COMS meeting on 1/30/2026
Minutes

Location: ZOOM
Time: 10AM - 12PM

Harvard University Committee on Microbiological Safety (COMS)
COMS@hms.harvard.edu

Documentation of Quorum

Total Voting Members on Committee Roster: 30
Total Needed for Quorum: 10
Total Present at Call to Order: 35
Members Arriving After Call to Order: 4
Total Guests and Members of Public: 4

ATTENDEES PRESENT		
Committee Chair	**Committee Vice Chair**	
• S. Helaine	• R. Rasmussen	
Members		
• A. Baptista (IBC member) • D. Barbeau (IBC member) • S. Bhalchandra (IBC member) • T. Brennan-Krohn (IBC member) • R. Colgrove (IBC member) • M. Dorf (IBC member) • L. Gamer (IBC member) • J. Kirby (IBC member) • T. Kwan (Local Non-Affiliated Member)	• R. Lee (IBC member) • Y. Lu (IBC member) • M. Melisi (Biosafety Officer) • S. Mohr (IBC member) • B. Neugeboren (IBC member) • M. Nilsen (IBC member) • J. Park (IBC member) • R Polak (IBC member)	• K. Pritchett-Corning (IBC member) • A. Reid (Biosafety Officer) • S. Santra (IBC member) • J. Sixsmith (IBC member) • M. Super (IBC member) • D. Tipper (Local Non-Affiliated Member) • C. Walsh (IBC member) • T. Winters (IBC member)
Ex-Officios		
• B. Corning	• M. Corrigan	• S. Estime
• S. Elwell	• E. Macleod	

Call to Order

The meeting was called to order at 10:00 A.M.
The meeting is now open for discussion.

Introduction of Guests

None

Meeting Minutes for Approval

Meeting	Minutes Approved	Link to Minutes
COMS meeting on 11/7/2025	Yes	Link

Scheduled Business

Type	COMS #	Title	PI	Institution	Motion
Appointed Review Protocols Involving Recombinant DNA	24-011-A05	Comparison of Signal Processing Between Microbial Species 2024	Michael Springer	Harvard Medical School (HMS)	This amendment adds new bacteria to the protocol to study genes involved in biomining and mineral breakdown. This work falls under Section III-E of the NIH Guidelines and will be conducted at BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted.

					Approved: 18 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	21-087-A08	Transcriptional regulation in mouse embryonic stem cells and human cells	Karen Adelman	Harvard Medical School (HMS)	The lab will be obtaining iPSC lines that are already established and are fully deidentified from collaborators for work already approved in the protocol. This work falls under Section III-F of the NIH guidelines and will be conducted at BL2 per COMS policies and institutional biosafety manual. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	22-083-A18	Life Lab at Longwood Umbrella Project	Mark Namchuk	Harvard Medical School (HMS)	This is an amendment to add a new company to the Life Labs protocol. The project group is developing a new delivery system for anticancer treatment in bone, and the project will involve transgenic mice, human cell lines, murine cells and tissues, and murine cancer cells containing a fluorescent reporter protein. This work falls under Sections III-D and III-F of the NIH Guidelines, and will be conducted under BL1N and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	23-039-A64	Church Lab NRB COMS: Transformative Molecular Technologies	George Church	Harvard Medical School (HMS)	The lab is amending to add a new established human cell line that will be used for studying safety and precision of genome editing tools to help overcome biological causes of cancer immunotherapy resistance. The cells will be modified by using nucleofection, AAVs, VLPs, or LNPs to deliver the genome editing tools to the cells in tissue culture. The lab also adds a new bacteriophage M13 derivative for use with PANCE technique with the goal of improving the precision of base editors. The work falls under Sections III-E and III-F of the NIH Guidelines and will be performed under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	23-051-A16	Undercovering the antigenic landscape of endemic coronaviruses	Kizzmekia Corbett-Helaire	Harvard T.H. Chan School of Public Health (HSPH)	A member associated with this protocol was placed in a zoom waiting room during the discussion and vote. This amendment is for generating spike mutants for functional studies of a human endemic coronavirus (OC43) using an approved dual-reporter virus. Virus rescue will be performed in permissive mammalian cells, and BAC plasmid propagation and spike gene mutagenesis will be carried out in non-pathogenic E. coli. The work falls under section III-D of the NIH Guidelines and will be conducted under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 19 Against: 0 Abstentions: 0 A member associated with this study was brought back into the room after the vote.
Standard Review Protocols	24-029-A35	Pathogen induced mechanisms of	Isaac Chiu	Harvard Medical	This lab investigates the role of the nervous system in antimicrobial host defense and inflammation. This amendment includes the addition of a new adeno-associated viral vector (AAV) to be used for in vivo

