Fred Hutch Cancer Center

MINUTES OF THE FRED HUTCHINSON CANCER CENTER
INSTITUTIONAL BIOSAFETY COMMITTEE

January 22, 2026, IBC Meeting, 10:00 am, M1-A303 & MS Teams

ATTENDANCE

MEMBERS

Present	Absent	
☐	☒	Kevin Barry PhD, Public Health Sciences, *Member*
☒	☐	Elizabeth Cromwell, PDX Program Lead, *Member*
☒	☐	Bernadeta Dadonaite PhD, Staff Scientist, Basic Sciences, *Member*
☐	☒	Neelendu Dey MD, PhD, Clinical Research Division, *Member*
☒	☐	Michael Emerman PhD, *Community Member*
☒	☐	Marian Esvelt DVM, Associate Director, Comparative Medicine, *Member*
☐	☒	Taran Gujral PhD, Human Biology, *Member*
☒	☐	Tony Han, BSL-3/ABSL-3 Facility Manager, *Member*
☒	☐	Alex Hirayama MD, Clinical Research Division, *Member*
☒	☐	Keith Jerome MD, PhD, Vaccine and Infectious Disease, *Chairperson*
☐	☒	Michelle Kom-Gochnour MN, RN, COHN-S, *Community Member*
☒	☐	John McNevin MSc, Program Manager, Vaccine and Infectious Disease, *Member*
☒	☐	Jacqui Murray-Wijelath PhD, *Community Member*
☒	☐	Susan Parazzoli MS, RBP, Biosafety Officer, *Member*
☒	☐	Stefan Radtke PhD, Staff Scientist, Translational Science & Therapeutics, *Member*
☐	☒	Joshua Schiffer MD, MSc, Clinical Research, *Member*
☒	☐	Shivani Srivastava PhD, Clinical Research Division, *Member*
☒	☐	Susan Strenk, Research Technician IV, Vaccine and Infectious Disease, *Member*
☐	☒	Andrea Towlerton, *Community Member*
☐	☒	Allison Zelikoff MN, RN, COHN-S, Occupational Health Manager, *Member*

NON-MEMBERS

Dagmar Achtelik, Administrative Coordinator, EH&S, *Committee Secretary*
Liz Kindred, Director, Environmental Health & Safety
Jake White, Assistant Biosafety Officer, Environmental Health & Safety
Cindy Wladyka, EH&S Specialist for Biosafety, Environmental Health & Safety

VISITORS

Zoe Worthington, IBC Consultant

Dr. Jerome, Chairperson, called the meeting to order at 10:01 am.

I. ANNOUNCEMENTS

- None

II. REMINDER FOR CONFLICT OF INTEREST

The chair reminded the committee that the NIH Guidelines, Section IV-B-2-a-(4) states: "No member of an Institutional Biosafety Committee may be involved (except to provide information requested by the Institutional Biosafety Committee) in the review or approval of a project in which he/she has been or expects to be engaged or has a direct financial interest."

III. MINUTES

Minutes from the November 20, 2025 and December 18, 2025 IBC Meetings were approved unanimously.

IV. REVIEW OF ACTION ITEMS

None

V. NEW BUSINESS

HUMAN GENE TRANSFER APPLICATIONS

None

CATEGORY "A" IBC REVIEWS

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Adeyemi	Renewal	E126.2: Adeyemi lab at FHCC	III-D-3, III-E, III-E-1, III-F-1, III-F-2

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

The goal of the Adeyemi lab is to understand the molecular mechanisms of genome maintenance and how these processes are dysregulated during genetic diseases, infections, aging and cancer, with the aim of developing novel therapies. The lab employs CRISPR screens and molecular biology techniques to identify and characterize candidate genes.

- Lab strains of *E. coli* for routine cloning will be handled at BSL-1.
- Gene targets include human protein tags, genes of DNA repair, and fluorescent reporters.
- Routine culturing of human and other mammalian cell lines will be done at BSL-2.
- Production and use of lentiviral, gammaretroviral, and adenoviral vectors for transduction of human cell lines will be done at BSL-2.
- Flow sorting of modified cells will be performed at BSL-2 and BSL-2+ (BSL-2 with BSL-3 practices).

