NIH Institutional Biosafety Committee Minutes
Location: Bethesda Main Campus
May 06, 2026
2:00 PM – 5:00 PM
Virtual via Microsoft Teams

Members present: (12)
Quorum met: Yes

Althea Treacy, RSBMB Chief (voting for Mike Kujawa)	Stephen Denny, animal research expert	Alicia Alexion, unaffiliated member (will be late)
Richard Baumann, BSO	Clevetta Drew, unaffiliated member	Robert Craigie, recombinant and molecular techniques
Bridgette Billioux, clinician, virology	Stephanie Goff, Clinician	Steve Whitehead recombinant and molecular techniques, virology
Robert Craigie, recombinant and molecular techniques		

- absent members: Luz Angela Rosas, Harry Malech,
*Provided comments *in absentia* for select secondary reviews

Guests present (9)

Rebecca Anderson (RML)	Howard Parnes (for Dr. Pinto)	Kaitlyn Connors
Grace Markley	Jocelyn Mendoza	Theresa Bell (NCI Fred)
Camellia Banerjee	Luca Giurgea	Diego Valdez-Oranday

Announcements & Call to Order

The meeting was called to order by Dr. Craigie at 2:00 PM.

Review of the Past IBC Meeting Minutes

01 April 2026 Minutes

a. Comments on minutes, as applicable
b. The minutes were unanimously approved with minor modifications and formatting corrections.

New Committee Business

I. BSO preliminary registration approvals since the previous meeting

a. Pathogen registrations (6 total): 26-BMC-115, 122-124, -126, -127
b. rDNA and rDNA/pathogen registrations: 26-BMC-116 (Bartley), III-E-1- Synthesis of recombinant antibody fragments for in-vitro and in-vivo assessments; 26-BMC-117 (Cohen), III-D-2-a / III-D-4-a- Generate HSV-2 vaccine candidates and examine their effects on HSV-2 infection, latency, and reactivation; registration updates and replaces registrations: RD-11-III-11 and 5395. This registration is an administrative replacement with no significant changes from prior approval. 26-BMC-118 (Feldmann), III-E-1-Recombinant monoclonal antibody and nanobody production. 26-BMC-119 (Zhang), III-E-1- Structures and interactions of noncoding RNA elements in stress responses and immunity. 26-BMC-120 (Lovinger), III-D-1-a / III-D-4-a The Role of Polyunsaturated Fatty acids in Neurodevelopment, Neuroprotection and Functional Recovery after Injury- Mouse Model; registration updates and replaces registrations: 24-BMC-178 and 7126. This registration is an administrative replacement with no significant changes from prior approval. 26-BMC-121 (Bell), III-E-1- Functional characterization of mutations in the ALK5 (TGFBR1) and FBXW7 genes in endometrial cancer; registration updates and replaces registrations 6149, 7028, RD-14-IX-07, and RD-14-V-05. This registration is an administrative replacement and consolidation with no significant changes from previous IBC approvals. 26-

BMC-125 (Barry) III-D-1-b / III-D-4-a- Improving chemotherapy of tuberculosis; registration for HIV, MTb MDR & XDR and BCG; This registration is an administrative replacement with no significant changes from prior approvals and replaces: RD-20-VIII-08, RD-20-IX-12, RD-20-IX-12b, 8270, 8271, 8272, and 8709. This registration is an administrative replacement and consolidation with no significant changes from previous IBC approvals.

c. Registration amendments: Approved RD amendments ('amend 250506') for the Minutes:

RD-22-VIII-09 (amend-Hoffman) RD-17-V-04 (amend-Petros) 24-BMC-194 (amend-Mayer)
RD-16-VI-10 (amend-Khan) RD-15-V-13 (amend-Khan) 25-BMC-129 (amend-Briggs)
RD-20-IX-13 (amend-Schiller) RD-23-IV-12 (amend-Hertzano) 25-BMC-156 (amend-Lee)
25-BMC-181 (amend-Abel) RD-17-VI-12 (amend-Yang) RD-23-IX-13 (amend-Brooks)
25-BMC-082 (amend-Nienborg) RD-20-X-03 (amend-Mayer) RD-19-VI-01 (amend-Kanekiyo)
RD-22-I-13 (amend-Grigg) RD-21-V-06 (amend-Dekker) RD-23-VIII-01 (amend-Szabo)
26-BMC-029 (amend-Oshea) RD-19-XII-02 (amend-Shih) 24-BMC-105 (amend-Boudjadi)
26-BMC-079 (amend-Appella) 26-BMC-026 (amend-Fujii) RD-23-XII-07 (amend-Moutsopoulos)
RD-15-II-11 (amend-Buchholz) 25-BMC-022 (amend-Hope) RD-17-IV-06 (amend-Rosenberg)
RD-23-IV-03 (amend-Rosenberg) 25-BMC-077 (amend-Schuck) RD-22-XII-05 (amend-Schiller)
24-BMC-170 (amend-Koretsky) RD-20-XII-08 (amend-Dekker) RD-22-II-08 (amend-Ruckwardt)
25-BMC-214 (amend-Franchini) RD-16-IX-02 (amend-Bartolome) RD-23-IV-09 (amend-Dekker)
26-BMC-079 (amend-Appella) RD-23-IV-10 (amend-Ivanovich)

d. Committee discussion: No committee members voiced comments or concerns.
e. After providing descriptions, the BSO asked if there were any questions or concerns with the preliminary approvals. Hearing none, and following the formal review and discussion at the meeting, the IBC concurs unanimously with and formally approves the registrations and registration amendments.

II. Registrations and other submissions for Committee Review

a. Clinical trial reviews

26-BMC-128, Shah, Nirali (Alexandra Dreyzin presenting slides)

i. Reviewers: Goff, Billioux, All
ii. Review summary: Dr. Shah presented the NCI study "*Phase 1/2 Study of Anti-CD123 Chimeric Antigen Receptor-Expressing T-Cells (CD123CART) in Children and Adults with Relapsed/Refractory Acute Myeloid Leukemia*". The purpose of the trial is to test the safety of autologous CD123-targeted chimeric antigen-receptor (CAR) T-cells in patients with relapsed/refractory acute myelogenous leukemia (AML). The primary objective is to conduct a Phase 1 dose-escalation clinical trial to test safety and to identify a maximal tolerated dose. Secondary objectives include testing the efficacy of these CAR T-cells in treating AML.

Survival in patients with relapsed/refractory acute myelogenous leukemia (AML) is poor, and treatment options are limited after initial chemotherapy. While chimeric antigen receptor (CAR) T-cells have demonstrated tremendous response in B-cell acute lymphoblastic leukemia (B-ALL), currently, there are no commercially available cell therapies that target AML. CD123 is a surface marker that is present on AML blasts, and higher expression of CD123 is associated with worse clinical outcomes. Targeting CD123 with antibodies or T-cell therapies offers a potential new option for treating refractory AML. CD123 CAR T-cells have shown preliminary efficacy in other studies, but persistence remains a problem, limiting their ability to clear AML. To address the issue of persistence and improve anti-leukemia efficacy, the construct proposed in this study is fully human and will be manufactured in the presence of dasatinib to optimize T-cell fitness at the time of infusion. Dasatinib, a tyrosine kinase inhibitor, has been studied and demonstrated to slow T-cell differentiation which may improve the final T-cell characteristics of the infusion product.

