

Agenda of Regular IBC Meeting

Date: May 11th, 2026

Location: Remote via Zoom

Call to Order: 2:31

Members Present: H. Blair (BSO), T. George (Community Member), K. Heath (Animal SME), A. Hilske (Plant SME), D. Loy (Chair), N. Sexton (Member), S. Tatineni (Member), M. Wiebe (Member), D. Zinniel (Lab Rep)

Members Absent: A. Mitra (Plant SME), K. O'Neill (Community Member), W. Niu (Member)

Quorum Met: Yes

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

Others: R. Cederberg, K. Evans, L. Gregurek, A. Jungck, E. Schulz, J. Thomas

Review of Minutes from 4/13/2026 Meeting:

Motion to approve minutes made by K. Heath, 2nd by D. Zinniel

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:	1416
Form ID:	26398
TITLE:	Management veterinary pest insects by RNAi/miRNA
PI:	John Wang
DEPT:	Department of Entomology
Project Biosafety Level:	BSL-2, ACL-1
NIH Guidelines reference:	III-F-1, III-F-3, III-F-8, C-II, C-III, III-E, III-D-4-a
Date of IBC Review:	4/13/2026
IBC MOTION:	Approved contingent all lab members complete training.
IBC ACTION:	<i>Adopted by vote</i>
PROTOCOL NOTES:	
Date of PI Response:	4/13/2026
PI Response:	Lab members with training deficiencies are no longer part of the lab and have been removed from the protocol.
Additional Comments:	None.

NuRamp ID:	1553
Form ID:	26305
TITLE:	Regulating thermogenic adipose function to improve metabolic health in obesity and chronic diseases
PI:	Hee Jin Jun
DEPT:	Nutrition and Health Sciences
Project Biosafety Level:	BSL-2, ABSL-1 (Animal)
NIH Guidelines reference:	III-F-8, C-VII, III-E-1
Date of IBC Review:	3/9/2026
IBC MOTION:	Approved contingent a satisfactory pre-approval survey is completed.
IBC ACTION:	<i>Adopted by vote</i>
PROTOCOL NOTES:	
Date of PI Response:	4/13/2026
PI Response:	The audit was completed and all findings have been addressed.
Additional Comments:	None.

B. New Business:

1. New Protocol Registrations:

NuRamp ID:	1570
Form ID:	26401
TITLE:	The Pennycress Company Phase I NDED Academic R&D Grant- CRISPR edited pennycress plants
PI:	Andrea Basche
DEPT:	Agronomy and Horticulture
Project Biosafety Level:	BSL-1, BSL-1-P (Plant)
NIH Guidelines reference:	III-F-8, C-II, III-E-2, III-E-2-a, III-D-2-a
IBC MOTION:	Approve as written.
Contingencies/Issues:	None
Made by:	H. Blair
Seconded by:	K. Heath
For:	9
Against:	0
Abstained:	0
PROTOCOL REVIEW SUMMARY:	
Summary of Project(s):	This project aims to improve pennycress through targeted bioengineering to enhance traits that increase yield, profitability, and processing efficiency.
Risk Assessment Considerations:	
Genetic Material:	Cas9, various gene targets that affect plant growth

Vector system:	N/A			
Microbiological agents:	<i>Agrobacterium tumefaciens</i> , <i>E. coli</i>			
Organisms:	Pennycress			
OTCC:	N/A			
Toxins:	N/A			
IRB protocol(s):	☐ Yes	☒ No	SROC protocol:	☐ Yes ☒ No
IACUC Protocol(s):	☐ Yes	☒ No		
Administrative issues:				
Current safety training for staff:	Yes.			
Current equipment certification:	Yes.			
Date/Result of Pre-approval Safety Survey:	4/28/2026	Findings: All findings addressed.		
IBC Discussion:	The committee had no concerns with the proposed protocol.			

