THE ROCKEFELLER UNIVERSITY INSTITUTIONAL BIOSAFETY COMMITTEE
April 20, 2026
By zoom

Attendees: Leslie Diaz, Gaitree McNab, Charles Rice, Jennifer Rohr, Eric Schine, Agata Smogorzewska, Amy Wilkerson

Chair's Remarks: The Chair reported that James Darnell is closing his Laborarory at the end of June. He will cease all work involving rDNA by the end of April.

Approval of minutes: The minutes of the January 29, 2026, meeting were approved.

Follow Up Actions from Last Meetings: The Chair reported all personnel from Fischetti, MacKinnon, Simon, Tarakhovsky and Bieniasz Laboratories have completed the required training.

Conflict of Interest Statement: Members: It was noted that Leslie Diaz may conduct work covered by 2026-01-001. She recused from the vote on that registration. It was noted that Charles Rice'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 Victora Laboratory has reinitiated use of LVV. The Chair sent Dr. Victora a reminder of the University post exposure procedures with request to remind all users that work with LVV of these procedures.

Amendments:
2024-04-004 Tarun Kapoor PI Based Registration: An amendment to add personnel was approved under administrative review process on February 12, 2026. Another amendment to add personnel was approved under administrative review process on April 10, 2026.
2024-04-003 Charles Rice PI Based Registration: An amendment to add personnel was approved under administrative review process on February 13, 2026.

New/Renewed Registrations

Exempt renewals:
2026-04-006 Jiankun Lyu PI Based Registration (Renewal of 2023-04-004): The Laboratory focuses on developing computational methods for discovering small-molecule therapeutics and tools for studying diseases. The Laboratory uses molecular cloning to produce and purify proteins for use *in vitro.* The proposed work includes materials that may be handled at BSL1 and is covered by Sections III-F-1, III-F-2 and III-F-5. The registration was administratively approved on April 16, 2026, following review by Ms. Wilkerson and Ms. McNab.

New/Renewed Registrations
2026-04-001 Ravi Tolwani/CBC PI Based Registration (renewal of 2023-04-001): The proposed work is not different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-04-001. This registration is requested to cover the IACUC holding protocol to ensure that requirements related to the holding of transgenic rodents, fish, and birds, which have been created by researchers, obtained from commercial sources, or acquired through collaborations, and/or animals which have been administered recombinant or synthetic nucleic acids, are met. The CBC

neither creates transgenic animals nor performs experiments involving rDNA; however, Dr. Tolwani oversees the holding protocol, to which animals are transferred in the event that a PI's original IACUC protocol approval has lapsed. The updated registration further clarifies that animals maintained under this protocol are not subject to experimental manipulation and includes more explicit categorization of transgenic animal use at BSL1, while maintaining consistency with prior activities. The Committee discussed that the proposed work is covered by Sections III-D-4, III-E-3, III-F-8, Appendix C-VII, and Appendix C-VIII of the NIH Guidelines. The Committee determined that the work practices and containment requirements may include ABSL1, 2, and 3 and must be maintained in accordance with the recommendations provided for the original IACUC protocol under the originating PI's IBC registration. The Committee approved the registration.

2026-04-002 Fraser Glickman/DDRC PI Based Registration (renewal of 2023-04-002):
The Drug Discovery Resource Center supports researchers in improving the efficiency of bioassays utilizing core technologies typically applied to biochemical analysis. The Center is directed by Fraser Glickman. The Laboratory has updated its personnel list, andTables I and II. The updated registration includes expanded methodological detail, an increase in laboratory space, and a transition from BSL1 to BSL2 work, with acknowledgment that materials may include RG1, RG2, and potentially RG3 agents (e.g., lentiviral vectors), along with updated risk assessment language reflecting these activities. The recombinant DNA materials used at the Center are used to better understand the mechanism of action of new drug candidates to improve their efficacy and reduce their toxicity in treating serious ailments. The materials are created and brought to the Center by end users and may be stored at the Center during assay runs. The Committee discussed that the proposed work includes materials that must be conducted at BSL2 and is covered by Sections III-D-1, III-D-3, III-E-1, III-F-1, III-F-2, and III-F-3 of the NIH Guidelines. The Committee determined that the PI must provide updates on specific agent use, once known, through the amendment process. The Committee approved the registration.

2026-04-003 Ali Brivanlou PI Based Registration (renewal of 2023-04-005):
The proposed work is not significantly different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-04-005. The Laboratory has updated their personnel list, and Table I, their laboratory space. The Brivanlou Laboratory's research focuses on the molecular events and cellular interactions that regulate the emergence of key structures in embryonic development. The objective of the work is to understand the molecular circuitry underlying embryonic induction. Toward this aim, the Lab performs studies using human embryonic stem (hESC) and induced pluripotent stem (iPS) cells. Three types of recombinant DNA molecules will be employed to investigate these scenarios: (1) Genes implicated in directing specific cell types will be cloned and incorporated into the genome of hES or iPS cells under inducible control; (2) The promoters that control expression of specific differentiation genes ("gene of interest") will be combined with genes encoding fluorescent proteins to visualize the timing and pattern of gene expression; and (3) TALEN and CRISPR gene targeting constructs will be used to knock out genes or knock in reporters, modifiers, and/or selection resistance cassettes to endogenous loci of choice. Resulting transgenic cell lines will be analyzed *in vitro*. Additionally, some transgenic lines will be transplanted into embryos (Xenopus and marmoset) for *in vivo* analysis. It was confirmed that the Brivanlou Laboratory no longer conducts work on marmosets, just marmoset embryos/tissues. The work covered by Section III-A-1-a will create resistance to puromycin, blasticidin, geneticin, and kanamycin and does not require NIH review or reporting. The application further clarifies the use of self-inactivating (SIN) third-generation lentiviral vectors for certain applications, with appropriate biosafety controls in place. The Committee discussed that the proposed work is covered by Sections III-A-1-a, III-D-1, III-D-3, III-D-4, III-F-

1, III-F-8, Appendix C-VII, and Appendix C-VIII of the NIH Guidelines. The Committee confirmed that work with human cell lines must be conducted at BSL2. One of the listed personnel is past due for required training. The Committee approved the registration on the condition that all personnel complete required training.

