UNIVERSITY OF CONNECTICUT
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INSTITUTIONAL BIOSAFETY COMMITTEE
MEETING MINUTES

Chair: M.A. Amalaradjou
Meeting Time: 2:30 PM

January 15, 2026
Web Conference

Attendance

Voting Members	Role / Expertise	Record	Comments
Amalaradjou, Mary Anne	*IBC Chair*	Present	
Brennan, James	*Animal Care Services*	Present	
Cavallaro, David	*BSO, Secondary NIH Contact*	Present	
Chen, Yupeng	*Biomedical Engineering*	Present	
Chidambaram, Ramaswamy	*Animal Expert*	Present	
Heyduk, Karolina	*Plant Expert*	Absent	
Macierowski, Bobbie	*Local Non-Affiliated Member*	Present	
Maltz-Matyschsyk, Michele	*Vice Chair, Molecular and Cell Biology*	Present	
Miller, Robert	*Local Non-Affiliated Member*	Present	
Wunder, Elsio	*Pathobiology*	Present	
Wright, Dennis	*Pharmaceutical Sciences*	Present	
Non-Voting Members & Guests			
Delage, Danielle	*NIH Contact, IBC Program Director*	Present	
Lewchik, Brent	*EHS Director*	Present	
Lucas, Melanie	*RICS Director–Animal Research & Safety*	Present	*Joined at 2:38 PM*
Murray, Dylan	*Principal Investigator*	Present	*Recused at 2:39 PM*

The IBC has eleven voting members; a minimum of five members is required for quorum. Ten voting members were present, and quorum was met.

The Chair called the meeting to order at 2:31 PM.

I. Confidentiality Statement:

The Chair read the confidentiality statement to remind all in attendance that information reviewed or discussed may be sensitive or proprietary in nature and must be considered confidential.

In the interest of transparency, IBC meetings remain open to the public whenever possible. However, the committee may enter into executive sessions as needed, 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 Chair reviewed the conflict-of-interest policy as a reminder that no IBC member may be involved in the review or approval of a project for which there are real or perceived direct financial interests, *except to provide information if requested*.

The Chair requested conflict-of-interest disclosures. D. Wright disclosed a conflict and will be recused from discussion and voting on IBC Registration Renewal #304R2P.

III. Announcements:

None

IV. Review of Prior Minutes:

The Committee reviewed the minutes for previous meetings convened on November 6, 2025 and December 11, 2025.

A motion to approve the minutes as presented was made and seconded. The Committee voted 8 in favor, 0 opposed, with 2 abstentions. Motion carried.

V. Chair Report:

The Chair had no administrative actions to report since the last meeting.

VI. Biosafety Officer Report:

Laboratory audits are conducted periodically to assess facilities and lab practices to ensure compliance. The BSO presented a summary of recent biosafety audits to the committee.

Audit Report:

- In December, seven biosafety audits were completed, five of which had no findings. Corrective actions identified included an outdated biological inventory and overdue safety training.