Involving Recombinant DNA		neuronal activation		School (HMS)	neural studies. This work falls under NIH Guidelines Sections III-D and III-E and will be conducted under BL1 and BL1N per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-004-A01	Biochemical Studies of Mitosis	Marc Kirschner	Harvard Medical School (HMS)	This amendment adds baculovirus and insect cells to the protocol. These will be used to study cell cycle regulation proteins. This work falls under Sections III-E and III-F of the NIH Guidelines and will be conducted at BL1 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-013-A03	Decoding viral genomes	Shira Weingarten-Gabbay	Harvard Medical School (HMS)	This amendment adds inactivated lysates of viruses and overexpression of human genes of interest in human cell lines selected through bioinformatics and screening assays previously described to further scrutinize host-viral interactions. Plasmids will be first propagated in non-pathogenic E. coli and then introduced into into the human cell lines. This falls under sections III-E and III-F of the NIH Guidelines, and will be conducted under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-056-A01	Chemical Rescue of Somatic Cancer Mutations	Qinheng Zheng	Harvard Medical School (HMS)	The lab is amending to add a new plasmid expression vector for the use in previously approved non-pathogenic E. coli (BL21 strain). This work falls under section III-E of the NIH Guidelines and will be conducted under BL1 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-077-A01	HBS Life Lab Projects - Tissue and Cell work 2025–2030	Adam Cohen	Harvard Business School (HBS)	This amendment adds a new group to Life Labs. The group is developing cancer therapeutics for targeted drug delivery. The amendment adds new lentiviral vectors targeting low risk genes, non-pathogenic Escherichia coli and Saccharomyces cerevisiae, and human and murine cell lines. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted at BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-133	Studies of the Intestinal Microbiota in Colitis, Colitis-Associated Colorectal, and Sporadic	Wendy Garrett	Harvard T.H. Chan School of Public Health (HSPH)	This is a 5-year rewrite with new bacterial strains and human cell lines added to ongoing work. The goal of the project is to study intestinal microbiota associated with colitis, chronic kidney disease, and cancer. The lab uses both in vitro and in vivo approaches, utilizing human cell lines, genetically modified murine cell lines, and murine tissues, blood, cells, and fluids. Replication incompetent lentiviral vectors contain elements for efficient viral packaging and shRNA expression. They will be receiving both packaged vector and preparing the vector in the lab.

		Colorectal Cancer			None of the genes targeted are considered high-risk. The work falls under sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted under BL1, BL1N, BL2, and BL2N per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-136	Molecular Mechanisms Governing Neurovascular Interactions	Chenghua Gu	Harvard Medical School (HMS)	This is a 5-year rewrite where the lab studies blood brain barrier. The project involves mammalian cell lines, viral vectors (Herpes simplex virus, Adeno-associated virus, lentivirus) targeting genes involved with the blood-brain barrier or containing reporter genes, non-pathogenic Escherichia coli, and transgenic mice. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines, and will be conducted under BL1, BL1N, BL2, and BL2N per COMS Policies and institutional biosafety manuals. Some agents may require consultation with occupational health be offered. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-137	Use of novel biomaterials for developing cellular and molecular therapies against infectious and oncogenic diseases	David Mooney	Wyss Institute	This is a 5-year rewrite. Dr. Mooney's group studies various biomaterials to physically and temporally control the interaction of cells and tissues with bioactive molecules such as cytokines, immunogens, and cell surface proteins; studies are applicable for tissue engineering and regeneration, cancer immunotherapy, and vaccination development. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines, and will be conducted under BL1, BL2, and BL2+ per COMS Policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-138	Propagation of Defective Lentiviruses: 2025 Renewal	Jonathan Seidman	Harvard Medical School (HMS)	This is a 5-year rewrite. Non-pathogenic E. coli will be used to generate and propagate plasmids. Human cell lines will be cultured and transduced with lentiviral vectors carrying shRNA, which will be used to inhibit RNA expression of cardiac specific genes in those cells. Lentiviral vectors will also be used to assess RNA expressions in mice’s cardiac muscles. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted at BL1, BL2, and BL2-N-72h per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-141	Molecular Evolution in Birds and Reptiles—2025 Renewal	Scott Edwards	Harvard Faculty of Arts and Sciences (FAS)	This is a 5-year rewrite. The lab performs routine molecular biology and cell culture work involving recombinant and synthetic DNA and RNA including nucleic acid isolation, PCR, cloning into plasmids and BAC vectors, sequencing and limited transfection studies with propagation restricted to non-pathogenic E coli and Mycoplasma gallisepticum. Vertebrate cell culture and cytogenetic analysis are conducted using standard well established methods. The work falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted at BL1, BL1N and BL2 per COMS policies and institutional biosafety manuals.

