UNIVERSITY OF CONNECTICUT
Storrs, Groton, Hartford, Stamford, Waterbury

INSTITUTIONAL BIOSAFETY COMMITTEE
MEETING MINUTES

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

November 6, 2025
Web Conference

Attendance Record

Voting Members	Role / Expertise	Status	Comments
Amalaradjou, Mary Anne	*IBC Chair*	Present	
Brennan, James	*Animal Care Services*	Present	
Cavallaro, David	*BSO, Voting NIH Contact*	Present	
Chen, Yupeng	*Biomedical Engineering*	Present	Joined 2:14 pm
Chidambaram, Ramaswamy	*Animal Expert*	Absent	
Heyduk, Karolina	*Plant Expert*	Present	
Macierowski, Bobbie	*Local Non-Affiliated Member*	Present	
Maltz-Matyschsyk, Michele	*Vice Chair, Molecular and Cell Biology*	Present	
Miller, Robert	*Local Non-Affiliated Member*	Present	Joined 1:59 pm
Wunder, Elsio	*Pathobiology*	Present	Joined 2:00 pm
Wright, Dennis	*Pharmaceutical Sciences*	Present	
Non-Voting Members			
Delage, Danielle	*IBC Program Director* *NIH Contact*	Present	
Lewchik, Brent	*EHS Director*	Present	
Lucas, Melanie	*RICS Director*	Absent	

The IBC has eleven voting members. A minimum of five voting members are required to conduct business. Seven voting members were present for the call to order, meeting quorum.

The Chair called the meeting to order at 1:33 PM and opened with 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 any potential, real, or perceived conflicts of interest with submissions on the agenda.

No conflicts were declared.

III. Announcements:

None

IV. Review of Minutes:

Committee members were provided with an opportunity to review proposed meeting minutes from October 2, 2025. If redaction requests are received after approval, allowable redactions will be made prior to public release.

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

A motion was made to approve the minutes as written, which was seconded. The committee voted 7 in favor, 0 opposed and 0 abstentions. 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:

Submission	PI Name	Committee Action	Status
Renewal #128R2	Yangchao Luo	Approved with Conditions on 09/05/2024	Conditions Met – Approval in Progress
Renewal #260R2	David Knecht	Approved with Conditions on 10/02/2025	Conditions Met – Approved

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:

- In October, a total of 12 biosafety audits were conducted. Ten audits revealed no findings. Two audits identified one finding each: one related to an overdue submission of a current biological inventory to Biosafety, and the other for overdue EHS retraining.

VII. Review of NIH Covered Experiments

Review #1	
PI Name	Juliet Lee
Submission	Renewal #256R2P
Title	The Role of Mechanosensing in the Regulation of Cytoskeletal Function in Moving Cells
Project Overview	
Project Description	The lab's overall goal is to determine how mechanosensing regulates cell movement, using fish epithelial (skin) keratocytes. Using termed traction force microscopy (TFM), cells are placed on thin, elastic surfaces which provide a readout of the forces (traction) generated during movement. TFM is combined with calcium imaging to measure stretch-activated calcium (SAC) channel activity, or high-resolution fluorescence microscopy to study the dynamic behavior of adhesion complexes, in cellular movement. These studies aim to determine how normal cells sense and respond to the stimuli from their environment. The overall goal is to help move toward developing new medicines that augment cell motility to promote wound healing, immune function; or to inhibit the movement of metastatic cells.
Agent Name	*E. coli* DH5α
Risk Group	RG1
Agent Characteristics	Non-pathogenic
rsNA Source Organism	*A. victoria, Discosoma sp.*
Nature / Function of rsNA	Fluorescent Reporters
Modifications	Zebrafish cells transiently transfected with fluorescent reporters. rsNA expressing fluorescent proteins will be injected into Zebrafish embryos. The lab plans to allow modified embryos to mature, whereby generating transgenic zebrafish lines.
Experimental Manipulations	Tissue culture, standard molecular techniques to perform mechanosensing studies, transient transfection, microinjections, and imaging
Risk Assessment & Discussion	
Risk Mitigation Strategies	BSC, Laminar Flow Bench – *EHS to request clarification from the PI to determine if this information is up-to-date, as laminar flow hoods may not be appropriate for the work described.*
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Face Shield, Goggles
Training & Expertise	Lab Members are current with required EHS Trainings. Dr. Lee must complete the NIH Guidelines Retraining.
Containment & Special Practices	BSL-1 containment is noted as appropriate for this research.
NIH Classifications	III-D-4, III-F

