Rutgers University
Institutional Biosafety Committee (IBC) – Central Campus
Meeting for NIH Guidelines Materials
Minutes of February 4, 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	☒ Roseann Kehoe
☒ 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: 12:02 pm	**Adjourned:** 12:35 pm	**Location:** WebEx
PREVIOUS MEETING		
Minutes from December 3, 2025		**Approved (16:0:0)**[1, 2]
NEXT MEETING		
Date: April 1, 2026	**Time:** 12:00 noon	**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: **Meeting Schedule for 2026**	IBC-Central Campus meetings will continue to be held from 12pm-2pm on the first Wednesday of alternating months.
Old Business: **NIH Initiative: Modernizing and Strengthening Oversight of Biosafety**	NIH has renewed their efforts to complete Phase I of their initiative to modernize and strengthen oversight of biosafety, which involves regional public listening sessions. The remaining listening sessions with NIH will be held this month (February 2026). The NIH is also encouraging individuals to submit their comments and suggestions via the link below. Details for the NIH initiative can be found at this NIH website: https://osp.od.nih.gov/policies/biosafety-and-biosecurity-policy#tab2/ Individual comments can be submitted at the following link: https://osp.od.nih.gov/help-modernize-and-strengthen-the-oversight-of-biosafety/ Organizations representing academia & research have also submitted comments, including these comments from COGR: https://www.cogr.edu/blog/cogr-submits-comments-reponse-nihs-strenthening-and-modernizing-biosafety-oversight
New Business: **IBC Membership Updates**	Dr. Carol Bagnell is leaving the IBC. We thank her for many years of service on this committee!

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
13-335	Pinter, Abraham	Renewal without changes	2e
14-150	Di, Rong	Renewal without changes	1
18-061	Kowzun, Maria	Renewal without changes	2
23-003	Hsu, Chun-Chien	Renewal without changes	3
21-031	Fennell, Donna	Renewal without changes	2

2. ADMINISTRATIVE TERMINATIONS

PROTOCOL	PI	TITLE OF PROTOCOL	EXPIRY DATE
None			

3. BIOSAFETY OFFICER REPORT (BSO) Approved (16:0:0) [1]

PROTOCOL	PI	TITLE & MATERIAL(S) OF INTEREST	BSL / GUIDELINES
17-016	Herranz Benito, Daniel	**Title:** Knockout models and treatment of NOTCH1-induced T-cell leukemias **Materials:** rDNA, Lentiviral vector, mouse cells **Submission Summary:** The main goal of this project is to analyze the therapeutic antitumorigenic properties of targeting different genes (either genetically or pharmacologically with drugs) in different cancer models, most prominently in leukemia (T-ALL, AML, JMML, etc), but also in additional types of cancer (HSTL, neuroblastoma, etc). The protocol was previously approved for gene knockout and reporter studies in leukemia and HSTL cell lines and mouse models. This amendment adds neuroblastoma models and extends our previously approved experiments in leukemia. Specifically, we are requesting approval to inoculate mice with human neuroblastoma patient derived xenografts and/or cell lines . These are Biosafety Level-2 samples, similar to the ones	2 / III-D-1

		previously approved. Mice will be treated with diets without every single amino acid to assess the impact of dietary amino acid dropout in neuroblastoma progression, similar to our previously approved (and still ongoing) experiments in leukemia mouse models. Additional experiments include infection of leukemia cells with doxycycline-inducible shRNAs from Dharmacon (to knockdown genes of interest) to be subsequently transplanted into mice, who will be then treated (or not) to doxycycline to verify if they mediate the therapeutic effects of our interventions. Biosafety level 2 (BSL2) containment practices will be followed. Biological waste materials including animal bedding will be autoclaved before disposal. Spills will be decontaminated with Peroxigard RTU disinfectant. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable	