					The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved:20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-145	Biogenesis, Transport, and Function of EC_RNA_2025	Craig Hunter	Harvard Faculty of Arts and Sciences (FAS)	This is a 5-year rewrite. The lab aims to understand the source and function of extracellular nucleic acids and uses C. elegans, various strains of bacteria that are either normal food for the nemtodes or are nematode pathogens, and human, Drosophila & & mouse cell lines for the work. This falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-146	Dissecting the pathogenesis of Lyme Neuroborreliosis	Jun Huh	Harvard Medical School (HMS)	This is a 5-year rewrite. The lab which uses an established animal model with key features of Lyme neuroborreliosis including neuroinflammation and motor deficits with the goal of understanding the pathogenesis of Borrelia burgdorferi and how it interacts with the host immune system. The lab uses a multidisciplinary approach encompassing behavioral testing, immune profiling, and gene transcriptomic analysis to define the cellular and molecular mechanisms underlying neuroborreliosis. Work from the previous protocol is expanding to include new strains of Borrelia burgdorferi, Borrelia garinii, human source materials, murine primary T cells lines, and murine retroviral vectors (ecotropic) carrying low risk genes in order to focus study on understanding the underlying cellular and molecular mechanisms of neuroborreliosis. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines, and will be conducted under BL1, BL1-N, BL2, and BL2-N per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	25-149	Flavivirus characterization and immune response	Phyllis Kanki	Harvard T.H. Chan School of Public Health (HSPH)	A member associated with this study was placed in a zoom waiting room during the discussion and vote. This is a 5-year rewrite. The project evaluates banked samples from febrile patient cohorts for antibody reactivity to RG2 flaviviruses, including Zika virus, Dengue virus, West Nile virus, and the Yellow Fever virus 17D vaccine strain. Virus stocks obtained from commercial sources are used in cell culture assays and downstream analyses without any genetic modification and viral proteins are expressed in non-pathogenic E. coli. The work falls under Section III-D of the NIH Guidelines and will be conducted at BL1, BL2 and BL2 with additional stipulations per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 19 Against: 0 Abstentions: 0 A member associated with this study was brought back into the meeting after the vote.
Standard Review Protocols	25-153	Mechanisms of endometrial regeneration	Kara McKinley	Harvard Faculty of Arts and	This is a 5-year rewrite. The lab studies renewal and regeneration in mammalian stem-cell-based systems, specifically the uterus. They use human, NHP, and mouse tissue and cell lines as well as transgenic mice

Involving Recombinant DNA				Sciences (FAS)	in conjunction with lenti and adeno-associated viral vectors with low-risk genes, and Mycobacterium bovis BCG strain. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted under BL1, BL2, and BL2 with additional stipulations per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	26-001	Analysis of neural circuits for cognition	Christopher Harvey	Harvard Medical School (HMS)	This is a 5 year rewrite. The lab studies neural circuits in mice. The project involves adeno-associated viral vector containing fluorescent reporter proteins and transgenic mice. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines, and will be conducted under BL1, BL1N, BL2 and BL2N per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	26-002	Evolution of developmental processes in molluscs	Carrie Albertin	Harvard Faculty of Arts and Sciences (FAS)	The lab will study cephalopod embryogenesis as a model to better understand the evolution of novel and convergent traits, the evolution of developmental mechanisms, and the molecular and cellular processes required for animal development. Non-pathogenic laboratory strains of E. coli (K-12 derivatives) will be used to propagate plasmids encoding fluorescent reporter proteins and transcriptional amplification systems. The plasmids will be used for in vitro transfection of primary cells derived from wild type or lab cultured squid and octopus. The lab will also generate transgenic squid embryos by delivering plasmid-based genetic constructs and CRISPR guide RNAs via microinjection or electroporation. This work falls under Sections III-D, III-E, and III-F of the NIH Guidelines and will be conducted under BL1 and BL1N per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Involving Recombinant DNA	26-004	Exosomes (20-250 renewal)	George Church	Wyss Institute	This is a - year rewrite. In this project, the lab examines RNA expression in extracellular vesicles, or exosomes, found in human bodily fluids as possible diagnostic sources of neurodegenerative diseases. The biogenesis of exosomes by established cell lines and differentiated iPSCs is also studied. The work falls under Sections III-D and III-F of the NIH Guidelines and will be conducted under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Not Involving Recombinant DNA	25-082-A02	Innate Immunity to RNA Viruses in C. elegans and human cell models	Jérémie Le Pen	Harvard T.H. Chan School of Public Health (HSPH)	The lab studies the mechanisms underlying host innate immunity to RNA viruses. This amendment adds new mammalian cell lines and risk group 2 agents (West Nile virus strains, Human Parainfluenza Virus Type 1 and Enterovirus A71).Viruses will be used as received, without any genetic modification, for infection experiments in permissive host cells. This work does not fall under the NIH Guidelines and will be conducted under BL2 and BL2 with additional stipulations per COMS policies and institutional biosafety manuals.

