Institutional Biosafety Committee (IBC)

Meeting Minutes
May 20, 2026

A regular meeting of the Salk Institute for Biological Studies, Institutional Biosafety Committee (IBC) was held on Wednesday, May 20, 2026, at 12:00 pm in the Laureates Room of the Salk Institute.

Committee Members	(9 members – 5 required for quorum)	Present
Sam Pfaff, PhD	Chair	☒
Mark Bouchard, MPH	Vice Chair, Biosafety Officer (BSO)	☒
Julie Law, PhD	Plant Expert	☒
Trinka Adamson, DVM	Animal Expert	☒
Dan Gibbs, PhD	Non-affiliated Community Member	☒
Tom Evans	Non-affiliated Community Member	☒
Shrek Chalasani, PhD		☒
Ed Callaway, PhD		☐
John Naughton		☐
Daniel Hollern, PhD	(Alternate)	☐

Others Present: Lisa Young, Venuz Greenfield

In accordance with the NIH Guidelines Section IV-B-2-a-(6), the meeting was open to the public. Meeting was called to order at 12:05 pm.

Commonly Used Abbreviations

AAV: Adeno-Associated viral vector
ABSL2: animal biosafety level 2
BSL: biosafety level
BSL-2+: BSL-2 with BSL-3 practices
BSO: Biosafety Officer
DURC: Dual Use Research of Concern
EH&S: Environmental Health & Safety
HSV: Herpes Simplex Virus
IACUC: Institutional Animal Care and Use Committee
IBC: Institutional Biosafety Committee
iPSCs: induced pluripotent stem cells
LCMV: Lymphocytic choriomeningitis virus
NIH: National Institutes of Health
OSP: Office of Science Policy (NIH)
PI: Principal Investigator
r/sNA: recombinant or synthetic nucleic acids
RG: Risk Group
RSV: respiratory syncytial virus
SOP: standard operating procedure
VSV: vesicular stomatitis virus

General Business

1. **Review of Action List:** The Action List from February 25, 2026, IBC meeting was reviewed by the Committee. There were no outstanding items, and no concerns were raised.
2. **Approval of Minutes:** The minutes of February 25, 2026, IBC meeting were reviewed and approved by the Committee.
3. **Training Report:** The Committee reviewed a training report detailing completion rates for IBC-required use specific training associated with all active IBC protocols i.e. Transgenic Plant Training, Viral Vector Training, NHP Biosafety Training and Blood Borne Pathogen Training.
4. **IBC Roster Update:** The Committee was informed of an update to the IBC roster. To achieve a preferred committee size of nine members, Dr. Hollern has been designated an alternate. As an alternate member, Dr. Hollern will be included on all IBC correspondence, invited to attend all meetings, and may provide expert input; however, may only vote in the absence of a regular scientific committee member.
5. **RCPMS Update:** The Committee was informed that Salk leadership is exploring the possibility of replacing the Research Compliance Protocol Management System (RCPMS) with a commercial solution, with the goal of implementing a more integrated, institution-wide platform.
6. **Regulatory Update:** The Research Compliance Manager provided a summary of OSP's February 26 listening session on the NIH's *Modernizing and Strengthening Oversight of Biosafety initiative.* It was noted that a draft policy is expected to be released for public comment in the near future.

Protocol Renewals – Full Committee Review

Evans	IBC-06-0007	Registration of Recombinant or Synthetic Nucleic Acid Molecule Research

Summary: The protocol describes the use of AAV, adenoviral, and lentiviral vectors in human and rodent cell lines, and the use of AAV in whole rodents, to target genes involved in muscle mass regulation, cell cycle control, thermogenesis, and fatty acid metabolism. The generation of p21 knockout mice is also described.

Agents	**Biosafety Level**
AAV	BSL1 – ABSL1
Lentiviral Vectors	BSL2
Adenoviral Vectors	BSL2

Review Notes / IBC Discussion:
It was noted that with this renewal, changes were made to personnel and funding. Several minor admin edits were suggested. With consideration for the risk associated with the agents and the transgenes expressed, as well as the facilities, proposed procedures, training of personnel and the proposed containment and handling precautions, the Committee voted to approve the protocol pending correction of the items below.

