Rutgers University
Institutional Biosafety Committee (IBC) – Central Campus
Meeting for NIH Guidelines Materials
Minutes of April 1, 2026

1. ATTENDEES

☐ Nada Boustany	☒ Milind Shah	☒ Blas Peixoto - REHS
☐ Jeffrey Boyd	☒ Matthew Ferguson – Local Non-Affiliated	☒ Robert Adcock - REHS
☒ Qian Cai	☐ Ellen Welch – Local Non-Affiliated	☒ Jacquelyn Vidal - REHS
☒ Julie Caruth	☒ Thomas Boyle – Local Non-Affiliated	☒ Sophia Cheng - REHS
☒ Richard Ebright	☐ James Clancy – Local Non-Affiliated	☒ Nancy Connell
☐ Zhaohui Feng	☐ Jeetendra Eswaraka – Ex Officio	☒ Lai-Hua Xie
☒ John Hershey	☐ Alejandro Ruiz – Ex Officio	☐
☒ Peng Jiang	☐ Bryan Bocco – Ex Officio	☐
☐ Eric Klein	☒ Ron Hart – Co- Chair	☐
☒ John McLaughlin	☒ Brian Eggert - REHS	☐
☐ Latisha Moody	☒ Marija Borjan - REHS	☐
☒ Donald Schaffner	☒ Sivarchana Boada - REHS	☐

2. MEETING LOGISTICS

CURRENT MEETING		
Called to Order: 12:04 PM	**Adjourned:** 12:45 PM	**Location:** WebEx
PREVIOUS MEETING		
Minutes from February 4, 2026		**Approved (15:0:0)**[1, 2]
NEXT MEETING		
Date: June 3, 2026	**Time:** 12:00	**Location:** WebEx

CONFLICT OF INTEREST STATEMENT
Committee members with a conflict of interest related to the review of a specific registration may not be involved in the review or approval of a project in which he or she has been or expects to be engaged or has a direct financial interest.

3. PRE-AGENDA

TOPIC	SUMMARY
Old Business: **NIH Initiative: Modernizing and Strengthening Oversight of Biosafety**	NIH has completed the last listening session of Phase 1 of the initiative. The last listening session was at the end of February. The NIH is still currently accepting comments and input from the public while they are drafting the proposed new rules (https://osp.od.nih.gov/help-modernize-and-strengthen-the-oversight-of-biosafety/).

PROTOCOL REVIEWS

The following protocols were reviewed according to the risk assessment guidelines published in the *NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules* and the CDC/NIH publication *Biosafety in Microbiological and Biomedical Laboratories*. The risk assessment is documented in the REHS Biosafety Protocol Management System and includes a review of the engineering controls, work practices, safety training, and medical surveillance of project personnel. Individual protocols are evaluated on the following matters as appropriate: the proposed biosafety level and safety practices, agent characteristics, source and nature of agents or recombinant/synthetic nucleic acid sequences and resulting effects of expressed proteins, host animals/ cells, and cloning vectors to be used, and the type of manipulations planned.

Note: Protocols were not necessarily reviewed in the order they appear below.

1. ADMINISTRATIVE APPROVALS

PROTOCOL	PI	MATERIAL(S) OF INTEREST	BSL
13-567	Margolis, David	Renewal – minor housekeeping edits	2
13-366	Gounder, Kabilan Velliya	Renewal – minor changes to remove experiments	2
16-083	Libutti, Steven	Renewal without changes	2
17-027	Arnold, Edward	Renewal without changes	2
24-022	Gliniak, Christy	Amendment – answered new nucleic acid questions	2
14-051	Fraidenraich, Diego	Renewal without changes	2
13-225	Sesti, Frederico	Renewal with changes – answered new questions of Addendums A and K	1
13-507	Salgame, Padmini	Amendment – adding RNA samples to be evaluated for TB biomarkers	3