Background information was provided by slides including vector map. There are no currently approved cell therapies that target AML. Concern regarding immune-suppressive environment in the bone marrow. The research group anticipates and plans to monitor cytokine release and mild toxicities that have been observed in studies involving CD123, including capillary leaks. There are options to de-escalate dose if needed. Bone marrow samples will be characterized in this study.

iii. Committee discussion:
- This is a lentiviral vector from commercial provider, and all safety of the construct is well-covered. The therapeutic is well-handled once at NIH. From an IBC perspective this is similar to many other protocols that have been reviewed.
- The protocol is well described, and this is a fully human CD123 CAR-T which could help with toxicity issues, and the vector map from the manufacturer source was provided. Evaluating both safety and response.
- One reviewer asked whether it's expected that bone marrow transplant (BMT) might be needed after treatment. The research group responded that if patients have severe cytopenia, then this may be the case and a BMT may be necessary. There may be an effect of the cells that may create that problem that would be clinically identified.

iv. Bloodborne pathogen training (BBP) for anyone handling clinical samples, and PPE as appropriate for standard precautions and as determined by risk assessment including gloves, gown, and face protection would help mitigate risks of inadvertent exposure during agent preparation and administration, especially when working outside of primary containment such as a Biological Safety Cabinet (see other protocol details in registration).

v. Animal studies proposed: N/A

vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.

vii. There were no additional public comments.

viii. The clinical protocol is approved with standard precautions as described in place for handling therapeutic agent including gown gloves and surgical mask.

ix. Relevant sections of the NIH Guidelines: III-C-1.

x. The committee unanimously approved as written.

xi. There were no conflicts of interest indicated.

26-BMC-129, Rosenberg, Steve (with Peter Kim)

i. Reviewers: Billioux, Goff, All

ii. Review summary: Dr. Rosenberg presented the NCI study "*Phase I/II study of autologous T-cells genetically engineered to express drug-regulatable, inducible, and membrane-bound interleukin 12 (DRIM-IL-12) and T-Cell receptors against neoantigens (e.g., KRAS, p53) in metastatic solid tumors*".

The primary objectives of the study are: 1) Phase I: To determine the safety of the administration of increasing doses of autologous PBL cotransduced with genes encoding anti-tumor T-cell receptors (TCRs) along with genes encoding DRIM-IL-12, a drug regulatable, inducible, and membrane bound IL-12 and establish a maximum tolerated dose (MTD) and 2) Phase II: To evaluate the objective clinical response rate of ACT with DRIM-IL-12- TCR.

The laboratory has developed approaches to identify neoantigen reactive T-cells from common non-melanoma cancers, to isolate their T-cell receptors (TCR), and to genetically engineer autologous peripheral blood lymphocytes (PBL) to express these TCRs with high efficiency. The neoantigen TCR gene-modified cells can recognize and destroy the autologous cancer in vitro.

- With these techniques, they have isolated several TCRs selectively recognizing shared mutated oncogenes (e.g., KRAS, TP53) or shared oncoviral proteins (e.g. HPV) in the context of several major histocompatibility complexes (MHC-I and MHC-II).
- The Surgery Branch has conducted clinical studies of the adoptive transfer of autologous circulating lymphocytes transduced with genes encoding unique and shared T-cell receptors. This

has resulted in clinical objective responses in 4 of 25 patients receiving TCRs against shared KRAS or p53 mutations and in 3 of 14 responses in patients receiving TCRs against unique cancer mutations.

- Interleukin 12 (IL-12) is known to enhance the effector functions of adaptive immunity, and in various murine tumor models, IL-12 has been shown to improve anti-tumor immune responses. Despite its potent activity, the clinical use of IL-12 has been limited due to severe systemic toxicity when administered intravenously.
- To address IL-12's effectiveness and toxicities, the Surgery Branch conducted a clinical trial using TILs from metastatic melanoma genetically engineered to express a nuclear factor of activated T cells (NFAT) inducible secreted IL-12. In this phase I dose-escalation trial, high rates of clinical responses were seen among the high-dose TIL-treated group (3e8- 3e9 cells). However, all patients at this dose level suffered significant toxicities with elevated serum IL-12 and interferon gamma (IFN-y) levels likely due to "leaky" IL-12 expression under the NFAT-inducible system.
- Modifications to improve the original NFAT-inducible system include a lenalidomide-responsive "drug-off" degron motif and tethering of IL-12 by incorporation of a transmembrane domain.
- Combining the lenalidomide degron and the NFAT inducible system achieved tight regulation of IL-12 expression in T cells. In addition, a transmembrane domain was incorporated, resulting in minimal to no detectable systemic release of IL-12 in vitro and in mice.
- Phase I of this clinical protocol is designed in a dose escalation format to establish a safe dose of DRIM-IL-12 gene-engineered TCR-modified PBL. Phase II is designed to evaluate efficacy of the adoptive transfer of DRIM-IL-12-TCR.

