Cold Spring Harbor Laboratory

INSTITUTIONAL BIOSAFETY COMMITTEE (IBC)

Meeting Minutes

Date:	Thursday, July 24, 2025
Time:	10:35 AM – 11:15 AM
Location:	In-Person at Cold Spring Harbor Laboratory, James Library, Cold Spring Harbor, NY

Members Present:	1. Sydney Gary, Research Operations *(IBC Chairperson)* 2. Lynn Blake, Research Compliance Officer 3. Chris Hubert, Environmental Health & Safety *(Biological Officer)* 4. John Pisciotta, Environmental Health & Safety *(Biological Officer)* 5. Denise Roberts, Core Operations 6. Scott Lyons, Animal Imaging *(Scientific Technical Advisor)* 7. David Jackson, Plant Biology *(Plant Scientific Advisor)* 8. Kenneth Addison, Clinical and Translational Collaborations 9. Rachel Rubino, Laboratory Animal Resources (LAR) *(Attending Veterinarian)* 10. Lisa Bianco, Laboratory Animal Resources (LAR) *(Technical Operations)* 11. Brian Kelleher *(Community Member, non-CSHL Affiliated)* 12. Kristen Panella *(Community Member, non-CSHL Affiliated)*
Members Not Present:	1. Janeen Braynen, Computational *(Plant Scientific Advisor)* 2. Julie Cheong, Assistant Laboratory Building Manager
Non-Voting Attendees Present:	1. Joanie O'Connor, Administrative & Regulatory Coordinator 2. Angelina Regua, Research Compliance Officer (IRB) 3. Julie Sutherland, Conflict of Interest and Compliance Coordinator

Commonly Used Abbreviations

AAV: Adeno-associated viral vector
BSL: Biosafety level
BSO: Biosafety Officer
CRISPR: Clustered regularly interspaced short palindromic repeats
DMR: Designated Member Review
DURC: Dual Use Research of Concern
FCR: Full Committee Review
IACUC: Institutional Animal Care and Use Committee
IBC: Institutional Biosafety Committee
IRB: Institutional Review Board
NIH: National Institutes of Health
PI: Principal Investigator
PPE: Personal protective equipment
r/s NAM: Recombinant or synthetic nucleic acid molecules
RG: Risk Group
SOP: Standard Operating Procedures
Source material: blood, tissue, cell lines

1 CALL TO ORDER: The Institutional Biosafety Committee (IBC) Chairperson called the meeting to order at 10:35 AM. A quorum was present.

2 APPROVAL OF MINUTES:

The IBC Chair requested a motion to approve the minutes from the April 17, 2025, meeting. No questions or concerns were raised. On motion made and seconded, the minutes were unanimously approved.

3 GENERAL OR OLD BUSINESS:

3.1 Review of Designated Member Review (DMR) Amendment

The Committee received the Designated Member Review (DMR) amendment before the meeting for review. This amendment aims to allow an expedited review process for limited protocols that fall under the category “no changes” and or do not impact biological safety levels or handling of agents. This will ensure efficiency, as it speeds up the review process, allows for timely approval outside of scheduled meetings, and ensures protocols are still thoroughly evaluated by qualified reviewers.

After discussion, the Committee unanimously approved the amendment, stipulating only a minor change in wording.

4 INDIVIDUAL PROJECT REVIEWS (FCR):

4.1 Dan Levy, annual review, IBC-2022-8, *No r/s NAM*

- NIH Guidelines Section III-F
- The Levy lab focuses on developing algorithms to identify mutations in large, high-throughput data sets. All of their work is computational, with no wet lab components.
- This project does not involve recombinant or synthetic nucleic acid molecules (r/s NAM); it can proceed without requiring specific biosafety containment.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained)
- This protocol was approved, effective July 24, 2025.

4.2 David McCandlish, annual review, IBC-2022-12, *No r/s NAM*

- NIH Guidelines Section III-F
- The McCandlish lab develops computational tools to predict the functional impact of mutations and applies these tools to problems in protein design, molecular evolution, and cancer research.
- This project does not involve recombinant or synthetic nucleic acid molecules (r/s NAM); it can proceed without requiring specific biosafety containment.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained)
- This protocol was approved, effective July 24, 2025.