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Bai	Renewal	E126.3: Bai lab at FHCC	III-D-4, III-E, III-F-8

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

The goal of this project is to define the cellular and circuit mechanisms that govern neuronal communication and animal behavior. Using C. elegans as a discovery and analytical platform, the specific aims are to identify the molecules and genes that control neuronal communication.

- Lab strains of E. coli for routine cloning will be handled at BSL-1
- Creation, breeding and use of C. elegans will be performed at BSL-1

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Berger	Renewal	E126.4: Berger lab at FHCC	III-D-3, III-D-4, III-E, III-E-1, III-E-3, III-F-1, III-F-2, III-F-3, III-F-8

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

The overall goal of the laboratory is to enable precision medicine by systematically uncovering the molecular alterations in cancer, determining the function of these variant alleles, and understanding how these alleles modulate response to targeted or immune-based therapies.

- Lab strains of E. coli for routine cloning will be handled at BSL-1.
- Breeding/handling transgenic mice will be done at ABSL-1.
- Routine culturing of human and mouse cell lines will be done at BSL-2.
- Gene targets include human oncogenes, tumor suppressors and RNA-binding proteins as well as whole genome libraries; modifications will be made using viral transduction, electroporation, nucleofection, CRISPR/Cas editing.
- Production and/or use of lentiviral vectors and adenoviral vectors for transduction of human cell lines and mouse cell lines will be done at BSL-2.
- Human primary tissues and blood will be handled at BSL-2 for processing.
- Administering unmodified or modified cell lines that have tested negative for vivarium-excluded pathogens as well as replication incompetent adenoviral vectors to mice will be done at ABSL-1.
- FACS will be performed on unmodified or non-virally modified mouse cells at BSL-1, on unmodified or modified human cells and modified mouse cells at BSL-2 or BSL-2+ depending on gene modification.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Cohn	Renewal	E126.5: Cohn lab at FHCC	III-F-1, III-F-2, III-F-3

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):
The overall goal of the lab is to understand where HIV hides in the body during treatment and how the immune system responds when treatment is paused, with the aim of enabling longer-lasting HIV remission without lifelong medication. • Lab strains of *E. coli* for routine cloning will be handed at BSL-1. • Gene targets include HIV integration sites throughout the human genome. • Routine culturing of human cell lines will be done at BSL-2. • Human primary cells and tissue samples will be handled at BSL-2 and BSL-2/3 (BSL-2 with BSL-3 practices) for culturing and isolating nucleic acids. • Flow sorting will be performed on unmodified human cells from HIV+ populations at BSL-2+. • The EMUA included work that is not subject to, or is exempt from, the NIH Guidelines. This work has been reviewed and had a robust risk assessment performed by the IBC to ensure proposed containment is appropriate.
Comments & Discussion:
The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Furlan	Renewal	E126.6: Furlan lab at FHCC	III-E, III-F-1, III-F-8

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):
The overall goal of the lab is to use single cell genomics as well as broad genetic and epigenetic landscaping to describe the intricacies of cellular functions in pediatric tumors. • Lab strains of E. coli for routine cloning will be handled at BSL-1. • Routine culturing of human cell lines will be done at BSL-2. • Human primary blood will be handled at BSL-2 for processing and isolating nucleic acids. • Gene targets include human immune recognition genes and bacterial transposon/transposases; modifications will be made using transfection and CRISPR/Cas editing via electroporation. • FACS will be performed on unmodified human cell lines and primary cells at BSL-2.
Comments & Discussion:
The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Kugel	Renewal	E126.7: Kugel lab at FHCC	III-D-3, III-D-4, III-E, III-E-1, III-F-1, III-F-2

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

The lab aims to improve our understanding of the disease-causing mechanisms underlying pancreatic ductal adenocarcinoma (PDAC or PDA) and intrahepatic cholangiocarcinoma (ICC), and to use that understanding to identify novel therapies for these highly lethal malignancies. They will use a series of tools, including mouse models, patient derived xenografts and human cell lines and cultures to determine how genetic mutations found in these tumors can promote the growth of cancer cells, and how they may leave cancer cells vulnerable to specific drugs and therapies.