2. Protocol Amendments:

NuRamp ID:	7
Form ID:	26457
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:	K. Heath
For:	9
Against:	0
Abstained:	0

PROTOCOL NOTES:

Summary of Project(s):	The premise of this work is that MGF360-21R has recently been found to interact with the cellular protein BAF, which is of long standing interest to our lab and may shed new light on the regulation of this pathway.
Changes to the Protocol:	I intend to begin study of the protein MGF360-21R encoded by African swine fever virus. These studies will involve synthesis of the ~1000bp fragment encoding MGF360-21R for cloning into expression vectors already in hand. NO WORK will be performed using the ASF virus, only the MGF360-21R protein alone.
Risk Assessment Considerations:	
Genetic Material:	MGF360-21R

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. Additional concerns and required medical surveillance are described below.		
Administrative issues:			
Current safety training for staff:	Yes.		
Current equipment certification:	Yes.		
Date/Result of last EHS Survey:	Annual	Findings:	
	1/21/2026	No findings.	
IBC Discussion:	The PI is investigating how this protein may interact with the BAF pathway. Committee asked PI about the proposed protein and its potential virulence capabilities; the PI clarified that the virulence factors are still being identified. The Committee determined there were no further concerns with the proposed work.		

NuRamp ID:	28
Form ID:	26455
TITLE:	UNL BPDF - Process Development and Pre-clinical Manufacturing of Recombinant Proteins
PI:	Scott Johnson
DEPT:	Biological Process Development Facility
Protocol Biosafety Level:	BSL-1-LS (Large Scale)
NIH Guidelines reference:	III-F-2, III-F-6, III-E, III-D-2-a, III-D-6
IBC MOTION:	Approve as written.
Contingencies/Issues:	None
Made by:	D. Zinniel
Seconded by:	K. Heath
For:	9
Against:	0
Abstained:	0
PROTOCOL NOTES:	
Summary of Project(s):	This protocol covers all generic recombinant protein development and production projects where the product and/or process is designed for eventual use in human clinical

	trials or reagent use. These projects often involve development of analytical methods, fermentation and purification protocols.
Changes to the Protocol:	Added new project for expression of organophosphate hydrolase mutant, involved in treatment of exposures to chemicals. Expression will be in <i>E. coli</i> using a pET vector. Section II - description of project Section III - updated <i>E. coli</i> entry to include a new strain for this project - Scarab Clean Genome T7 Section VI - Organophosphate hydrolase gene added Section IX - fermentor added in specialized equipment
Risk Assessment Considerations:	
Genetic Material:	Organophosphate hydrolase
Vector system:	N/A
Microbiological agents:	New <i>E. coli</i> strain (Scarab Clean Genome T7)
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. Additional concerns and required medical surveillance are described below.
Safety Concerns:	None.
Facility Concerns:	None.
Vaccines/Medical Surveillance:	None.
Administrative issues:	
Current safety training for staff:	Yes.
Current equipment certification:	Yes.
Date/Result of last EHS Survey:	Annual 1/14/2026
	Findings: All findings addressed.
IBC Discussion:	Committee did not have any issues with the proposed changes to the protocol.

NuRamp ID:	76
Form ID:	26460
TITLE:	Regulation of the PutA Protein and Proline Metabolism
PI:	Donald Becker
DEPT:	Biochemistry
Protocol Biosafety Level:	BSL-2
NIH Guidelines reference:	III-F-3, III-F-4, III-F-8, C-I, C-II, C-III, III-E, III-E-1, III-D-3-a, III-D-4-a
IBC MOTION:	Approve with the following contingencies:

Contingencies/Issues:	Required training is completed and a satisfactory walkthrough for arthropod containment is completed.		
Made by:	D. Loy		
Seconded by:	H. Blair		
For:	9		
Against:	0		
Abstained:	0		
PROTOCOL NOTES:			
Summary of Project(s):	We study the cellular function of bacterial and human enzymes involved in proline metabolism. This involves purifying enzymes from bacterial expression systems and for human enzymes, characterizing them also in mammalian cell culture.		
Changes to the Protocol:	Section III. Microorganism and Infectious Agent Information <i>Acinetobacter baumannii</i> ATCC 17978VU (also referred to as strain ACX60_10465) We added a new microbe (<i>Acinetobacter baumannii</i>) to study the role of proline during infection using the larvae of the <i>Galleria mellonella</i>, wax moth. We plan to use the wild-type strain and a putA gene knockout strain. These new materials are being used to further our studies of proline and PutA using an animal model of pathogenesis. Section IV - Cell/Tissue Culture and Other Sample Information New human skin cells from a patient at the Children's Hospital of Eastern Ontario. Skin samples are collected by biopsy at the Children's Hospital of Eastern Ontario. These cells will be sent to us for cell culturing and characterization of proline metabolic enzymes, metabolism, and mitochondrial function. These cells can be used as a model to create a permanent cell line and will be used to compare the behavior of cells from individuals with a rare disease to those without. SH-SY5Y cells- New cell line will be purchased from ATCC. These cells will be used to test the effect of the PYCR2 variant in a neuronal cell line model. V. Research Organism Information Soybeans- soybean varieties Maverick or Williams 82 will be grown in the Beadle Greenhouse facility. The purpose of this experiment is to test the oxidative stress response in the plants after exposure to chitosan treatment.		
Risk Assessment Considerations:			
Genetic Material:	N/A		
Vector system:	N/A		
Microbiological agents:	<i>Acinetobacter baumannii</i> ATCC 17978VU		
Organisms:	Soybeans		
OTCC:	SH-SY5Y cells		
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. Additional concerns and required medical surveillance are described below.	
Safety Concerns:	None.	
Facility Concerns:	None.	
Vaccines/Medical Surveillance:	None.	
Administrative issues:		
Current safety training for staff:	Lab member needs to complete training.	
Current equipment certification:	Yes.	
Date/Result of last EHS Survey:	Annual 3/24/2026	Findings: All findings addressed.
IBC Discussion:	The Committee discussed containment measures for work involving infected moth larvae and confirmed that the infected moth larvae will not be allowed to develop into flying adult moths. Laboratory audit of ACL containment practices will be completed within the next few weeks, and approval is contingent upon completion of required training by the investigator.	

3. Notice of NIH Exempt Protocol Approvals: None

4. Notice of Administratively Approved Amendments:

NuRamp ID:	8		
Form ID:	26404		
TITLE:	Center for Advanced Biofuel Systems		
PI:	Edgar Cahoon		
DEPT:	Center for Plant Science Innovation		
Project Biosafety Level:	BSL-1, BSL-1-P (Plant)		
NIH Guidelines reference:	III-F-8, C-I, C-II, C-III, III-E, III-E-2, III-E-2-a, III-D-2-a		
PROTOCOL NOTES:			
IRB protocol:	☐ Yes	☒ No	SROC protocol: ☐ Yes ☒ No
IACUC Protocol:	☐ Yes	☒ No	
Objective of Study:	This work aims to understand the biochemical mechanisms of fatty acid biosynthesis and sphingolipid metabolic pathways and their regulation. Manipulation of these pathways in transgenic plants can be done to alter the oil composition of seed oils to add industrial and nutritional value to crops like soybean, sorghum, camelina and maize.		
Changes to the Protocol:	One new bacterial strain <i>E.coli</i> DHbeta, and Four new plasmids, pBDonor, pBhelper, pPDonor, and pPHelper were added for use in		

	generating large constructs for transformation via <i>Agrobacterium</i> into <i>Camelina</i> and soybean.
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Review comments: None.

NuRamp ID:	537
Form ID:	26439
TITLE:	Promoting gastrointestinal health and reducing inflammation through dietary interventions
PI:	Devin Rose
DEPT:	Food Science and Technology
Project Biosafety Level:	BSL-2, ABSL-2 (Animal)
NIH Guidelines reference:	III-E, III-E-2-a
PROTOCOL NOTES:	
IRB protocol:	☒ Yes ☐ No SROC protocol: ☐ Yes ☒ No
IACUC Protocol:	☐ Yes ☒ No
Objective of Study:	This project aims to determine the effects of dietary components on human health, especially those dietary components that promote host health through the gut microbiome.
Changes to the Protocol:	Add <i>Anaerostipes</i> strains to the list of bacteria we are working with in the lab. <i>Anaerostipes</i> strains used in the lab will be ATCC type strains or will be <i>Anaerostipes</i> strains isolated from healthy human fecal samples.
Review comments:	None.