Risk Assessment & Primary Review Comments	While there was no mention of engineering controls, PPE, or decontamination and waste procedures within HuskySMS, this information was detailed in previous registration forms. Open notes were added to request confirmation from the PI.
IBC Motion & Vote	
Committee Discussion	It was noted that all users are up to date on training, however Dr. Lee must complete the NIH Guidelines Retraining. Clarification from the PI is needed to determine if the equipment outlined in previous IBC forms is still accurate, since laminar flow hoods may not be appropriate for the projects outlined.
Motion	A motion was made to approve registration renewal 256R2P with the following conditions: − It is requested that the lab add information regarding PPE, decontamination practices and any use of a biosafety cabinet or other containment; and clarify whether laminar flow hoods are still used. − PI must complete the NIH Guidelines Retraining. The motion was seconded. The committee voted with 7 in favor, 0 opposed, and 0 abstentions. MOTION CARRIED
Committee Action	The committee voted to approve registration renewal 256R2 with conditions, for a three-year term.

Review #2	
PI Name	Jianjun Sun
Submission	Renewal #263R2P
Title	Female reproductive organ formation and physiology in *Drosophila melanogaster*
Project Overview	
Project Description	The main objective of the lab's research is to understand the molecular mechanisms governing oogenesis, ovulation, and female reproductive gland formation and function in *Drosophila melanogaster*. The goal is to identify conserved pathways that regulate secretory cell proliferation and differentiation and mechanisms controlling oogenesis, ovulation, and sperm storage. The knowledge gained and tools developed from this work will provide novel targets for treating human infertility. Screening of compounds for novel non-hormonal contraceptives is also described.
Agent Name	*E. coli* K-12
Risk Group	RG1
Agent Characteristics	There is no virulence or pathogenicity of note for the vectors or rsNA constructs
rsNA Source Organism	*Drosophila melanogaster, S. pyogenes* (CRISPR)
Nature / Function of rsNA	CRISPR/Cas Gene Editing Systems,

Modifications	*Drosophila melanogaster and M. musculus* models used to study mechanism of action. Conditional knockout lines generated.
Experimental Manipulations	RNAi UAS systems are utilized, and transgenic flies are either purchased from a center or generated in-house when genes of interest are identified. CRISPR/Cas9 systems may be used to produce germline mutant stocks. Vectors are generated in the lab and shipped to a vendor, who then introduces rsNA into embryos. The lab developed a high-throughput screening platform to investigate small compound libraries to identify ovulation inhibitors. Hits from this screen will be assessed in rodent models to identify potential gene targets for further investigation of their roles in ovulation using conditional knockout approaches. Animal tissue collection and analysis. Human cell lines cultured to screen contraceptive medications for toxicity.
Risk Assessment & Discussion	
Risk Mitigation Strategies	Flies are kept within closed environmental chambers and transferred in a room with closed doors that is separate from the general lab where the bacteria are handled. A fly trap with vinegar is used to capture any flies that could potentially escape. Thus, there is no environmental impact expected. Arthropod Containment Devices (e.g. air curtains); Traps and closed-door procedures reduce the risk of release; Gal4 UAS system ensures that any modified fly must be crossed with a fly expressing the driver in order to produce the mutation. Modified flies are essentially sterile, and in the event one escaped and mated with a wild-type fly, it would not be possible to propagate progeny.
PPE	Lab Coat, Nitrile Gloves, Safety Glasses, Close-Toed Shoes, Disposable Gown, Shoe Covers
Training & Expertise	Personnel are up-to-date with required EHS Trainings
Containment & Special Practices	BSL-2 containment is noted as appropriate for projects involving human cells. BSL-1 containment should be appropriate for the majority of the work described. Fly traps containing 95% ethanol will be used to collect and discard flies. After usage, all fly culture bottles and vials are heat treated (above 100 C, 30 min) and discarded as regular trash. The transgenic flies occasionally escape, but it is unlikely to impact the environment. The escapers will be trapped by using bottles containing vinegar/grape juice.
NIH Classifications	III-D-2, III-D-4, III-E, III-F
Risk Assessment & Primary Review Comments	There is no virulence or pathogenicity of the transgenic vectors noted by the lab. No harmful effects have been identified for human health or the environment in the event of unintentional release. Use of sharp needles/forceps to dissect tissues out from adult fly. They will have appropriate training for all laboratory workers and use all relevant personal protective equipment and correct microbiological practices. This laboratory adheres to BSL-2 containment practices, which includes the use of appropriate PPE, biosafety cabinets, housing keeping of flies and routine decontamination procedures, ensuring safe handling of RG2 human cell lines and effective mitigation of potential biological risks.

