THE ROCKEFELLER UNIVERSITY INSTITUTIONAL BIOSAFETY COMMITTEE
January 29, 2026
By zoom

Attendees: Leslie Diaz, Gaitree McNab, Charles Rice, Jeremy Rock, Jennifer Rohr, Eric Schine, Sarah Schlesinger, Amy Wilkerson

Approval of minutes: The minutes of the October 27, 2025, and December 5, 2025, meetings were approved.

Follow Up Actions from Last Meetings: The Chair reported the following:

- Past due training confirmed completed.
- 2024-04-005 Thomas Tuschl Amendment: Full approval for the amendment was granted on December 12, 2025, following receipt and review of the information requested by the Committee. That information confirmed that the work does not involve gain of function and that it is not covered by Section III-A-1-a.

Conflict of Interest Statement: Members: It was noted that Jeremy Rock's annual report is under review. The Chair noted that should questions be posed about his annual report, she will ask him to recuse. The members stated that they had no conflict with other items of business in front of the Committee.

Annual Reports (see summary below): All reports were timely received. The Chair noted that she will follow up regarding past due training (Fischetti) and that an updated copy of the Sakmar report with the PI's signature had been submitted. There were no questions about the annual reports.

Amendments:
2024-04-003 Charles Rice PI Based Registration: An amendment to add personnel was approved under administrative review process on December 22, 2025.

New/Renewed Registrations

Exempt renewals:
2026-01-001 Sidney Strickland PI Based Registration (renewal of 2023-01-002) – The renewal was approved under the administrative review process on January 7, 2026.

New/Renewed Registrations
2026-01-002 Alexander Tarakhovsky PI Based Registration (renewal of 2023-01-007): The proposed work is not different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-007. The Laboratory has updated its inventory and personnel lists. The Tarakhovsky Laboratory studies how gene expression is affected by site-specific modifications of histones. The Laboratory's aim is to address the role of epigenetic enzymes that place, remove, or read histone modifications in the immune system. This work is achieved through the generation and analysis of transgenic mouse models and the use of synthetic chemical tools that target epigenetic modifiers. The Laboratory uses standard recombinant DNA methods to conduct these studies, including cloning, protein purification, gene overexpression, creation of transgenic mice, and generation of knockout cell lines and mouse models using CRISPR technology. The PI is seeking approval to work with specified human cell lines at BSL1. The only personnel listed is past due for training. The Committee discussed

that the work is covered under Sections III-D-1, III-D-2, III-D-3, III-D-4-b, III-E-1, III-E-3, and Sections III-F-1, III-F-2, III-F-3, III-F-5, III-F-6, III-F-8, Appendix C-VII, and Appendix C-VIII, and includes agents that fall under Risk Groups (RG) 1, 2, and 3. The Committee discussed the PI's request to work with several human cell lines at BSL1. Following review of information from the cell line suppliers, and noting that the Committee had previously approved work at BSL1 for some of these lines, the Committee approved use of lines HepG2, THP1, U2OS and Huh7 at BSL1. The Committee requires that use of the other human cell lines be conducted at BSL2. The Committee determined that work involving RG2 and RG3 agents must be conducted at BSL2/ABSL2 containment. The Committee granted approval of the Registration conditioned on listed personnel complete required training.

2026-01-003 Lamia Wahba PI Based Registration (renewal of 2023-01-001):
The proposed work is not different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-001. The Laboratory has updated its inventory and personnel lists. The Wahba Laboratory studies how nongenetic inheritance functions and the role it plays in evolution. The Laboratory aims to identify the molecular mechanisms underlying inheritance pathways independent of DNA sequence, including the contributions of RNAs and proteins. This work is achieved through the use of *Caenorhabditis elegans* and additional nematode species as model systems. The Laboratory uses standard recombinant DNA methodologies, including cloning of small RNAs and genes into plasmids and the generation of knock-in and knock-out *C. elegans*. These approaches are used to evaluate changes in nongenetic inheritance resulting from manipulation of protein and RNA components of inheritance pathways. The Committee discussed that the work is covered under Sections III-D-4, III-E-3 and III-F-2 of the Guidelines, involves Risk Group 1 agents, may be conducted at BSL1 containment and approved the Registration.

2026-01-004 Shai Shaham PI Based Registration (renewal of 2023-01-009): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-009, with the continued use of viral vectors including AAV and lentiviral vectors. The Laboratory has updated its inventory and personnel lists. The Shaham Laboratory studies the effects of genes on the function and development of neural circuits, primarily using the nematode *Caenorhabditis elegans* as a model system. The Laboratory uses standard recombinant DNA methodologies, including cloning and plasmid generation in *E. coli*, PCR amplification, and generation of transgenic *C. elegans*. In addition, the Laboratory assembles neural circuits in cell culture to study factors influencing circuit formation and maintenance. This work includes the use of commercially available murine cell lines, neurons, and glial cells, as well as viral vector–mediated gene delivery for *in vivo* and *in vitro* studies aimed at understanding neural activity and glial cell function. The Committee discussed that the work is covered under Sections III-D-4, III-E-3. III-E-1, III-F-1, III-F-2, III-F-8, and Appendices C-VII and C-VIII of the Guidelines. The Committee determined that work involving human cell lines, AAV, lentiviral vectors, and rabies-derived vectors must be conducted at BSL2. The Committee approved the Registration.

