COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

INSTITUTIONAL BIOSAFETY COMMITTEE

Minutes
Thursday, June 4th, 2026
Teleconference

Present	Present	Excused
C. Aston	S. Morse (Chair)	L. Butaud-Rebbaa
H. Blumm	T. McConville	L. Kam
Y. Collazo	D. Ng	J.J Miranda
C. Cameron	N. Ozten Kandas	P. Muranski
K. Crowley	E. Peterson	M. Quick
S. Hughes	C. Pitoscia	Q. Wang
S. Joussef Pina	V. Racaniello	
B. Karolewski	E. Riber (Coordinator)	
J. Kaushal	A. Romanov	
	M. Underwood	
	Y. Wojcicki	

S. Morse convened the Institutional Biosafety Committee (the **Committee**) at 1:01 PM.

S. Morse asked the Committee to approve the minutes of the May 7th, 2026 meeting.

- **The minutes were approved unanimously.**

S. Morse reminded the Committee of the Conflict of Interest Policy and asked all members to confirm that there were no conflicts of interest with regard to any of the protocols to be discussed at the meeting.

- **There were no conflicts of interest noted.**

DURC Review

- No protocols requiring DURC review were submitted to the Biosafety Officer or to the Committee since the previous meeting.

Human Gene Therapy

- No human use protocols were submitted to the Biosafety Office for review.

Biosafety Office Reviews

- No renewals for Coronavirus Research have been submitted to the Biosafety Office since the last meeting.

Coronavirus Research

- No new Coronavirus research proposals were received by the Biosafety Office since the previous meeting.

rDNA

Eight rDNA and infectious agent appendices requiring work at the BSL-1 containment level were presented and discussed. A table describing each BSL-1 Appendix A was shown to the Committee and is available at the Biosafety Office.

- Six appendices were returned to the investigator for further information as shown in a Table presented to the Committee describing the nature of each hold comment.
- After Discussion by the Committee, all BSL-1 Appendices were voted upon collectively and approved unanimously.

Nine rDNA and infectious agent appendices requiring work at the BSL-2 containment level were presented and discussed. A table describing each BSL-2 Appendix A was shown to the Committee and is available at the Biosafety Office.

- Eight appendices were returned to the investigator for further information as shown in a Table presented to the Committee describing the nature of each hold comment.
- After Discussion by the Committee, all BSL-2 appendices were voted upon collectively and approved unanimously.

Announcements

- Dr. Nur Ozten Kandas was welcomed as an alternate voting Institutional Biosafety Committee member.
- The committee congratulated Dr. Steve Morse for his contributions as IBC Chair.

Report

- S. Joussef Pina presented the IBC year in review for 2025.

rDNA Incidents

- There were no incidents reported.

Action Items

Action Items from IBC meeting		
Status	**Description**	**Group/Investigator**
N/A	**N/A**	**N/A**

With there being no further business S. Morse adjourned the meeting at 1:52 PM. The next meeting will be held by teleconference on July 9th, 2026.

2026 Meeting Calendar

Date
Thursday, January 15, 2026
Thursday, February 12, 2026
Thursday, March 12, 2026
Thursday, April 9, 2026
Thursday, May 7, 2026
Thursday, June 4, 2026
Thursday, July 9, 2026
Thursday, August 6, 2026
Thursday, September 10, 2026
Thursday, October 8, 2026
Thursday, November 5, 2026
Thursday, December 3, 2026

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INSTITUTIONAL BIOSAFETY COMMITTEE

