

NIH Institutional Biosafety Committee Minutes **Location: National Cancer Institute at Frederick**

December 4, 2025

12:00 PM – 2:00 PM

Virtual Meeting via WebEx

Members Present:

<u>Voting Members (Quorum = 8)</u>	<u>Voting Members (continued)</u>	<u>Ex officio (non-voting)</u>
☒ Sharon Altmann (Community member)	☒ Stephen Hughes	☐ Walter Hubert
☒ Theresa Bell	☒ Dan McVicar (Chair)	☐ Samuel Denny
☒ Stella Spears (Alternate for J. Gulani)	☒ Bradley St. Croix	☐ Krisztina Janosko
☒ Eric Freed	☒ Brandon Keele	☒ Michael Kujawa
☒ Jatinder Gulani	☒ Valentina Perepnikhatka	
☒ Effie Nomicos (Community member)	<u>IBC Office (non-voting)</u>	<u>Other/Guests (non-voting)</u>
☒ Sarah Hooper	☒ Wendy Kitta	☒ Jocelyn Mendoza
☒ Jason Yovandich		☒ Grace Markley

Announcements & Call to Order

- I. Meeting called to order by IBC Chair at 12:02 pm.

Review of Past IBC Meeting Minutes

- I. August 7, 2025, Minutes
 - a. Comments on minutes: The August meeting minutes were reviewed because the September, October and November meetings were cancelled due to lack of quorum (September) and due to the government shutdown (October and November).
 - b. The minutes were unanimously approved as written.

New Committee Business

- I. BSO or IBC lead reviewer preliminary registration approvals since the previous meeting:
 - a. Pathogen only Registration Numbers: Not applicable.
 - b. rDNA Registration Numbers:
 - ❖ Dr. Zackary Klug- IBC 2025-67: Biorepository Operations-Research Not Applicable (Renewal, Storage-Only)
Reviewers: Altmann, Bell
 - ❖ Dr. Peter Johnson- IBC 2025-68: Transcriptional Control of Cell Proliferation and Tumorigenesis in the Mouse (Renewal, Breeding-Only)

Reviewers: Gulani, Bell

- ❖ Dr. Laufey Amundadottir- IBC 2025-69: Develop Mouse Models to Examine the Role of Inhba in Response to Inflammation and Tumor Formation (Renewal, Breeding-Only)
Reviewers: Gulani, Perepnikhatka
- ❖ Dr. Serguei Kozlov- IBC 2025-70: Breeding and maintenance of experimental colony of genetically and biologically engineered murine cancer models for the purpose of establishing and standardization of clinically informative syngeneic/GEM murine models for various cancer indications and their subsequent application towards preclinical assessment of cancer therapeutics (New, Breeding-Only)
Reviewers: St. Croix, Bell
- ❖ Dr. Jeffrey Lifson- IBC 2025-71: ACVP Storage Registration (New, Storage-Only)
Reviewers: Bell, Perepnikhatka
- ❖ Dr. Denise Whitby- IBC 2025-72: Epidemiology, Genetic, and Immunological Factors of Kaposi's Sarcoma Herpesvirus Transmission and Associated Diseases (New, Storage-Only)
Reviewers: Yovandich, Perepnikhatka
- ❖ Dr. Yinling Hu- IBC 2025-74: Mouse Breeding to Study Role of IKKalpha in Cancer and Inflammation and Immunity (Renewal, Breeding-Only)
Reviewers: St. Croix, Gulani
- ❖ Dr. Thomas Zheng- IBC 2025-76: Breeding-Only IBC Registration Zheng Lab (Renewal, Breeding-Only)
Reviewers: Bell, Gulani

c. Registration amendments (non-administrative) approved between September-December 2025:

- ❖ Dr. Daniel McVicar: 2025-18-A2. *Description:* Add new human cell lines for administration in vivo.
- ❖ Dr. Ligia Pinto: 2023-13-A17. *Description:* To include AAV+ sample testing (ELISA and AAV Neutralizing Antibody Assay). Update use of engineered human cell lines for neutralizing antibody assay. Remove staff from the roster.
- ❖ Dr. Leah Cook: 2024-29-A3. *Description:* Add clarification about used human cell lines, SAIP procedures and locations for procedures, and requirements for housing immuno-compromised animals.
- ❖ Dr. Simone Difilippantonio: 2024-35-A6. *Description:* Add modified murine cell lines and primary murine bone marrow implants for in vivo research.
- ❖ Dr. Ligia Pinto: 2024-11-A4. *Description:* Update laboratory SOP, update list of locations, add assays, update disinfectants, add Staphylococcal enterotoxin B (SEB).
- ❖ Dr. Chengkai Dai: 2023-33-A5. *Description:* Add transduced human cell line for administration in vivo.
- ❖ Dr. Lisa Ridnour: 2023-42-A2. *Description:* Add modified murine cell lines.
- ❖ Dr. Vinay Vyas: 2025-07-A1. *Description:* Add drug candidates and update staff roster.
- ❖ Dr. Eric Freed: 2025-04-A2. *Description:* Incorporate updated laboratory SOP.
- ❖ Dr. Hiroshi Matsuo: 2025-66-A1. *Description:* Add human cell lines and cholera toxin.
- ❖ Dr. Douglas Kuhns: 2025-46-A1. *Description:* Add primary human samples.

d. Additional Committee Discussion: N/A

II. Registrations for Committee review

Ref# 200102 (Renewal), Dr. Denise Whitby:

- i. *Reviewers:* Altmann, St. Croix
- ii. *Summary:* The overarching aim of the VOS is to define how epidemiologic, environmental, host, and viral factors influence the transmission, persistence, and pathogenesis of KSHV. To achieve this, the laboratory studies viral, host, and immune determinants using materials collected by the group and by international collaborators. Because KSHV infection and KSHV-associated diseases occur primarily in the setting of immune deficiency—most notably HIV infection—it is essential that samples from HIV-infected individuals, and in some cases SIV/SHIV-infected non-human primates (NHP), are included. These materials allow the laboratory to model KSHV biology and immune dysfunction in the populations most affected by KSHV-associated disease. Knowledge gained from these studies may contribute to the development of improved diagnostics (e.g., biomarkers of viral replication or immune dysregulation), therapeutic strategies targeting viral latency/replication, and immune-based interventions for KSHV-associated malignancies.
- iii. *Committee Discussion:*
 - Section 4.2.1.1: Please include the baculoviral vectors in the attached list of viral vectors. Once modified, please re-attach the file to this section.
 - Section 5.2:
 1. Have there been any changes to the laboratory's aims and objectives since 2022? If yes, please update the file "IBCrev 4.2 Scientific Aims and Objectives 2022 08 03". Once modified, please re-attach the file to this section and modify the text to update the title of the referenced file.
 2. Are the KSHV and EBV infected cell lines, in the laboratory's possession, known to be virus producers? Would those cells need to be induced to cause them to produce viruses? Please address these points in the text. Additionally, please update the list of cells to identify which ones are known to be virus producers (and clarify whether induction is required for them).
 3. The text in this section currently states: "Immortalized human cell lines (see attached "VOS-IBC2020_CellLines- Human_Updated_220803.xlsx") are used in 1) in vitro experiments in cell virology and 2) to set up and maintain molecular assays, which may be later used on primary materials, for small-scale virus production". If the laboratory intends to induce the production of viruses at this time (which is stated in other sections of the form as well), then section 8 "Microbiological Materials" needs to be completed to describe how the purified viruses will be worked with safely.
 - Section 5.3.2.1:
 1. Please define what specific features comprise your laboratory's BSL2* designation (for example, what specific practices are in place? Practices may include donning and removing PPE in an ante-room and handwashing immediately after removing PPE. The BSL2* designation could also include specific PPE, such as Tyvek suits, double hair covers, double gloves, shoe covers, etc.).
 2. Are the infected cell lines being induced to produce virus or are they known to produce virus spontaneously (without induction)? Is that why their handling requires BSL2* conditions? Please clarify in the text.
 - Section 5.6:
 1. Regarding the column "Activities at Location" for all entries:

- a. Please remove text pertaining to primary materials, as this section of the form is designed to only capture details about human cell lines in use.
- b. Please define what specific features comprise your laboratory's BSL2* designation (for example, what specific practices are in place? Practices may include donning and removing PPE in an anteroom and handwashing immediately after removing PPE. The BSL2* designation could also include specific PPE, such as Tyvek suits, double hair covers, double gloves, shoe covers, etc.).
- c. Are the infected human cell lines being induced to produce viruses or are they known to produce viruses spontaneously (without induction)? Is that why their handling requires BSL2* conditions? Please clarify in the text.

2. Regarding the location in Building 535, Room 435: The same location is identified as a BSL2* space in section 6.6 of the form. Is this an error (the same location should not have different containment levels)? Please correct.

-Section 5.28.1.1: Have non-sharp gel excision tools been assessed for use for band excision? The committee recommends their use in lieu of sharps. Please modify the text as applicable.

-Section 5.31: The PPE described in this section is indicative of standard PPE used in BSL2 facilities. What specific PPE is used in the BSL2* locations (which are identified in section 5.6 of the form)?

-Section 6.2:

1. Please clarify in the text whether PEL provides the plasmids for Whitby lab staff to conduct the transfections in insect cells, which would eventually lead to the derivation of recombinant proteins of interest. Alternatively, does PEL provide the transduced cell cells and/or the already isolated KSHV proteins? The text in section 6.27.1.1 of the form is ambiguous. All fields within section 6 need to be adjusted for consistency, as applicable.

2. Please clarify in the text whether the baculovirus system encodes a non-human promoter to guide protein expression.

3. The text in this section indicates that EBV production (and implied purification of virus) will take place. If this is the intent, then section 8 "Microbiological Material" needs to be completed to describe how the virus itself is handled safely.

Section 6.3.2.1:

1. Please define what specific features comprise your laboratory's BSL2* designation (for example, what specific practices are in place? Practices may include donning and removing PPE in an ante-room and handwashing immediately after removing PPE. The BSL2* designation could also include specific PPE, such as Tyvek suits, double hair covers, double gloves, shoe covers, etc.).

2. Are the infected cell lines (B95.8) being induced to produce virus or are they known to produce virus spontaneously (without induction)? Is that why their handling requires BSL2* conditions? Please clarify in the text.

-Section 6.5: Please clarify in the registration's text, how the B95.8 cells (which harbor EBV) will be induced to produce virus. How will the virus production and purification be performed safely?

-Section 6.6: Regarding the column "Activities at Location"-

- a. Please remove text pertaining to primary materials, as this section of the form is designed to only capture details about animal cell lines in use.
- b. Please define what specific features comprise your laboratory's BSL2* designation (for example, what specific practices are in place? Practices may include donning and removing PPE in an ante-room and handwashing immediately after removing PPE. The BSL2* designation could also include specific PPE, such as Tyvek suits, double hair covers, double gloves, shoe covers, etc.).
- c. Are the infected cell lines (B95.8) being induced to produce virus or are they known to produce virus spontaneously (without induction)? Is that why their handling requires BSL2* conditions? Please clarify in the text.
- d. Does the handling of insect cell lines and KSHV proteins (derived from those insect cell lines) require BSL2* containment or this work performed at BSL2?

-Section 6.23:

1. In the first sentence, please clarify whether plasmids provided by PEL are used by Whitby lab staff to transfect the insect cell lines (to drive the expression of the KSHV proteins of interest). Alternatively, is PEL providing transfected cells and/or the already purified proteins to the Whitby lab? This point is not clear based on the information that is currently provided in section 6.27.1.1 of the form. It is recommended to modify the applicable fields within section 6 to ensure consistency.
2. Please describe how the produced recombinant KSHV proteins will be used by the laboratory. Are they used in assays? If yes, what are those assays?

-Section 6.24:

1. Please clarify in the text whether PEL provides plasmids for Whitby lab staff to conduct the transfections in the insect cell lines, which would eventually lead to the derivation of recombinant proteins of interest (KSHV proteins). Alternatively, does PEL provide transfected cells and/or the already purified KSHV proteins? Note: The text in section 6.27.1.1 does not make this point clear. Please modify the text as applicable.
2. Please define the "ORF" acronym.

-Section 6.26: Does the Whitby laboratory perform insect cell line transfections with plasmids? If yes, the response to this section needs to be changed to state "Yes" and the follow up questions that will be generated thereafter need to be answered.

-Section 6.27.1.1: Please clarify the text in this section to identify the materials that PEL provides to the Whitby laboratory. Does PEL provide the transfected cells? the plasmids used in the transfections? the purified KSHV proteins of interest? all of the previous items?

-Section 6.31: The PPE described in this section is indicative of standard PPE used in BSL2 facilities. What specific PPE is used in the BSL2* locations (which are identified in section 6.6 of the form)?

-Section 7.3: Please correct the numbering in the text. It should state 7.2 in lieu of 6.2. Note: This item has been addressed administratively.

