

University of Nebraska – Lincoln Institutional Biosafety Committee

Minutes of Regular IBC Meeting

Date: December 8, 2025

Location: Remote via Zoom

Call to Order: D. Loy called the meeting to order at 2:31 PM

Members Present: H. Blair (BSO), K. Heath (Animal SME), D. Loy (Chair), K. O’Neill (Community Member), W. Niu (Member), N. Sexton (Member), S. Tatineni (Member), M. Wiebe (Member), D. Zinniel (Lab Rep) **Members Absent:** T. George (Community Member), A. Hilske (Plant SME), A. Mitra (Plant SME) **Quorum Met:** Yes

Ex-Officio Advisors: D. Hamernik, B. Osthus, R. Wenzl

Others: R. Cederberg, L. Gregurek, A. Jungck, E. Schulz, K. Evans, S. Fernando

Review of Minutes from November 10, 2025 Meeting:

Motion to approve minutes made by H. Blair, 2nd by K. Heath

Minutes approved unanimously as written.

For: 9

Against: 0

Abstained: 0

Declaration of Conflicts of Interest: None

I. PUBLIC SESSION

A. Old Business:

1. Tabled Protocol registrations: None

2. Protocols with Contingencies Met:

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
Project Biosafety Level:	BSL-2
NIH Guidelines reference:	N/A
Date of IBC Review:	11/10/2025
IBC MOTION:	Approve contingent required training is completed.
IBC ACTION:	<i>Adopted by voice vote</i>
PROTOCOL NOTES:	
Date of PI Response:	11/11/2025

PI Response:	All required training has been completed.
Additional Comments:	None.

NuRamp ID:	60
Form ID:	26102
TITLE:	Enhancing phenotypic attributes of commodity crops through biotechnology
PI:	Nathaniel Butler
DEPT:	Agronomy and Horticulture
Project Biosafety Level:	BSL-1, BSL-1-P (Plant)
NIH Guidelines reference:	III-F-2, III-F-5, III-F-7, III-F-8, C-II, III-E, III-E-1, III-E-2, III-E-2-a, III-D-2-a, III-D-3-e
Date of IBC Review:	10/13/2025
IBC MOTION:	Approved contingent all plant materials and soil from the RNA viral project is autoclaved, additional methods details are added to the research description, and a satisfactory pre-approval survey is completed.
IBC ACTION:	<i>Adopted by voice vote</i>
PROTOCOL NOTES:	
Date of PI Response:	10/21/2025
PI Response:	Revisions to Section II, Research Description, for the plant RNA viral project have been made in accordance with the revision request
Additional Comments:	Pre-approval survey was completed by the biosafety team.

B. New Business:

1. New Protocol Registrations: None

2. Protocol Amendments:

NuRamp ID:	199
Form ID:	26291
TITLE:	Study of gut microbial community structure and function using metagenomics and metatranscriptomics approaches in ruminants and non-ruminants
PI:	Samodha Fernando
DEPT:	Animal Science
Protocol Biosafety Level:	BSL-2, ABSL-2 (Animal), BSL-1-P (Plant)
NIH Guidelines reference:	III-F-4, III-F-6, III-F-8, C-II, C-III, C-V, C-VI, III-E, III-D-2-a, III-D-4, III-D-4-a, III-D-6
IBC MOTION:	Approve as written.
Contingencies/Issues:	• None

Made by:	K. Heath	
Seconded by:	D. Zinniel	
IBC ACTION:	<i>Adopted by voice vote</i>	
	For:	9
	Against:	0
	Abstained:	0
PROTOCOL NOTES:		
Review of Protocol:	The PI provided an overview of the protocol and opened discussion to the committee.	
Summary of Project(s):	This research examines how microbial communities, including viruses, change with diet, disease, and physiology in animals and how they influence health and productivity. The lab will feed genetically engineered microbes to small ruminants (sheep or goats) and pigs to evaluate persistence and transmission of the engineered gene within the gut and soil environments.	
Changes to the Protocol:	Combining IBC protocol 1479 UNL-00026276: Biotechnology of risk assessment using genetically engineered microbes back with this protocol (199), as the project has evolved and will occur at UNL with smaller ruminant animal model.	
Risk Assessment Considerations:		
	Genetic Material:	N/A
	Vector system:	N/A
	Microbiological agents:	N/A
	Organisms:	Ovis aries, Capra hircus
	OTCC:	N/A
	Toxins:	None
IRB protocol(s):	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
IACUC Protocol(s):	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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 as provided in the IBC protocol.	
	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
		Findings:
	9/10/2025	All findings addressed.

IBC Discussion:

BSO talked about containment differences between small and large animal work. BSO also informed committee they have been working with the PI and will be performing dry run(s) of the experiment to be sure containment and procedures can be met. Committee asked about the longevity of the genetically modified microbiomes in specimens if they were to be released. PI and BSO confirmed that specimens exposed to genetically modified organisms will not be released and will be handled through approved incineration methods.