4.3 David Stewart, new project, IBC-2025-37, *Antibody Engineering and Display Technologies, CSHL Course*

- NIH Guidelines Section III-D
- The course is designed to train the next generation of scientists in cloning phage-display antibody libraries and their use to select high-affinity and specificity binders for cancer immunotherapy.

- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Recombinant DNA production, cloning of scFv-encoding phagemid vectors for phage display selection campaigns.
  BSL-2 Non-pathogenic E. coli transformation (chemical and electroporation) and growth.
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.4 David Stewart, new project, IBC-2025-39, *High Throughput Neuroanatomy, CSHL Course*

- NIH Guidelines Section III-D
- The course is cutting-edge and designed to democratize access to neuroanatomical techniques by training researchers with modern high-throughput methods. Participants will receive hands-on training in viral tracing technologies and will learn RNA *in situ* sequencing technologies for comprehensive neuroanatomical mapping.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Viral vector transfection.
  BSL-2 Sindbis virus production, MAPseq dissection, BARseq
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.5 David Stewart, new project, IBC-2025-38, *Macromolecular Crystallography, CSHL Course*

- NIH Guidelines Section III-D
- The Macromolecular Crystallography course is designed to train the next generation of biologists in cutting-edge techniques essential to the field and will provide hands-on training.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.

- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Growth of protein crystals using commercially available proteins; Cryocooling of crystals using liquid nitrogen; Collection of diffraction data using an in-house X-ray source.
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.6 Lucas Cheadle, 5-Year Renewal, IBC-2025-6, *Neuroimmune Mechanisms of Brain Development and Function*

- NIH Guidelines Section III-D
- The Cheadle lab investigates how experiences engage specialized immune cells called microglia to shape the brain's connectivity and function, and how impairments in these processes can contribute to neurodevelopmental disorders such as autism.
- This project has an approved IACUC protocol number 2023-1297.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 AAV (ecotropic/no helper virus) injections into the brains of living mice.
  BSL-2 Injection of immortalized mouse brain tumor cells into live mouse brain.
  BSL-2 Lentiviral injections into the brains of living mice.
  BSL-2+ Use of flow cytometry.
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.7 Bo Li, amendment, IBC-2022-4, *Brain and Body and Behavior*

- NIH Guidelines Section III-D
- The Li lab investigates the neural circuits underlying cognitive function and dysfunction as they relate to anxiety, depression, schizophrenia, and autism.
- This project has an approved IACUC protocol number 2021-1185.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The amendment underwent a comprehensive administrative review and received approval in June 2025, with the details shared with the Committee. This initiative is a collaborative effort involving both the Li lab and the Beyaz lab. The Li lab incurs no new risk, given that their role is providing the animal

model and does not involve the handling of any agents or organisms. This protocol was approved, effective June 23, 2025.

BSL-2 Use of Heligmosomoides polygyrus (roundworm) to infect animal models.

- Training: All personnel have completed required biological training in accordance with institutional and NIH guidelines.

4.8 David Tuveson, amendment, IBC-2021-03, *Biology, Biomarkers, and Therapies for Pancreatic Ductal Adenocarcinoma and Neuroendocrine Tumors*

- NIH Guidelines Section III-D
- The Tuveson lab utilizes murine and human models of pancreatic cancer to explore the fundamental biology of malignancy and thereby identify new diagnostic and treatment strategies. The lab is making progress toward finding a cure by detecting the disease earlier and designing novel therapeutic approaches.
- This project has an approved IACUC protocol number 2021-1214.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1 Subcloning of the gene of interest in the form of cDNAs, sgRNAs, and shRNAs into the previously approved lentiviral backbone vectors. They include human WNT7B cDNA, ONECUT1 cDNA, FYN cDNA, Gata4 cDNA, sgRNAs against WNT7A, WNT7B, Wnt7b).