VII. Review of NIH Covered Experiments

Review #1	
PI Name	Dylan Murray
Submission	Amendment #402A1P
Title	Microscopic mechanisms of macroscopic biomolecular organization
Project Overview	
Project Description	The Murray Laboratory focuses on understanding how the microscopic properties of biological molecules give rise to their macroscopic behaviors. To investigate this, the lab produces molecules—most often human proteins expressed in recombinant bacterial systems—in the laboratory. Using a range of biophysical techniques, including nuclear magnetic resonance, fluorescence, and imaging, the team examines how these proteins interact with themselves and with other biomolecules. The laboratory also isolates and images proteins from human and insect cell lines. Through methods such as immunofluorescence, pull-down assays, and bioconjugation, researchers study how these proteins engage with other molecular partners and determine their localization within cells. The insights gained from this work contribute to a deeper understanding of fundamental biological processes and shed light on how diseases such as dementia and cancer arise and may be treated.
Agent Name	*E. coli* K-12 and BL21 strains, Baculovirus Vectors, 3rd Generation Lentiviral Vectors
Risk Group	RG1 bacteria, RG2 viral vector, RG2 viral vector
Agent Characteristics	E. coli is non-pathogenic; replication-incompetent lentiviral vector
rsNA Source Organism	Human
Nature / Function of rsNA	Stress Granule Assembly
Modifications	Molecular cloning (commercial plasmids; PCR for generation of nucleotide edits reflecting human disease variants), bacterial protein overexpression and purification of *E. coli* BL21(DE3) and mammalian and insect cell culture workflows that include vector delivery systems.
Experimental Manipulations	Isolation and imaging of proteins from human and insect cell lines is conducted. Methods to study protein interactions and determine localization within cells include immunofluorescence, pull-down assays, and bioconjugation.
Risk Assessment & Discussion	
Engineering Controls	BSC, Sealed Centrifuge Rotors
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Close-Toed Shoes, Disposable Gown, Shoe Covers, Goggles
Training & Expertise	PI must complete NIH Guidelines Training – personnel are compliant with all other training requirements.
Containment & Special Practices	BSL-2 containment, biosafety practices, and decontamination procedures were noted as adequate. Decontamination methods include autoclaving solid waste, use of 10% bleach (15-minute contact time) followed by 75% ethanol for and work surfaces.

NIH Classifications	III-D-3, III-E, III-E-1, III-F exempt
Risk Assessment & Primary Review Comments	Work in this lab involves recombinant DNA, non-pathogenic *E. coli* strains, 3rd generation lentiviral vectors for gene delivery, as well as mammalian and insect cell cultures, all of which pose low biological risk when handled at BSL-2 containment and using established biosafety practices. Routine use of PPE, BSC, Sealed Centrifuge Rotors, and proper decontamination procedures effectively minimizes risk of exposure and environmental release.

D. Murray was given the opportunity to provide any additional project details, after which the floor was opened for committee questions and comments.

~2:39 PM – D. Murray was recused for the remainder of the meeting.

IBC Motion & Vote

Committee Discussion	None
Motion	A motion was made to approve amendment 402A1P, under the condition that the PI completes NIH Guidelines Retraining. The motion was seconded. The committee voted with 10 in favor, 0 opposed, and 0 abstentions. Motion Carried.
Committee Action	The committee voted to approve amendment 402A1P with conditions, for the duration of the registration's approval term.

Review #2

PI Name	Hunmin Jung
Submission	Renewal 276R2P
Title	Structural and biochemical investigation on DNA repair and bypass

Project Overview

Project Description	The overall goal of this project is to elucidate the structural and biochemical mechanisms underlying DNA repair and lesion bypass pathways that contribute to mutagenesis, cancer, and metabolic disease, and to support the development of novel therapeutic inhibitors targeting these processes. The research focuses on determining high-resolution crystal structures of key enzymes involved in DNA repair and nucleotide metabolism, both in the presence and absence of candidate small-molecule inhibitors and integrating these findings with biochemical and biophysical analyses to establish structure–activity relationships.
Agent Name	*E. coli* BL21
Risk Group	RG1