-Section 7.5:

1. The text in this section does not fully align with the information described in section 7.7.1.1. The text in 7.5 does not describe the application of purified viruses to infect primary human cells obtained from subjects, nor does it describe the transformation of primary human B cells with EBV. The text in 7.5 and 7.7.1.1 needs to be modified to ensure consistency.
2. Please clarify how the use of primary animal materials (to include samples from SIV/SHIV infected non-human primates) and human materials (to include samples from HIV infected patients) is connected to the laboratory's overall scientific aims and objectives. What therapeutics/diagnostic tools could be developed from the knowledge that is derived from these studies?
3. Please provide a declarative statement indicating whether purified HIV will be applied to any/all of the listed primary materials.

-Section 7.7.1.1:

1. Section 7.2 currently indicates that primary samples from HIV infected patients will be worked with. However, the text in this section indicates that primary cells will not harbor HIV (last sentence in the first paragraph). Please correct this statement.
2. The last sentence of the first paragraph states that the experiments are not directed to the generation of viral progeny (HIV) or viral production (KSHV or EBV); however, the text in section 7.7.1.2 indicates that there is in fact viral production taking place. Please consolidate these sections to ensure consistency.
3. Please differentiate what procedures will take place in BSL2 locations vs. BSL2* locations (both are identified in section 7.9 of the form). Are the higher risk operations being performed in the BSL2* locations? What are those higher risk activities?

-Section 7.9: Regarding the column "Activities at Location" for all entries:

- a. Please remove text pertaining to microbial cloning, as this section of the form is designed to only capture details about primary animal/ human materials in use. Details about microbial cloning (plasmid generation?) need to be described in further detail in section 8 "Microbiological Material".
- b. Please define what specific features comprise your laboratory's BSL2* designation (for example, what specific practices are in place? Practices may include donning and removing PPE in an ante-room and handwashing immediately after removing PPE. The BSL2* designation could also include specific PPE, such as Tyvek suits, double hair covers, double gloves, shoe covers, etc.).

-Section 7.10: The PPE described in this section is indicative of standard PPE used in BSL2 facilities. What specific PPE is used in the BSL2* locations (which are identified in section 7.9 of the form)?

-Section 8: General Comment-

1. Previous sections of the document still indicate that viruses are produced from animal cell lines, human cell lines and primary materials. If that is correct, then section 8 needs to be completed. In addition, the responses in this section need to clearly acknowledge the hazards that the viruses pose to immunocompromised individuals who may work in the laboratory. In addition to the acknowledgement, the text needs to provide mitigation strategies to afford protections for staff members (such as the use of BSCs to perform all procedures, required PPE, etc.). As part of the

mitigation strategies, it should be indicated that employees must consult with OHS regarding immunocompromised status and activities in the laboratory. EHS and OHS would then conduct a risk assessment of the employee's working conditions.

2. Section 7.9 indicated that microbial cloning procedures take place in some locations. Section 8 needs to reflect the microbiological materials and the associated cloning procedures.

- iv. *Animal studies proposed:* No
- v. *Committee discussion about the applicability of dual use research of concern (DURC) and ePPP's (enhanced potential pandemic pathogens) regulatory requirements:* The Committee determined that DURC and ePPP requirements do not apply to the described experiments.
- vi. *Work is approved at:* BSL2, BSL2*
- vii. Training prescribed to staff in the roster: BBP, VVST
- viii. *Relevant sections of the NIH Guidelines:* Sections III-D-2-a and III-E-1.
- ix. Public comment: None provided by the general public.
- x. Votes: 12 approved, 0 abstained
- xi. The committee unanimously voted to defer pending clarifications.

Ref# 200216 (Renewal), Dr. Jeffrey Lifson:

- i. *Reviewers:* Perepnikhatka, Yovandich
- ii. *Summary:* In general, human and animal cell lines are used for immunological and virological assays, the generation of viruses and retroviral vectors, and antibody production. All disease states for mainly HIV-1 SIV, KSHV are being studied from viral entry to egress, as well as monitoring in vivo virus infectivity and immune responses using these cell lines. Additionally, these cell lines are being used to test infectivity of laboratory produced HIV-1, SIV and KSHV, the purpose being to study viral reservoirs and determine ways of eliminating them to establish cures. Toxoids are used for antigenic stimulation to assess immune responses to different antigens and plasmids are generated for cell line transfections.
- iii. *Committee Discussion:*
 - Section 5.2: Please provide a narrative describing what are the project aims/objectives and experiments to be conducted. What is the disease state being studied, and how will the work with the listed biological materials, contribute to the generation of knowledge that may be used for the development of therapeutics and/or diagnostic tools?
Note: Please ensure to reference the equipment used to conduct activities in a safe manner (for example, the use of BSCs).
 - Section 5.4.1.2:
 - 1. Is there a pre-assembled spill kit located in the room where large scale preparations are grown/in use? Please indicate in the text.
 - 2. Are there floor drains in the room? Please address in the text.
 - Sections 5.6, 7.9, 8.9, 9.10: What activities will be performed in each of the listed locations? The third column only lists materials in use but not the proposed activities with the materials. Please correct.
 - Section 5.12: Regarding the attached file-The column for mitigation strategies has been left blank for the AAV vectors. Please complete the table and re-attach the file to this section.

- Section 5.18.1.1: Please clarify in the text that volumes of produced viral vector will be less than 10 L, and that the total amount of cell culture required to generate the desired volume of viral vectors can reach up to 15 L (as stated in section 5.4.1.1).

-Section 5.28.1.1: Please clarify what are the approximate volumes of generated plasmids vs. the volumes of bacterial culture that are required to generate the desired plasmid quantities.

-Section 7.5:

1. Please provide a narrative describing what are the project aims/objectives and experiments to be conducted. What is the disease state being studied, and how will the work with the listed biological materials, contribute to the generation of knowledge that may be used for the development of therapeutics and/or diagnostic tools? Note: Please ensure to reference the equipment used to conduct activities in a safe manner (for example, the use of BSCs).

2. Regarding the attached file: The column for mitigation strategies has been left blank for the AAV vectors. Please complete the table and re-attach the file to this section

-Section 8.11.1.2: Please clarify what are the approximate volumes of generated plasmids vs. the volumes of bacterial culture that are required to generate the desired plasmid quantities.

-Section 9.5: Please provide a narrative describing what procedures will be performed and how the procedures associated with the toxin material fit into the overall scientific aims and objectives of the laboratory. Note: Please ensure to reference the equipment that is used to conduct the procedures in a safe manner (for example, the use of BSCs).