BSL-2+ Gene of interest to knock-out, knockdown, or overexpress genes of interest in the previously approved human or mouse cells expressing CAS9 using the previously approved lentiviral backbone vectors. - the gene of inserts is (1) cDNAs; human ONECUT1. Human GSN and its mutant (GSN-G194R and hGSND214N), human FYN, mouse Gata4, mouse Gsn-G194R and Gsn-D214N (2) shRNAs; human FYN, mouse Fyn, and mouse Adgra2 (3) sgRNAs; human WNT7A and WNT7B, mouse Ppar delta, Ppar alpha, and mouse Wnt7b.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.9 Linda Van Aelst, amendment, IBC-2023-14, *Study how aberrations in multiple signaling pathways contribute to disease processes, including cancer and brain disorders*

- NIH Guidelines Section III-D
- The Van Aelst lab investigates how aberrations (a deviation from what is considered normal, typical, or expected) in intracellular signaling involving enzymes called small GTPases (Guanosine Triphosphate Phosphohydrolases) can result in disease. The lab is particularly interested in Ras and Rho GTPases, which play a crucial role in controlling cellular growth, differentiation, and morphogenesis.
- This project has an approved IACUC protocol number 2021-1218.

- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- The Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-2+ Use of Rep/cap/helper/transgene plasmids to produce replication-deficient AAVs to inject intracranially in mice for expression of exogenous proteins or to modify expression of endogenous proteins.
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.10 Semir Beyaz, annual review-no changes, IBC-2023-7, *Metabolic and Epigenetic Regulation of Tissue Regeneration, Immunity and Cancer*

- NIH Guidelines Section III-D
- The Beyaz lab deciphers how nutritional cues and metabolic–epigenetic crosstalk sculpts cellular networks that sustain healthy tissue function—and how their disruption drives maladaptive remodeling in diseases such as colon and endometrial cancers, as well as in endometriosis.
- This project has an approved IACUC protocol number 2021-1159.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Subcloning and bacterial expression.

  BSL-1 sgRNA cloning (px330 and lentiV2, non-viral cloning), hydrodynamic injection to deliver CRISPR to the mouse liver.

  BSL-1 Necroscopy of InlA mutant Listeria monocytogenes (recombinant bacteria with improved epithelial binding) infected animals after 5 days post-infection (dpi).

  BSL-1 Necroscopy of ΔActA ΔInlB $InlA^M$ LM-ova *Listeria monocytogenes* (attenuated recombinant bacteria) infected animals after 5 days post infection (dpi).

  BSL-1 Culturing of Heligmosomoides polygyrus.

  BSL-1 Oral gavage of Heligmosomoides polygyrus into mice for infection and necropsy of infected mice.

  BSL-2 Isolation/concentration of all zoonotic Helicobacter species to be done by MIT. Animal experiments involving inoculation and necropsy will be done in a biosafety cabinet.

  BSL-2 Use of ecotropic lentivirus and ecotropic retrovirus, and Phoenix-ecotropic to infect mouse cells.

BSL-2 Infection of mice with InlA mutant Listeria monocytogenes (recombinant bacteria with improved epithelial binding) or ΔActA ΔInlB InlA mutant LM-ova Listeria monocytogenes (attenuated recombinant bacteria) inoculated bread.

BSL-2 Infection of mice with Salmonella typhimurium via oral gavage.

BSL-2 Necropsy of Salmonella typhimurium infected mice and downstream analyses.

BSL-2 Oral gavage of Helicobacter sp. or fecal content into mice for colonization and necropsy of colonized mice.

BSL-2 Infection of mice with vancomycin-resistant enterococci (VRE) via oral gavage.

BSL-2+ Use of amphotropic lentivirus and ecotropic/amphotropic retrovirus infection of human cells.

BSL-2+ Use of lentiV2 virus delivery to the mouse colon and endometrium.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.11 Tobias Janowitz, annual review-no changes, IBC-2024-7, *Immunological, dietary, endocrinological, physiological and pharmacological regulation of anti-cancer immunity*

- NIH Guidelines Section III-D
- The Janowitz lab utilizes laboratory and clinical research to investigate the connections between metabolism, endocrinology, and immunology to elucidate the body's response to a tumor that can be used to improve treatment for patients with cancer.
- This project has an approved IACUC protocol number 2023-1329.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1 Standard subcloning and bacterial expression.

BSL-1 Use of Retro AAV.

BSL-1 Use of DH10Bac bacteria to produce recombinant bacmids.

BSL-1 Use of bacmid transfection of insect cells,

BSL-1 Use of baculovirus infection of insect cells.

BSL-1 Baculovirus propagation in insect cells.

BSL-1 Baculovirus titer measurement.

BSL-1 Use of baculovirus induction of transient protein expression in human cells.

BSL-1 Use of ecotropic Adeno-associated virus for *in vivo* animal injections.

BSL-2 Use of lentivirus (replicative defective) infection of mouse cancer cells.