- Lab strains of *E. coli* for routine cloning will be handled at BSL-1
- Modified human primary cells and cell lines will be handled at BSL-2 for culturing
- Production and use of lentiviral vectors for transduction of human cell lines will be done at BSL-2
- Production and use of amphotropic retroviral vectors for transduction of human cell lines will be done at BSL-2
- CRISPR edits to human cells using lentiviral methods will be performed at BSL-2.
- Administering modified cell lines that have tested negative for vivarium-excluded pathogens to mice will be done within a BSC followed by housing at ABSL-1.
- FACS will be performed on modified human cells at BSL-2.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Facilities have been inspected and all findings resolved. Training is up-to-date and complete.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Blanco-Melo	Amendment	E325.8: Add in vivo mouse administrations of human cancer cell lines and modified VSV	III-D-3, III-D-4

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

This amendment expands the existing Blanco-Melo EMUA, which currently covers RG-2 viruses in vitro only, to include ABSL-2 in vivo mouse studies.

- Administration of human cell lines and RG-2 viruses to mice will be done within a BSC followed by housing at ABSL-2.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Personnel training is up-to-date and complete. Facilities are confirmed appropriate.	Approved unanimously 1 recusal

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Fredricks	Amendment	E124.3: Gardnerella knockouts using TetM	III-D-1, III-D-2, III-E, III-F-1

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

The lab aims to introduce tetracycline resistance to disrupt genes in Gardnerella genomes by knocking them out, study their function, and gain mechanistic insights into the biology of these organisms.

- Growth, propagation, and genetic modification of Gardnerella spp. will occur at BSL-2.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
N/A - no changes to personnel, facilities, or maximum approved containment level due to this amendment	Approved unanimously 1 recusal

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Ghajar	Amendment	E125.4: New gene targets and Cas9 prime editing transgenic mice	III-D-4

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

This amendment is adding new gene targets for manipulation or prime editing and a transgenic mouse system for supplying Cas9 for prime editing experiments.

- Routine culturing of human and mouse cell lines and primary cells will be done at BSL-2.
- Breeding/handling transgenic mice will be done at ABSL-1.
- Gene targets include mouse oncogenes and tumor suppressors; modifications to mouse cells will be made using CRISPR/Cas editing.
- Administering unmodified and modified cell lines that have tested negative for vivarium-excluded pathogens to mice will be done within a BSC followed by housing at ABSL-1.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
N/A - no changes to personnel, facilities, or maximum approved containment level due to this amendment.	Approved unanimously

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Kiem	Amendment	E224.2: New viral envelope, CRISPR, nanoparticles and gene inserts	III-D-3, III-D-4, III-E

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

This project adds new viral envelope variants, including Cocal and Baboon-based hybrids, to improve the specificity and efficiency of lentiviral and virus-like particle targeting to hematopoietic stem cells for gene and protein delivery.

- All work will continue to be performed ex vivo and in vivo in humanized mice under the same biosafety levels, methods, and handling conditions previously approved in the original EMUA.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
Training is up to date. No changes to facilities or maximum approved containment level due to this amendment.	Approved unanimously 1 recusal

Principal Investigator:	***EMUA Type:***	***EMUA Number & Title:***	***NIH Sections:***
Subramaniam	Amendment	E225.9: SARS-CoV2 sequences for expression in mammalian cells	III-D-2, III-E

Summary (including agents, manipulations, genes, hosts, proposed containment/biosafety levels):

This amendment is aimed at investigating respiratory viral genes, specifically the 5' untranslated region (UTR) and non-structural protein 1 (nsp1) to identify genetic dependencies in mRNA translation inhibition and decay.

- Viral 5' UTR and nsp1 will be cloned into plasmids and transfected into mammalian cells at BSL-2.

Comments & Discussion:

The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.

