**SCRIPPS RESEARCH**
**INSTITUTIONAL BIOSAFETY COMMITTEE**
**MEETING MINUTES**
**November 12, 2025**

**I. MEETING**

The Institutional Biosafety Committee (IBC) of Scripps Research held a meeting via videoconference November 12, 2025, commencing at 2 p.m. Pacific Time. The meeting was held pursuant to notice duly given and a quorum was present.

| Committee Members Present | | Committee Members Absent | Others Present |
|---|---|---|---|
| Juan Carlos de la Torre | Michael Bobardt | Jim Gohres | |
| Elizabeth Ford | Smita Chopade | Stephen Munday | |
| Roberto Aiolfi | Cheryl Andreoli | Raphael Park | |
| Mychelle Fernandez | Elizabeth Montano | | |
| Elyse Walk | Steven Robert Head | | |
| Case McNamara | | | |

**I. REVIEW OF PREVIOUS MEETING MINUTES**

The Committee voted unanimously to approve the minutes of the October 8, 2025 IBC Meeting.

**II. ANNOUNCEMENTS**

Biohazardous Waste Program Update- Phase 1.

**III. BIOSAFETY OFFICER & IBC ADMINISTRATOR'S REPORT**

None.

**IV. CONFLICT OF INTEREST**

Michael Bobardt will abstain from voting on protocol #11-12-25-05 for the Gallay lab.

**V. REVIEW OF PROTOCOLS**

**Summary of Discussions:** Summaries of each research proposal were thoroughly discussed, including but not limited to: agent characteristics; types of manipulations planned; sources of the nucleic sequences; nature of the nucleic acid sequences; hosts and vectors to be used; whether any attempt will be made to obtain expression of a transgene, and if so, the function of the protein that will be produced. The committee assessed key risks presented by the research and confirmed the appropriate biocontainment level for the conduct proposed.

**FULL COMMITTEE REVIEW**

**AMENDMENT**

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|---|---|
| **1. IBC Protocol #:** | **10-13-21-07, Chanda, Sumit** |
| Title of Study: | Host genetic factors and small molecules that modulate infection and replication of respiratory viruses |
| Department: | Immunology & Microbiology |
| Primary Reviewer: | Michael Bobardt |
| Secondary Reviewer: | Roberto Aiolfi |
| NIH Guidelines: | III-D-1, III-D-7-b, III-E-1 |
| Agents: | Influenza virus, measles virus, E. coli, human cell lines, non-human primate cell lines. |

Biosafety Level: BSL-2+, ABSL-2
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of IMM 212, Calibr B26 completed on 12/29/23.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**General Information**
An IRB protocol needs to be linked.

**Recombinant and Synthetic Nucleic Acids**
The California H1N1 influenza strain containing HA modifications needs to be listed here.

**Human/Non-human Primate Material**
Confirmation of the source of the human respiratory cells is needed.

**Exposure Control**
Training needs to be completed and updated.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**MIGRATION**
**1. IBC Protocol #:** **03-14-18-01, Teijaro, John**
Title of Study: Novel Chemical and Genetic Approaches to Influenza and Zika Virus Therapy
Department: Immunology & Microbiology
Primary Reviewer: Juan Carlos de la Torre
Secondary Reviewer: Michael Bobardt
NIH Guidelines: N/A
Agents: Influenza virus, zika virus, non-human primate cell line.
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of IMM 317 completed on 9/11/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**General Information**
A general description of experiments involving zika virus is needed.

**Recombinant and Synthetic Nucleic Acids**
Confirmation that no recombinant or synthetic nucleic acids will be used for the planned studies is needed.

**Infectious Agents**
A description of the specific strain of zika virus is needed.

**Study Design/Project Description**

A detailed description of experiments involving zika virus, including the volume used to grow the virus is needed. The study design for experiments with influenza virus does not match the title of the protocol, a potential title change may be needed.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**RENEWALS**

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| **1. IBC Protocol #:** | **11-12-25-01, Lotz, Martin** |
| Title of Study: | Transcription factors as critical regulators of knee osteoarthritis and intervertebral disc aging |
| Department: | Molecular & Cellular Biology |
| Primary Reviewer: | Roberto Aiolfi |
| Secondary Reviewer: | Beth Ford |
| NIH Guidelines: | III-D-1, III-D-2, III-D-3, III-D-4-b, III-E-1 |
| Agents: | Adenovirus, retrovirus, adeno-associated virus, lentivirus, human cell lines |
| Biosafety Level: | BSL-2, ABSL-1 |
| Animal work: | ☒Yes ☐No |
| Biosafety Inspection: | Inspection of MB 104 completed on 10/23/25. |
| Training: | Training verified and on record. |

**The following action items were identified as needing to be updated on the protocol:**

**Location of Study**
The animal holding room needs to be listed.

**Vertebrate or Invertebrate Animals**
A description of injections into mice is needed.

**Study Design/Project Description**
A detailed description of the use of adenovirus, human cell lines, and adeno-associated viral injections into vertebrate animals is needed.