iii. Committee Discussion:

- A self-inactivating gamma retrovirus will be employed using the two major chains of the IL-12, and the vector has a lenolidamide degradation domain, which can be used to control expression. There will be no secreted IL-12, and dosing will start at 10E9 cells. The different constructs are listed appropriately and there is the 3-year and further 15-year follow up of patients.
- The rapid dose escalation design is relatively safe.
- Doing this in conjunction with the neoantigen particular to that patient (up to 5). The committee asked whether patients typically have so many neoantigens. The research team clarified that the study would use TCR for p53 and KRAS and possibly others.

iv. Expected training is BBP for anyone handling clinical samples, and PPE as appropriate for standard precautions and as determined by risk assessment including gloves, gown or labcoat, and eye protection.
v. Animal studies proposed: N/A
vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.
vii. There were no additional public comments.
viii. The clinical protocol is approved with standard precautions as described in place for handling therapeutic agent.
ix. Relevant sections of the NIH Guidelines: III-C-1.
x. The committee unanimously approved as written.
xi. The clinician Dr. Stephanie Goff recuses herself for the review of this clinical trial.

26-BMC-131, Hertzano, Ronna

i. Reviewers: Billioux, Goff, All
ii. Review summary: Dr. Hertzano presented the NIDCD study "*A Phase 1/2, open-label, single dose study of SKY-GJB2 given as a single unilateral intracochlear administration in pediatric subjects with GJB2-mediated hearing loss*". Patients are being invited to participate in a research study because they have GJB2 mutation-mediated hearing loss. This research study is designed to learn more about the safety and effectiveness of SKY-GJB2 given to individuals who have been diagnosed with GJB2 mutation-mediated hearing loss. SKY-GJB2 is a type of virus known

as adeno-associated virus that has been designed to deliver a working GJB2 gene to the inner ear. Because SKY-GJB2 is unable to copy itself or spread, it cannot cause an infection.

Hearing loss due to mutations in the GJB2 gene is currently treated only with amplification or cochlear implantation. For patients with profound hearing loss, these interventions do not restore normal hearing. If hearing loss resulting from recessive mutations in GJB2 can be reversed by gene replacement, this could provide patients with better access to sound and hearing and improved quality of life.

Skylark's novel gene therapy, SKY-GJB2, is designed to directly restore GJB2 function in the ear by delivering the human GJB2 gene via a novel adeno-associated viral (AAV) gene therapy.

iii. Committee Discussion:

- These are the cells that support the hearing cells and mutations in this gene (GJB2) case a large amount of hearing loss cases (25-40%). A similar study from Regeneron was just approved last week using an AAV vector. So far, the safety profile of these similar studies has looked very positive. If degradation of the cells occurs, then this approach becomes less advantageous. Safety and efficacy of the treatment will be assessed.
- Product preparation will be in a biosafety cabinet.
- The viral construct has not been shared.
- The is no potential DURC and the committee had absolutely no comments or concerns in this regard for the clinical trials discussed. Community members commented on the serious degree in which the IBC does its business and was grateful for such oversight.

iv. Expected training is BBP for anyone handling clinical samples, and PPE as appropriate for standard precautions and as determined by risk assessment including gloves, gown or labcoat, and eye protection and as described (see in registration).

v. Animal studies proposed: N/A

vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.

vii. There were no additional public comments.

viii. The clinical protocol is approved with standard precautions as described in place for handling therapeutic agent.

ix. Relevant sections of the NIH Guidelines: III-C-1.

x. The committee unanimously approved the clinical trial as written with precautions described.

xi. There were no conflicts of interest indicated.

