains.
  - Include the 'Institutional Collaborator' supplying the material in response to the question '*Where will they obtain the infectious agent?'*
  - Due to an elevated risk of work with Candida auris, include BSL2 Enhanced PPE of Solid Front/Rear Closing Lab coat, Double Nitrile Gloves, Safety Glasses.

**Biosafety Manual:**

- Provide an SOP for the use of Candida spp. The SOP should include the species of any animal model used, a description of the experimental procedure(s), a description of the laboratory biological safety containment used for the injection (e.g., indicate if a biosafety cabinet will be used during the injection), precautions for needle safety, and a brief overview of the injection process, including the route of administration and safety devices used during injection.
- In the Handling and Administration of Pertussis Toxin (PTX) SOP
  - Step 3 states *'Load syringes inside the BSC immediately before injection; keep capped until animals are restrained.'*
    - It appears the syringe is loaded with Pertussis Toxin, then the needle is re-capped until the animal is restrained. Provide clarification of needle safety to indicate the needle is not recapped and does not pose a threat to worker safety.
    - Alternatively, the needle could be removed via the tool on the sharps container lid, and replaced with a new needle to avoid a recapping procedure.

PI Cites NIH Guidelines: III-D-4, III-D-4-a, III-D-4-b, III-D-4-c-(2)
Agent: Enterobacter cowanii
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Citrobacter rodentium
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Desulfovibrio piger
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Akkermansia massiliensis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Akkermansia durhamii
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐

Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Akkermansia biwaensis
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Salmonella typhimurium
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Candida glabrata
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
Agent Characteristics: Attenuated/Vaccine Strain ☐ | Replication Incompetent ☐ | Replication Competent ☒ | Second Generation ☐ | Third Generation ☐ | Expanded Tropism ☐ | Narrowed Tropism ☐ | Wild Type Tropism ☒| Antibiotic Resistance ☐
Agent: Candida albicans
Tissue Culture ☒ | Animal Work ☒ | Patient Samples ☐ | Human Gene Transfer ☐ | Environment Samples ☐
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☒ | Anesthetization☐ | 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: 21 For Motion | 0 Abstain

**Protocols for Review With 5 Year Approval**

**None**

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

**None**

**Tabled/Pending Protocols**

**#70-26 Talia Karasov. Plant host genetic barriers of pathogenicity; Phage-Bacteria interactions in the Plant Phyllosphere.**

Their laboratory has a large computational (computer) component that is dry lab (no wet research experiments), but they also have a basic molecular biology laboratory. They study the genomes of several species of plants and animals (i.e., spider mites) that eat plants (herbivores), and the genetic, genomic and molecular bases of the interactions. Molecular methods that they use include extraction of nucleic acids (DNA or RNA) from plant or animal tissues, and downstream methods like PCR. They do not work on vertebrate animals (the animal work that they do perform in the wet lab and greenhouse is using mites that are related to insects). Their work involves use of wildtype strains of mites, or those modified by CRISPR gene editing to test the roles of mite genes in plant-mite interactions and other basic aspects of mite biology.
Outstanding issues to be resolved which were communicated to PI through post-review memo.

**SciShield:**

- Project Forms:
  - [redacted]. Include this space within the relevant Project Form(s).
- In the Project Form *'Host genetic barriers of pathogenicity'*:
  - Include Matt Mulvey as a collaborator with this work.
  - Clarify the experiments in collaboration with the Mulvey lab to describe the roles each laboratory will perform.
  - Include ABSL1 containment to capture the housing of C. elegans in the laboratory.
- In the Project Form *'Isolation of Fungi from Arctic sources'*
  - Include the import permit number and relevant details into the permit section of the project form.
  - Update the containment to be BSL2.
- In the Recombinant or Synthetic Nucleic Acid Molecules Survey:
  - Update Question 7-D to 'Yes' to capture experiments involving C. elegans and D. melanogaster.
  - Update Question 7-E to 'Yes' for the use of modified bacteria in animal models. Complete follow up questions prompted in the Survey.
  - Update Question 7-H to 'Yes' to capture recombinant bacteria delivered to animal models.
- In the Pathogen Registration form for arctic samples:
  - Section 5 Safety: Expand the risk assessment to provide assurance that these samples do not pose a risk to human health.The Committee is concerned with the potential culturing of Mucor and other human pathogens that may be present in the samples.

**Biosafety Manual:**

- Include the SOPs, provided to the IBC, into their lab-specific biosafety manual.
- Provide an SOP for the growth of the fungi samples.
  - The SOPs should include the step-by-step process a researcher would follow to conduct an experiment and include a statement indicating that any manipulations to these organisms will be conducted in a biological safety cabinet.

**Lab/Protocol Closures**

None

**Spills and Incidents**

None

**Other Business**

- STEM Safety Day – David Thomas
- Introduce new Biosafety Specialist
  -

| COURSE/EVENT | DATE | START | END | Room(s) Reserved |
|---|---|---|---|---|
| IBC Meetings | 9/17, 10/15, 10/22, 11/19, 12/17 | 11am | 1pm | [redacted] |

  - 10/15/26 IBC meeting moves to 10/22/26 at 11A [redacted]
    - 10/15/26 to be cancelled.
  - Calendar invitations were sent after August IBC meeting.
- Draft Biosafety Policy for Research Involving Biohazards.