BSL-2 AAV (replicative defective) animal injections.

BSL-2 Lentiviral and AAV vector propagation in HEK293 human cells containing non-human genetic material will be performed by the Lyons laboratory as part of ongoing collaborations.
BSL-2+ Use of Sindbis virus, including viral preparation for *in vivo* animal injections
BSL-2+ Use of amphotropic pseudorabies (herpesvirus family).
BSL-2+ Use of flow cytometry.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.12 Adrian Krainer, annual review-no changes, IBC-2022-14, *Studies of mRNA splicing mechanisms, dysregulation in cancer, and therapeutic modulation*

- NIH Guidelines Section III-D
- The Krainer lab investigates the mechanisms of RNA splicing, ways in which they go awry in cancer and genetic diseases, and the means by which faulty splicing can be corrected.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1 Standard recombinant DNA work, including subcloning in bacterial vectors and DNA, RNA protein extraction from non-pathogenic material.
BSL-2 Standard cell culture and CRISPR genome editing to generate knockout or point-mutant cell lines.
BSL-2+ Use of ecotropic adenovirus to transduce mouse cell lines with Cre.
BSL-2+ Use of amphotropic lentivirus to transduce human gliomas, human liver cells, and organoids.
BSL-2+ Use of amphotropic lentivirus to transduce human cancer cells with CRISPR.
BSL-2+ Use of ecotropic retrovirus to transduce gliomas and PDAC cell lines with oncogenic and potentially constructs.
BSL-2+ Use of flow cytometry.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.13 Robert Martienssen, annual review-no changes, IBC-2022-9, *Retrotransposon inhibitors by small RNA*

- NIH Guidelines Section III-D
- The Martienssen lab investigates mechanisms involved in gene regulation and stem cell fate in yeast and model plants, including *Arabidopsis* and maize.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have

been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1	Standard subcloning, bacterial plasmid production, and cloning CRISPR plasmids.
BSL-1	Use of non-infectious retrotransposons.
BSL-1	Transient transfection into human HeLa or mESCs cells.
BSL-1	Flow cytometry of fluorescent markers.
BSL-1	Transgenic plant work with Arabidopsis, Duckweed, and Maize.
BSL-2	Ecotropic lentiviral use and infection, and CRISPR/Cas9 lentiviral screening.
BSL-2	Standard tissue culture work.
BSL-2+	Use of amphotropic lentivirus, including transducing cells with CRISPR plasmids.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.14 Dick McCombie, annual review-no changes, IBC-2024-9, *Genomic and transcription analysis of biological systems*
- NIH Guidelines Section III-D
- The McCombie lab has contributed to the introduction and optimization of innovative high-throughput genome sequencing.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1	DNA library generation, RNA library generation, bacterial expression, and CRISPR targeting.
BSL-2	DNA isolation from blood or cell lines.
BSL-2	Fragmentation of DNA.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.15 Partha Mitra, annual review-no changes, IBC-2021-04, *Determination of brain-wide neuroanatomical connectivity in mice at a mesoscopic scale by co-injection of anterograde and retrograde neuronal traces. The Missing Circuit: The First Brain-wide Connectivity Map for Mice*
- NIH Guidelines Section III-D

- The Mitra lab combines theoretical, computational, and experimental approaches to understand biological complexity. The goal is to obtain conceptual breakthroughs in how the brain works.
- This project has an approved IACUC protocol number 2021-1190.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Storing/handling of AAV and AAV microinjections into the whole mouse brain
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.16 Stephen Shea, annual review-no changes, IBC-2022-15, *Neural circuits for olfactory processing and social communication in mice*

- NIH Guidelines Section III-D
- The Shea lab investigates the neural circuitry underlying social communication and decisions. They use natural social communication behavior in mice as a model to understand circuits and processes that are evolutionarily conserved and therefore shared broadly across species, likely contributing to disorders such as autism.
- This project has an approved IACUC protocol number 2024-1396.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

  BSL-1 Use of ecotropic AAV with no helper virus to visualize and manipulate specific brain circuits.
  BSL-1 Use of these viruses to deliver fluorophores, activity sensors, and optogenetic and chemogenetic tools for manipulating neural activity.
  BSL-1 Use of the genetic editing molecule Cre-recombinase to limit the production of the construct.
- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.17 Christopher Vakoc, annual review-no changes, IBC-2024-8, Epigenetics of normal and malignant hematopoiesis