b. Special reviews

SR01 26-BMC-136, Feldman, Heinz

i. Reviewers: Craigie, Denny, All

ii. Review summary: The NIAID investigators propose to study CCHFV. This registration covers CCHFV reverse genetics, minigenome systems and virus like particle studies. These systems will be used to understand the molecular aspects of the virus life cycle, pathogenesis and support evaluation of vaccines and antivirals. Detailed molecular biology and pathogenesis of CCHFV remains to be elucidated. To this end, the systems described in this document will be utilized to study the molecular aspects of the virus life cycle, pathogenesis, and vaccine development. Recombinant viruses may be used in mouse models. Replication incompetent virus-like particles will be used as BSL-2 surrogates for CCHFV.

iii. Committee Discussion:

- Replication incompetent VLPs will serve as a surrogate.
- Will evaluate vaccine and antiviral treatments targeted at CCHFV.
- Prokaryotic work is III-D-2-a and can be performed at BSL-1. Eukaryotic work rescuing cells with transduced plasmids for VLPs can be performed at BSL-2. Any infectious work with CCHFV is approved at BSL-4.

- One reviewer asked where this activity will be occurring and if this a Frederick ASP, which it is. One asked what the planning is for doing VLP work at ABSL-4? There is no plan to use VLPs in ABSL-4. All rescue of live virus will be done at ABSL-4.

iv. Training in line for work in the BSL-2 or BSL-4 environment including laboratory safety training and BBT training for those working with human materials. PPE requirements in-line with regular laboratory requirements for this level.

v. Animal studies proposed: No animal work was discussed in context of this amendment.

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposed amendment.

vii. There were no additional public comments.

viii. Work is approved at: Prokaryotic work is approved at BSL-1. Eukaryotic work (with VLP particles) is approved at BSL-2, with no infectious virus being handled. Animal work is approved at ABSL-4, there currently are no plans to do VLP work at ABSL-4.

ix. Relevant sections of the NIH Guidelines: Prokaryotic work is approved under Section III-D-2-a of the NIH Guidelines. Eukaryotic work is approved under III-D-3-a, animal work is approved under III-D-4-a.

x. The committee unanimously approved as written.

xi. There were no conflicts of interest indicated.

SR02 25-BMC-067 amend 260506, Holbrook, Michael

i. Reviewers: Whitehead, Denny, All

ii. Review summary: The NIAID group is adding an additional ASP in mice for their filovirus work. The model allows for infections on WT Ebola virus strains. The animal protocol is entitled 'Discovery of small molecule direct-acting inhibitors of filovirus infection' that focuses on therapeutic testing of anti-filovirus compounds in mice. This study examines the inhibitory effect of small molecules on Ebola and Sudan virus infection using wild-type virus in interferon knock-out (IFNAR-KO) mice. These compounds will be tested for efficacy in cell culture prior to being assessed in animals (mice). The research group expects that these compounds will display at least partial protection in this model as compounds will be delivered shortly after virus inoculation. Important to minimize worker exposure to aerosols, such as working in a certified Class II BSC and using gasketed bucket covers when centrifuging active materials.

iii. Committee Discussion:

- Animal work including mice inoculated with Ebola and Sudan virus was discussed. The group currently has 5 ASPs for studying filovirus. Treatment with inhibitors is either done IP inoculation or orally 4 hours post exposure. Mice are monitored for weight changes, and infection. All work will be at ABSL-4.
- Section K for ASP needs to be updated with additional safety language for the ABSL box.
- The committee discussed the potential for DURC or ePPP concerns and there are no issues in that regard and the secondary reviewer agreed.

iv. Expected training is BBP for anyone handling human cells or materials, and appropriate training per the BSL for the high containment laboratories. A 1-2-3 poster must be displayed in the laboratory and all personnel on this registration must maintain annual lab safety through the Division of Safety. PPE as established for these laboratories and locations (see in registration).

v. Animal studies proposed: Yes (mice) approval to be ABSL-4.

vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this protocol.

vii. There were no additional public comments.

viii. Work is approved at: Prokaryotic work is approved at BSL-1. Eukaryotic work is approved at BSL-4. Animal work is approved at ABSL-4.

ix. Relevant sections of the NIH Guidelines: Prokaryotic work is approved under Section III-D-2-a of the NIH Guidelines. Eukaryotic work is approved under III-D-3-a, animal work is approved under III-D-4-a.

x. The committee unanimously approved the proposal as written and with minor changes to be done to the ASP.
xi. There were no conflicts of interest indicated.

