University of Nebraska – Lincoln Institutional Biosafety Committee

Minutes of Regular IBC Meeting

Date: November 10th, 2025

Location: Remote via Zoom
Call to Order: D. Loy called the meeting to order at 2:31 PM
Members Present: H. Blair (BSO), T. George (Community Member), K. Heath (Animal SME), A. Hilske (Plant SME), D. Loy (Chair), A. Mitra (Plant SME), W. Niu (Member), N. Sexton (Member), M. Wiebe (Member), D. Zinniel (Lab Rep)
Members Absent: K. O'Neil (Community Member), D. Petrik (Community Member)
Quorum Met: Yes
Ex-Officio Advisors: D. Hamernik, B. Osthus
Others: R. Cederberg, L. Gregurek, A. Jungck, K. Evans
Review of Minutes from October 13th, 2025 Meeting:
Motion to approve minutes made by K. Heath, 2nd by A. Mitra
Minutes approved unanimously as written.
For: 9
Against: 0
Abstained: 1
Declaration of Conflicts of Interest: M. Wiebe on protocol 7

I. PUBLIC SESSION

A. Old Business:

1. Tabled Protocol registrations: None

2. Protocols with Contingencies Met: None

B. New Business:

1. New Protocol Registrations: None

2. Protocol Amendments:

NuRamp ID:	**1450**
Form ID:	**26233**
TITLE:	**Understanding the Cognitive and Brain Health in Relation to Diet and Dietary Interventions**
PI:	**Douglas Schultz**
DEPT:	Center for Brain, Biology, and Behavior
Protocol Biosafety Level:	**BSL-2**
NIH Guidelines reference:	N/A
IBC MOTION:	Approve with the following contingencies:

Contingencies/Issues:	• Required training is completed
Made by:	K. Heath
Seconded by:	D. Zinniel
IBC ACTION:	***Adopted by voice vote***
For:	9
Against:	0
Abstained:	1

PROTOCOL NOTES:

Review of Protocol:	The IBC Chair provided an overview of the protocol and opened discussion to the committee.
Summary of Project(s):	The objectives of the protocol are to investigate brain health in relation to diet and dietary intervention, and to investigate cognitive health in relation to diet and dietary intervention. This research will focus on obtaining information via blood-based biomarker data, rather than the traditionally utilized diet history questionnaires, in order to obtain a more objective measure of data.
Changes to the Protocol:	Adding Doug Schultz as a PI to the study and moving Aron Barbey to co-investigator/collaborator as he is now at a different institution.
Risk Assessment Considerations:	
Genetic Material:	N/A
Vector system:	N/A
Microbiological agents:	N/A
Organisms:	N/A
OTCC:	N/A
Toxins:	N/A
IRB protocol(s):	☑Yes ☐No **SROC protocol:** ☐Yes ☑No
IACUC Protocol(s):	☐Yes ☑No
Facility/Safety Summary:	The Committee reviewed the description of the facilities to be used and safety procedures and determined the facilities are appropriate for the proposed containment level and work to be conducted.
Safety Concerns:	None.
Facility Concerns:	None.
Vaccines/Medical Surveillance:	N/A
Administrative issues:	
Current safety training for staff:	Staff and PI need to complete all required training.
Current equipment certification:	Yes.

Date/Result of last EHS Survey:	Annual	**Findings:**
	2/18/2025	None.

IBC Discussion:	Committee did not have any concerns with proposed changes.