- NIH Guidelines Section III-D
- The Vakoc lab investigates how the various factors sustain the aberrant capabilities of cancer cells, an essential step in identifying new therapeutic targets.
- This project has an approved IACUC protocol number 2021-1217.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1	Standard subcloning and bacterial expression.
BSL-1	Baculovirus and bacmid expression.
BSL-1	Infect human or mouse cells with rAAV to drive transgene expression.
BSL-2	Ecotropic retrovirus and lentivirus to infect mouse cells.
BSL-2	CRISPR-based genome editing in conjunction with ecotropic retrovirus and lentivirus.
BSL-2	Use of adenovirus in mice.
BSL-2	Use of ecotropic AAV in mice.
BSL-2+	Use of ecotropic retroviruses with oncogenes and tumor suppressor genes.
BSL-2+	Use of amphotropic retroviruses in human cells with oncogenes and tumor suppressor genes.
BSL-2+	CRISPR/Cas9-based gene editing in conjunction with amphotropic lentivirus in human cells.
BSL-2+	Use of amphotropic lentivirus with oncogenes and tumor suppressor genes.
BSL-2+	Use of flow cytometry.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.18 Anthony Zador, annual review-no changes, IBC-2023-12, *Functional microcircuitry underlying sound processing in the primary auditory cortex, electrophysiology in behaving rodents, sequencing the connectome*

- NIH Guidelines Section III-D
- The Zador lab investigates how brain circuitry gives rise to complex behavior.
- This project has an approved IACUC protocol number 2021-1223.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.

- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1	Subcloning, bacterial expression on benchtop.
BSL-1	Use of AAV (helper-free).
BSL-2	Use of ecotropic AAV with helper (insert- AAV-FLEX-DPT).
BSL-2	Use of ecotropic CAV-2, Adenovirus, HSV, Lentivirus, Pseudorabies, Sindbis virus, and rabies virus.
BSL-2	All work with the above ecotropic viruses in mice.
BSL-2	Mouse injections of synthesized amphotropic Yellow Fever Virus (YFV).
BSL-2+	Use of amphotropic, Lentivirus in mouse.
BSL-2+	Use of amphotropic Yellow Fever Virus (YFV-17D), and mutants derived from YFV-17D that are replication- or packaging-deficient to express fluorescence protein or CRE.
BSL-2+	Mouse injections of synthesized amphotropic Yellow Fever Virus (YFV).

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

4.19 Lingbo Zhang, annual review-no changes, IBC-2022-6, *Identification of novel regulators of normal and malignant hematopoiesis*

- NIH Guidelines Section III-D
- The Zhang lab focuses on decoding the role of metabolites and their genetic effectors in the tumor microenvironment of hematologic malignancies.
- This project has an approved IACUC protocol number 2023-1266.
- A proper risk assessment has been performed, and the following applicable agents, their characteristics and sources, hosts, modifications, recommended biosafety containment levels, and other pertinent details have been reviewed for the potential risks associated with the protocol to ensure a safe and responsible research environment.
- PPE will be worn as dictated by the biosafety level of the research.
- In the annual review, which resulted in no protocol changes, the Committee unanimously approved the IBC submission and use of agents as described, with a vote of 12-0-0 (for, against, abstained).

BSL-1	Standard cloning and bacterial expression work.
BSL-2	Use of pseudorabies virus in the mouse. No virus production.
BSL-2	Use of ecotropic adeno-associated virus with tetanus toxin in the mouse.
BSL-2+	Use of amphotropic lentivirus and amphotropic retrovirus to infect mammalian cells.
BSL-2+	Production of CRISPR lentivirus and retrovirus and infection of mammalian cells.
BSL-2+	Use of flow cytometry.

- Training: All personnel have completed the required biological training in accordance with institutional and NIH guidelines.
- This protocol was approved, effective July 24, 2025.

5 PUBLIC COMMENTS

5.1 For security reasons, Cold Spring Harbor Laboratory has an institutional policy that information regarding IBC meeting times and locations is not publicly available. Any member of the public requesting IBC information is kindly requested to contact the CSHL Office of Research Compliance at ResearchCompliance@cshl.edu.

6 MEETING ADJOURNED AT APPROXIMATELY 11:15 AM