IBC Meeting: June 04, 2026

Table 1: Recombinant DNA proposals

Proposals for Work at BSL-1

	PI	Insert	Vector	Host	Animal Biosafety Level	NIH category	Use/Comments	Year	Protocol #	Appendix A
1	Cheng, Ke	Interleukin-12 (IL-12)	Plasmid	Rabbit	ABSL-1	III-F	IL12 plasmid will be purchased from commercial vendor. We will dilute the plasmid to a determined concentration in a BSL2 hood. Plasmid will be administrated to animals directly without modification.	Y1M0	AC-ACYY0538	BSJW0657
2	Harris, Alexander	Channel rhodopsin, Archaerhodopsin	AAV	Mouse	ABSL-1	III-E-1	The aim is to understand the neural circuitry underlying study the circuit mechanism underlying depression as mice undergo stress. We will use in vivo neural recordings combined with optogenetic manipulations, which involves using AAV-viral vectors to express opsins.	Y1M0	LS-ACYY0144	BSJW0581
3	Issa, Elias	Fluorophores (GFP, TdTomato, mCherry,...) Calcium indicators (GCaMP, RCaMP,...) Voltage indicators (ASAP, ArcLight,...) Channel Opsins (ChR2, Arch, Halo, Chronos, Chrimson,...) Designer receptors (DREADDs: hM3Dq, hM4Di, KORD,...) Cre-Flox genes	AAV	NHP	ABSL-1	III-E-1	Behavioral training and neural experiments studying visual and auditory networks/circuits supporting in object recognition.	T2M0	AC-AABH3550	BSJW0705
4	Leibel, Rudolph	tdTomato, GLP1R, GIPR, LEPR	CRISPR	Mouse	ABSL-1	III-F	iPS cells lines are CRIPSRed so that we have mutations in obesity genes. These cells are differentiated into hypothalamic cells that can be implanted into the hypothalamus of NSG mice.	T1M0	AC-AABV3660	BSJW0720
5	Tezel, Gulgun	SOD2 (Superoxide Dismutase 2) and CAT catalase genes	AAV	Mouse	ABSL-1	III-E-1	Our ongoing research aims to uncover cellular/molecular mechanisms of glaucomatous neurodegeneration towards new treatment strategies to prevent blindness from glaucoma. In order to improve the current understanding of oxidative stress-related pathogenic processes and to value anti-oxidant treatment of glaucoma, a group of DBA-2J mice with hereditary glaucoma will be treated with a stable viral (AAV) vector introducing the genes that encode an antioxidant enzyme (superoxide dismutase 2 or catalase). The viral vector will be injected into mouse eye (one-time injection into vitreous cavity) under general and topical anesthesia. A sterile glass cannula connected by tubing to a Hamilton syringe will be used for this momentary microinjection under aseptic conditions. At the end of injection, an ocular antibiotic ointment (Neomycin-Polymyxin B) will be topically applied.	T2M0	AC-AABH9553	BSJW0712
6	Shen, Michael	PTN, IGF1, GFP	AAV	Mouse	ABSL-1	III-E-1	Genes of interest that show significant change during castration, e.g. IGF1,Pleiotrophin (PTN), and/or GFP reporter genes will be introduced into the prostate of WT mice. The gene of interest and reporter genes will be packaged into Adeno-Associated Virus (AAV), which will be injected into prostate. Mice will be castrated to study the role of AAV over expressed genes in prostate regression. Adult mice are injected with AAV virus using a lubricated sterile catheter (BD Insyte Autoguard, 22G), with 10-20 L AAV diluted in PBS no more than 1X10^12GC per dose per mouse.	T1M02	AC-AABQ4558	BSJW0682
7	Tosches, Maria Antonietta	fluorescent proteins (such as EGFP, EYFP, mCherry, tdTomato), Cre recombinase, calcium indicators (such as GCaMP), optogenetic actuators (such as channelrhodopsin 2 and its derivatives), tol2 trasposase	plasmid, AAV	Turtle	ABSL-1	III-E-1	My laboratory studies the brain of the newt Pleurodeles waltl, a valuable comparison point with other vertebrates to study brain complexity from an evolutionary perspective. The goal of this research is to characterize neuronal activity and behavior in Pleurodeles waltl. For this, we need to deliver to the Pleurodeles brain rDNA encoding geneticallyencoded calcium indicators and optogenetics actuators We will deliver this rDNA directly, by electroporating plasmid DNA in the brain, or by using recombinant Adeno Associated Viruses (rAAVs). In addition, we will generate transgenic lines by injecting fertilized embryos withrDNA and tol2 transposase mRNA.	Y1M0	AC-ACYY0376	AURD5002
8	Uribe-Cano, Santiago	jRCaMP1b, Cre recombinase and eGFP	AAV	Mouse	ABSL-1	III-E-1	The goal is to use recombinant, replication-incompetent AAV vectors to express genetically encoded tools in the mouse habenula for fiber photometry and conditional MOR manipulation in a neuropathic pain model. AAV1-SYNjRCaMP1b and AAV1-SYN-FLEX-jRCaMP1b will be used for calcium indicator expression, and AAV-DJ9-CMV-Cre-eGFP for Cre-mediated recombination in MOR-floxed mice. Vectors will be handled in small volumes and delivered by stereotaxic intracranial injection into the habenula (~250 nL at 50 nL/min) under BSL-1 conditions. Safety provisions include PPE, sharps precautions, containment of viral stocks, and disposal as biohazard/sharps waste. Surfaces/spills will be decontaminated with fresh 1:10 bleach for 20 min, followed by water or 70% ethanol wipe-down as needed; reusable items will be autoclaved or chemically disinfected.	Y1M0	LS-ACYY0180	BSJW0700