NuRamp ID:	**1372**
Form ID:	**26184**
TITLE:	**Diversity and population structure of fungal plant pathogens**
PI:	**Teddy Garcia Aroca**
DEPT:	Department of Plant Pathology
Protocol Biosafety Level:	**BSL-2, BSL-2-P**
NIH Guidelines reference:	III-F-2, III-E-2
IBC MOTION:	Approve as written.
Contingencies/Issues:	• None
Made by:	A. Mitra
Seconded by:	W. Niu
IBC ACTION:	***Adopted by voice vote***
For:	9
Against:	0
Abstained:	1

PROTOCOL NOTES:

Review of Protocol:	The IBC Chair provided an overview of the protocol and opened discussion to the committee.
Summary of Project(s):	Investigating the ecology and evolution of fungal plant pathogens across ecosystems in Nebraska and the Midwest.
Changes to the Protocol:	Removed former lab members and added a new person. Added an updated research description. Updated inventory, new mold species added to Section III (Colletotrichum coccodes, Clonostachys spp., Ramulariopsis pseudoglycines) Added NIH Guideline III-E-2, commercially available genetically modified soybeans have been added to Section V. Lab and greenhouse containment have been increased to BSL2 and BSL2P for Fusarium work.
Risk Assessment Considerations:	
Genetic Material:	N/A
Vector system:	N/A
Microbiological agents:	Colletotrichum coccodes, Clonostachys spp., Ramulariopsis pseudoglycines, Fusarium spp.
Organisms:	Solanum tuberosum
OTCC:	N/A
Toxins:	N/A
IRB protocol(s):	☐Yes ☑No **SROC protocol:** ☐Yes ☑No
IACUC Protocol(s):	☐Yes ☑No
Facility/Safety Summary:	The Committee reviewed the description of the facilities to be used and safety procedures and determined the facilities are appropriate for the proposed containment level and work to be conducted.
Safety Concerns:	None.

Facility Concerns:	None.
Vaccines/Medical Surveillance:	N/A
Administrative issues:	
Current safety training for staff:	Yes.
Current equipment certification:	Yes.
Date/Result of last EHS Survey:	Annual: 3/20/2025 — **Findings:** None.
IBC Discussion:	Committee thought protocol was straightforward and a natural continuation of PI's research, and agreed with containment level increase to BSL-2 and BSL-2-P.

NuRamp ID:	**7**
Form ID:	**26259**
TITLE:	**BAF: An Intrinsic Host Defense Responsive to Foreign DNA**
PI:	**Matthew Wiebe**
DEPT:	School of Veterinary Medicine and Biomedical Sciences
Protocol Biosafety Level:	**BSL-2**
NIH Guidelines reference:	III-F-1, III-F-2, III-F-3, III-F-4, III-F-5, III-F-7, III-F-8, C-I, C-II, III-E-1, III-D-2-a, III-D-3-a
IBC MOTION:	Approve as written.
Contingencies/Issues:	• None
Made by:	N. Sexton
Seconded by:	D. Loy
IBC ACTION:	***Adopted by voice vote***
For:	9
Against:	0
Abstained:	1

PROTOCOL NOTES:

Review of Protocol:	The PI provided an overview of the protocol and opened discussion to the committee.
Summary of Project(s):	To better understand host-pathogen interactions involving immune defenses targeting foreign DNA. We will monitor the impact on the host immune response and mechanisms used by the virus to inactivate host defenses.
Changes to the Protocol:	The purpose of this amendment is to add one new gene to our list of recombinant DNA. The gene is A151R and is encoded by African Swine Fever Virus. It will be cloned into vectors in-hand and expressed in cells already in-hand. NO WORK will be done using infectious ASFV. To make this amendment, changes were made to sections II and VI.
Risk Assessment Considerations:	
Genetic Material:	ASFV A151R
Vector system:	N/A
Microbiological agents:	N/A

Organisms:	N/A
OTCC:	N/A
Toxins:	N/A
IRB protocol(s):	☐Yes ☑No **SROC protocol:** ☐Yes ☑No
IACUC Protocol(s):	☐Yes ☑No
Facility/Safety Summary:	The Committee reviewed the description of the facilities to be used and safety procedures and determined the facilities are appropriate for the proposed containment level and work to be conducted.
Safety Concerns:	None.
Facility Concerns:	None.
Vaccines/Medical Surveillance:	N/A
Administrative issues:	
Current safety training for staff:	Yes.
Current equipment certification:	Yes.
Date/Result of last EHS Survey:	Annual: 2/25/2025 — **Findings:** None.
IBC Discussion:	Committee asked PI for clarification on which cell lines will be used for the new project. PI confirmed that they are using their existing cell lines as a baseline in comparison to how BAF usually behaves.