**Regulatory Assessment**
A revision of whether research falls under the NIH II-D-3 category is needed.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

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| **2. IBC Protocol #:** | **11-12-25-02, Huang, Mia** |
| Title of Study: | Chemical Glycobiology |
| Department: | Chemistry |
| Primary Reviewer: | Steven Head |
| Secondary Reviewer: | Mychelle Fernandez |
| NIH Guidelines: | III-D-1, III-D-2, III-E-1 |
| Agents: | Lentiviruses, retroviruses, baculoviruses, E. coli, human cell lines |
| Biosafety Level: | BSL-2 |
| Animal work: | ☐Yes ☒No |

Biosafety Inspection: Inspection of MB 223 completed on 10/13/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**Vertebrate or Invertebrate Animals**
The answer to question "Will recombinant or synthetic nucleic acids, biological agents and/or biological materials be introduced into animals?" is needed.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**3. IBC Protocol #:** **11-12-25-03, Burton, Dennis**
Title of Study: Quantify Cellular and Humoral Immunity Needed for Efficacious HIV Vaccines
Department: Immunology & Microbiology
Primary Reviewer: Raphael Park
Secondary Reviewer: Juan Carlos de la Torre
NIH Guidelines: III-D-1
Agents: SIVmac239 pseudovirus, HIV-1, HIV-2, SIV, SHIV, HIV pseudovirus, human cell lines, non-human primate cell lines
Biosafety Level: BSL-2+, ABSL-1
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of IMM 309A, 312D, 307D, 310E, 130, 111 completed on 10/13/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**General Information**
The IACUC number needs updating.

**Human/Non-Human Primate Material**
Herpes B virus needs to be added as a pathogen risk of Non-human primate serum.

**Study Design/Project Description**
Detailed information about HIV is needed here including where it will be grown and in what volume.

**Regulatory Assessment**
Use of pathogens/diseases included in the Cal/OSHA Aerosol Transmissible Diseases Standard 5199, Appendix A and Appendix D" needs to be checked due to HIV work.

**Risk Assessment**
The table needs to be updated to include human cell lines, human primary cells, human tissues, and non-human primate cells. Confirmation of the temperature of viral inactivation is also needed.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**4. IBC Protocol #:** **11-12-25-04, D'Lima, Darryl**

Title of Study: Stem Cell Based Therapy for Cartilage Regeneration and Osteoarthritis
Department: Molecular & Cellular Biology
Primary Reviewer: Beth Ford
Secondary Reviewer: Steven Head
NIH Guidelines: N/A
Agents: Human cell lines
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of MB 102 completed on 10/23/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**Location of Study**
Animal housing rooms need to be added.

**Exposure Control**
The addition of offering hepatitis B vaccine is needed.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**5. IBC Protocol #: 11-12-25-05, Gallay, Philippe**
Title of Study: Respiratory Viruses Studies
Department: Immunology & Microbiology
Primary Reviewer: Case McNamara
Secondary Reviewer: Cheryl Andreoli
NIH Guidelines: III-D-1, III-D-2, III-D-4-b
Agents: Monkeypox virus, influenza virus, SARS-CoV-2, human coronavirus, Lentiviruses, Sindibis virus, respiratory syncytial virus, retrovirus, human adenoviruses,
Biosafety Level: BSL-3, ABSL-3
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of IMM 214 completed on 5/13/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**Human/Non-human Primate Material**
Low Pathogenicity Avian Influenza (LPAI) H5N1 and Primary Bronchial Epithelial cells (HVECs) need to be added here.

**Study Design/Project Description**
A detailed description of the manipulation of low Pathogenicity Avian Influenza (LPAI) H5N1, and ABSL2 studies with lentivirus and retrovirus needs to be added here.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**6. IBC Protocol #:** **11-12-25-06, Friedlander, Martin**
Title of Study: Ocular/Tumor Angiogenesis and Retinal Degenerative Disorder
Department: Molecular & Cellular Biology
Primary Reviewer: Mychelle Fernandez
Secondary Reviewer: Michael Bobardt
NIH Guidelines: III-D-1
Agents: Adeno-associated virus, adenovirus, lentivirus, human cell lines
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of MB 216, 222 completed on 10/16/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**Vertebrate or Invertebrate Animals**
Clarification as to whether transgenic mice are used is needed.