2026-01-005 Gregory Alushin PI Based Registration (renewal of 2023-01-003): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-003. The Laboratory has updated its administrative contact and personnel list. The Alushin Laboratory investigates how mechanical forces are transduced into biochemical signals by mammalian cells, including the identification and characterization of proteins involved in these processes. Recombinant DNA technologies used in the Laboratory include PCR-based assembly of constructs into vectors for expression in *E. coli*, Sf9 insect cells, and mammalian cells, as well as the generation of mammalian cell lines using CRISPR/Cas9 technology and lentiviral transduction. The PI is seeking continued approval to work with specified human cell lines at BSL1. The Committee confirmed that

they had provided previous approval for use of these human cell lines at BSL1 and agreed that the Lab could continue to use these lines at BSL1. The Committee discussed that the proposed work is covered under Sections III-D-1, III-D-3, III-E-1, and III-F-2 of the Guidelines and must be conducted using BSL2 containment and practices, with the exception of the specific human cell lines noted above. The Committee approved the Registration.

2026-01-006 Mary E. Hatten PI Based Registration (renewal of 2023-01-011): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-011. The Laboratory has updated its administrative contact, Table 1, Table 4 and its inventory and personnel list. The Hatten Laboratory studies the molecular and cellular mechanisms underlying brain development, with a focus on neuronal differentiation, migration, and circuit formation. The Laboratory uses recombinant DNA technologies to express genes and reporters in mouse neurons, mouse embryonic stem cells, and human pluripotent stem cell–derived neurons. Standard recombinant DNA methodologies are employed, including cloning and plasmid propagation in *E. coli*, expression of recombinant genes in mammalian cells, use of viral vectors including AAV, lentiviral, and retroviral vectors, RNA interference, CRISPR-based gene editing, and the generation and use of transgenic mouse models. The Committee discussed that the work is covered under Sections III-D-3, III-E-1, III-E-3, III-F-1, III-F-2, and III-F-8 (Appendix C-VII and Appendix C-VIII). The Committee determined that work involving viral vectors, human pluripotent stem cells, and transgenic animals must be conducted at BSL2/ABSL2. The Committee approved the Registration.

2026-01-007 Rada Norinsky PI Based Registration (renewal of 2023-01-006): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-006. The Laboratory has updated its inventory and personnel lists. The Transgenic and Reproductive Technology Center provides services for the generation, maintenance, and preservation of transgenic mouse lines in support of Rockefeller University investigators. This includes the introduction of recombinant or synthetic nucleic acids into mouse embryos using pronuclear microinjection, CRISPR/Cas9–mediated genome editing, and embryonic stem cell–based approaches, as well as assisted reproductive technologies such as IVF, ICSI, embryo transfer, rederivation, and cryopreservation. Standard recombinant DNA methodologies are employed, including the use of plasmid- and BAC-based constructs, CRISPR ribonucleoprotein complexes, and manipulation of murine embryos and germline cells for the production and expansion of transgenic mouse lines. The Committee discussed that the work is covered under Sections III-D-4, III-E-3, III-F-8 and Appendices C-VII and C-VIII of the Guidelines. The Committee determined that work with AAV must be conducted at BSL2/ABSL2 containment. The Committee approved the Registration.

2026-01-008 Roderick MacKinnon PI Based Registration (renewal of 2023-01-004): The proposed work is not significantly different, in terms of scientific scope, from that approved under 2023-01-004; however, the protocol was previously exempt under the NIH Guidelines and is no longer exempt due to the addition of lentiviral vector use. The Laboratory has updated its inventory and personnel lists. The MacKinnon Laboratory investigates the structure and function of ion channels and their regulatory partners using cryo-electron microscopy and biophysical approaches. Recombinant DNA methodologies include cloning and expression of membrane proteins in bacterial, yeast, insect, and mammalian expression systems, protein purification using affinity tags, and the generation of stable mammalian cell lines using lentiviral vectors. The Laboratory also utilizes previously established knock-out and knock-in transgenic mouse models obtained from external vendors for histological and structural studies. Two listed personnel are past due for training. The Committee discussed that the work is covered under Sections III-D-3, III-F-2, and III-F-8, Appendix C-VII and Appendix C-VIII of the Guidelines. The Committee determined that

the work with lentiviral vectors must be conducted at BSL2, while all other recombinant DNA work and the breeding and maintenance of transgenic rodents may be conducted at BSL1/ABSL1. The Committee approved the Registration conditioned on all personnel completing required training.