2. ADMINISTRATIVE TERMINATIONS

PROTOCOL	PI	TITLE OF PROTOCOL	EXPIRY DATE
None			

3. BIOSAFETY OFFICER REPORT (BSO)			
PROTOCOL	**PI**	**TITLE & MATERIAL(S) OF INTEREST**	**BSL / GUIDELINES**
None			

4. AD HOC MEETING APPROVALS			
PROTOCOL	**PI**	**TITLE & MATERIAL(S) OF INTEREST**	**BSL**
None			

5. NEW PROTOCOLS			
PROTOCOL	**PI**	**TITLE & MATERIAL(S) OF INTEREST**	**BSL / GUIDELINES**
14-051	Zutshi, Ipshita	**Title:** Neural circuit mechanisms underlying goal-directed behavior **Materials:** rDNA, AAV vector, Mice **Submission Summary:** This protocol investigates neural circuit mechanisms underlying learning, memory, and goal-directed behavior in mice. Experiments involve stereotactic injection of recombinant AAV vectors into defined brain regions to enable expression of fluorescent reporters or genetically encoded activity indicators in neuronal populations. Following viral delivery, animals may undergo behavioral testing and electrophysiological recording to monitor neural activity during task performance. Experimental procedures include viral vector preparation, stereotactic injections, chronic neural recording or optical implants, and behavioral experiments in mice.	1 / III-D-4

		The recombinant AAV vectors used in this work are replication-deficient and contain non-pathogenic nucleic acid sequences encoding fluorescent reporters or genetically encoded sensors under neuronal promoters. Only commercially obtained viral vectors will be used; no in-house viral vector production will be performed. Viral aliquoting and preparation will be conducted in a certified Class II biosafety cabinet prior to use. Stereotactic surgical procedures are performed outside the biosafety cabinet in designated surgical areas using standard aseptic technique. All work with recombinant viral vectors will be conducted under Biosafety Level 2 (BSL-2) containment in accordance with institutional biosafety policies and the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules. The vectors are generally classified as Risk Group 1. Risk mitigation measures include biosafety training for personnel, appropriate personal protective equipment, safe handling of sharps during surgical procedures, and use of appropriate disinfectants for decontamination of work surfaces and materials. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Required before commencing work (Provision of approval) **IBC Vote: Approved (15:0:0)**[1]	

6. AMENDMENTS

PROTOCOL	PI	TITLE & MATERIAL(S) OF INTEREST	BSL / GUIDELINES
13-587	Levison, Steven	**Title:** Stimulating CNS Regeneration after Traumatic Brain Injury/Murine Model for Pre-Term Birth Associated Brain Injury/Characterization of the Neural Stem Cell Niche **Materials:** rDNA, Lentiviral vector **Submission Summary:** The amendment is requested to enable the investigator to perform cell culture experiments to establish how the cytokine IL-6 affects the specification and differentiation of human neural progenitors (NPs). The PI has	2 / III-D-1

		obtained human NPs (derived from induced pluripotential stem cells) from a collaborator, and would like to infect those cells with a lentivirus to introduce green fluorescent protein (GFP) expression as well as puromycin resistance. After infection, the lab can then produce human NPs that uniformly express GFP. Subsequent experiments would be performed to compare the differentiation of these GFP expressing cells to non-GFP expressing cells in vitro with or without IL-6 treatment. The virus to be used is a third-generation replication-deficient lentivirus produced using the cloning vector AB1021, Cat #LV-1005. The vector has been designed to reduce the risk that a replication competent virus will be produced and no helper viruses will be used in any proposed studies. The lab has previously been approved to work with lentiviral vectors, and will use only biosafety cabinets located in rooms that approved for BSL-2 work and all appropriate precautions will be taken when working with the virus. The PI has requested that all lab personnel update their biosafety training, and he has shared the Lentivirus SOP with those personnel who will be working with the virus and the virally infected cells. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (14:0:1)[1]**	
13-402	Dreyfus, Cheryl	**Title:** Pathways underlying protein release and endocytosis in rodent glial cells **Materials:** rDNA, Lentiviral vector, Human cells **Submission Summary:** This protocol involves the study of neurological signaling pathways and neurotrophic factor regulation in mammalian models. The primary objective is to investigate the functional roles of metabotropic glutamate receptors (mGluR1, mGluR5), brain-derived neurotrophic factor (BDNF), and vacuolar protein sorting receptors (Sortilin, SORCS2) through targeted gene knockdown. This research utilizes both in vitro cell culture models—including primary mouse/rat glial cell cultures, human induced pluripotent stem cells (iPSCs), and human fetal mixed glial cultures—and in vivo mouse models. The work is conducted at	2 / III-D-1