IBC Motion & Vote	
Committee Discussion	It was noted that additional details may be needed for the small molecule compounds. The committee discussed that small molecule libraries are likely commercially available, and chemical in nature to test for use as pharmaceuticals. The IBC was informed that the lab has an approved IACUC protocol on file for working with rodents.
Motion	A motion was made to approve registration renewal 263R2P as written. The motion was seconded. The committee voted with 7 in favor, 0 opposed, and 0 abstentions. MOTION CARRIED
Committee Action	The committee voted to approve registration renewal 263R2 as written, for a three-year term.

1:59 pm – R. Miller joined the meeting virtually.

2:00 pm – E. Wunder joined the meeting virtually.

Review #3	
PI Name	Rahul Kanadia
Submission	Renewal #274R2P
Title	Understanding the Role of the Minor Spliceosome in Mammalian Development; Learning by Experiencing and Applying Principles (LEAP) Program
Project Overview	
Project Description	Project 1 – Minor Spliceosome Function in Development: The lab generates transgenic rodents with conditional snRNA deletions. Human and mouse cell lines are used to study the role of minor spliceosomes. Plasmids expressing splicing components are transfected into cells. No new genetic modifications are introduced into these cells. Animal tissue samples are collected and analyzed for RNA, cDNA, qPCR, and are used for immunofluorescence analyses. Cholera toxin B subunit injections are applied to assess motor neuron connectivity. Project 4 – Minor Intron Splicing During Cold Stress (Tilapia): RNA from midbrain tissues of cold-stressed and control Nile Tilapia is received from collaborators in Israel. RNA is extracted, converted to cDNA, and analyzed by PCR for alternative splicing. PCR products are cloned into pGEM-T vectors and sent for Sanger sequencing. Only RNA and plasmid DNA are handled; no live animals or pathogens are used. Learning by Experiencing and Applying Principles (LEAP) Program: This program is a two-year undergraduate research training initiative for early biology students (PNB, EEB, MCB). Participants receive instruction in genetics, molecular biology, and bioinformatics, progressing from coursework to supervised research. A graduate student provides pre-lysed, Trizol-inactivated mouse tissues for RNA extraction, cDNA preparation, and PCR training under BSL-1 conditions. A limited number of advanced students may receive supervised training in human cell culture at BSL-2. No live animals, pathogens, or rsNA vectors are used for this program.

