INSTITUTIONAL BIOSAFETY COMMITTEE
MEETING MINUTES

Chair: M.A. Amalaradjou
Meeting Time: 1:30 PM

October 2, 2025
Web Conference

Attendance

Voting Members	Role / Expertise	Present	Absent	Comments
Amalaradjou, Mary Anne	*IBC Chair*	X		
Brennan, James	*Animal Care Services*	X		
Cavallaro, David	*BSO, Voting NIH Contact*	X		
Chen, Yupeng	*Biomedical Engineering*	X		
Chidambaram, Ramaswamy	*Animal Expert*	X		
Heyduk, Karolina	*Plant Expert*	X		
Macierowski, Bobbie	*Local Non-Affiliated Member*	X		
Maltz-Matyschsyk, Michele	*Vice Chair, Molecular and Cell Biology*	X		
Miller, Robert	*Local Non-Affiliated Member*	X		
Wunder, Elsio	*Pathobiology*	X		
Wright, Dennis	*Pharmaceutical Sciences*	X		
Non-Voting Members				
Delage, Danielle	*IBC Program Director* *NIH Contact*	X		
Lewchik, Brent	*EHS Director*	X		
Lucas, Melanie	*RICS Director*		X	

The IBC has eleven voting members. A minimum of five voting members are required to conduct business. Eleven voting members were present, meeting quorum.

The IBC Chair called the meeting to order at 1:31 PM and opened with the Chair reading the confidentiality statement.

I. Confidentiality Statement:

Members were reminded that all information provided in writing or discussed at this meeting may be sensitive or proprietary and must be considered confidential. In the interest of transparency, IBC meetings remain open to the public whenever possible. However, meetings may be closed to review confidential or sensitive information. Proprietary or private information will not be included in meeting minutes whenever possible, and may be redacted as necessary, prior to public release.

II. Conflict of Interest:

The committee was reminded that no IBC member may be involved in the review *(except to provide information if requested)* or approval, of a project for which there are real or perceived direct financial interests. Potential conflicts of interest must be disclosed. When a conflict is declared that member is recused from committee discussion and voting portions of the review for that submission.

Members were asked to declare potential, real, or perceived conflicts of interest with submissions on the agenda.

No conflicts declared.

III. Announcements:

The Chair informed the committee of recent changes in membership.

Dr. Szczepanek's expertise was needed to fill a vacancy on the IACUC and therefore has stepped down from the IBC. Dr. Szczepanek served as the IBC's Vice-Chair and Virologist since 2019, and his many years of service to the committee is greatly appreciated.

Our longstanding committee member, Michele Maltz-Matyschysk agreed to assume the role of Vice Chair of the IBC.

Dr. Elsio Wunder from Pathobiology was welcomed as a new faculty committee member.

IV. Review of Minutes:

Committee members were provided an opportunity to review proposed minutes from the September 4, 2025 meeting. In the event a request for redaction is received after approval, allowable redactions will be made prior to posting minutes publicly.

The Chair opened the floor for discussion. The committee had no comments.

The Chair moved to approve the minutes as written, which was seconded, with the following votes: 8 in favor, 0 opposed, and 3 abstentions. Abstentions were recorded for members who were not in attendance at the September meeting. MOTION CARRIED

V. Chair Report:

Administrative actions taken by the Chair since the last meeting was presented to the committee. Revisions previously requested were received and approvals were finalized for the following:

1. Amendment #338A2 – Lawrence Silbart
2. Renewal #220R1 – Jaime Vaudrey

VI. Biosafety Officer Report:

Laboratory audits are conducted periodically to assess facilities and lab practices to ensure compliance with all applicable Biosafety requirements. A summary of recent biosafety audits was presented to the committee.

Audit Report:

- A total of 12 biosafety audits were conducted in September. 92% of audits resulted in no findings.
- The only finding was an out-of-date biological inventory.

VII. Review of NIH Covered Experiments

Review #1	
PI Name	David Knecht
Submission	Renewal #260R2P
Title	Chemotaxis and Chemokinesis
	Project Overview
Summary of Proposed Project	The lab studies chemotaxis using the model organism *Dictyostelium*. The project focuses on the degradation of chemo-attractants in the formation of gradients, and the role enzymatic degradation plays in determining direction of movement and how this impacts the speed of cell movement. Genes for the degrading enzymes will be identified from protein sequences. PCR and standard recombinant DNA techniques (cloning, plasmid prep) will be used to create vectors for deleting genomic copies of these genes. A fluorescent fusion gene will be created to transfect *Dictyostelium* cells and monitor the localization and expression level of the gene. Cells will be monitored for localization and expression levels of altered genes. Wild type *Dictyostelium* is modified to express GFP / RFP to visualize and track movement. Dictyostelium feeds on live bacteria (*Klebsiella aerogenes* or *E. coli* BL21).
Agent Name	*E. coli* BL21, *E. coli* K-12, *Dictyostelium, Klebsiella aerogenes* (attenuated)
Risk Group	RG1 & RG2
Agent Characteristics	Non-pathogenic
rsNA Source Organism	*Aequorea victoria*
Nature / Function of rsNA	Fluorescent Reporters
Modifications	PCR and standard recombinant DNA techniques will be used to create vectors for deleting genomic copies of these genes. Fluorescent fusion gene will be created to transfect Dictyostelium cells and monitor the localization and expression level of the gene. Dictyostelium is also modified to express GFP / RFP.

