Illinois State University

Institutional Biosafety Committee (IBC) Meeting Minutes

Date: 5/22/2026

Location: JH 228 & Zoom

Start time: 11:01 a.m. **End time:** p.m.

Members Present: Adam McCrary, Tom Hammond, Kathy Spence, Wolfgang Stein, Harmony Kiley, Viktor Kirik, Riley Francis, Tom Anderson (Left 12:06pm)

Members Absent: Amy Gilliland

Guests Present: None

Staff Present: None

I. Chair Reminder- Declare Conflicts of Interest for Protocol Review

a. None

II. Review of 5/21/2026 IBC Meeting Minutes

a. Tabled

Motion: Tabled

III. Prior Business

a. None

IV. Protocol Review

a. **Full Committee Review- New Applications**

i.

IBC Protocol #	PI	Title	BSL	Risk Group	Building
IBC-2026-0000052	John Sedbrook	Manipulation of pennycress and Arabidopsis DNA and transgenic plants	1	1	SLB

Project Overview:

Cloning and subcloning of *Arabidopsis thaliana* (Arabidopsis) and *Thlaspi arvense* (pennycress, which is a relative of Arabidopsis) genomic DNA and cDNA into *Escherichia coli* or *Agrobacterium tumefaciens*. Introduction of DNA fragments into Arabidopsis and pennycress plants using standard *Agrobacterium tumefaciens* mediated transformation techniques. Overall goal is to study plant genes affecting agronomically relevant traits.

Risk Assessment/Discussion:

Low

Training:

CITI Training certificates were included in the protocol.

NIH Guidelines Section:

Work subject to NIH Guidelines.

Occupational Health Representative Review:

This protocol does not require any medical screening. Appropriate controls are in place to mitigate injuries and lab-acquired infections.

Additional Comments:

- **Options:** Please select yes for microorganisms/infectious agents and include E. coli and agrobacterium info in the microorganism infectious agent section of the protocol.
- **Overview:** Change from ABSL1 to BSL1.
- **NIH Guidelines:** Select III-E1
- **Whole Plant Work:** Field Pennycress: "Describe how plants will be housed"- fix typo "it growth chambers" and add quotes to "USDA APHIS Am I Regulated".
- **Facilities:** Add Serial # 3049 to Model NU-201-430. Model NU-425-600 is a biosafety cabinet, not a laminar flow hood. Include the Serial #70898. Check Class II Biosafety Cabinet.
- **Facilities:** Change ABSL1 to BSL1
- **Facilities:** Add greenhouse facilities and rooms containing growth chambers. Provide IBC Office with the room numbers to be added to Cayuse.
- **Transport/Shipping:** Add "and to autoclave room and greenhouse" if appropriate.
- **Personnel:** Please add the graduate students in your laboratory to at least one approved protocol.
- **Safety:** Change autoclave temp to 121 degrees C.
- **Safety:** Please specify what hospital disinfectant you are using.
- **Safety: (Solid or Liquid Waste Treatment with Autoclaves)** Typo: "Utensils and plant growth trays will be disinfected either by soaking overnight in a 3% bleach solution ___OR___ by thorough wiping with paper towels or Kimwipes saturated with a 10% bleach solution"
- **Safety:** Fix question marks throughout protocol
- **Safety: (Describe what you will do if you are exposed to any biological agents):** Should be ingestion and not injection.
- **Safety:** Check skin exposure
- **Safety:** Change 3% and 5% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach.

Motion: Approve pending minor modifications listed above, with IBC chair review and confirmation. WS motioned to approve, VK seconds	For: 8	Recuse:0	Against: 0	Abstain: 0	Absent: 1

ii.

IBC Protocol #	PI	Title	BSL	Risk Group	Building
IBC-2026-0000053	Jan-Ulrik Dahl	Bacterial responses to metal stress	2	2	SLB

Project Overview:

The proposed work aims to understand the effects of metals (e.g. silver, silverdene, AgXX) on pathogenic gram-negative bacteria, including *Pseudomonas aeruginosa*, uropathogenic *E. coli*, and *Staphylococcus aureus*. The bacteria will be exposed to the respective metals in various complex and defined media and growth and/or survival will be monitored to determine the minimal inhibitory concentration (MIC) and minimal bactericidal concentrations (MBC), respectively. In addition, their effects will also be studied under conditions in which bacteria form biofilms. We will extract RNA and analyze the expression of various genes of interest via RNAseq, RT-PCR, and/or promotor –lacZ fusion. Genes of interest will be cloned into vectors and proteins overexpressed, purified in K12 E. coli and characterized biochemically. Furthermore, we will create knock-out mutant strains in *P. aeruginosa* and uropathogenic *E. coli* by specifically deleting genes of interest. The gene deletion strains will be directly compared with their corresponding parental strains regarding their ability to form biofilms, their MICs/MBCs towards the metals, and, their motility. The gene deletion strains will also be complemented by transformation with the respective plasmid to determine whether the parental phenotype can be restored.

Risk Assessment/Discussion:
Medium

Training:
CITI Training certificates were included in the protocol.

NIH Guidelines Section:
Work subject to NIH Guidelines.

Occupational Health Representative Review:
This protocol does not require any medical screening. Appropriate controls are in place to mitigate injuries and lab-acquired infections.

Additional Comments:

- **Vectors/Plasmids:** For all vectors/plasmids, the last box "Exposure: Describe the following." should contain information on exposure to the vector/plasmid, not listeria. For example, you could use the following procedure (copy and paste if you agree)
    - Standard Wound Care Protocol for exposure to innocuous plasmids and vectors:
        - Flush the Wound: Immediately rinse the affected area with warm, running tap water for several minutes. This flushes out potential debris and contaminants.
        - Wash with Soap: Gently wash the skin around the cut with mild soap.
        - Stop Bleeding: Apply firm, direct pressure to the laceration using a sterile gauze pad or clean cloth.
        - Apply Ointment & Bandage: Apply a thin layer of antibiotic ointment, then cover with an adhesive bandage.
        - Disclose to Supervisor: Report the incident to your Principal Investigator (PI) or lab safety
- **Infectious Agents/Microorganisms:** Pseudomonhas aeruginosa- Fix question marks
- **Personnel:** Select if personnel is being compensated for work on protocol.
- **Safety:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach
- **Accidental Spill/Splash Response:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach

Motion: Approve pending minor modifications listed above, with IBC chair review and confirmation. WS motioned to approve, AM seconds	For: 8	Recuse:0	Against: 0	Abstain: 0	Absent: 1

iii.

IBC Protocol #	PI	Title	BSL	Risk Group	Building
IBC-2026-0000054	Jan-Ulrik Dahl	Interspecies interactions between Pseudomonas aeruginosa and Staphylococcus species	2	2	SLB

Project Overview:
Pseudomonas aeruginosa produces and secretes virulence factors that target and kill *Staphylococcus species*. Likewise, *Staphylococcus species* secrete signal molecules that change the physiology of *P. aeruginosa*. The proposed work aims to elucidate the mechanisms of *P.*

aeruginosa-mediated killing of *Staphylococcus species*. Different strains of *Staphylococcus species* will be exposed to spent media of various *P. aeruginosa* deletion mutants and growth and/or survival will be monitored to determine the minimal inhibitory concentration (MIC) and minimal bactericidal concentrations (MBC), respectively. In addition, their effects will also be studied under conditions in which bacteria form biofilms, as well as under stress conditions that resemble those found in the human body during inflammation. We will extract *Staphylococcus species* RNA and analyze the expression of various genes of interest via RNAseq and RT-PCR. Genes of interest will be cloned into vectors and proteins overexpressed, purified in K12 *E. coli* and characterized biochemically. Furthermore, we will use knock-out mutant strains in *Staphylococcus species* and directly compare them with their corresponding parental strains regarding their MICs/MBCs towards *P. aeruginosa* spent media. We will also work with the spent media of *Staphylococcus species* to identify the inducer for polyphosphate formation in *P. aeruginosa*.

Risk Assessment/Discussion:
Medium

Training:
CITI Training certificates were included in the protocol.

NIH Guidelines Section:
Work subject to NIH Guidelines.

Occupational Health Representative Review:
This protocol does not require any medical screening. Appropriate controls are in place to mitigate injuries and lab-acquired infections.