Proposals for work at BSL-2

	PI	Insert	Vector	Host	Animal Biosafety Level	NIH category	Use/Comments	Year	Protocol #	Appendix A
9	Accili, Domenico	Foxo1	AV	Mouse	ABSL-2	III-D-1-a	This will be over expression or underexpression of foxo1 adenovirus intravenously injected targeted to the liver.	T2 M00	AC-AABG6551	BSJW0732
10	Bartolini, Francesca	tubulin subunits (both alpha and beta), D2 alpha-tubulin, tubulin modifying enzymes (TTL, CCP1/6, ATAT1, TTLL,	LV	In vitro	N/A	III-D-1-a	Primary hippocampal neurons will be transduced with lentiviral vectors for cDNA expression and shRNA mediated silencing	Y1 M0	LS-ACYY0187	BSJW0776
11	Correa, Santiago	IL-12, IL-15, IL-21, OPA1, mCherry, eGFP	LNP	In vitro	N/A	III-E-1	Nonviral lipid-based nanoparticles and hydrogels to transfect RNA and DNA based constructs into mammalian cells for CAR and amyloidosis therapies.This project develops nonviral lipid nanoparticles (LNPs) and hydrogel matrices to deliver RNA and DNA constructs for CAR and amyloidosis therapies. Methodologies include microfluidic and bulk mixing formulation of nucleic acidLNP complexes, in vitro transfection of mammalian cell lines and human PBMCs, and in vivo rodent testing. Manipulations require Biosafety Level 2 (BSL-2) and ABSL-2 containment. All aerosol-generating work will occur inside Class II Biosafety Cabinets while wearing lab coats, gloves, and eye protection. Liquid will be inactivated using 10% bleach for 15 minutes, while solids and animal bedding will undergo autoclaving at 121°C or incineration. Significant risks include bloodborne pathogen exposure from human PBMCs and enhanced cellular uptake of nucleic acids via synthetic LNPs. Additionally, DNA constructs pose insertional mutagenesis risks. Safely managing sharps is critical during in vivo rodent injections.	Y1 M0	LS-ACYY0186	BSJW0727
12	Ciccia, Alberto	TERT, CAS9, CAS12A, UNG, OGG1, SMARCAL1, ZRANB3, FBH1, HLTF, BLM, FANCJ, RPA1-3, REV1, MAD2L2, REV3L, PRIMPOL, BRCA1, BRCA2, BARD1, PALB2 SPRTN, DNPH1, SMUG1, HROB, MCM8, MCM9, RAD51, FANCM, FAAP24, LIG4, XRCC4, DCLRE1B, POLQ, FANCL, FANCA, ERCC4, SLX1, SLX4, MUS81, EME1, EME2, ATRX, DAXX, POLE3, POLE4, DNA2, EXO1, MRE11, NBN1, RAD50, RAD9, RAD1, HUS1, 53BP1, RAD17, RAD18, XPG. Cas9	LV, CRISPR	In vitro	N/A	III-D-1-a	Functional characterization of gene perturbations and small-molecule modulators in mammalian cell systems. This project uses recombinant DNA to study gene function in mammalian cell lines. Goals include gene overexpression, knockdown, and CRISPR/Cas9- mediated editing to assess cellular pathways and responses to small molecules. Methods include plasmid cloning, bacterial amplification (E. coli K-12), and delivery into cells via transfection or replication-incompetent lentiviral vectors (third-generation systems). Viral particles are produced by transient transfection and handled under BSL-2 conditions. Safety measures include use of split packaging systems to prevent replicationcompetent virus formation, Class II biosafety cabinets, and appropriate PPE. Waste is inactivated by bleach or autoclaving. Risks include broad tropism of VSV-G pseudotyped lentivirus and potential CRISPR off-target effects. These are mitigated through design controls, training, and strict adherence to institutional biosafety guidelines.	Y1M0	LS-ACYY0175	BSJW0745
13	Mok, Sachel	kelch13, DHFR, cas9	P. falciparum, CRISPR	In vitro	ACL-1	III-D-1-a	Our lab researches on the role of gene candidates on P. falciparum malaria parasite response to drugs in the asexual intra-erythrocytic stage of the parasite's life cycle using vitro molecular approaches. The goals of our studies are to test the drug efficacy of CRISPR/Cas9 gene-edited engineered parasite lines. Blood used for culture is purchased from New York Blood Center and deidentified. We perform and handle all blood stage cultures in BSL-2 biosafety cabinets that are certified annually, and adhere to safety regulations for biohazard and chemical agents and waste disposal. All lab personnel use PPE (lab coats, gloves, covered shoes) during experiments and are trained in biosafety and blood borne pathogens safety courses which are certified in RASCAL. They have undergone medical surveillance clearance at CUIMC at the time of hiring and before starting wet lab experiments. Any infectious materials (parasite or bacterial cultures) are inactivated with bleach before proper disposal.	Y1M0	LS-ACYY0194	BSJW0784