-Section 11.1: The text in section 8.16.2.1 references the Bethesda ASP/IBC documents associated with the laboratory's work in those facilities. It is recommended to attach PDF versions of those documents in this section.

iv. *Animal studies proposed:* No

v. *Committee discussion about the applicability of dual use research of concern (DURC) and ePPP's (enhanced potential pandemic pathogens) regulatory requirements:* The Committee determined that DURC and ePPP requirements do not apply to the described experiments.

vi. *Work is proposed at:* BSL2, BSL2*

vii. *Training prescribed to staff in the roster:* BBP, VVST

viii. *Relevant sections of the NIH Guidelines:* Section III-D-1-a.

ix. *Public comment:* None provided by the general public.

x. *Votes:* 10 approved, 2 abstained.

xi. The committee voted to approve this registration as written. Dr. Hughes and Dr. Keele declared conflicts of interest and abstained.

Ref# 200219 (Renewal), Dr. Kedar Narayan:

i. *Reviewers:* St. Croix, Yovandich

ii. *Summary:* The Center for Volume Electron Microscopy is a laboratory developing and using cutting edge electron microscopy techniques, specifically volume electron microscopic imaging using array tomography, focused ion beam scanning electron microscopy, and transmission electron tomography. Many projects at CVEM will be collaborations with NCI/CCR PIs, others will involve collaborations with the RAS program. The laboratory will also have a technology development part in which it is

anticipated having to grow cell lines briefly to develop novel ways of tracking proteins in electron microscopy.

iii. Committee Discussion:

-Section 1.5.1.1: Regarding the attached file "CvEM Collab Application 2024", please address the following items:

A. After the section for Contact Information, there needs to be a field, where requestors are asked about the applicable IBC registration(s) that is/are associated with the material that is being submitted for processing.

B. The form needs to have a field/question where requestors can specify the state of the materials being submitted. For example, are materials fixed, fresh, frozen, in solution, etc.?

C. Please add a question inquiring as to whether the submitted samples have undergone any form of molecular modification at the requestor's laboratory. The question should also ask requestors to specify details pertaining to the molecular modification (for example, they should declare whether any cell lines have been modified via viral vector systems or non-viral vector systems at the requestor's laboratory).

-Section 4.5: Please clarify whether Dr. Narayan's laboratory conducts the fixation/staining/embedding steps prior to imaging. Alternatively, are all samples already chemically fixed by the requestors prior to processing by the core facility? If Dr. Narayan's laboratory conducts the fixation/staining/embedding steps, please describe how the procedures are conducted safely (applicable laboratory SOPs describing the steps should also be attached). Please make sure to include the locations for the fixation steps and the engineering controls used.

-Section 4.6: If Dr. Narayan's laboratory conducts the fixation/staining/embedding steps for the samples, please identify the locations for the procedures. Please make sure to include the biological containment level for the location(s).

-Section 5- General Comment: Does the core facility receive any animal cell lines? If yes, the applicable fields within section 5 need to be completed. Note: The intake form in section 1.5.1.1 of the form implies that some material of animal origin could be submitted. The intake form currently lists "Organism incl. species, stage, age, strain, sex".

-General Comment-Section 6: Will any primary animal materials of human or animal origin be received? If yes, all applicable fields within section 6 need to be completed. Note: The intake form in section 1.5.1.1 of the form implies that some primary materials of human or animal origin could be submitted. The intake form currently lists "Organism incl. species, stage, age, strain, sex" and "Organ/Tissue Source".

iv. Animal studies proposed: No

v. Committee discussion about the dual-use and ePPP potential of these experiments: ePPP criteria do not apply to the described experiments.

vi. Work is approved at: BSL2

xii. Training prescribed to staff in the roster: BBP

vii. Relevant sections of the NIH Guidelines: N/A- Recombinant materials are not described.

viii. Public comment: None provided by the general public.

ix. Votes: 12 approved, 0 abstained.

x. The committee unanimously voted to approve pending clarifications.

Ref# 200246 (Renewal), Dr. Shyam Sharan:

- i. *Reviewers:* Gulani, Hughes
- ii. *Summary:* The aim of the research program is to identify genetic interactors of *BRCA2* that may contribute to cell viability and tumorigenesis.

iii. Committee Discussion:

-Section 4.2.1.1:

1. Regarding the file titled "2025 Viral VECTOR-INSERT LIST-SHARAN": If the MSCV vector is used in murine cells (mESC), there is the potential for both mobilization of the vector and recombination. Some endogenous murine retroviruses will replicate in human cells (should an exposure event occur when working with the material). Some of the transduced genes (for example *CDC25a*) are involved in oncogenesis. Please add a disclaimer about these hazards under the "Purpose" column for the MSC vectors.

2. Regarding the table in the registration: As already noted in the text, Cre is genotoxic. Please also include a disclaimer indicating that Ad-Cre is likely to have some replication competent recombinants in the stock and for that reason, the material needs to be handled with caution.

-Section 5.2: Please enter a paragraph describing what are the laboratory's overall scientific aims and objectives and how the use of the human cell lines and associated materials will be helpful in achieving those aims and objectives. What is the disease state being studied? How will the knowledge that is generated from the experiments contribute to the development of therapeutics and/or diagnostic tools for the betterment of human health?

-Section 5.7 and 6.7: The text in this section needs to be expanded further. The committee is interested in learning about what procedures will occur in vivo and how those procedures will be performed safely. In addition, the committee requires additional clarification as to the status of the cell lines being administered in vivo (are they transduced with viral vectors? what are the vectors used in the cell line modification?). Finally, the text needs to clarify which purified viral vectors are injected in vivo (it is important to ensure consistency with the tables in section 4.2.1.1 and the information described in section 5.19.1.1). Please make sure to also address the following items in the description:

- a. Will lentivirus/adenoviral/AAV modified cell lines be administered to animals? After injection, are the animals housed in ABSL2 facilities? If yes, for how long do they remain housed in ABSL2 conditions?
- b. Are ACUC approved methods of physical restraint and/or sedation used during the cell line and viral vector injections in vivo?
- c. Are injections performed in a BSC?
- d. After euthanasia, are tissues collected from animals? If yes, does the tissue collection occur in a BSC? Are safer sharps options (such as blunt ended scissors in lieu of scalpels) used when collecting/dissecting the tissues? Are the tissues processed by LASP/MHL or by the laboratory (for example, frozen, fixed, etc.)? Are the tissues then taken to the laboratory for additional procedures?
- e. Add a statement indicating that work with Ad-Cre in the in vivo system, especially in situations that involve encoded oncogenes, requires precautions (like performing all work in the BSC, using safer

sharps options, using restraint/sedation mechanisms when performing injections, etc.) to prevent incidents.

f. Note: If LASP is performing injections on behalf of the laboratory, the applicable LASP SOPs could be referenced in the text and attached to this section.

