INSTITUTIONAL BIOSAFETY COMMITTEE
12:03 p.m.
President's Conference Room
Meeting Minutes
May 13, 2026

Members Present:	Jovanka Voyich-Kane, Microbiology & Cell Biology, chair Amy Robison, Biosafety Officer Josh Charles, Bozeman Fire Department, Community Member Alyssa Evans, Microbiology & Cell Biology Jerod Skyberg, Microbiology & Cell Biology Kristen Connolly, Center for Biofilm Engineering Matt Taylor, Microbiology & Cell Biology, IACUC Chair Kim Hilmer, Chemistry/Biochemistry Mike Giroux, Plant Sciences & Plant Pathology Dale Huls, Office of Sponsored Programs Katie Rowse, Community Member Blake Wiedenheft, Microbiology & Cell Biology Jennifer DuBois, Chemistry/Biochemistry
Members Absent:	
Ex-Officio Members Present:	Kirk Lubick, Research Integrity & Compliance Nicole Soll, Research Integrity & Compliance Tammy Lynn, Safety & Risk Management
Ex-Officio Members Absent:	Jaspur Kolar, Bridger Occupational Health & Urgent Care
Guests:	Mark DeWald, Research Integrity & Compliance

I. Review and approval of IBC Meeting Minutes from April 8, 2026.

The minutes were approved as written. Approved 13, Nays 0, Abstained 0

II. Announcements from the Chair:

III. Originals/Amendments/Renewals/Interim Reviews Approved since April Meeting:

1. Originals
    - 2026-596 Linck: *To use genomic data to understand connectivity and future vulnerability of American Pikas at their southern range limit*
    - 2026-590 Bassing: *Understanding prairie dog colony connectivity to inform conservation*
2. Amendments
    - 2024-538 Skyberg: added mutant strain of B. melitensis that lacks a glucose transporter for in vitro and in vivo studies and added human peripheral blood mononuclear cells from a commercial source
    - 2024-543 Peyton: added personnel
    - 2025-385 Litt: added personnel
    - 2026-14 Merzdorf: added 3 versions of GBD-GFP plasmids from Addgene
    - 2026-444 Evans: added the HMC3 human microglia cell line.
3. Interim Reviews
    - 2024-535 Bradbery: updated lab room, adjusted holding time and waste management to 72 hours per policy, updated to current approved version of related protocol, selected a co-investigator, adjusted length of shedding in biological materials, updated laboratory biosafety manual and date of lab self-inspection

- 2025-126 Taylor: removed personnel, removed all references to Staph/Neutrophil co-infection project as that project has been suspended indefinitely

4. Renewals
    - 2026-124 Dubois: *Understanding how commensal bacteria metabolize iron*
    - 2026-144 Wiedenheft: *Evaluation of RNA-Targeting CRISPR Systems*
    - 2026-22 James: *Evaluation of Treatment on Medical Bioflilms*
    - 2026-49 Stowers: *Functional role of dual neurotransmitter usage in aggression*

New Business

A. Review of Protocols

Originals

595 Fields "Field Sampling from Mixed-Waste Pastures"

Overview: The goal of this project is to analyze microbial communities in local mixed-waste agricultural pastures (fields actively grazed by livestock, containing both urine and fecal deposits) and human wastewater facilities, specifically for growth at low temperatures (less than 12°C) and for urea-related metabolism.

Risk mitigation includes: Samples will be collected by MSU personnel wearing PPE; all waste materials, including used PPE, will be returned to MSU for disposal; all work with active material will be done in the BSC: sample splitting, lysis and homogenization, serial dilutions, plating, colony picking, liquid culture inoculation, glycerol stocks.

Biohazardous Agents: Unknown Bacteria

Strains: Unknown **Biosafety Level:** 2

Motion to return for modification and BSO approval
Approved 13, Nays 0, Abstained 0
Approved items to be addressed include:

Principal Investigator:

- Complete Occupational Health and Surveillance forms

Protocols Objectives:

- Remove: "as utilized and shared by Kathryn Caruso in the Foreman lab and Elif Ugur in the Phillip lab at MSU".
- Define the "appropriate PPE" that will be worn during sample collection from pastures and wastewater facilities.