Experimental Manipulations	Techniques such as cloning, plasmid prep, cell culture, PCR and sequencing.
	Risk Assessment & Discussion
High Risk Manipulations	N/A
Risk Mitigation Strategies	BSC, attenuated Klebsiella, appropriate PPE and decontamination procedures
PPE	Lab Coat, Nitrile Gloves, Safety Glasses
Training & Expertise	PI must complete NIH Guidelines Refresher Training.
Containment & Practices	BSL-1; containment and practices noted as adequate
NIH Classifications	III-E, III-F
Primary Review Comments	The organisms, vectors and recombinant techniques used in this research pose minimal risk. The *Klebsiella* has been attenuated for lab use as a food source for the *Dictyostelium*. The lab should clearly indicate that transfection of *Dictyostelium* is achieved by plasmid electroporation and not via a viral or other carrier vector. It is requested that the lab add information regarding PPE, decontamination practices and any use of a biosafety cabinet or other containment device.
	IBC Motion & Vote
Committee Discussion	The mechanism of *Klebsiella* attenuation was discussed. The Knecht Lab has used this strain for several years and previously stated that attenuated strains were selected via passaging.
Motion	A motion was made to approve registration renewal 260R2P with the following conditions: – Clearly indicate that transfection of Dictyostelium is achieved by plasmid electroporation and not via a viral or other carrier vector. – It is requested that the lab add information regarding PPE, decontamination practices and any use of a biosafety cabinet or other containment. – Ensure Open Notes addressed in bio-summary The motion was seconded. The committee voted with 11 in favor, 0 opposed, 0 abstentions. MOTION CARRIED
Committee Action	The committee voted to approve renewal 260R2P with conditions, for a three-year term.

Review #2	
PI Name	Geoffrey Tanner
Submission	Renewal #269R2P
Title	Metabolic control of behavior, physiology, and neuronal excitability in Drosophila

	Project Overview
Summary of Proposed Project	The Nutrition/Diet and Neurological Disease (ND^2) lab studies how dietary interventions—especially caloric restriction and ketogenic diets—affect the progression of neurological diseases. Using *Drosophila melanogaster* as a model, the lab investigates conditions like epilepsy, chronic traumatic encephalopathy (CTE), and Alzheimer's disease. Through a combination of genetics, biochemistry, pharmacology, anatomy, and behavioral assays, the lab aims to uncover molecular mechanisms linking diet to brain health and identify potential drug targets that could replicate the benefits of dietary therapies. In Project 1, wild-type flies are fed ketone body supplements to assess lifespan and health span through behavioral and tissue analyses. Project 2 involves dissecting tissues for protein analysis, focusing on post-translational modifications. Project 3 uses genetically modified flies to over-express tau protein in glial cells, with behavioral and biochemical assays to evaluate tauopathy effects. The tau protein while a human gene is expressed only in neural cells and is destroyed via autoclaving, minimizing any residual risk. Project 4 applies RNAi to knock down glial metabolic genes, examining their role in energy support and ketone metabolism, these are all genetic tools native to *Drosophila* research and drive RNAi-mediated knockdown of specific genes in glial or neuronal cells. Project 5 screens pre-existing mutant strains for seizure-like activity and tests their responsiveness to ketogenic treatments, aiming to identify key metabolic pathways and molecular targets. They will also use the same GAL4-UAS expression system to drive RNAi-mediated knockdown of select target genes as in project 4.
Agent Name	N/A
Risk Group	N/A
Agent Characteristics	N/A
rsNA Source Organism	*Drosophila melanogaster*, Human
Nature / Function of rsNA	Tau protein expression in flies
Modifications	Transgenic fly lines obtained from external vendor
Experimental Manipulations	*Drosophila* handling, tissue collection, protein and molecular analysis, PCR and sequencing
	Risk Assessment & Discussion
High Risk Manipulations	N/A
Risk Mitigation Strategies	All experiments are conducted safely. Flies are kept in sealed vials and autoclaved after use to ensure containment and deactivation. Arthropod Containment Devices (e.g. air curtain) are used to minimize the risk of release.
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Close-Toed Shoes
Training & Expertise	Lab personnel are overdue for EHS Refresher Trainings.
Containment & Special Practices	BSL-1