Agent Characteristics	Non-pathogenic
rsNA Source Organism	Human Gene Targets
Nature / Function of rsNA	Enzymes involved in DNA repair and nucleotide metabolism, both in the presence and absence of candidate small-molecule inhibitors
Modifications	Experimental activities include recombinant expression of human proteins such as DNA polymerase eta, DNA polymerase beta, etc. using E. coli expression systems (BL21 DE3, BL21 pLysS; pET vectors). Human cell lines (HEK293, Caco-2, and HCT116) will be employed to evaluate the cellular activity, mutagenic potential, and efficacy of novel inhibitor candidates, as well as selected known chemotherapeutic agents (e.g., 5-fluorouracil).
Experimental Manipulations	Proteins will be purified via FPLC and chromatographic methods and used for X-ray crystallography and in vitro biochemical assays. No animal models involved.
Risk Assessment & Discussion	
Engineering Controls	BSC
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Close-Toed Shoes, additional PPE (e.g. surgical masks) may be recommended based on the volume of culture being handled.
Training & Expertise	Personnel are compliant with all training requirements as assigned, though job activities in HuskySMS should be confirmed.
Containment & Special Practices	All work conducted under BSL-2 conditions using standard biosafety practices.
NIH Classifications	III-E
Risk Assessment & Primary Review Comments	NIH guidance allows III-E classification with elevated containment when human cells are used. No viral vectors, no replication-competent agents, and no gene drive systems are involved.
IBC Motion & Vote	
Committee Discussion	Since only two lab members have completed BBP Training, Biosafety should follow up to ensure job activities are current. Risk-mitigation strategies for spills outside primary containment were reviewed. Clarification was requested concerning the quantities of biological samples anticipated for use. Biosafety will follow up with the PI to confirm that the lab does not plan to use large quantities of rsNA materials.
Motion	A motion was made to renewal 276R2P with conditions, as discussed. The motion was seconded. The committee voted with 10 in favor, 0 opposed, and 0 abstentions. Motion Carried.
Committee Action	The committee voted to approve renewal 276R2P with conditions, for a three-year term.

Review #3

PI Name	Dennis Wright
Submission	Renewal 304R2P
Title	Testing of Antimicrobial Compounds Against Bacterial and Fungal Pathogens and Development of Outpatient Antiviral Cocktails

Project Overview

Project Description	The lab describes two active projects. Project 1: The lab designs and evaluates new small molecules agents as antimicrobial agents. Novel compounds are evaluated against specific enzymes from pathogenic organisms, which are expressed and purified from bacterial expression systems using recombinant DNA techniques. Compounds are also evaluated against specific strains of pathogenic organisms (internal and/or external evaluation), in accordance to CLSI guidelines. Project 2: The lab will express and purify the nsp14 enzyme and the fusion construct of nsp10-14 exonuclease (nsp10 serves as an accessory factor) for use in biochemical and biophysical assays with novel synthetic compounds. The target genes will be cloned in pET plasmids under control of strong bacteriophage T7 transcription, followed by a transformation into BL21 host vector system for expression and purification of the recombinant proteins.
Agent Name	*Acinetobacter baumannii, Enterobacter cloacae, Enterococcus spp., E. faecalis, E. faecium, Escherichia coli, Klebsiella aerogenes, K. oxytoca, K. pneumoniae, Proteus mirabilis, Pseudomonas aeruginosa, Staphylococcus spp. S. epidermidis, S. aureus, Streptococcus pneumoniae, S. pyogenes, S. agalactiae, Streptomyces spp., E. coli* BL21, *E. coli* Dh5a
Risk Group	RG2 and RG1
Agent Characteristics	Non-pathogenic *E. coli* strains; antibiotic resistant strains of certain RG2 pathogens
rsNA Source Organism	Various pathogens as described in the lab's registration forms.
Nature / Function of rsNA	Inhibit growth and replication
Modifications	Target enzymes are expressed and purified from bacterial expression systems using recombinant DNA techniques. Target genes will be cloned in plasmids under control of strong bacteriophage T7 transcription. rsNA constructs are the transformed into non-pathogenic host vector systems to express and purify recombinant proteins.
Experimental Manipulations	Standard molecular procedures for cloning and protein expression; biochemical, biophysical, computational and structural approaches supported by antimicrobial testing; In vitro susceptibility assay screens; physicochemical properties of novel agents and synthetic tractability assessed in cell-based assays.