NuRamp ID:	1318
Form ID:	26461
TITLE:	Extracellular Vesicles, muscle metabolism, muscle mass, and miRNAs.
PI:	Ivan Vechetti
DEPT:	Nutrition and Health Sciences
Project Biosafety Level:	BSL-2, ABSL-1 (Animal)
NIH Guidelines reference:	III-F-2, III-F-3, III-F-4, III-F-8, C-II, C-VIII, III-E-3, 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:	With the experiments proposed in this protocol, we aim to understand how skeletal muscle mass is regulated in order to identify more effective therapeutic strategies to prevent or reverse muscle loss associated with aging, disease, and periods of inactivity.
Changes to the Protocol:	I. Personnel: Removed a student and added a postdoc II. Research Description: Added MYOAAV III. Microorganism and Infectious Agent Information: added myoaaav V. Research Organism Information: Added myoaaav to mice treatments

VI. Recombinant and/or Synthetic Nucleic Acid Information: Added myoaav viral vector (MG53 gene update and AAV plasmids)
 X. Risk Assessment/Safety Considerations: Change animal to ABSL1, lentiviral work has ended.

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:	1157		
TITLE:	Exploring Antimicrobial Alternatives for Controlling Intestinal Infections in Poultry.		
PI:	Donald Reynolds		
DEPT:	School of Veterinary Medicine and Biomedical Sciences		
Project Biosafety Level:	BSL-2, ABSL-2 (Animal)		
Project Termination Date:	4/21/2026		
PROTOCOL NOTES:			
IRB protocol(s):	☐ Yes	☒ No	SROC protocol: ☐ Yes ☒ No
IACUC Protocol(s):	☒ Yes	☐ No	
Disposition of rDNA and agents:	Bacterial isolates were from the diagnostic center, so no remaining material. No remaining vaccine materials. Deb Royal, Quality Control Manager, has gone through the space to ensure all materials were disposed of.		

C. Other Business:

1. EHS Report

II. ADJOURN

Motion: D. Loy

2nd: K. Heath

Time Adjourned: 2:55

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-00026498	UNL-00001377	5/28/2026	Evaluating the effect of dietary interventions on human health and the gut microbiome.	Submitted to Biosafety	Approved	Edward Deehan	Personnel
UNL-00026496	UNL-00000201	1/0/1900	Validation of extrusion processing for inactivation of food pathogens	Submitted to Biosafety	Approved	Andreia Bianchini Huebner	Personnel
UNL-00026491	UNL-00001450	5/22/2026	Understanding the Cognitive and Brain Health in Relation to Diet and Dietary Interventions	Submitted to Biosafety	Approved	Doug Schultz	Personnel
UNL-00026486	UNL-00001405	1/0/1900	Improving crop N use efficiency through biotechnology	Approved	Preparation	Jinliang Yang	Personnel
UNL-00026485	UNL-00001338	1/0/1900	Viral Control of Cell Fate	Approved	Preparation	Lindsey Crawford	Personnel
UNL-00026475	UNL-00001372	5/18/2026	Diversity and population structure of fungal plant pathogens	Approved	Approved	Teddy Garcia Aroca	Personnel
UNL-00026473	UNL-00001338	5/8/2026	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-00026504	6/1/2026	UNL-00001447	Expression of hydrolase enzymes in biofuel crop plants.	Approved	Approved	Nicole Buan	No
UNL-00026503	5/29/2026	UNL-00000282	Etiology, epidemiology and management of wheat and ornamental plant diseases in Nebraska	Approved	Approved	Stephen Wegulo	No
UNL-00026502	5/28/2026	UNL-00000534	Impact of environmental factors on Drosophila development and physiology	Approved	Approved	Kristi Montooth	No
UNL-00026499	5/28/2026	UNL-00001516	Characterization of Genes Regulating Photosynthetic Efficiency in Maize and Sorghum	Approved	Approved	Seema Sahay	No
UNL-00026495	5/28/2026	UNL-00000014	Neuroinvasive alphaherpes viruses	Approved	Approved	Gary Pickard	No
UNL-00026493	5/22/2026	UNL-00000162	Regulation of eukaryotic gene expression	Approved	Approved	Audrey Atkin	No
UNL-00026492	5/28/2026	UNL-00001370	Applied soybean research with endemic plant pathogens	Approved	Approved	Dylan Mangel	No
UNL-00026488	5/28/2026	UNL-00001441	One Year Duration of Immunity Study in Cats to Demonstrate the Efficacy of a Feline Leukemia Vaccine, Killed Virus	Approved	Approved	Paige Crumley	No
UNL-00026483	5/21/2026	UNL-00000087	Microbially-Mediated Metal & Nitrogen Redox Reactions	Approved	Approved	Karrie Weber	No