NuRamp ID:	**19**
Form ID:	**26249**
TITLE:	**Gene regulation by dietary compounds**
PI:	**Janos Zempleni**
DEPT:	Department of Nutrition and Health Sciences
Protocol Biosafety Level:	BSL-2, ABSL-2
NIH Guidelines reference:	III-F-3, III-F-8, C-I, C-VII, C-VIII, III-E, III-E-3, III-D-3-a, III-D-4-a, III-D-7
IBC MOTION:	Approve as written.
Contingencies/Issues:	• None
Made by:	A. Mitra
Seconded by:	N. Sexton
IBC ACTION:	***Adopted by voice vote***
For:	10
Against:	0
Abstained:	0

PROTOCOL NOTES:

Review of Protocol:	The IBC Chair provided an overview of the protocol and opened discussion to the committee.
Summary of Project(s):	Study the bioavailability and tissues distribution of milk exosomes in mice (and, in the future, humans). We are

	interested in milk exosomes because of their roles in infant and adult nutrition, and because of their promise for delivering therapeutic cargo to diseased tissues.
Changes to the Protocol:	Section I. I removed a former lab member and added two new lab members, Dr. Auchtung has been removed as a Co-PI. Section III. Removed C. difficile and Enterococcus faecalis, microbes are in freezer storage. Should future collaborations occur, an Amendment will be submitted to add these microbes back. Section V. I removed the statement that the wild-type strain of C. difficile will be used in Dr. Jennifer Auchtung's lab. Section VI: I added a new vector, expressing tdTomato.
Risk Assessment Considerations:	
Genetic Material:	AAVS1-tdTomato (AAVS1 targeting vector)
Vector system:	N/A
Microbiological agents:	N/A
Organisms:	N/A
OTCC:	N/A
Toxins:	N/A
IRB protocol(s):	☑Yes ☐No **SROC protocol:** ☐Yes ☑No
IACUC Protocol(s):	☑Yes ☐No
Facility/Safety Summary:	The Committee reviewed the description of the facilities to be used and safety procedures and determined the facilities are appropriate for the proposed containment level and work to be conducted.
Safety Concerns:	None.
Facility Concerns:	None.
Vaccines/Medical Surveillance:	N/A
Administrative issues:	
Current safety training for staff:	Yes.
Current equipment certification:	Yes
Date/Result of last EHS Survey:	Annual: 2/21/2025 — **Findings:** None.
IBC Discussion:	Committee discussed that PI is using the vector to test integration only in cell lines.

3. Notice of NIH Exempt Protocol Approvals: None

4. Notice of Administratively Approved Amendments:

NuRamp ID:	950
Form ID:	**26256**
TITLE:	**Metabolomics Core Facility**
PI:	**Sophie Alvarez Y Albala**

DEPT:	Center for Biotechnology
Project Biosafety Level:	BSL-2
NIH Guidelines reference:	III-F-8, C-I, C-VII
PROTOCOL NOTES:	
IRB protocol:	☐Yes ☑No **SROC protocol:** ☐Yes ☑No
IACUC Protocol:	☐Yes ☑No
Objective of Study:	The facility analyzes proteins and metabolites from a wide range of samples using mass spectrometry-based approaches.
Changes to the Protocol:	Add non-human primate (marmoset) plasma and urine samples (Section IV) Add MTBE (Methyl tertiary butyl ether) as solvent for the extraction of the plasma samples and methanol for the urine samples (Section II)
Review comments:	None.