-Section 5.19.1.1:

1. Please ensure that the information described in this section is consistent with the details in section 4 of the form.

2. How will the injections (involving modified cells or vector stocks) be conducted to minimize the possibility that the operator will not be accidentally injected? Will ACUC-approved methods of physical restraint and/or sedation be used to mitigate the risks? Please address in the text.

-Section 5.36:

1. In addition to needles used for injections, the text needs to include descriptions about the sharps used for tissue isolation/dissection.

2. Please clarify that both needles and sharps are discarded in leak proof, approved sharps containers (which are located adjacent to the work area). Upon reaching the 2/3 fill line, the sharps containers are sealed with tape and a waste pick up form is completed. EHS Waste Management then picks up the sharps containers for eventual incineration off site.

3. The text needs to clarify that needles and sharps are exclusively used for the in vivo applications and that the cell culture operations do not employ needles and sharps.

-Section 6.2: Please enter a paragraph describing what are the laboratory's overall scientific aims and objectives and how the use of the animal cell lines and associated materials will be helpful in achieving those aims and objectives. What is the disease state being studied? How will the knowledge that is generated from the experiments contribute to the development of therapeutics and/or diagnostic tools for the betterment of human health?

-Section 6.5: Please confirm in the text whether the baculoviral expression system described in the registration, exclusively requires an insect cell promoter to express the proteins of interest.

-Section 6.8: Will any of the mouse stem cell virus- modified cell lines be administered to animals? If yes, please modify this table (under column "Activities at Location") to indicate for how long the inoculated animals will remain housed in ABSL2 conditions.

-Section 6.12:

1. As noted in section 4.2.1.1 of the form, the use of an MSCV vector in mESC raises the possibility of mobilizations and/or recombination with endogenous murine retroviruses, some of which can replicate in human cells. Please add a statement to acknowledge this hazard in the text.

2. Please clarify in this section that Ad-Cre is genotoxic and, that the stock used could be potentially contaminated with recombinant Ad.

-Section 6.13: If the MSCV vector is used in murine cells (mESC), there is the potential for both mobilization of the vector and recombination. Some endogenous murine retroviruses will replicate in

human cells (should an exposure event occur when working with the material). Some of the transduced genes (for example CDC25a) are involved in oncogenesis. Please add a disclaimer about these hazards in the text.

-Section 6.16.1.1: Please clarify whether the generation of organoids requires the use of viral vector systems. If yes, please specify the viral vector system used and state how much time elapses between the cell line modification step and the injections in vivo (do the virally modified materials remain in culture for 10 days or more prior to injection in vivo?).

-Section 6.18.1.1: Please provide details pertaining to the baculoviral vectors.

-Section 6.19.1.1:

1. How will the intraductal injections (modified cells or vector stocks) be conducted to minimize the possibility that the operator will not be accidentally injected? Will ACUC-approved methods of physical restraint and/or sedation be used to mitigate the risks? Please address in the text.

2. Please ensure that the information described in this section is consistent with the details in section 4 of the form.

-Section 6.36 and 7.15:

1. In addition to needles used for injections, the text needs to include descriptions about the sharps used for tissue isolation/dissection.

2. Please clarify that both needles and sharps are discarded in leak proof, approved sharps containers (which are located adjacent to the work area). Upon reaching the 2/3 fill line, the sharps containers are sealed with tape and a waste pick up form is completed. EHS Waste Management then picks up the sharps containers for eventual incineration off site.

3. The text needs to clarify that needles and sharps are exclusively used for the in vivo applications and that the cell culture operations do not employ needles and sharps.

-Section 7.5: Please enter a paragraph describing what are the laboratory's overall scientific aims and objectives and how the use of the MEFs and organoids (and associated materials) will be helpful in achieving those aims and objectives. What is the disease state being studied? How will the knowledge that is generated from the experiments contribute to the development of therapeutics and/or diagnostic tools for the betterment of human health?

-Section 7.6.1.1: Please clarify whether the generation of organoids requires the use of viral vector systems. If yes, please specify the viral vector system used and state how much time elapses between the cell line modification step and the injections in vivo (do the virally modified materials remain in culture for 10 days or more prior to injection in vivo?).

-Section 7.17: Please replace the terminology "black plastic bag" with "brown paper bags" for transporting animals in ice cream containers from the animal facility to the laboratory.

iv. *Animal studies proposed:* Yes, mouse.

- v. *Committee discussion about the dual-use and ePPP potential of these experiments:* ePPP criteria do not apply to the described experiments.
- vi. *Work is approved at:* BSL2, ABSL1, ABSL2
- xiii. Training prescribed to staff in the roster: BBP, VVST, AEP
- vii. *Relevant sections of the NIH Guidelines:* Section III-D, Section III-D-2-a.
- viii. Public comment: None provided by the general public.
- ix. Votes: 11 approved, 1 abstained.
- x. The committee voted to conditionally approve pending clarifications. Dr. St. Croix abstained.

Ref# 200327 (New), Dr. Thomas Zheng:

- i. *Reviewers:* Perepnikhatka, Keele
- ii. *Summary:* The cell lines described in the registration are used as biological models to study and validate the proposed scientific hypothesis. The cell lines obtained from other investigators will be used for host gene expression (protein and RNA levels), cell cycle, and certain pathways studies by knockdown or knockout of viral oncogene genes (HPVs) or by KSHV lytic infection induced by chemicals. Cell lines will also be used for virus infection to monitoring virus cytopathic effect and titration of virus titers, as well as antiviral screening for small molecules or compounds.
- iii. *Committee Discussion:*
 - Section 4.2: Please provide a brief paragraph describing the laboratory's aims and objectives and how the materials described in the registration will assist with answering the scientific questions posed in the experimental design. For example, what disease state/scientific challenge is being studied?
 - Sections 4.21 through 4.27: General comment-Is the CRISPR work still active? If it is not, sections 4.21 through 4.27 should be cleared out to reflect that.
 - Section 4.26.1.1: Please provide a brief narrative describing how the CRISPR/Cas9 will be introduced into the cells.
 - Section 4.33 and 5.33: Please correct the text to indicate that undiluted bleach needs to be added to liquid waste to make a final concentration of 10% bleach solution (v/v). Note: This item has been addressed administratively.
 - Section 4.35: Please confirm in the text whether serological pipettes are placed into small cardboard boxes, and the cardboard boxes are then discarded into the autoclave bags. Note: This information is requested because there are concerns that the serological pipette tips could puncture the bag.
 - Section 5.22: Please uncheck the box for "Plasmids", as the rest of the fields in the form indicate that they are not worked with.
 - Section 5.31: Please clarify in the text, what aspect of the proposed research requires the use of face masks. Note: If face masks are not actually used, please remove references to them in the text.
- iv. *Animal studies proposed:* No
- v. *Committee discussion about the dual-use and ePPP potential of these experiments:* ePPP criteria do not apply to the described experiments.
- vi. *Work is approved at:* BSL2
- xiv. Training prescribed to staff in the roster: BBP, VVST
- vii. *Relevant sections of the NIH Guidelines:* Section III-D-2.