Additional Comments:

- **Vectors/Plasmids:** For all vectors/plasmids, the last box "Exposure: Describe the following." should contain information on exposure to the vector/plasmid, not listeria. For example, you could use the following procedure (copy and paste if you agree)
    - Standard Wound Care Protocol for exposure to innocuous plasmids and vectors:
        - Flush the Wound: Immediately rinse the affected area with warm, running tap water for several minutes. This flushes out potential debris and contaminants.
        - Wash with Soap: Gently wash the skin around the cut with mild soap.
        - Stop Bleeding: Apply firm, direct pressure to the laceration using a sterile gauze pad or clean cloth.
        - Apply Ointment & Bandage: Apply a thin layer of antibiotic ointment, then cover with an adhesive bandage.
        - Disclose to Supervisor: Report the incident to your Principal Investigator (PI) or lab safety
- **Infectious Agents/Microorganisms:** Pseudomonas aeruginosa: Fix question marks
- **Safety:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach
- **Accidental Spill/Splash Response:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach

Motion: Approve pending minor modifications listed above, with IBC chair review and confirmation. WS motioned to approve, VK seconds	For: 8	Recuse:0	Against: 0	Abstain: 0	Absent: 1

IBC Protocol #	PI	Title	BSL	Risk Group	Building
IBC-2026-0000055	Jan-Ulrik Dahl	The effect of fatty acids on Staphylococcus aureus membrane physiology	2	2	SLB

Project Overview:

Staphylococcus aureus is a major bacterial pathogen worldwide in both the healthcare and community settings. It is a versatile pathogen causing skin and soft tissue infections, and more serious deep-seated ones. Strains exist that are resistant to all available anti-staphylococcal antibiotics. S. aureus coopts host lipids when growing in vivo. Host straight-chain saturated and unsaturated fatty acids replace a significant proportion of biosynthesized S. aureus fatty acids, to the extent that novel agents targeting bacterial fatty acid biosynthesis are compromised in their effectiveness. We study the interaction between the prominent host lipid molecule cholesterol and S. aureus. Cholesterol is a major component of the cytoplasmic membrane of eukaryotes where it has major impacts on membrane structure and functions including ordering the membrane. Similar major effects on the S. aureus membrane are expected on the incorporation of significant amounts of cholesterol. We study the biochemistry of cholesterol incorporation by S. aureus using classical techniques of bacterial lipid analysis and state-of-the-art lipidomics approaches. We expect that cholesterol incorporation will have a major impact on membrane biophysical properties that will be determined by fluorescence polarization studies of membrane fluidity. The impact of membrane cholesterol incorporation on susceptibility to antibiotics, antimicrobial fatty acids and antimicrobial peptides will be determined.

Risk Assessment/Discussion:

Medium

Training:

CITI Training certificates were included in the protocol.

NIH Guidelines Section:

Work subject to NIH Guidelines.

Occupational Health Representative Review:

This protocol does not require any medical screening. Appropriate controls are in place to mitigate injuries and lab-acquired infections.

Additional Comments:

- **Overview:** Please add information to justify the inclusion of vectors/plasmids in the protocol
- **Vectors/Plasmids:** For all vectors/plasmids, the last box "Exposure: Describe the following." should contain information on exposure to the vector/plasmid, not listeria. For example, you could use the following procedure (copy and paste if you agree)
    - Standard Wound Care Protocol for exposure to innocuous plasmids and vectors:
        - Flush the Wound: Immediately rinse the affected area with warm, running tap water for several minutes. This flushes out potential debris and contaminants.
        - Wash with Soap: Gently wash the skin around the cut with mild soap.
        - Stop Bleeding: Apply firm, direct pressure to the laceration using a sterile gauze pad or clean cloth.

- Apply Ointment & Bandage: Apply a thin layer of antibiotic ointment, then cover with an adhesive bandage.
- Disclose to Supervisor: Report the incident to your Principal Investigator (PI) or lab safety

- **Personnel:** Please select at least one activity for each member included in the protocol. Only include students that are working on the protocol. Please also ensure that compensation for every personnel is selected yes or no.
- **Personnel:** Please select whether Brian W will be compensated for working on protocol.
- **Safety:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach.
- **Accidental Spill/Splash Response:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach

Motion: Approve pending minor modifications listed above, with IBC chair review and confirmation. WS motioned to approve, VK seconds	For: 8	Recuse:0	Against: 0	Abstain: 0	Absent: 1

v.