NuRamp ID:	1367
Form ID:	**26202**
TITLE:	**Investigating the regulation of physiological metabolism and the pathogenic mechanism of metabolic diseases.**
PI:	**Tatsuya Yamada**
DEPT:	Department of Biochemistry
Project Biosafety Level:	BSL-2, ABSL-2
NIH Guidelines reference:	III-F-1, III-F-8, C-I, C-II, C-VII, III-E-1, III-D-3-a, III-D-4-a
PROTOCOL NOTES:	
IRB protocol:	☐Yes ☑No **SROC protocol:** ☐Yes ☑No
IACUC Protocol:	☑Yes ☐No
Objective of Study:	Our goal in this research is to learn about how the balance of our body metabolic state is controlled and how this balance can be upset in disease conditions. The liver plays a key role in controlling how our bodies use and process different substances, such as carbohydrates, lipids, and proteins. To better understand this, we will use both animal and cell culture models to discover critical cellular and molecular factors that regulate liver metabolism.
Changes to the Protocol:	Section I: Personnel are added. Section V: Additional transgenic mouse lines for use in project 2 are listed. Section VI: Also, I added a gene sequence, HA-tag, to the spreadsheet. Mice have HA-tag transgene. New mouse usage spreadsheet attached in Section XI.
Review comments:	None.

5. Notice of Minor Modification Forms Approved:

See attached report for a list of all Minor Modification forms received and approved since the last meeting.

6. Notice of Protocol Annual Updates Received:

See the attached report for a list of all Annual Update forms received and approved since the last meeting.

7. Notice of Protocol Terminations: None

C. Other Business:

1. EHS Report

II. ADJOURN

Motion: K. Heath
2nd: D. Loy
Time Adjourned: 2:57 PM

Minor Modification Forms Approved since Last IBC Meeting

Form ID	IBC Project ID	Approval Date	ProjectTitle	Protocol Status	Form Status	Lead PI	Form Changes
UNL-00026258	UNL-00001515	10/23/2025	Molecular Biotechnology for Arthropod Pests Management	Approved	Approved	Lise Pingault	Personnel
UNL-00026250	UNL-00001544	10/20/2025	Detection of bacterial pathogens in food manufacturing samples.	Approved	Approved	Heidi Leonard	Personnel
UNL-00026244	UNL-00001121	10/20/2025	Examining the role of the healthy gastrointestinal microbiome in preventing infection with antibiotic resistant pathogens	Approved	Approved	Jennifer Auchtung	Personnel
UNL-00026242	UNL-00001483	10/20/2025	The Impact of Cancer Treatment on Lymphatic Vessel Regeneration and Remodeling	Approved	Approved	Mohammad Razavi	Personnel
UNL-00026241	UNL-00001503	10/20/2025	Soybean Gall Midge and Commercially Available Transgenic Soybean	Approved	Approved	Justin McMechan	Personnel
UNL-	UNL-	10/10/2025	Optimized Molecular and RNAi-Based Approaches for Detecting	Approved	Approved	Leslie Rault	Disinfectant
UNL-	UNL-	10/7/2025	Gene regulation and signaling in the fungal model organism Candida	Approved	Approved	Kenneth Nickerson	Personnel
UNL-	UNL-	10/7/2025	Examining the role of the healthy gastrointestinal microbiome in	Approved	Approved	Jennifer Auchtung	Personnel
UNL-	UNL-	9/17/2025	Biomedical and Obesity Research Core (BORC) providing molecular	Approved	Approved	Jingjie Hao	Personnel
UNL-	UNL-	9/5/2025	Cytokine effect on T cell plasticity and imbalance phenotype in	Approved	Approved	Tomas Helikar	Personnel
UNL-	UNL-	9/5/2025	Viral Control of Cell Fate	Approved	Approved	Lindsey Crawford	Personnel