14	Reya, Tannishtha	shRNA or Cas9 or dCas9 directed against target genes including stem cell and developmental signals, adhesion receptors, cell surface receptors, transcription factors, RNA binding proteins such as Musashi, Tspan3, Prap1, Snrpa, RORg; fluorescent reporters such as GFP, YFP, dsRed, CFP; oncogenes including BCR-ABL, NUP98-HOXA9, MSI2-HOXA9, MLL-AF9, SB100, KRAS, p53, MycT58A	LV, MSCV	Mouse	ABSL-1 (Note 2)	III-D-1-a	Worldwide, cancer claims millions of lives each year. Among the most deadly is pancreatic cancer; this disease is projected to become the second leading cause of cancer-related deaths by 2030. Likewise, leukemia is also a disease with significant unmet need. A deeper understanding of the biology of these cancers along with the identification of key vulnerabilities, are desperately needed. Our goal is to develop a better understanding of signals driving the development, propagation, and therapy resistance of aggressive cancers, and identify new targets for therapy. Methodologies include transplantation of mice with human cancer cells, including cells with target gene knockdown, and evaluation of impact on growth of the cancer cells in vivo.	T1M04	AC-AABT5652	BSJW0760
15	Sulzer, David	mCherry, GFP, promotor regions for neuroanatomical tracing, optogenetic, chemogenetic and Calcium signaling, cation channel channelrhodopsin, designer receptor exclusively activated by designer ligand (DREADD) and GCaMP6f	HSV, AAV	Mouse	ABSL-1 (Note 3)	III-E-1, III-D-1-a	Viral constructs for in vivo imaging, stereotactically injected into the mouse brain.	T1M0	AC-AABX1650	BSJW0667
16	Yan, Kelley	Wnt3a, RSPO1, Znrf3	AV	Mouse	ABSL-1 (Note 3)	III-D-1-a	Mice will be injected with replication deficient adenovirus to induce hepatic infection leading to systemic circulation of soluble proteins for the perturbation and manipulation of intestinal stem cells.	T2M0	AC-AABH1602	BSJW0754
17	Zaccara, Sara	YTHDF2, ALKBH5, CNOT proteins, Cas9-base editor fusions, Cas13-ALKBH5 fusion constructs	LV	In vitro	N/A	III-D-1-a	This work involves the use of recombinant DNA to generate replication incompetent lentiviral vectors for gene delivery in mammalian cells. The overall goal is to introduce defined genetic elements into cells for research purposes, including expression of transgenes, shRNAs, sgRNAs, or CRISPR-based constructs, depending on the specific experiment. Potentially infectious materials are handled using established laboratory biosafety procedures. Viral stocks and contaminated liquid are inactivated by chemical disinfection. Contaminated solid waste is disposed of as regulated medical waste in accordance with institutional procedures. Work surfaces and equipment are decontaminated after use, and all manipulations with lentiviral material are performed using appropriate containment and personal protective equipment to minimize exposure.	Y1M0	LS-ACYY0167	BSJW0676

Note1: The Biosafety Office allows Stereotaxic injections to be designated as ABSL-1

Note2: The Biosafety Office allows Transduced cell injections that are free from virus to be designated as ABSL-1

Note3: The Biosafety Office allows the administration of replication deficient vectors or attenuated strains to be designated as ABSL-1

Note 4: BSL-2 practices for Fish procedures: store rVSV-infected fish within BSL1 satellite facility, in sealed disposable containers on a designated rack clearly labeled for PI handling only. Following euthanasia, water and containers will be decontaminated with >10% bleach prior to disposal.