NIH Classifications	III-D, III-F
Primary Review Comments	The document outlines containment procedures and safe handling practices for Drosophila melanogaster and transgenic lines, demonstrating awareness of biosafety considerations appropriate for ABSL-1 research. These measures support a low-risk experimental environment and reflect responsible laboratory conduct.
	IBC Motion & Vote
Committee Discussion	The committee discussed the rsNA survey responses and noted that if gene drive projects are involved, a minimum of BSL-2 containment would be required. The projects currently described do not meet the definition of gene drive experiments. The lab must clarify and/or update the rsNA survey to ensure responses accurately reflect current projects. Lab personnel must complete the required EHS Refresher Trainings.
Motion	A motion was made to approve registration renewal 269R2P with the following conditions: – The lab must clarify and/or update the rsNA survey to ensure responses accurately reflect current projects. – Lab personnel complete required EHS Trainings. The motion was seconded. The committee voted with 11 in favor, 0 opposed, 0 abstentions. MOTION CARRIED
Committee Action	The committee voted to approve renewal 269R2P with conditions, for a three-year term.

Review #3	
PI Name	Aoife Heaslip
Submission	Renewal #291R2P
Title	Investigating mechanisms of intracellular survival by *Toxoplasma gondii*
	Project Overview
Summary of Proposed Project	Overall focus is to understand the biology of *T. gondii* - identify virulence factors critical for its intracellular survival. (1) Identification of proteins of interest from the literature or from proteomic studies carried out in the lab. (2) Cloning genes of interest or endogenously tagging genes using CrispR-Cas9. (3) Carry out a series of phenotypic assays to access parasite fitness upon gene knockout. (4) Express proteins of interest in either bacteria or using the baculovirus-Sf9 system. Commercial plasmids will be employed. Projects will involve transferring drug resistance to *T. gondii* for selective pressure, introduction of sNA into *T. gondii*,

	cloning NA from *T. gondii* into *E. coli* Dh5a and BL21, infection of baculovirus derived vector system into cell lines.
Agent Name	*E. coli* BL21, *E. coli* K-12, *L. tarentolae*, *Toxoplasma gondii*
Risk Group	RG1 & RG2
Agent Characteristics	None of note
rsNA Source Organism	*T. gondii, S. pyogenes (CRISPR), Discosoma sp.* (sea anemone)*, Aequorea victoria* (jellyfish)
Nature / Function of rsNA	Fluorescent reporters, parasite proteins associated with intracellular survival
Modifications	Tagging using CRISPR/Cas systems, gene knockout
Experimental Manipulations	Proteomic studies, cloning genes of interest, phenotypic assays, protein expression in bacteria or tissue culture systems
	Risk Assessment & Discussion
High Risk Manipulations	N/A
Risk Mitigation Strategies	BSC, Sealed Centrifuge Cups and Rotors, Splash Shields
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Close-Toed Shoes, Disposable Gown, Goggles, Face Shield
Training & Expertise	Lab member overdue for EHS Refresher Training. PI must complete NIH Guidelines Refresher Training.
Containment & Special Practices	BSL-1 containment and practices noted as adequate for work with *L. tarentolae* BSL-2 containment and practices noted as adequate for work with *T. gondii*
NIH Classifications	III-D, III-E, III-F
Primary Review Comments	All work with *T. gondii* will be done in a BSL-2 space. Decontamination includes 10% bleach and a final rinse in 70% Ethanol. Personnel will don appropriate PPE. Waste is disposed of through the biohazardous waste stream.
	IBC Motion & Vote
Committee Discussion	Disinfectant solutions should be prepared weekly ideally, but at a minimum, every two weeks. The lab will be asked to clarify handling and disposal practices of single-use plastic sharps materials (e.g. pipette tips), as well as the ratio of liquid to bleach to ensure liquid decontamination procedures are adequate.

Motion	A motion was made to approve registration renewal #291R2P with the following conditions: – Update the frequency of preparing disinfectants. – Clarification is requested regarding handling and disposal practices of single-use plastic sharps materials (e.g. pipette tips). – For liquid decontamination, the ratio of liquid to bleach is requested. The motion was seconded. The committee voted with 11 in favor, 0 opposed, 0 abstentions. MOTION CARRIED
Committee Action	The committee voted to approve renewal 291R2P with conditions, for a three-year term.

VIII. Old Business:

- Update on NIH Reportable Incident: NIH OSP sent a response to the Biosafety Officer regarding the reportable incident that occurred in July. No further action is required.

IX. New Business:

- NIH Regional Listening Session on Efforts to Modernize and Strengthen Biosafety Oversight

X. Items from the Floor:

None

No public comments to record.

Chair made a motion to adjourn, which was seconded. Meeting adjourned at 2:14 PM.

Next meeting scheduled for November 6, 2025 at 1:30 PM via web conference.