- viii. Public comment: None provided by the general public.
- ix. Votes: 10 approved, 2 abstained.
- x. The committee voted to approve this registration pending clarifications. Dr. Hughes and Dr. Freed abstained.

Ref# 200441 (New), Dr Stephen Lockett:

- xi. *Reviewers:* Keele, Altmann
 - xii. *Summary:* Variety of cell lines are worked with in the laboratory. In broad terms, projects use live cell epi-fluorescence microscopy to elucidate molecular and cellular processes. The experiments depend on the wishes of collaborating CCR labs and are therefore not predictable.
 - xiii. *Committee Discussion:*
 - Section 1.6.1.1: Regarding the attached file "OMAL Live Cell Information Form 102624":
 - 1. It is recommended to add a header or footer to the form, to identify the effective date/revision number (as applicable).
 - 2. Please add a question (question #12) which asks requestors to describe the PPE that is used for handling the submitted material(s). In addition, it is recommended to include the link to the EHS policy on required PPE, specifically, Appendix A:
https://ncifrederick.cancer.gov/Ehs/Procedures/EHS_SAF_1_MinimumAttireandPersonalProtectiveEquipment.aspx. Note: This recommendation is offered, because the text in other sections of the form (for example, section 6.10) states that the same PPE that CCR labs use is also used in OMAL facilities.
 - 3. After the statement "OMAL does not accept tissues obtained from humans unless they are fixed and rendered safe from pathogens. In addition, this restriction applies to human tissues that have been passaged/propagated in animals", there should be another disclaimer regarding the requirements for the transport of biological materials into OMAL facilities (for example, using labeled primary and secondary containers that identify biological hazards. The secondary container should be leak proof and contain sufficient absorbent material to capture spills during transport). The statement should also indicate that users of OMAL facilities/requestors are responsible for transporting materials back to their laboratories in the same safe manner that samples were brought into OMAL facilities.
 - Section 7.19: Please include the use of safety glasses.
 - xiv. *Animal studies proposed:* No
 - xv. *Committee discussion about the dual-use and ePPP potential of these experiments:* ePPP criteria do not apply to the described experiments.
 - xvi. *Work is approved at:* BSL2
 - xv. Training prescribed to staff in the roster: BBP
 - xvii. *Relevant sections of the NIH Guidelines:* N/A- Recombinant materials are not described.
 - xviii. Public comment: None provided by the general public.
 - xix. Votes: 12 approved, 0 abstained.
- The committee unanimously voted to approve this registration pending minor clarifications.

Ref# 200491 (New), Dr. Rajgopal Chari:

- xx. *Reviewers:* Freed, Perepnikhatka

xxi. *Summary:* The overarching goal of the GMC is to provide NCI investigators with resources and expertise for pursuing genome editing experiments in experimental model systems of their choice. This typically facilitates the ability to test the functional importance of a specific gene or region of the genome or in the case of using genetic screens, identify novel genes or biochemical pathways that are important in a specific disease context.

xxii. *Committee Discussion:*

-Section 3.2.1.1: Regarding the listed vectors that include Cas9: Under column "Gene Type Encoded within Vector", please indicate in the text that Cas9 is genotoxic.

-Section 4.5, 4.16.1.1, 5.5, 5.26.1.1: The file titled "In vitro experiments" has been attached to multiple sections of the registration form. While this document contains great information about the technical protocols for conducting activities in the laboratory, the document does not provide laboratory members with details pertaining to the general rules of the laboratory, safety provisions, emergency response, contact information should an incident or near miss occur, incident mitigation, mechanisms in place to prevent splashes and aerosols, etc. Please attach a laboratory SOP that describes the information listed above.

-Section 4.23: Please clarify in the text that Cas9 is genotoxic.

-Section 4.36 and 5.36: It is recommended to replace the use of glass Pasteur pipettes with safer, plastic alternatives. Please modify the text accordingly.

xxiii. *Animal studies proposed:* No

xxiv. *Committee discussion about the dual-use and ePPP potential of these experiments:* ePPP criteria do not apply to the described experiments.

xxv. *Work is approved at:* BSL2

xvi. Training prescribed to staff in the roster: BBP, VVST

xxvi. *Relevant sections of the NIH Guidelines:* Section III-D, Section III-D-1-a.

xxvii. Public comment: None provided by the general public.

xxviii. Votes: 12 approved, 0 abstained.

xxix. The committee unanimously voted to approve this registration pending clarifications and SOP.

Ref# 200493 (New), Dr. Frank Maldarelli:

xxx. *Reviewers:* Yovandich, Keele

xxxi. *Summary:* Persistence and clonal expansion of HIV-infected cells is the principal reason why HIV infection cannot be eradicated by antiretroviral therapy. The forces driving persistence and clonal expansion are not well understood. The laboratory is investigating the mechanisms of HIV replication and persistence using in vitro systems to elucidate the cellular pathways involved in this process. By understanding the mechanisms of persistence, therapeutic strategies can be developed to eliminate HIV in infected persons. The cell lines described in this registration are used to investigate strategies to delete the coding portions of the HIV genome, effectively curing these cells of the ability to express HIV.

xxxii. *Committee Discussion:*

-Section 4.2: Please clarify in the text whether only VSV-G (and not a murine-origin envelope) is used as the envelope in conjunction with pBabe.

-Section 4.16.1.1:

1. Please clarify in the text whether only VSV-G (and not a murine-origin envelope) is used as the envelope in conjunction with pBabe.

2. Please enter a description, detailing how the transductions are performed safely. Note: Applicable laboratory SOPs need to be included.

-Section 4.25: Please provide a response to this section (RG2, based on the material type).

-Section 6.2: Please clarify in the text whether the stool samples could potentially harbor *C. difficile* or other human pathogens. If the answer is yes, what steps will be taken to mitigate the risks for staff who may be immunocompromised?

-Section 7.10: Please provide a response in this section. Please also respond to the follow-up questions that may be generated thereafter.

xxxiii. *Animal studies proposed*: No

xxxiv. *Committee discussion about the dual-use and ePPP potential of these experiments*: ePPP criteria do not apply to the described experiments.

xxxv. *Work is approved at*: BSL2, BSL2*

xvii. Training prescribed to staff in the roster: BBP, VVST

xxxvi. *Relevant sections of the NIH Guidelines*: Section III-E-1, Section III-D-1-a.

xxxvii. Public comment: None provided by the general public.

xxxviii. Votes: 10 approved, 2 abstained.

xxxix. The committee voted to approve this registration pending clarifications. Dr. Freed and Dr. Hughes abstained.