IBC Protocol #	PI	Title	BSL	Risk Group	Building
IBC-2026-0000056	Jan-Ulrik Dahl	Molecular mechanisms of psychrotolerance in Listeria monocytogenes	2	2	SLB

Project Overview:
Listeria monocytogenes is a foodborne pathogen that causes listeriosis, a serious infection with a high mortality rate. Contamination of food with L. monocytogenes has a high economic impact due to costly product recalls. A critical factor in the role of L. monocytogenes as a foodborne pathogen is its ability to grow in food at refrigeration temperatures. Our knowledge of the molecular and cellular events involved in cold acclimation of bacteria is fragmentary an incomplete, but the events appear to be global in scope.

Our work is focused on the mechanisms of modulation of the fatty acid composition of the membrane in order to provide an appropriate fluidity for growth at low temperature. We also are attempting to use this information to improve methods of control of the organism. Various amino acids and short-chain carboxylic acids can modify the fatty acid composition of the bacterium and inhibit its growth. We are investigating the fatty acid biosynthetic pathway. We plan to clone the gene and, overexpress the enzyme phosphoytransbutyrylase which we believe plays a role in the ability of a precursor to modify fatty acid composition.

Risk Assessment/Discussion:
Medium

Training:
CITI Training certificates were included in the protocol.

NIH Guidelines Section:
Work subject to NIH Guidelines.

Occupational Health Representative Review:

This protocol does not require any medical screening. Appropriate controls are in place to mitigate injuries and lab-acquired infections.

Additional Comments:

- **Vectors/Plasmids:** For all vectors/plasmids, the last box "Exposure: Describe the following." should contain information on exposure to the vector/plasmid, not listeria. For example, you could use the following procedure (copy and paste if you agree)
    - Standard Wound Care Protocol for exposure to innocuous plasmids and vectors:
        - Flush the Wound: Immediately rinse the affected area with warm, running tap water for several minutes. This flushes out potential debris and contaminants.
        - Wash with Soap: Gently wash the skin around the cut with mild soap.
        - Stop Bleeding: Apply firm, direct pressure to the laceration using a sterile gauze pad or clean cloth.
        - Apply Ointment & Bandage: Apply a thin layer of antibiotic ointment, then cover with an adhesive bandage.
        - Disclose to Supervisor: Report the incident to your Principal Investigator (PI) or lab safety
- **Infectious Agents/Microorganisms:** Please list the names of the sources for the strains indicated. For example: Pascale Cossart, Institute Pasteur.
- **Facilities:** There is no biosafety cabinet in this room. Can you specify what you are using this room for?
- **Personnel:** Please select at least one activity for each member included in the protocol. Only include students that are working on the protocol. Please also ensure that compensation for every personnel is selected yes or no.
- **Personnel:** Please select whether Brian W will be compensated for working on protocol.
- **Safety:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach.
- **Accidental Spill/Splash Response:** Change 2% bleach to 0.5% sodium hypochlorite. This is a 1:10 ratio of bleach

Motion: Approve pending minor modifications listed above, with IBC chair review and confirmation. WS motioned to approve, HK seconds	For: 8	Recuse:0	Against: 0	Abstain: 0	Absent: 1

b. **Full Committee Review- Amendments**
    i. None
c. **Designated Member Review- Amendments**
    i. None
d. **Member Review- Upcoming for June Full Committee Review**
    i. Calderon 01B-2023 (IBC-2026-0000045)
        1. Still awaiting completion of training
    ii. Sadd IBC-2025-0000025
        1. New protocol; Still awaiting revisions
    iii. Gatto 12B-2022 (IBC-2025-0000030)
        1. Inactive; Still awaiting revisions
    iv. Wilkinson 04B-2023
        1. Inactive; PI will submit new protocol

V. New Business

a. None

VI. Review of Incidents

a. None

VII. Inspections/Ongoing Oversight

a. None

VIII. IBC Training

a. None

IX. Public Comments

a. None

X. Open Discussion

a. None

XI. Next Scheduled Meeting Date

a. Scheduled for Tuesday, June 2nd 1:00-2:30 p.m. Discussion of if meeting is still needed after 5/21/26.
    i. Cancelling- Meeting is not needed
b. 2nd meeting scheduled for Thursday June 18th 1:00-2:00 p.m.
c. JH 228 and Zoom

XII. Adjournment

a. WS moved to adjourn the meeting at 2:08 p.m. AM seconded.