Protocol Associates:

- Protocol Associates need to complete Occupational Health and Medical Surveillance forms

Human and Non-Human Primate Material

- Check "Yes" and answer the follow up question by adding a line for wastewater

Sharps Usage

- Describe how sharps are used: razor blades "are used to cut gels".

Vaccines

- Collection of human wastewater has recommended vaccines per Occupational Health. Check the box for Hep B

600 Linck "This biosafety protocol will cover collection and handling of bird blood and muscle tissue to be used as a source of DNA for evolutionary biology research."
Overview: The goal of the project is to use population genomic data from multiple species of Pacific Islands birds to understand the evolutionary history and biogeography of the region (Papua New Guinea and Micronesia). Results from this work will also inform conservation and management actions. Samples will be collected from regions with no known incidence of high pathogenicity avian influenza (HPAI); however, exposure to mild bird-borne zoonoses such as Newcastle Disease are possible.
Risk mitigation includes: Bird handling and specimen collection will be done with disposable gloves, eye protection and durable long-sleeved shirts; gloves disposed of between birds; moribund or suspected diseased animals will be released without processing. Leather gloves and a surgical mask will be worn to release bycatch from nets such as raptors or bats, and will not be processed. Blood samples from target species are spotted on FTA filter cards, which lyse bacteria and blood upon contact. Tissue specimens are sent to a collaborating institution, then sent to MSU in 70% ethanol for DNA extraction. DNA extraction of lysed blood and ethanol-fixed tissues will be done on the benchtop at MSU with personnel wearing disposable gloves, eye protection, and a lab coat, and all waste will be destroyed by autoclave or 10% bleach. Local hospitals are listed for immediate medical attention in the case of an injury.

Motion to approve
Approved 13, Nays 0, Abstained 0

Renewals
79 McCalla "Extracting Nucleic Acids from Human Blood Products and Cultured Cells"
Overview: Our lab is focused on extraction of nucleic acid biomarkers such as microRNA from human blood products and rat neuron cells. We will obtain human blood from two sources, commercial and collaborator under IRB approval, and rat neurons from the Kunze lab. We will spike known concentrations of nucleic acids into the blood, plasma, or cells, then isolate RNA and proteins. RNA will be sequenced and proteins analyzed using western blot or antibody-bound beads.

Risk mitigation includes: Initial isolation steps through lysis will occur in the BSC and waste is destroyed by autoclave or 10% bleach.

Motion to return for modification and DMR upon submission
Approved 13, Nays 0, Abstained 0
Approved items to be addressed include:

Principal Investigator:
- Trainings to be completed; *Biosafety for Principal Investigators*, *OSHA Bloodborne Pathogens*, *Shipping and Transport of Regulated Biological Materials*
- Complete Occupational Health and Surveillance forms

Protocols Objectives:
- In #4 please remove "as described in the affiliated IBC protocol" and replace with "10% bleach for 30 minutes".

Protocol Associates:
- Protocol Associates need to complete Occupational Health and Medical Surveillance forms
- Two Protocol Associates need to complete *OSHA Bloodborne Pathogens* training

Laboratory Biosafety Manual
- Attach updated manual

Disinfection Procedures
- When using bleach to decontaminate human materials or cultures, the contact time is 30

minutes. Please amend.

BSC Details

- Please update the BSC certification date

Date of Lab Self-Inspection

- Update with most current lab self-inspection date (within last 365 days).