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**
26-003	Kustka, Adam	**Title:** Culturing genetically modified marine phytoplankton **Materials:** rDNA, marine phytoplankton **Submission Summary:** The main goal of this project is to investigate aspects of iron metabolism in the coastal marine diatom Thalassiosira pseudonana. The risks associated with this project are understood to be the same risks as with the wild type strain, in that there is no anticipated human health or lab safety risk; rather the risk involves release to the environment and (should they survive the wasterwater treatment process) potential	1 / III-E

		competition with indigenous species. To accomplish our research objectives, genetically modified clones have been constructed with (a) chimeric proteins (harboring our genes of interest and those encoding for fluorescence (GFP) or antigenic-based (HA) reporter molecules), or with (b) antisense RNA interference, or with (c) CRISPR-based gene knockouts. Experimental manipulations include those to determine protein localization and to determine fitness of "knock-down" or "knock-out" clones under conditions of varied iron availability. Biosafety level 1 (BSL1) containment practices will be followed. Biological waste materials including spent cultures will be bleached for 30 minutes prior to disposal. Benchtop spills will be decontaminated with 70% isopropanol disinfectant. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (16:0:0)[1]**	

6. AMENDMENTS			
PROTOCOL	**PI**	**TITLE & MATERIAL(S) OF INTEREST**	**BSL / GUIDELINES**
23-036	Samuels, Benjamin	**Title:** Sex Differences in Chronic Stress Response **Materials:** rDNA, HSV vector, mice **Submission Summary:** The main goal of this project is to determine how chronic stress differentially affects the neural circuitry underlying motivated behavior in male and female mice. This protocol was previously approved for using a replication incompetent Pseudotyped G-deleted rabies virus for the tracing and characterization of brain circuits because this virus is capable of retrograde transport from the axon terminals of neurons back to the cell bodies. This amendment adds the usage of replication incompetent Herpes Simplex Virus vectors, which will also be used as retrograde viruses. While the G-deleted rabies vectors are robust and ideal for tracing and identifying neural circuitry, HSV-1 viral vectors confer long-term stability that makes these vectors ideal for the delivery of recombinases such as Cre-	2 / III-D-1, III-D-4

		recombinase or Flp-recombinase in order to accomplish pathway-specific targeting using Cre-dependent, Flp-dependent or Cre- and Flp-dependent AAV vectors for recording and/or manipulation of circuits during mouse behavioral tasks. Biosafety level 2 (BSL2) containment practices will be followed for handling these viruses. Any waste will be decontaminated using 10% bleach for 30 minutes. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (16:0:0)[1]**	
14-042	Lee, Ki B.	**Title:** In Vivo Delivery of Nanoparticles and Engineered Cells **Materials:** rDNA, Human cells, Engineered RNA nanoparticles, Mice **Submission Summary:** This protocol encompasses a series of in vitro and in vivo studies investigating stem cell–based therapies, nanoparticle delivery systems, viral vectors, exosomes, and RNA-based therapeutics for neurological disorders and cancer. Major disease models include spinal cord injury (SCI), glioblastoma multiforme (GBM), pancreatic cancer, and disc degeneration. Experimental approaches involve the use of rodent and human cell lines, including neural stem cells, mesenchymal stem cells, induced pluripotent stem cell–derived lineages, and established cancer cell lines. In vivo studies utilize rat and mouse models to evaluate therapeutic efficacy, including behavioral recovery following SCI, tumor growth inhibition, and tissue regeneration. Biological agents used in this protocol include non-replicating RNA nanoparticles, polypeptide nanoparticles, exosomes, and viral vectors (lentiviral and baculoviral) for gene delivery and cellular engineering. Nucleic acid constructs include siRNA and RNA-based transcriptional regulators targeting pathways involved in apoptosis, oncogenesis, inflammation, and mitochondrial function; these constructs are designed to be replication-incompetent. Viral vectors are produced in HEK293 cells and used for stable or transient	2 / III-D-4