- Question 4.17: Correct typo
- Section 14: BSL2 work should be checked for those for personnel working with viral vectors

NIH Guidelines Section:
III-D-1, III-D-2, III-D-3, III-D-4-a, III-E-3, III-E-1
Approved pending clarification For: 7 Opposed: 0 Abstain:
(Administratively approve when requested edits are made)

Hargreaves IBC-17-0001 BAF Complexes in Development and Disease

Summary: The overall goal of the research program is to advance our knowledge of how chromatin remodeling complexes regulate cell identity. The protocol describes the use of replication incompetent 3rd generation lentiviral and VSV-G pseudotyped murine retroviral vectors in human, rodent and insect cell lines to effect expression of BAF subunit genes expected to affect chromatin structure and epigenetic regulation. With this renewal, 2 packaging plasmids were added, and updates were made to personnel and funding.

Agents	**Biosafety Level**
Lentiviral Vectors	BSL2
Retroviral Vectors	BSL2

Review Notes / IBC Discussion:
It was noted that with this renewal, 2 packaging plasmids were added, and updates were made to personnel and funding. With consideration for the risk associated with the agents and the transgenes expressed, as well as the facilities, proposed procedures, training of personnel and the proposed containment and handling precautions, the Committee voted to approve the protocol pending clarification of the item below.

- Question 4.8: Indicate the source of the viral vector
- One outstanding training

NIH Guidelines Section: III-D-1, III-D-2, III-D-3
Approved pending clarification and training completion For: 7 Opposed: 0 Abstain: 0
(BSO to review source)

Kaech IBC-18-0001 Regulation of Immunological Memory to Infectious Diseases

Summary: The lab uses viral vectors to manipulate gene expression in mammalian cells, typically murine T cells. They also use CRISPR/Cas9 to KO genes in mouse and human primary cells and cell lines. In addition, they use recombinant techniques to express proteins in bacteria for purification. The lab uses G-deleted rabies virus to trace cell-cell interactions from immunocytes within the brain after an LCMV Armstrong infection. The lab uses a significant number of RG2 bacterial and viral agents in vivo, in mouse models.

Agents	**Biosafety Level**
Adeno viral vectors	BSL2 – ABSL2
AAV vectors	BSL2 – ABSL2
Murine retroviral vectors	BSL1 & BSL2 – ABSL2
Lentiviral vectors	BSL2 – ABSL2
G-deleted rabies vectors	BSL2 – ABSL2
Vaccinia Virus Western Reserve	BSL2 – ABSL2
Listeria Monocytogenes	BSL2 – ABSL2
LCMV (Arm & Clone 13)	BSL2 – ABSL2
Live attenuated Influenza Virus (LAIV)	BSL2 – ABSL2
Murine Cytomegalovirus	BSL2 – ABSL2
SARS-CoV 2	BSL2 – ABSL2
Murine gammaherpesvirus 68 (MHV68)	BSL2 – ABSL2
Epstein-Barr Virus	BSL2 – ABSL2
West Nile Virus	BSL2 – ABSL2
Herpes Simplex Virus 1 (HSV-1)	BSL2 – ABSL2

Review Notes / IBC Discussion:
It was noted, that with this renewal, updates were made to personnel and funding only. The Committee discussed coordination between EH&S and the laboratory regarding the disposal and/or transport of agents, as needed. The Committee also discussed the appropriate containment level for West Nile Virus. With consideration for the risk associated with the agents and the transgenes expressed, as well as the facilities, proposed procedures, training of personnel and the proposed containment and handling precautions, the Committee voted to approve the protocol as written.

NIH Guidelines Section: III-D-1, III-D-4, III-D-7, III-E-1
Approved For: 7 Opposed: 0 Abstain: 0

Maher	IBC-06-0019	Aging as the Basis for Drug Discovery for Alzheimer's Disease

Summary: The protocol describes the use of 3rd generation lentiviral vectors in murine cell lines to study genes involved in the oxytosis/ferroptosis pathway. These include but are not limited to proteins involved in lipid metabolism, energy production and utilization and redox regulation. The lentiviral system will be used predominantly for overexpression and siRNA for knockdowns.

Agents	**Biosafety Level**
Lentiviral vectors	BSL2

Review Notes / IBC Discussion:
No changes were made with this renewal. The Committee had no comments or concerns regarding the submission. With consideration for the risk associated with the vectors and the transgenes expressed, and the facilities, procedures, training, and experience of the personnel involved, and the proposed containment and work practices, the Committee voted to approve the protocol.