2026-01-009 CRISPR and Genome Editing PI Based Registration (renewal of 2023-01-005): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-005. The Laboratory has updated its administrative contact, personnel and inventory lists. The Yang Laboratory, operating as the CRISPR and Genome Editing Resource Center (CGERC), provides services to generate genetically engineered mouse models and modified cell lines in support of Rockefeller University investigators. Recombinant DNA methodologies include CRISPR/Cas9-mediated genome editing, integrase-based recombination, gene targeting, and mutagenesis, using recombinant and synthetic nucleic acids that are introduced into cells or directly into mouse embryos. The Committee discussed that the work is covered under Sections III-D-2, III-E-3, III-F-1, III-F-2, III-F-3, III-F-4, III-F-5, III-F-6, and III-F-8, and Appendices C-VII and C-VIII. It was noted that the activities conducted involve primarily RG1 agents, but the facility does work with AAV and human cells lines which the Committee determined require BSL2 containment. The Committee approved the Registration.

2026-01-010 Sanford Simon PI Based Registration (renewal of 2023-01-010): The proposed work is not significantly different, in terms of scientific scope, from that approved under 2023-01-010. The Laboratory has updated its administrative contact information, office location, and personnel list. The Simon Laboratory studies cancers driven by gene fusion events and develops nucleic acid–based strategies to selectively silence fusion oncogenes. Standard recombinant DNA methodologies include cloning and expression of constructs in bacteria and mammalian cells, CRISPR/Cas9 genome editing, antisense oligonucleotide and RNA interference technologies, and the generation of stable cell lines using replication-defective retroviral and lentiviral vectors. The Laboratory also performs *in vivo* lentiviral gene delivery in immunocompetent mice to assess protein function, oncogenic mechanisms, and shRNA-mediated knockdown of candidate driver genes using established mouse models. Almost all listed personnel are past due for training. The Committee discussed that the work is covered under Sections III-D-1, III-D-2, III-D-3, III-D-4, III-E-1, III-E-3, III-F-1, III-F-2, III-F-3, and III-F-8 and Appendices C-VII and C-VIII and includes use of agents that are risk groups (RG) 1, 2 and 3. The Committee determined that the work with RG1 agents can be done at BSL1/ABSL1 containment and that work with RG2 and 3 agents must be conducted using BSL2/ABSL2 containment and practices. The *in vivo* experiments with lentiviral vectors in mice must be done at ABSL2 for the first 72 hours post injection, then can be done at ABSL1 thereafter. The Committee approved the Registration conditioned on all personnel completing required training.

2026-01-011 Paul Bieniasz PI Based Registration (renewal of 2023-01-008): The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-01-008. The Laboratory has updated its office location, IBC administrative contact, inventory and personnel lists. The Bieniasz Laboratory studies the molecular and cell biology of HIV-1 and other viruses, particularly coronaviruses, with the goal of understanding viral replication, host interactions, and pathogenesis, and of developing viral vaccines and intervention strategies. The work involves extensive use of recombinant DNA technologies, including molecular cloning, CRISPR/Cas9 genome editing, lentiviral vectors, adeno-associated viruses, and the generation of replication-competent and replication-defective recombinant viruses. Viral systems include retroviruses, rhabdoviruses, paramyxoviruses, picornaviruses, and

coronaviruses, which are studied in cell culture and in mouse models, including transgenic mice engineered to express human viral receptors. One listed personnel is past due for training. The Committee discussed that the work is covered under Sections III-D-1, III-D-2, III-D-3, III-D-4, III-E-1, III-E-3, III-F-1, III-F-2, III-F-3, III-F-4, III-F-5, and III-F-8 and Appendices C-VII and C-VIII. The Committee determined that the proposed work must be conducted using BSL2/ABSL2 containment and practices. It was noted that the Lab conducts work within the Lab's BSL2 facilities using BSL3 practices. The Committee approved the Registration conditioned on all personnel completing required training.

Summary of Annual Reports Due

Protocol #	PI	Change in			Comments
		Materials	Methods	Personnel	
2024-01-001	Jeremy Rock			X	
2024-01-002	Vince Fischetti				Personnel past due for training
2024-01-003	Agata Smogorzewska	X		X	Added Ad-Cre-GFP/Vector Biolabs #1700
2025-01-001	Avi Flamholz			X	
2025-01-002	Robert Roeder			X	
2025-01-003	Jeff Ravetch	X		X	Added use of construct containing an endoglycosidase from Corynebacterium to cleave glycosidic bonds on the antibody backbone; added Yeast pVDS649HM and mammalian expression vector pABVEC
2025-01-004	Thomas Sakmar			X	
2025-01-005	Kivanc Birsoy	X	X	X	Added OspF to produce dephosphorylated Threonine residues on MAPK1 and other phospho-proteins in cell lines. Added biochemical assays to quantify secondary modifications, particularly glutathionylation and CRISPR screens to identify proteins involved.