Risk Assessment & Discussion	
Engineering Controls	BSC
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Surgical Mask
Training & Expertise	Personnel must complete applicable EHS Refresher Trainings.
Containment & Special Practices	BSL-2 noted as adequate for culturing and experiment with RG2 bacteria and fungi.
NIH Classifications	III-D-2, III-E, III-F exemptions
Risk Assessment & Primary Review Comments	The lab uses transformed *E. coli* to express specific RG2 and RG3 proteins or protein fusions. RG2 organisms are cultured, some of which are antibiotic resistant strains, to test antimicrobial activity of compounds targeting those specific proteins. The PI was present during the review portion to answer any questions. The committee requested clarification regarding whether antibiotic resistant strains listed are naturally occurring or generated with rsNA. D. Wright clarified that strains used in their lab are mutants.

2:54 PM – D. Wright was recused for the motion and vote on registration renewal #304R2P.

IBC Motion & Vote	
Committee Discussion	None
Motion	A motion was made to approve registration renewal #304R2P as written. The motion was seconded. The committee voted with 9 in favor, 0 opposed, and 0 abstentions. Motion Carried.
Committee Action	The committee voted to approve registration renewal #304R2P as written, for a three-year term.

2:58 PM – D. Wright was brought back into the web conference.

Review #4	
PI Name	Ji-Young Lee
Submission	Renewal 314R2P
Title	Evaluation of Dietary & Epigenetic Factors in the Regulation of Energy, Metabolism, Inflammation and Fibrosis
Project Overview	
Project Description	The lab will investigate the roles of histone deacetylases (HDACs) and dietary factors, such as carotenoids, blue-green algae, nicotinamide riboside, and berries, in the regulation of energy metabolism, fibrogenesis, and inflammation using cell and animal models. The research will be conducted in the context of obesity-associated metabolic diseases, including non-alcoholic fatty liver disease and alcoholic liver disease.
Agent Name	*E. coli* Dh5a
Risk Group	RG1
Agent Characteristics	Non-pathogenic
rsNA Source Organism	Human and Murine
Nature / Function of rsNA	Histone Deacetylases (HDACs) – *study role in regulation of energy metabolism, fibrogenesis, and inflammation*
Modifications	Transient overexpression or knockdown of an HDAC in murine primary cells or cell lines with vectors purchased from Addgene. Vectors will be transformed into *E. coli* DH5a for replication, and transfected into mouse cells via electroporation. siRNA transfection of murine cells is done with commercially available constructs and lipid-based reagents. Human cell lines will be used for overexpression. Transgenic rodents are purchased or transferred, or two existing lines are bred.
Experimental Manipulations	Gene, protein, biochemical, and histological (formalin-fixed and OCT-block) analyses. Cells are used for either in-vitro culture to measure gene/protein expression or FACS analysis. In-vivo activities include rodent models (wild-type and knockout) to study liver disease. DNA is also extracted from animal models for genotyping.
Risk Assessment & Discussion	
Engineering Controls	None noted (due to HuskySMS issue)–Biosafety will follow up with the PI to verify current information.
PPE	None noted (due to HuskySMS issue)–Biosafety will follow up with the PI to verify current information.
Training & Expertise	PI must complete NIH Guidelines Refresher Training.
Containment & Special Practices	BSL-1 containment and practices noted as not adequate.
NIH Classifications	III-E, III-F exemptions

Risk Assessment & Primary Review Comments	Risk is low, but lab needs to address the open notes and identify what PPE staff will utilize, what (if any) primary containment (such as a BSC) will be used, and their methods for decontamination of work surfaces and samples, as well as disposal. Lab also needs to address training delinquencies for one lab member.
IBC Motion & Vote	
Committee Discussion	It is requested that the PI address the open note regarding PPE and primary containment (BSC) used.
Motion	A motion was made to approve registration renewal #314R2P with conditions, as discussed. The motion was seconded. The committee voted with 10 in favor, 0 opposed, and 0 abstentions. Motion Carried.
Committee Action	The committee voted to approve registration renewal #314R2P with conditions, for a three-year term.

VIII. Old Business:

None

IX. New Business:

None

X. Items from the Floor:

None

No public comments to record.

Chair made a motion to adjourn, which was seconded. Meeting adjourned at 3:02 PM.

Next Meeting: February 5, 2026 at 1:30 PM