Training & Facilities:	***Vote & Recusals:***
New personnel training is up-to-date and complete.	Approved unanimously

CATEGORY "B" IBC REVIEWS

Principal Investigator:	***EMUA Number:***	***NIH Sections:***	***Summary (including training and facilities):***
Bleakley	E225.4	III-D-4	• Gene targets updated to include reporter genes. • Human primary cells will be modified to express reporter genes at BSL-2. • Modified cells that test negative for vivarium-excluded pathogens will be administered to mice at ABSL-1. There are no changes to personnel, facilities, or maximum approved containment level due to this amendment.
Bloom (1)	E325.3	III-D-2, III-D-3, III-F-1	• Gene targets updated to include surface proteins from paramyxovirises There are no changes to personnel, facilities, or maximum approved containment level due to this amendment.
Bloom (2)	E325.3	III-D-2, III-D-3, III-F-1	• Gene targets updated to include surface proteins from RG3 influenza virus

			There are no changes to personnel, facilities, or maximum approved containment level due to this amendment.
Dudakov	E123.5	III-E-3	• New transgenic mouse lines will be bred/handled at ABSL-1. • Cells from transgenic mice will be administered to mice at ABSL-1. There are no changes to personnel, facilities, or maximum approved containment level due to this amendment.
Naresh	E126.1	III-F-1	The EMUA included work that is not subject to, or is exempt from, the NIH Guidelines. This work has been reviewed and had a robust risk assessment performed by the IBC to ensure proposed containment is appropriate. • Human tissues will be handled at BSL-1 for processing and isolating nucleic acids.
Stamatatos	E125.8	III-D-4	• Recombinant nucleic acid constructs updated to add self-amplifying RNA based on RG-2 alphavirus genome. • Lipid nanoparticles carrying saRNA constructs will be administered to mice at ABSL-1. There are no changes to personnel, facilities, or maximum approved containment level due to this amendment.
Batch Comments & Discussion:			
The Committee reviewed this work and confirmed the research is clearly described, the associated risks recognized, and appropriate biosafety practices implemented in accordance with institutional and regulatory standards.			
Batch Vote & Recusals/Abstentions:			
Approved unanimously 1 recusal			

CATEGORY “C” BSO REVIEWS

Principal Investigator:	*EMUA Number:*	*Approval Date:*	*NIH Sections:*	*Summary (including training for amendments adding personnel):*
Termini	E122.2	11.21.2025	N/A	Add unmodified human samples for processing. Facilities are confirmed appropriate.
Rajan	E425.8	12.8.2025	N/A	Add personnel. New personnel training is up-to-date and complete.
Lee	E125.6	12.11.2025	N/A	Update lab room locations. Facilities are confirmed appropriate.
Mayers	E424.2	12.18.2025	N/A	Update lab room locations. Facilities are confirmed appropriate.
Radich	E325.12	12.29.2025	N/A	Add personnel. New personnel training is up-to-date and complete.

Termini	E122.2	1.9.2026	N/A	Add personnel. New personnel training is up-to-date and complete.

EMUA CLOSEOUTS

Halow Lab EMUA E122.1

UPDATES/PROGRAM REVIEW

2025 Year End IBC review presented by Susan Parazzoli and Jake White including lab inspection metrics, membership changes, acquisition of human gene transfer trial review under this sole Fred Hutch IBC, the NIH Biosafety Modernization initiative and facility updates.Tony Han gave an overview of the BSL3 facility building plans.

INCIDENTS, ACCIDENTS, AND PROBLEMS

251121 NIH Incident Report review – administration of 2nd generation lentivirus to mice at ABSL-1 without IBC approval

VI. OTHER BUSINESS

None

Meeting adjourned at 11:44 am.

Signed by:
Keith Jerome
CB83B35EA7A9430...

Keith Jerome, MD PhD
Vaccine and Infectious Disease
Institutional Biosafety Committee Chairperson

DocuSigned by:
09CC928C5E494BB...

Susan Parazzoli MS, RBP
Biosafety Officer

cc: Dr. Thomas J. Lynch, President, and Director
Dr. Nicole (Niki) Robinson, Chief Administrative Officer