					The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0
Standard Review Protocols Not Involving Recombinant DNA	25-132	Nosocomial transmission of VRE 2025	Yonatan Grad	Harvard T.H. Chan School of Public Health (HSPH)	This is a 5-year rewrite. The project aims to determine the extent of nosocomial transmission of vancomycin-resistant Enterococcus using genome sequencing and patient data, in order to improve infection control efforts. Procedures include isolating, culturing and storing enterococcal isolates, extracting DNA, and preparing sequencing libraries. The work does not fall under the NIH Guidelines and will be conducted under BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions:0
Standard Review Protocols Not Involving Recombinant DNA	25-151	Harvard Medical School HST Microbiology Lab	Kristen Hysell	Harvard Medical School (HMS)	This is a 5-year rewrite. The aim of the course is to help medical students learn to identify common clinical bacterial and fungal cultures. All cultures will be prepared and transported in sealed containers from Harvard-affiliated clinical laboratories in the Boston area. Students will view agents for identification before transport back to the originating laboratories for final disposition. No recombinant work will occur and the NIH Guidelines do not apply. Work will be conducted under BL1 and BL2 per COMS policies and institutional biosafety manuals. The committee had no other comments or questions about this protocol. A motion was made to approve the protocol. The committee voted. Approved: 20 Against: 0 Abstentions: 0

Personnel Training

The PI and lab staff are required to be trained in accordance with the COMS Training Policy. Current PI training was verified by the Institutional Biosafety Officer for all protocols discussed at today's meeting, and PIs are responsible for ensuring lab and agent-specific training for their staff.

Laboratory Inspection

The Institutional Biosafety Officer confirmed compliance with the COMS inspection policy for all protocols discussed at today's meeting. Facilities are considered appropriate for the proposed work and proposed containment levels. No significant findings/noncompliance were noted to the committee. The laboratories are working on any necessary corrective actions.

New Policies and Procedures

None

Reported Incidents

Members were presented with and informed of an incident from 12/23/2025, its risk assessment, and the corrective action taken to prevent further occurrence.

Summary: On 12/23/2025, a researcher splashed their wrist with human blood while performing routine cleaning of contaminated equipment. The blood had been screened against common human bloodborne pathogens, and the contacted skin appeared intact. They were not wearing full BL2 PPE; only gloves were worn, with the wrist exposed. The researcher immediately washed with soap and water and contacted their supervisor, who reported it via email to a general safety inbox that did not include access by lab safety or biosafety contacts. Medical evaluation was not sought by the researcher.

Corrective Actions: The researcher and lab were counseled always to report incidents using 24/7 emergency response numbers and not to rely on email. The researcher was advised to seek consultation with an Occupational Health physician and to ensure appropriate PPE use.

Notifications: This incident was reported to COMS.

Old Business

There was no old business to discuss at this meeting.

New Business

I. Annual Report:
The annual report, including 2025 accomplishments, was presented to the committee.

II. Training Articles of Interest:
The committee was provided with six articles for the purposes of COMS member training.

1. NIH Official Resigns After Flap Over Risks of Seasonal Flu Virus Study
2. Biological Intellectual Property Protection Act of 2025
3. Rapid Evolution of a Highly Efficient RNA Polymerase by Homologous Recombination
4. Scientists Warn of a New Biological Risk and Call for An International Summit
5. Getting Serious About Improving Biosafety
6. Cotton's Proposed Legislation and Rhetoric

Public Meeting

There were no public comments.

Adjournment

The meeting was adjourned at 10:45 AM.