3. Notice of NIH Exempt Protocol Approvals: None**4. Notice of Administratively Approved Amendments:**

NuRamp ID:	434
Form ID:	26248
TITLE:	Environmental fate of microorganisms originating from livestock production systems
PI:	Amy Schmidt
DEPT:	Biological Systems Engineering
Project Biosafety Level:	BSL-2, ABSL-2 (Animal), BSL-2-P (Plant)
NIH Guidelines reference:	III-E, III-D-1-a
PROTOCOL NOTES:	
IRB protocol:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IACUC Protocol:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Objective of Study:	Identifying methods for mitigating manure management-related transmission of porcine reproductive and respiratory syndrome (PRRS) virus.
Changes to the Protocol:	Added new project testing PRRS infection with flies and maggots.
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:

NuRamp ID:	1424
TITLE:	Tools for the study of stomatal function in Arabidopsis
PI:	Joseph Turner
DEPT:	Mechanical & Materials Engineering
Project Biosafety Level:	BSL-1, BSL-1-P (Plant)
Project Termination Date:	11/24/2025
PROTOCOL NOTES:	
IRB protocol(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No SROC protocol: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IACUC Protocol(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Disposition of rDNA and agents:	Materials transferred to PI at their new institution.

C. Other Business:**1. EHS Report****2. Training**

The IBC completed their annual training right after this meeting. This training covered the application of NIH guidelines, risk assessments, and practice scenarios.

3. Non-Compliance Reports**II. ADJOURN**

Motion: D. Loy

2nd: K. Heath

Time Adjourned: 3:55 PM

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-00026284	11/20/2025	UNL-00000076	Regulation of the PutA Protein and Proline Metabolism	Approved	Approved	Donald Becker	Yes
UNL-00026283	11/19/2025	UNL-00000892	Food-derived bioactive proteins and peptides	Approved	Approved	Kaustav Majumder	No
UNL-00026282	12/1/2025	UNL-00000619	Infectious Diseases Vaccine Development	Approved	Approved	Eric Weaver	No
UNL-00026279	11/17/2025	UNL-00001348	Identification and characterization of priority traits for wheat and barley improvement	Approved	Approved	Xiwen Cai	No
UNL-00026277	11/11/2025	UNL-00001405	Improving crop N use efficiency through biotechnology	Approved	Approved	Jinliang Yang	No
UNL-00026272	11/11/2025	UNL-00001463	Understanding cell structure assembly and intercellular communication	Approved	Approved	Qing Tang	No
UNL-00026271	11/14/2025	UNL-00001318	Extracellular Vesicles, muscle metabolism, muscle mass, and miRNAs.	Approved	Approved	Ivan Vechetti	No
UNL-00026270	11/12/2025	UNL-00000152	Chromatographic Studies of Functional Proteomics	Approved	Approved	David Hage	No
UNL-00026269	11/11/2025	UNL-00000793	Flow Cytometry Service Center	Approved	Approved	Dirk Anderson	No
UNL-00026165	11/11/2025	UNL-00000201	Validation of extrusion processing for inactivation of food pathogens	Approved	Approved	Andreia Bianchini Huebner	No
UNL-00026266	11/11/2025	UNL-00000457	Plant-virus RNA silencing Laboratory Safety Information and Procedures	Submitted to Biosafety Officer	Approved	Hernan Garcia Ruiz	Yes
UNL-00026264	11/14/2025	UNL-00000273	Stress tolerance in rice and wheat	Approved	Approved	Harkamal Walia	No
UNL-00026262	11/5/2025	UNL-00000088	Routine transformation of Tobacco, Arabidopsis, wheat, rice and soybean	Approved	Approved	Amit Mitra	No
UNL-00026257	11/7/2025	UNL-00001332	Research on African Swine Fever virus	Approved	Approved	Hiep Vu	No
UNL-00026255	10/20/2025	UNL-00000950	Metabolomics Core Facility	Approved	Approved	Sophie Alvarez Y Albala	No
UNL-00026254	11/5/2025	UNL-00000145	Kernel Maturation and Protein Quality in cereals	Approved	Approved	David Holding	No

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-00026285	UNL-00001377	11/20/2025	Evaluating the effect of dietary interventions on human health and the gut microbiome.	Approved	Approved	Edward Deehan	Personnel
UNL-00026280	UNL-00000183	11/20/2025	Genetic manipulation of anaerobic microbes	Approved	Approved	Nicole Buan	Personnel
UNL-00026261	UNL-00001262	11/7/2025	Studying interactions between cationic polymers and wild-type/antibiotic-resistant bacteria	Approved	Approved	Shudipto Dishari	Personnel

EHS/Biosafety Officer Report for IBC meeting on 12/8/2025

Biosafety Recurring Audits Since last meeting: Keim Hall

BSL-2	BSL-1
	<ul style="list-style-type: none">• Walia, Harkamal• Yang, Jinliang

Pre-approval Audits:

- None

Most cited findings

Finding	EHS Checklist Code	Number of Findings	Number Corrected
Disinfectants are expired or containers not appropriately dated	BIO01	1	0
Biohazard spill kit incomplete or missing	BIO03	1	0
Biohazard waste not stored properly	BIO04	1	0

BSL-3 Lab Updates

- Semi-annual EHS inspections completed
- Labs became active in December, inventory transfer from MODL to BCL in process
- MODL will be deconned in January

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

- NIH Efforts to Modernize and Strengthen Biosafety Oversight, dates for the listening sessions released; <https://osp.od.nih.gov/policies/biosafety-and-biosecurity-policy#tab2/>
- Meeting schedule for 2026