2026-04-004 Erich Jarvis PI Based Registration (renewal of 2023-04-006): The Jarvis Lab has continued its focus on investigating the neurobiology of vocal learning. To do so, the Laboratory studies avian (Zebra and Bengalese finches, Parakeet, Quail, and Pigeon) and mammal (mouse) species that possess this ability. Their goal is to determine the molecular mechanisms that construct, modify, and maintain neural circuits for vocal learning and then engineer brain circuits to repair and enhance those behaviors. These studies require molecular biology and genomic approaches, including manipulation of nucleic acids *in vitro* and *in vivo*. The Laboratory has updated its registration to include expanded methodological detail, including the use of replication-deficient rabies virus systems in combination with helper adenovirus, as well as CRISPR/Cas9-mediated gene editing in avian embryos and germ cell manipulation strategies. Table 3, as well as the inventory and personnel lists, have also been updated. The registration also reflects an expansion of laboratory space to include additional locations at the Field Research Center (FRC). The Lab performs plasmid DNA and viral vector manipulations *in vitro* and *in vivo*. This includes generating recombinant DNA vectors, expressing recombinant DNA and protein *in vitro* and *in vivo*, and creating transgenic birds and mice. The generation of recombinant vectors involves standard molecular biology techniques, which are transfected into cultured cells or delivered *in vivo*. The viral vectors used in the Lab include AAV, lentiviral vectors, adenoviral vectors and pseudorabies virus (PRV), and replication-deficient rabies viral vectors. The creation of transgenic birds involves surgical injection of viral vectors or stem cells into embryos in eggs. The transgenic mice are obtained from external sources or bred in-house. The PI indicated that some work falls under Section III-A-1-a. This work continues to involve coding for antibiotic resistance for the selection of transgenic primordial germ cells in cultured avian cells using puromycin and busulfan. The Committee previously determined that this work does not require additional review by the NIH. The Committee discussed that the work is covered under Sections III-D-3, III-D-4, and III-E-1, and Sections III-E-3, III-F-1, III-F-2, III-F-3, III-F-4, III-F-5, III-F-8, Appendix C-VII, and Appendix C-VIII. The Committee determined that the work with AAV, PRV, lentiviral, adenoviral, and replication-deficient rabies viral vectors, as well as 293T cells, must be conducted using BSL2/ABSL2 practices and containment. *In vivo* experiments with replication-deficient adenoviral and lentiviral vectors in mice must be conducted at ABSL2 for the first 72 hours post-injection and may be performed at ABSL1 thereafter. The Committee approved the registration.

2026-04-005 Li Zhao PI Based Registration (renewal of 2023-04-003): The proposed work is not different, in terms of what is covered by the NIH Guidelines, from that approved under 2023-04-003. The Zhao Laboratory is continuing to study the functions of evolutionary young genes and gustatory receptor genes. Their work has been extended to include studying the regulatory sequences of these genes as well as the functions of immune-related genes. All rDNA work involves the creation of plasmid constructs that are injected into the Drosophila genome by an external company. They have updated their laboratory locations, inventory, and personnel lists. The Zhao Laboratory studies the origin and evolution of *de novo* genes, as well as their contribution to adaptive evolution in *Drosophila* flies. The rDNA work performed in the Lab involves the construction of plasmids and generation of RNAs for microinjection into transgenic fruit flies created by the Lab. These flies are used to study protein-protein interactions, visualize gene expression, and assess loss- or gain-of-function phenotypes. The rDNA technology employed includes the creation of transgenic *Drosophila*, cloning targets into shuttle vectors, protein purification, and expression of rDNA *in vitro* and *in vivo* using gene knock out/knock in strains. The Committee discussed that the proposed work is covered under Section III-E-3, III-F-8 and

Appendix C-VII and can be conducted at BSL1 containment level and Arthropod Containment Level 1 (ACL1). The Committee approved the registration.

Summary of Annual Reports Due

Protocol #	PI	Change in			Comments
		Materials	Methods	Personnel	
2024-04-001	Cohen			X	
2024-04-002	Ruta	X		X	Added drosophila expression vectors
2024-04-003	Rice	X		X	Added picornavidae plasmids
2024-04-004	Kapoor			X	
2024-04-005	Tuschl	X		X	Added pPM2 and pPM18 plasmids
2024-04-006	Victora	X		X	Added LVV
2025-04-001	Norris (formerly Hudspeth)	X		X	Change in PI: Added bacterial vectors Tol2, pDEST, pDONOR
2025-04-002	de Lange	X		X	Added two lentiviral vectors
2025-04-003	Rout			X	
2025-04-004	Vaziri	X			Added AAVs