		modification of stem cells and cancer cells under Biosafety Level 2 (BSL-2) containment. Exosomes are isolated from a range of human cell types using centrifugation-based methods and evaluated both in vitro and in vivo. All procedures are conducted using approved biosafety practices, including work within biological safety cabinets, appropriate personal protective equipment, and regulated biohazard waste disposal. Animal experiments follow approved IACUC protocols. The current amendment adds the use of apoptosis-inducing RNA nanoparticles in combination with the clinically approved chemotherapeutic agent temozolomide (TMZ) as a targeted treatment strategy for glioblastoma multiforme. The RNA nanoparticles are designed to selectively induce apoptosis in glioblastoma cells and do not encode infectious agents. This amendment does not introduce new biological agents beyond those previously approved and is not expected to increase biosafety risk beyond standard Biosafety Level 2 (BSL-2) containment. Potential risks associated with the proposed work include localized cytotoxic effects and occupational exposure to chemotherapeutic agents during preparation and administration. But these risks are mitigated through controlled dosing, working within a certified biological safety area, use of appropriate personal protective equipment, and established procedures for hazardous drug handling and waste disposal. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (16:0:0)[1]**	
25-029	Markowitz, Geoffrey	**Title:** Understanding T cells for anti-tumor immunity **Materials:** rDNA, Adenovirus vector, mice **Submission Summary:** This is an amendment to the currently approved protocol to add adenovirus as another reagent to induce autochthonous lung tumors in mice, with similar downstream experimental analyses as described in the approved protocol. Adenovirus will express Cre recombinase, with potential additional expression of Luciferase (to track in vivo tumorigenesis and progression) and/or	2 / III-D-1, III-D-3, III-D-4

		fluorescent marker proteins (to track recombined cells) and/or model antigen expression (to allow for study of specific T cell / tumor cell interactions). Adenovirus are human pathogens and highly immunogenic. While providing the E1 gene in trans within packaging cells has made the virus replication-incompetent, there is a chance of spontaneous reversion to replication competency. While adenovirus is maintained episomally in the cell, highly reducing the potential for insertional mutagenesis, random integration events can occur at a very low frequency. These risks will be mitigated with viral transductions requiring multiple plasmids for virus generation, and strict adherence to biosafety level 2 (BSL2) containment practices, as well as health monitoring and reduced exposure of susceptible personnel. Biological waste materials such as tissue culture resources will be chemically decontaminated and/or autoclaved before disposal, while animal waste including bedding and carcasses will be autoclaved before disposal. Spill kits will be available and handled following institutional guidelines. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (16:0:0)[1]**	
17-047	Jiang, Peng	**Title:** Stem Cell Regenerative Medicine and Disease Modeling **Materials:** rDNA, AAV vector, Human cells **Submission Summary:** This protocol amendment primarily involves the production of two AAV serotypes, AAV5 and AAV8, in our laboratory using HEK293T cells together with virus-related plasmids. These AAV vectors use the hIBA1 promoter (a microglia-specific promoter) to drive expression of the gene of interest, thereby achieving microglia-specific transgene expression. In preliminary experiments, AAV vectors expressing GFP are used to evaluate the transduction efficiency of AAV in microglia or their progenitor cells (PMPs). If this AAV system successfully infects microglia or PMPs, subsequent studies may involve expression of the following genes in microglia: CSF2RB A455D,	2 / III-D-1

		NGN2, TET2, APOECh, and CSF1R G795A. The effects of these genes on microglial function will be investigated using methods such as qPCR and immunofluorescence. All subsequent experimental procedures are designed to prevent the exposure of infectious virus to the air, thereby avoiding potential environmental hazards. None of the expressed genes is toxic or possesses oncogenic activity. No experimental procedures involve genome editing or genomic modification. The biosafety level of AAV is BSL-1 or BSL-2, and the associated risk group is Risk Group 1. Because human cells are used for AAV production in this study, all experimental procedures are conducted in accordance with BSL-2 standards. **Occupational Health:** In Place **Training:** In Place **BioAudit:** Facilities are Acceptable **IBC Vote: Approved (15:0:1)[1]**	

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