NIH Guidelines Section: III-D-1, III-D-2, III-D-3
Approved For: 7 Opposed: 0 Abstain: 0

O'Shea	IBC-07-0002	Characterization of oncolytic viral therapy using adenovirus system. The Discovery of Human Peptide Encoding Genes.

Summary: Viral vectors are used in vitro, in insect, human, ferret, rodent, frog & canine cell lines and in vivo, in mouse models. Various fluorescent proteins are expressed as well as genes involved with DNA repair and adenovirus structure. In addition to replication incompetent viral vectors, the protocol includes the use of replication competent human adenovirus and canine adenovirus and possible future use of vaccinia and bocavirus.

Agents:	**Biosafety Level**
AAV	BSL1 – ABSL1
Human Adenovirus	BSL2 – ABSL2
Canine Adenovirus	BSL2
Lentivirus	BSL2
Bocavirus	BSL2
Herpes Simplex Virus	BSL2
Vaccinia	BSL2

Review Notes / IBC Discussion:
No changes were made with this renewal. The Committee had no comments or concerns regarding the submission. With consideration for the risk associated with the vectors and the transgenes expressed, and the facilities, procedures, training, and experience of the personnel involved, and the proposed

containment and work practices, the Committee voted to approve the protocol pending correction of the item below.

- Section 18: Can former personnel be removed?

NIH Guidelines Section: III-D-1, III-D-2, III-D-3, III-D-4
Approved pending clarification For: 7 Opposed: 0 Abstain: 0
(Administratively approve when requested clarification is made)

Michael IBC-21-0003 CO2 Removal at Planetary Scale

Summary: Arabidopsis thaliana and Thlaspi arvense plants will be transformed using agrobacterium in order to express genes of interest and delete/knockout genomic targets. To generate transgenic plants expressing genes of interest, such as those involved in suberin biosynthesis, constructs will be cloned using E. coli. Plasmids containing these expression cassettes will subsequently be transformed into agrobacteria cells, which will be used to transform plants using the floral dip method. In order to delete/knockout genomic regions of interest, such as genes involved in circadian regulation, CRISPR-Cas9 systems will be used to edit/engineer plants. Plasmids containing CRISPR-Cas9 components will be cloned in E. coli and transformed into agrobacteria to later transform plants.

Agents	**Biosafety Level**
Transgenic plants	BSL1-P

Review Notes / IBC Discussion:
With this renewal, soybean was added to the gene editing section, and edits were made to the personnel section. The Committee had no comments or concerns regarding the submission. With consideration for the risk associated with the material, the facilities, procedures, training, and experience of the personnel involved, and the proposed containment and work practices, the Committee voted to approve the protocol pending clarification of the items below.

- Complete one outstanding training
- Is PBIO North still being used for research? Remove if not.

NIH Guidelines Section: III-E-2-a
Approved pending clarification and training completion For: 7 Opposed: 0 Abstain: 0
(BSO to review)

Protocol Amendment – Full Committee Review

Blum IBC-25-0002 Contribution of Plant Metabolites to Oral Tolerance and Allergy

Summary: Amendment to add work with *Lawsonibacter asaccharolyticus* a wildtype human commensal at BSL1 and ABSL1.

Review Notes / IBC Discussion:
The Committee had no comments or concerns regarding the submission. With consideration for the risk associated with the material, the facilities, procedures, training, and experience of the personnel involved, and the proposed containment and work practices, the committee voted to approve the protocol pending clarification of the items below.

- Check boxes for BSL1 and RG1 on agent table in section 8

NIH Guidelines Section: not applicable
Approved pending clarification For: 7 Opposed: 0 Abstain: 0
(Administratively approve)

Notification of Annual Reviews

Annual review submissions for the protocols listed below were reviewed and approved by the BSO. Only personnel and funding were updated.

Ayres	IBC-13-0003
Law	IBC-13-0004
Lee	IBC-06-0035
McVicker	IBC-16-0002
Noel	IBC-06-0017
Panda	IBC-07-0001
Nimmerjahn	IBC-10-0010

Dual Use Research of Concern

In accordance with the US Government Policy for Institutional Oversight of Life Sciences DURC and Pathogens with Pandemic Potential, the Salk Institute IBC serves as the Institutional Review Entity for DURC-PEPP research. All submissions listed above were assessed by the Committee with respect to dual use and pandemic potential and none were found to present DURC concerns.

Meeting adjourned at 1pm
Minutes prepared by Lisa Young