IBC Annual Update Form Approvals
since last IBC Meeting

Form ID	Approval Date	IBC Project ID	Project Title	Protocol Status	Form Status	Lead PI	Amendment Needed
UNL-00026267	10/30/2025	UNL-00000175	Molecular analysis of biotechnology for pest management, insecticides, insect resistance, and toxin receptor genes	Approved	Approved	Ana Maria Velez Arango	**No**
UNL-00026265	10/30/2025	UNL-00000036	Regulation of Gene Expression in the Mouse Oocyte and Embryonic Cells	Approved	Approved	Jennifer Wood	**No**
UNL-00026260	10/30/2025	UNL-00000996	Greenhouse Innovation Center - Non-UNL Plant Growth Projects	Approved	Approved	Amy Hilske	**No**
UNL-00026252	10/23/2025	UNL-00001452	Highly pathogenic avian influenza viruses	Approved	Approved	Hiep Vu	**No**
UNL-00026251	10/23/2025	UNL-00001126	Molecular characterization of common animal viral pathogens	Approved	Approved	Hiep Vu	**No**
UNL-00026247	10/17/2025	UNL-00001350	Optimized Molecular and RNAi-Based Approaches for Detecting Arthropod-Borne Pathogens and Silencing Target Transcripts in Insects	Approved	Approved	Leslie Rault	**No**
UNL-00026246	10/15/2025	UNL-00000263	Pathogenic gene discovery in the rice blast fungus Magnaporthe oryzae.	Approved	Approved	Richard Wilson	**No**
UNL-00026245	10/15/2025	UNL-00000061	Cloning of Biosynthetic Genes from Microbes	Approved	Approved	Liangcheng Du	**No**
UNL-00026240	10/15/2025	UNL-00001078	Improving the Microbiological Safety of Foods and the Food Processing Environment	Approved	Approved	Byron Chaves-Elizondo	**No**
UNL-00026165	10/15/2025	UNL-00001150	Analysis of immune and endocrine biomarkers from human vaginal fluid, saliva, and blood	Approved	Approved	Tierney Lorenz	**No**
UNL-00026235	10/13/2025	UNL-00000560	Structure-function studies on bacterial proteins in redox sensing and reactions	Approved	Approved	Limei Zhang	**No**
UNL-00026232	10/13/2025	UNL-00000300	Use Of Human Blood, Semen, Saliva and Urine Exemplars for Forensic Science Undergraduate Teaching Activities	Approved	Approved	Charles Murrieta	**No**
UNL-00026231	10/13/2025	UNL-00000627	Chromatin modulation in the Pseudomonas /Arabidopsis pathosystem	Approved	Approved	Karin van Dijk	**No**

EHS/Biosafety Officer Report for IBC meeting on 11/10/2025

Biosafety Recurring Audits Since last meeting: Veterinary Medicine & Biomedical Sciences, Hamilton Hall, Nebraska Veterinary Diagnostic Center

BSL-2	BSL-2	BSL-1
• Reddy, Jay • Lai, Rebecca • Hage, David • Powers, Bob • Eichhorn, Catherine	• Loy, Dustin • Guo, Jiantao • Topliff, Chris • Berkowitz, David • Checco, James	• Du, Liangcheng

Pre-approval Audits:

- Travis, Sophie
- Butler, Nathan

Most cited findings

Finding	EHS Checklist Code	Number of Findings	Number Corrected
Disinfectants are expired or containers not appropriately dated	BIO01	5	1
Biohazard spill kit incomplete or missing	BIO03	4	1
Eyewash or emergency shower concerns	CHE10	4	0
Biohazard waste container overfilled or unlabeled	BIO04	2	0
Vacuum lines are used for media aspiration not protected with a HEPA filter	BL202	1	0

BSL-3 Lab Updates

- Facility updates
- Final annual certification report received, no concerns with either facility

Other Activities: *(Regulation updates, news, new/revised policies, etc.)*

- Biosafety cabinet certification near miss
- Morrison lab flood
- Annual IBC Member training will be completed at December meeting