III. Registration amendments for full committee review:

i. 2024-35-A7 (Ref# 200364), Dr. Simone Difilippantonio: Amendment to clarify points about Adeno-Cre instillation procedures to include engineering controls and practices.

ii. Reviewers: Altmann, Hughes

iii. Review Summary:

-Positively pressurized flexible film isolators (from CB Clean) are proposed for work with BSL2 materials (Adeno-Cre) and gnotobiotic animals. Please note these isolators do not have sealed/tested/certified HEPA filters but are equipped with HEPA filter media that wraps around an aluminum canister. The HEPA filter on these isolators has been documented as not sealed and therefore, has the potential to leak contents of the isolator into the surrounding room.

-The collaborating PI, who is stationed in Bethesda-NIAID would provide stocks of Adeno-Cre to the ARTS group in the Frederick campus. Upon receipt the vials containing the viral stocks would be placed in a facility freezer until ready to use.

-Prior to commencing the viral instillations (intratracheal) in vivo, the vials containing the viral material would be retrieved from the freezer and transported to a BSC, where it would be diluted to the desired concentration and aliquoted.

-The viral material would then be inoculated intratracheally into the animals. The procedure would take place in the BSC.

-Immediately after inoculation, the animals would remain in the BSC for 4 hours. After the four-hours elapse, the animals would be placed into an airtight transport pie, while in the BSC. The transport pie would then be sprayed with Clidox and moved out of the BSC. The pie would be eventually transferred

into a positively pressurized flexible film isolator. (Please note it is not clear or documented as to how the pie would be transferred using sterile technique from the BSC into the positive pressure isolator).

- Once in the flexible film positively pressurized isolator, the animals would be extracted from the transport pie and transferred into a new housing cage.
- The animals would remain housed within the positively pressurized flexible film isolator in cages (which do not have solid lids, only wire tops) for 4-12 weeks.
- It is expected that during the 4–12-week period, the viral construct would activate genes associated with tumorigenesis. This would lead to tumor formation and germ-free conditions are required for the integrity of the study.
- Upon reaching the 4-12 weeks post-inoculation, the animals would be transferred out of the positively pressurized flexible film isolator based on tumor formation and study end points.
- The animals would be transferred into the BSC to be administered microbiome bacterial strains (such as lactobacillus or *S. pneumoniae*). Microbiome bacterial strains are innocuous microorganisms that present lower risks in healthy adults.
- Immediately after microbiome administration in a BSC, the animals would then be transported into a negatively pressurized containment rack, where they would remain for the entirety of the study (until the point of euthanasia).
- Once the endpoint of the study is reached, animals would be transported out of the negatively pressurized containment rack and placed into the BSC. The animals would then be euthanized humanely, and tissue collection would be conducted inside the BSC.

iv. Committee Discussion:

Questions posed by the committee during the IBC meeting:

- What is the fragility of adenovirus? Is it stable? What is the alternative? Adeno-Cre proposed for use is replication incompetent and that is an inherent safety feature of the biological material. Adenovirus is unusually stable due to its non-enveloped structure. The virus can survive for weeks on surfaces, and it can be difficult to be disinfected out of facilities.
- The Program proposing the amendment maintains the position that biocontainment racks will not maintain mice as germ free. Is it possible to place animals into a BCU (biocontainment unit under negative pressure)? LASP indicated that this is not feasible, based on previous attempts resulting in contaminated mice.
- Why is there contamination with the BCU rack? It was discussed that there could be discrepancies with the HEPA filter certification or validation and/or the aseptic technique used during procedures. LASP indicated that the animals in cages require constant supply of food, water and bedding. This leads to multiple opportunities for the introduction of contaminants. An additional question is if the introduction of food, bedding, other supplies, and cage changes are conducted in such a manner to assure aseptic technique, containment at all times, why would contamination be an issue? Can validation processes to track contamination during experiments be conducted to determine potential pathways for contamination and how to resolve this issue. (Reference published paper found here: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6040836/>).
- Can animals be left in the BSC for a longer period of time (above 4 hours)? Can the animals be housed for 24 hours in the BSC post infection? Doing so could potentially reduce viral dissemination post inoculation. LASP stated that 6 hours were employed in the past. However, noise and vibrations were identified as animal welfare concerns for the experimental mice and longer periods of time are not feasible.

-Can a new virus result from this study? Not likely because the virus is replication incompetent, per virology experts. However, insert and promoter in the viral genome are important factors and they need to be assessed on a case-by-case basis.

LASP presents the results of a previous study to support the claim that Adenoviral environmental dissemination does not occur post-administration in vivo:

- LASP presented a data table showing results from a one-time, preliminary, unpublished pilot study that was conducted in-house, performed in 2019 and the study cohort involved 4 mice.
- The animals involved in the unpublished study were housed in negatively pressurized biocontainment racks. The preliminary data was used to suggest that in the context of the present study, no known BSL2 material would be released from the animals and caging within the positively pressurized flexible film isolator. Subsequently, LASP hypothesizes that gross contamination with Adeno-Cre is not expected in the room that houses the flexible film positively pressurized isolator.
- The animals in the study received Adenovirus via intranasal route and intratracheal route.
- Upon inoculation, animals' bodies were swabbed to detect the presence of viral particles. The swabbing location, swabbing process, etc was not provided.
- The collected samples were tested via PCR to determine whether adenoviral genetic material was present.
- Based on the unpublished results, LASP suggested that animals did not pose hazards of environmental dissemination after 4 hours. The study tracked whether the animals were releasing virus over time or exhibiting signs of active infection. No significant results were found. Note: Based on a presentation of the data in June 2019, it was discussed with the full committee that there were concerns pertaining to the detectability of viral genomes in the samples that underwent PCR testing. Please refer to the attached IBC meeting minutes from June 2019 for additional details.
- LASP proposes that intratracheal inoculations performed in the BSC would reduce the risks of viral dissemination, since the virus would be seeded deeper than it would be done via the intranasal route.
- LASP also proposed that current room decontamination methods would be sufficient to treat the workspace upon completion of the studies (LASP offered the option to use Vaporous Hydrogen Peroxide methods implemented in-house by LASP staff).

After considering the information described above, the IBC Chair proposed that the study could be allowed to proceed, contingent upon meeting the following criteria. The study would be closely monitored, and the PI would be required to report weekly all results generated during the experiment to the IBC.