SR03 24-BMC-228 amend 260506, Holbrook, Michael

i. Reviewers: Denny, Lee, All
ii. Review summary: This is an amendment to the group's existing registration 24-BMC-228 entitled "Understanding tick-borne flavivirus pathogenesis". The group proposes to add animal work to study arbovirus pathogenesis in mice (TBEV, others). These amendments are just adding work to test the virus. Mice are used to evaluate responses to these viruses. Mice will be used to evaluate viral pathogenesis, host immune response and transcriptomic response following exposure to tick-borne encephalitis virus and Kyasanur Forest disease virus. Additional work will evaluate different targeted imaging probes for correlating histopathologic and immunologic findings. This amendment
adds the associated animal study protocol to this registration.

iii. Committee Discussion:
- Animal work is approved at BSL-4, consistent with III-D-4-b.
- Animals administered via foot pad infection to do testing and reaction to virus or vaccines.
- Examine arbovirus pathogenesis in mice and transcriptomic responses. Eukaryotic work was previously approved at BSL-3 (if staff are vaccinated, otherwise at BSL-4, consistent with III-D-3-a.
- The committee discussed the potential for DURC or ePPP concerns and had no concern regarding this proposal as the original registration was already approved in animals and nothing of concern is being performed in this proposal.

iv. Expected training is BBP for anyone handling human cells or materials, and appropriate training per the BSL for the high containment laboratories. A 1-2-3 poster must be displayed in the laboratory and all personnel on this registration must maintain annual lab safety through the Division of Safety. PPE as established for these laboratories and locations (see in registration).
v. Animal studies proposed: Yes, adding an additional protocol in mice.
vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this registration amendment.
vii. There were no additional public comments.
viii. Work is approved at: Eukaryotic work is approved at BSL-3 previously. Animal work is approved at ABSL-4.
ix. Relevant sections of the NIH Guidelines. Eukaryotic work is approved under III-D-3-a, animal work is approved under III-D-4-b.
x. The committee unanimously approved the proposal with minor changes to be done to ASP as mentioned.
xi. There were no conflicts of interest indicated.

SR04 24-BMC-147 amend 260506, Holbrook, Michael

i. Reviewers: Denny, Lee, All
ii. Review summary: This is an amendment to registration 24-BMC-147 entitled "Understanding alphavirus pathogenesis and medical countermeasure development", in which they are adding the associated ASP to assess their work with arboviruses. Viruses being studied include VEEV, EEEV, WEEV, Chikungunya and Madariaga viruses. The purpose of this ASP is to examine arbovirus pathogenesis in mice. Mice will be used to evaluate viral pathogenesis, host immune response and transcriptomic response following exposure to arboviruses. Additional work will evaluate different targeted imaging probes for correlating histopathologic and immunologic findings.

- Committee Discussion:
- Agents have already been included in approved registration. Eukaryotic work with all viruses and strains listed can be approved at ABSL-3, consistent with guidelines III-D-3-a. (although they will be performing this work at ABSL-4 at this facility)
- Study pathogenesis and immune responses in animals. Mouse blood and carcass tissues will be handled in the laboratory (all at ABSL-4/BSL-4)
- The committee discussed the potential for DURC or ePPP concerns and had no concern regarding this.
- Secondary reviewer had nothing else to add.

iv. Expected training is BBP for anyone handling human cells or materials, and appropriate training as already established per the approved registration and BSL for the maximum containment laboratories. A 1-2-3 poster must be displayed in the laboratory and all personnel on this registration must maintain annual lab safety through the Division of Safety. PPE as established for these laboratories and locations (see in registration and consult with onsite safety personnel).
v. Animal studies proposed: Yes, approved at ABSL-4.
vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.
vii. There were no additional public comments.
viii. Work is approved at: Eukaryotic work previously established at BSL-4. New animal work proposed here is approved at ABSL-4.
ix. Relevant sections of the NIH Guidelines: Animal work is approved under III-D-4-b of the NIH Guidelines.
x. The committee unanimously approved the amendment request as written.
xi. There were no conflicts of interest indicated.