		Biosafety Level 2 (BSL-2) and utilizes agents classified as Risk Group 2. The core of the genetic modification involves the use of a third-generation, replication-incompetent lentiviral vector system. These vectors are engineered to deliver short hairpin RNA (shRNA) sequences designed to knockdown the expression of the aforementioned receptors and signaling molecules. The nucleic acid sequences are derived from mouse and human genomic data. The use of a third-generation system provides a significant safety barrier, as the viral machinery is split across multiple plasmids, preventing the spontaneous assembly of infectious, replication-competent lentivirus (RCL). Experimental procedures include the production of viral particles in packaging cells, followed by the transduction of target cell cultures (including human-derived iPSCs) and stereotaxic microinjections into specific regions of the mouse brain. Risk mitigation strategies include the use of certified Class II Biosafety Cabinets for all viral work and the use of engineered safety needles during animal procedures to prevent accidental needle sticks. All human-derived materials, such as fetal glial cultures and iPSCs, are handled under Universal Precautions in accordance with BSL-2 standards to manage potential bloodborne pathogen risks. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (15:0:0)**[1]	
25-011	Lee, Geuntaek	**Title:** Patient derived organoid culture **Materials:** rDNA, Lentiviral vectors (FIV-based), transgenic organoid lines **Submission Summary:** Our laboratory is dedicated to provide patient-derived organoid (PDO) models. Operating as a Core service, the lab provides these human-derived organoids to Rutgers PIs, contingent upon REHS clearance via the designated approval process. This amendment proposes the implementation of stable transduction protocols for	2 / III-D-1, III-D-2

		PDOs using lentiviral vectors encoding GFP and RFP. To achieve this, we will transfect 293 cells with specific lentiviral plasmids to generate viral particles, which will then be used to transduce and transform patient-derived cells. All work will be done at BSL-2 containment using appropriate PPE. All biohazardous waste, including consumables like gloves and pipettes, will be segregated and autoclaved prior to disposal. **Occupational Health:** Required before commencing work (Provision of approval) **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (14:0:0)**[1, 3]	
23-013	Mickolajczyk, Keith	**Title:** Mickolajczyk Lab recombinant DNA and protein single-molecule biophysics **Materials:** rDNA, *Schizosaccharomyces pombe* **Submission Summary:** The main goal of this research is to discover the mechanisms of ATP-driven mechanoenzymes involved in important cellular processes such as ribosome biogenesis, intracellular transport, and DNA/RNA movement/processing. The assays performed in the lab are in vitro reconstitution biochemistry using recombinantly expressed proteins. The protocol was previously approved for all recombinant biochemistry, which included the use of bacterial and insect cell expression systems at BSL1. In this amendment, we are adding the common model organism Schizosaccharomyces pombe. We will use S. Pombe both as a source of protein materials for in vitro biochemical/biophysical assays, and for simple complementary in-cell experiments such as fluorescence microscopy-based ribosome localization assays. S. Pombe is already used at Rutgers and many other research institutes at BSL1. Common practices for BSL1 treatment of model organisms, such as cleaning flasks and old cultures with 10% bleach, putting all used plasticware and tips in biohazard waste, wearing PPE (gloves, lab coat, and safety eyewear) at all times in the lab, and minimizing aerosols, will be implemented for S. pombe in the same way that they currently are for the BSL1 Sf9 cell system currently used in the lab.	1 / III-E

		Occupational Health: In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (14:0:0)[1]**	
23-035	Wong, Lok Yin Roy	**Title:** Study of Coronavirus Pathogenesis, Vaccinations, and Therapeutic Interventions **Materials:** Coronaviruses from bats **Submission Summary:** MERS-related batCoVs can use human DPP4 receptor for productive infection in human cells. This demonstrates their ability to cross species barrier and infect humans. Currently, there is limited animal models for studying immune responses after infection with these viruses and testing of antivirals against these viruses. Standard laboratory mice are not susceptible to infection with these viruses. Therefore, there is an urgent need to develop an animal model that supports productive infection of these viruses for antiviral and therapeutics development. We plan to infect a mouse line with transgenic expression of the human receptor (K18-hDPP4) with these viruses and measure virus replication and immune response after infection. This will serve as a model to characterize the potential of these viruses to cause severe disease in humans. Furthermore, we plan to screen for antivirals that protect against infection of these viruses with the K18-hDPP4 mouse model. Our efforts are critical for disease controls of future merbecovirus outbreaks. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (14:0:0)[1]**	3 / III-D-1, III-D-4

[1] Voting Decision (Yay: Nay: Abstain)
[2] Member(s) joined the meeting
[3] Member(s) left the meeting