Shipping Biological/Infectious Materials or Dry Ice

- see comment in 2.4 - Shipping training expires 5/31/2026 for PI

Amendments

52 Walk "Ecology of the Mammalian Microbiome"

Overview: This project is designed to study the bacteria that inhabit the human host, primarily but not exclusively, those found in the intestinal tract, the majority of which are non-pathogenic, and in fact can protect the host from pathogens as well as affect the reaction of the host to toxins such as arsenic, antimony, and methylmercury. This amendment specifically addresses in vivo interactions with Bacteroides thetaiotaomicron (B. theta) and Clostridioides difficile (C. difficile). These bacteria may be gavaged into mice individually or in combination to identify non-pathogenic bacteria that limit C. difficile colonization in the mammalian gut. Some C. difficile isolates contain mutations that were experimentally introduced to evaluate the role different metabolisms.

Risk mitigation includes: These mutations are generally loss-of-function mutations that knock out the ability to use a carbon (energy) source. They would not be predicted to influence virulence or transmissibility. Some mutations have been introduced to cause resistance to the antibiotic, fidaxomicin, but the mutations themselves are not novel and have been observed natural (unmanipulated) in clinical isolates. Mutations were introduced into strains with known genomes and well-studied metabolisms so that predictions could be made as to the impact of non-resistance mutations on disease. There are 3 antibiotics used to treat C. difficile in humans (metronidazole, vancomycin, fidaxomicin). Strains carrying fidaxomicin resistance are susceptible to metronidazole and vancomycin (antibiograms). All work is done in an anaerobic chamber or BSC. All waste is destroyed with 10% bleach or by autoclave.

Biohazardous Agents: Clostridium difficile
Strains: clinical isolates (wtFD282/mFD282)

Motion to return for modification and DMR upon submission
Approved 13, Nays 0, Abstained 0
Approved items to be addressed include:

Protocol Objections:

- Please make the C. diff paragraph more clear and concise with the work listed first and the engineering controls second, if they differ from the rest of the protocol.
- Please clearly state what you will be doing with a focus on points where biohazards are relevant for example: clinical isolates and mouse samples containing C. diff strains and/or B. theta. will be transferred into the anaerobic chamber in sealed tubes to prevent aerosol generation in the airlock. Samples will be added to inactivation lysis solution in nucleic acid extraction buffer. Following inactivation for (time) samples will be transferred to the BSC for nucleic acid extraction and analysis. Continue on with the information about mutations that was added. Finish with a concise reference to engineering controls that are different from the rest of the protocol.

Protocol Associates:

- Protocol Associate needs to complete *MSU Biosafety for The Laboratory Worker* training

Disinfection to be Used in ARC:

- If the product label indicates a different contact time for surface disinfection, you can update as applicable.

Respiratory Protection – Describe Other

- Update occupational health/medical surveillance as required

BSC Details

- Please update BSC certification date

Date of Lab Self-Inspection

- Please update lab self-inspection date

22 James "Evaluation of Treatment on Medical Biofilms""
Overview: The goal of these testing projects is the evaluation of treatment solutions and test materials related to medical devices and medical device use. This amendment specifically addresses biofilms grown on DFR slides that may be treated using a powered lavage system that applies treatment solutions (not volatile or hazardous) using a pressurized sprayer.
Risk mitigation includes: Treatment will occur in a glove box that is placed inside the BSC. A 10-minute wait time allows any aerosols to settle before opening the door of the glove box to retrieve the sample. The inside and outside of the glove box and the sprayer will be disinfected with a bleach solution, removed from the BSC, then the BSC will be disinfected with 70% ethanol. All waste is destroyed with 10% bleach or autoclave.

Motion to approve
Approved 13, Nays 0, Abstained 0

Interim Reviews
None

B. Unfinished Business
None

C. Biosafety Officer Updates
1. Biosafety Non-compliance Policy
   - no content change, just formatting
   - Approved 13, Nays 0, Abstained 0
2. Autoclave QA program and Form
   - content change, just formatting
   - Approved 13, Nays 0, Abstained 0
3. Biosafety Inspection Report
   - BSO reported on spring inspections

The meeting was adjourned at 12:54 p.m.