SR05 24-BMC-154 amend 260506, Holbrook, Michael

i. Reviewers: Denny, Lee, All
ii. Review summary: This is an amendment to registration 24-BMC-154 entitled "*Identifying mechanisms of attenuation of apathogenic viruses from multiple families*", in which they study lower pathogenicity viruses from a number of different families. Lower pathogenic and non-pathogenic studies are described. Objective is to maintain stocks of the isolated virus under this registration. All are handled at the bench at BSL-2 and animal work is approved at ABSL-4. Mice will be used to evaluate viral pathogenesis, host immune response and transcriptomic response following exposure to neurotropic arbovirus infection. Attenuated viruses (i.e. Langat, chikungunya virus 181/25 Vaccine strain, and VEEV TC-83) will be used infection controls to understand the difference between a controlled infection and a highly pathogenic infection- therefore the comparative work will be performed at ABSL-4. Additional work will evaluate different targeted imaging probes for correlating histopathologic and immunologic findings. This amendment adds the associated animal study protocol to this registration.

- Committee Discussion: All animal work will be done at ABSL-4, however this is to study apathogenic isolates in comparative studies. All attenuated versions handled at the bench at BSL-2. (III-D-3-a). Mouse work is consistent with III-D-4-b. ASP attached was descriptive.
- The group was asked to clarify exactly what this registration involved and how BSL-2 and BSL-4 work would be managed. The group clarified that all animal work would be done at ABSL-4. Any lab work with lower pathogenic organisms is done at BSL-2, but once they go in, they are treated as if BSL-4, and they never come back out. Idea is to compare with the more pathogenic viruses.
- One attendee asked about whether their plan is to use their approved inactivation methodologies to be able to remove inactivated material, and the research group affirmed that plan.

- The committee discussed the potential for DURC or ePPP concerns and had no concern regarding this.
- Secondary reviewer had no additional comments.

iv. Expected training is BBP for anyone handling human cells or materials, and appropriate training as already established per the approved registration and BSL for the BSL-2 environment and maximum containment laboratories. A 1-2-3 poster must be displayed in the laboratory and all personnel on this registration must maintain annual lab safety through the Division of Safety. PPE as established for these laboratories and locations (see in registration and safety personnel).
v. Animal studies proposed: yes, animal work is approved at ABSL-4.
vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.
vii. There were no additional public comments.
viii. Work is approved at: Eukaryotic work with lower pathogenic or apathogenic organisms is approved at BSL-2. Animal work proposed is approved at ABSL-4.
ix. Relevant sections of the NIH Guidelines: Eukaryotic work is approved under Section III-D-2-a of the NIH Guidelines. Animal work is approved under III-D-4-b.
x. The committee unanimously approved as written.
xi. There were no conflicts of interest indicated.

SR06 25-BMC-050 amend 260506, Whitehead, Stephen

i. Reviewers: Lee, Craigie, All
ii. Review summary: This is an amendment to the existing registration 25-BMC-050 entitled “(BSL-3) Encephalitic flaviviruses (JEV, MVEV, POWV)” in which the NIAID investigator wishes to add viruses Murray valley and Powassan virus to the BSL-3 registration. Both are flaviviruses. MVEV is similar to West Nile and Japanese encephalitis virus and transmitted by mosquitoes, POWV is a tick-borne virus. Both are proposed to be handled at BSL3, which is appropriate. The laboratory will not be using any reverse genetics or recombinant DNA methods with these viruses and will only be adding them as pathogens to this registration. Stocks of MVEV will be grown and titered in tissue culture for use in in-vitro antibody neutralization assays, performed with both monoclonal antibodies and polyclonal sera. Based on the suitability of MVEV in these in vitro assays, they may consider using MVEV to establish a challenge mouse model in the future, in which the efficacy of novel MVEV antibodies and vaccine candidates can be tested. If they propose animal work, they will provide an amendment to ASP LVD8E. POWV will be grown and titered in tissue culture and will be used for the preparation of infected cell slides as positive controls in histological analysis of potential POWV-infected tissue samples. Animal studies with POWV are not proposed at this time.