Agent Name	*E. coli* DH5α
Risk Group	RG1
Agent Characteristics	Non-pathogenic
rsNA Source Organism	*S. pyogenes* (CRISPR), *A. victoria*
Nature / Function of rsNA	CRISPR/Cas Gene Editing Systems, Fluorescent Reporters, Transcription Factors, small nuclear RNAs
Modifications	Transgenic / Conditional Knockout rodents generated
Experimental Manipulations	Cholera Toxin B Subunit / fluorescent dyes used as retrograde tracer to visualize nerve function and degradation in rodents.
Risk Assessment & Discussion	
Risk Mitigation Strategies	BSC, Validated Inactivation Procedures
PPE	Lab Coat, Nitrile Gloves, Shoe Covers, Surgical Mask, Goggles
Training & Expertise	PI must complete NIH Guidelines Retraining
Containment & Special Practices	BSL-1 containment is appropriate for RG1, non-pathogenic materials. BSL-2 containment is necessary for work with human cells and viral RNA.
NIH Classifications	III-D-4, III-E-1, III-E-3, III-F
Risk Assessment & Primary Review Comments	Most work is conducted under BSL-1, with limited BSL-2 activities for human cell lines and viral RNA. Transgenic mice are handled under ABSL-1. The lab uses BSL-2 containment and practices for Trizol-inactivated RNA samples due to viral origin. Tilapia RNA and plasmid DNA work under BSL-1. Minimal hazards are associated with standard molecular biology techniques. No live pathogens or viral vectors are used. LEAP: Activities are conducted under BSL-1, using Trizol-inactivated mouse tissues for RNA and PCR training. Limited BSL-2 work involves supervised human cell culture by advanced students. Standard PPE, biosafety cabinet use, and EH&S waste procedures apply. No live animals or infectious agents are used.
IBC Motion & Vote	
Committee Discussion	No comments regarding projects subject to the Guidelines.
Motion	A motion was made to approve registration renewal 274R2P under the condition that the PI completes NIH Guidelines Retraining. 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 274R2 with conditions, for a three-year term.

2:14 pm – Y. Chen joined the meeting virtually.

Review #4	
PI Name	Nicholas Farrell
Submission	New Registration #458P
Title	Ongoing Microneedle Research
Project Overview	
Project Description	This registration is for an incubator company based on microneedle research and technology developed in the Than Nguyen lab. Human and animal cell lines are used to test the cellular response to therapeutics reclaimed from dissolved microneedle patches and the polymers that are part of the devices. The therapeutics may be recombinant or synthetic nucleic acid based.
Agent Name	N/A (human and animal cell lines)
Risk Group	N/A (human and animal cell lines)
Agent Characteristics	N/A (human and animal cell lines)
rsNA Source Organism	Depending on the therapeutic stabilized into the microneedle patch, the lab develops methodologies to dissolve the patch and measure in vitro response. This provides insight into the quantity and stability of the reclaimed therapeutic.
Nature / Function of rsNA	Various small molecule therapeutics
Modifications	Introduce rsNA into human cells/cell lines
Experimental Manipulations	In vitro methods are used to measure response therapeutics. The lab tests the stability and bioactivity of stabilized therapeutics which are transferred onto microneedle patches. The patches are reconstituted, and the dissolved patch is introduced to the cell culture.
Risk Assessment & Discussion	
Risk Mitigation Strategies	Further clarification requested from the lab to document BSL-2 practices
PPE	Further clarification requested from the lab
Training & Expertise	Personnel completed applicable EHS Trainings
Containment & Special Practices	BSL-2
NIH Classifications	*Potential* III-E, III-F
Risk Assessment & Primary Review Comments	Human cell lines must be handled at BSL-2. Information is missing about work practices in this lab. No biosafety cabinet is listed in EHS records.

IBC Motion & Vote	
Committee Discussion	The lab must clarify and confirm biosafety practices in place prior to initiation of research. In the event additional details provided change the risk assessment, the submission will come back to the committee for review.
Motion	A motion was made to approve the new registration 458P under the following conditions: − The lab must clarify whether rsNA will be introduced into cell lines while testing the dissolved microneedles. − Provide location of planned cell culture work, if a BSC is not available in the lab. − Include details regarding what, if any, genome level testing is done on cell lines. − Include the following in the Project Form: 1. PPE used (e.g. gloves, eye protection, lab coats); 2. If applicable, primary containment utilized (e.g. BSC) or if not, note open bench; 3. Methods for decontamination of work surfaces and samples, as well as disposal mechanisms for waste (e.g. biohazard waste containers). − PI must complete NIH Guidelines Training *if responses indicate that research is subject to the NIH Guidelines* (e.g. rsNA introduced into human cell lines using vectors capable of penetrating cell membranes). 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 new registration 458 with conditions, for a three-year term.

VIII. Old Business:

None

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.

The Chair moved to adjourn the meeting, which was seconded. The motion was carried, and the meeting adjourned at 2:22 PM.

Next Meeting: December 11, 2025 at 1:30 PM