**Study Design/Project Description**
The location of adenoviral vector use needs clarification here.

**Regulatory Assessment**
Additional NIH guidelines need to be checked to include III-D-4a and b.

**Risk Assessment**
Human cell lines need to be added to the table.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**7. IBC Protocol #:** **11-12-25-07, Zhu, Jiang**
Title of Study: Virus and Cell Protein Expression System for Vaccine Studies
Department: ISCB
Primary Reviewer: Cheryl Andreoli
Secondary Reviewer: Smita Chopade
NIH Guidelines: III-D-1, III-D-2, III-E-1
Agents: Influenza virus, Respiratory Syncytial Virus (RSV), human metapneumovirus (hMPV), Parainfluenza virus, zika virus, human cell lines, Chinese Hamster Ovaries
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Biosafety Inspection: Inspection of IMM 306 completed on 10/15/25.
Training: Training verified and on record.

**The following action items were identified as needing to be updated on the protocol:**

**Location of Study**
The addition of IMM 127, IMM 128, and location of BSL-1 lab work needs to be added to the table.

**Infectious Agents**

PMBC's need to be changed to a RG2 and their source added to the table.

**Vertebrate or Invertebrate Animals**
Review of the continued use of rabbits is needed and mouse model IFNAR-/- added to the table.

**Human/Non-human Primate Material**
Completion of the table is needed.

**Regulatory Assessment**
Use of pathogens/diseases included in the Cal/OSHA Aerosol Transmissible Diseases Standard 5199, Appendix A and Appendix D" needs to be checked.

**Risk Assessment**
Vertical transmission risks for RSV and Zika need to be added.

**Exposure Control**
ATD training needs to be selected.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

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| **8. IBC Protocol #:** | **11-12-25-08, Lairson, Luke** |
| Title of Study: | Chemical Genetic Approaches to Cell Fate and Cell State Modulation |
| Department: | Chemistry |
| Primary Reviewer: | Smita Chopade |
| Secondary Reviewer: | Raphael Park |
| Agents: | Lentivirus, E. coli, human cell lines |
| NIH Guidelines: | III-D-1 |
| Biosafety Level: | BSL-2+, ABSL-2 |
| Animal work: | ☒Yes ☐No |
| Biosafety Inspection: | Inspection of BCC 515, 519 completed on 10/21/25. |
| Training: | Training verified and on record. |

**The following action items were identified as needing to be updated on the protocol:**

**General Information**
A link to the IACUC protocol is needed.

**Location of Study**
Animal rooms need to be added.

**Regulatory Assessment**
NIH Guidelines section III-D-4-a must be selected for use of lentiviral-modified human cell lines in mice.

**Review outcome:** Conditional approval; full approval granted upon completion of the above listed action items.

**BIOSAFETY REVIEW**

**1. IBC Protocol #:** **10-13-21-05, Briney, Bryan**
Title of Study: Discovery and evaluation of neutralizing antibodies against Arenaviruses
Department: Immunology & Microbiology
NIH Guidelines: III-D-1, III-D-2
Biosafety Level: BSL-2+
Animal work: ☐Yes ☒No
Training: Training verified and on record.
**REVIEW OUTCOME:** **Approved.**

**2. IBC Protocol #:** **10-13-21-08, Hang, Howard**
Title of Study: Infection Studies
Department: Immunology & Microbiology
NIH Guidelines: III-D-1, III-D-2, III-D-4-a, III-D-4-b
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Training: Training verified and on record.
**REVIEW OUTCOME:** **Approved.**

**3. IBC Protocol #:** **11-13-24-01, Irvine, Darrell**
Title of Study: Immune engineering studies
Department: Immunology & Microbiology
NIH Guidelines: III-D-1, III-D-2, III-D-4-a, III-D-4-b, III-E-1, III-F-1
Biosafety Level: BSL-2, ABSL-2
Animal work: ☒Yes ☐No
Training: Training verified and on record.
**REVIEW OUTCOME:** **Approved.**

**VI. ADJOURNMENT**

The next scheduled IBC meeting is **Wednesday, December 10, 2025,** via Teams at 2:00 PM. If full committee review protocols are not received by the next deadline date and there are no agenda items for full committee discussion, the meeting will be canceled. Members will be notified via e-mail of meeting cancellations one week before the scheduled meeting.