- A trial study specific only to the viral vector (Adeno-Cre), insert, and described conditions associated with the study in 2024-35-A7. A blanket approval will not be issued by the IBC.
- LASP must provide a detailed experimental design to include:
 - a. How will the samples be collected (for example, describe what body parts are swabbed, frequency of swabbing, how are the bedding and droppings collected? Etc.)?
 - b. What parameters will be applied to the performed screening?
 - c. What is the methodology used for screening the samples (for example PCR or other)?
 - d. Describe the strategies to be employed to mitigate potential concerns related to detectability of viral genome in the samples.
 - e. Should viral genome be detected in the samples, the BSO must be notified immediately. The experimental design must have a contingency plan to address what will be done if viral genome presence is detected.

- f. The experimental design must state what the turnaround time is for receiving test results. Will the testing be conducted at NCI at Frederick or will it be outsourced? The experimental design must also contain the parameters/panel used in the screening.
- g. Animals must be swabbed before they go into the airtight transport pie.
- h. Establish positive controls for the study and describe them in the experimental design.
- This one-time trial study cannot include less than 8 animals. The objective is to generate data that can be used to derive an adequate statistical analysis. The resulting data must be reported to the IBC in a timely manner.
- All positive results (Adeno-Cre being detected in bedding, excretions and swabs) must be reported immediately to the BSO.
- Monitor the animals' excrement and bedding to determine if adenovirus release is occurring. Specify how this monitoring will occur. Specify the number of swabs to be taken from each cage and from each animal (top of head, paws, belly, anus, etc).
- Change the first housing cage on day 3. Note: Day 3 was selected based on the information described in the biomaterial bulletin prepared by EHS, pertaining to safe practices when working with adenoviral vectors. LASP must provide a detailed description of how a cage change within the positive pressure isolator will occur to avoid aerosol and particulate generation and minimize contamination.
- Regarding the cage change on day 3: Obtain samples from cages when mice move to the new cage. Fecal monitoring must be conducted for the first two weeks. This will generate a data set that needs to be submitted to the IBC for review.
- Conduct cage changes again on day 7. Repeat all monitoring to generate additional data.
- Monitor the swabs by PCR or any other applicable methodology (depending on the experimental design).
- The BSO and IBC Chair will continue to discuss and address regulatory requirements associated with the trial study, specifically items tied to BMBL and contractual commitments.
- The criteria set forth by the IBC must be met, accepted, and adhered to as described. Otherwise, non-compliance will result in the study's immediate termination.

Motion to approve with additional stipulations including full face respiratory protection was approved unanimously. Dr. Gulani recused from the vote.

Post-Meeting Discussions and Actions:

- BSO and IBC Chair shared discussion to follow up on outcome of IBC vote earlier that afternoon. The discussion focused on the value of the unpublished data and brought into question if it was appropriate to use the data, which was previously presented to document downgrading ABSL2 housing timepoints for animals inoculated with adenovirus or adenovirus modified cells. Originally, mice inoculated with adenoviral materials required housing at ABSL2 for 4 weeks post-dosing, followed by ABSL1 containment. In 2019, the results of the unpublished data were used to drive modifications to the BSL Matrix to amend the original ABSL 2 housing room requirement from 4 weeks to 2 weeks post-dosing, implementing the use of containment caging racks. When this discussion occurred, it was not in the context or application of using positively pressurized isolators. The current proposal now being considered suggests use of the same data set to justify housing of animals inoculated with adenoviral materials in a positively pressurized isolator, which can assure no containment.
- The data used to support the proposed project resulted from the use of an extremely limited cohort, which is insufficient to derive statistical significance in results, and therefore should not be used independently to drive this procedural change.
- As a result of these follow-up discussions, the IBC Chair recommended a retraction of the initial vote taken during the December 4, 2025 IBC meeting pertaining to this amendment (A7). Amendment (A7) as submitted October 28, 2025 is NOT APPROVED at this time. A7 will be administratively removed from

the TOPAZ IBC registration document with concurrence from the committee. To this effect, the IBC Chair called for another vote (via email), pertaining to the following items:

Item #1: In light of the events and information noted above, it was the IBC Chair's recommendation that the motion and vote recorded at the December 4 meeting is retracted and a communication is sent to the PI to indicate that the work, as proposed in the amendment, may not proceed at this time. Further, to maintain compliance with the BMBL, no amendments proposing work with biological hazards in positively pressurized isolator systems such as the gnotobiotic flexible film isolator, will be considered by the IBC at this time.

Item #2: The IBC Chair made a motion that the IBC request LASP to provide an evaluation of the available, negatively pressurized engineering controls designed to conduct gnotobiotic work with biological hazards. Please reference the attached resource to further evaluate appropriate procedures and engineering controls for gnotobiotic work with biological hazards:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC6040836/>. This evaluation must be submitted to the IBC for review and consideration prior to submittal of any additional amendments requesting further research activities with negatively pressurized containment isolator and biological hazards.

v. Animal studies proposed: Yes, mice.

vi. *Committee discussion about the dual-use and ePPP potential of these experiments*: ePPP criteria do not apply to the described experiments

vii. Work is approved at Biosafety Level(s): The amendment is not approved.

viii. Relevant sections of the NIH Guidelines: N/A

ix. Committee vote/recommendations: The results of the votes on the two items above demonstrated unanimous agreement. Therefore, the amendment (A7) as submitted on October 28, 2025 is NOT APPROVED. A7 will be administratively removed from the TOPAZ IBC registration document.

IV. Committee Review of Inactivation Procedures (if not reviewed under a registration)

a. None

V. Standard Operating Procedures/Plans

a. None

VI. Serious Adverse Events in Clinical Trials reviewed by the Committee

a. Not applicable

VII. Committee Training

a. None

Reports

I. Biosafety Officer Report –

a. Near-Miss Ref# 4080: The Biosafety Officer reported a splash involving replication-incompetent viral material. The near miss occurred in a laboratory setting, where only in vitro work is conducted. A member of the laboratory was conducting supernatant filtration activities in the BSC. The appropriate PPE was worn during the procedure. The investigation revealed that there was a failure in the instrument used to conduct the filtration, which led to the splash exiting the BSC and eventually contaminating the employee's PPE. Laboratory leadership and the Biosafety Officer are working on mitigation strategies and additional training opportunities for staff.

II. Other reports

a. None

Around the Room/Committee Discussion

- I. Committee members were reminded to review the resources available on the IBC SharePoint site, pertaining to NIH's ongoing Biosafety Modernization Initiative (September 9, 2025, announcement)

Adjournment

- I. Meeting adjourned by IBC Chair at 2:30 pm.

Next Meeting

- I. January 8, 2026- Conference Room B, Building 549 (WebEx access available).