iii. Committee Discussion: No reverse genetics or other recombinant work is planned here, just adding pathogen work for experiments as described.
- All DURC questions are “no” which is appropriate.
- No recombinant, or reverse genetics is proposed- no animal work with Powassan virus is submitted, reviewed or approved in this registration. Work will be done in the BSL-3 laboratory.
- No prokaryotic work. Interestingly, for Murray Valley, a DOC Permit may be required for interstate transport of the Murray Valley virus, and the PI will check for this for interstate transport, biorisk will assist- it is possible information could be old, usually the USDA is the agency of oversight for this type of transfer. This virus is already in the US, and the PI will check if this is required. If leaving the Us, then consideration would be made for DOC jurisdiction requirements.
- Secondary reviewer has no additional comments.

iv. Expected training is BBP for anyone handling human cells or materials, and appropriate training per the BSL-3 level for the high containment laboratories. A 1-2-3 poster must be displayed in the laboratory and all personnel on this registration must maintain annual lab safety through the Division of Safety. PPE as established for these laboratories and locations (see in registration).
v. Animal studies proposed: N/A, not discussed in this registration.
vi. The committee discussed the dual-use and ePPP potential of these experiments and agreed that there were no dual-use or ePPP concerns with this clinical protocol.
vii. There were no additional public comments.
viii. Work is approved at: Prokaryotic work is approved at BSL-1. Eukaryotic work is approved at BSL-3.
ix. Relevant sections of the NIH Guidelines: Prokaryotic work is approved under Section III-D-2-a of the NIH Guidelines. Eukaryotic work is approved under III-D-3-a.
x. The committee unanimously approved as written.
xi. There were no conflicts of interest indicated.

SR07 26-BMC-142, Feldman, Heinz

i. Reviewers: Craigie, Lee, All
ii. Review summary: The laboratory has submitted a registration entitled "*Phenuiviridae*". The NIAID investigators work with RVFV, SFTSV (Severe Fever and Thrombocytopenia Syndrome Virus), and Heartland virus, all spread by infected ticks. Viral preparations will be propagated and titered in eukaryotic cells. These viruses will be characterized in vitro using standard virological assays including growth kinetics, assessment of genome replication and transcription by strand specific qRT-PCR, viral gene expression by Western blotting, and microscopy (immunofluorescent and electron). Some viruses will be analyzed in relevant animal models of infection, only animal work with SFTSV is planned at this time. Future animal work with other viruses will be submitted by amendment when planned. These viruses will be used to investigate the host and viral determinants of pathogenesis and evaluate countermeasures.

iii. Committee Discussion:
- The registration is for working with viruses, and no rDNA work is being proposed. Eukaryotic work in cells is proposed, and virus will be isolated from these cells. Cells being used should be specified. This can be approved at BSL-3, or at the IRF at BSL-4. Work with RVFV MP-12 may be done at BSL-2. Animal work is only being proposed with SFTSV.
- For the animal work, only with SFTFV in animals, for the other viruses, amendments will be submitted. Mice may be challenged with the virus, approvable at ABSL-3, approved at the IRF ABSL-4 facility at ABSL-4.
- Must change the description 'any fridge or freezer' for storage of the viruses to specify exactly where the viruses will be stored.

iv. Training on the SOP should be given so all laboratory personnel are aware of the SOP. PPE requirements in-line with regular laboratory requirements for this level.
v. Animal studies proposed: Yes, for SFTFV to be done at ABSL-4. (no rDNA work, if recombinant III-D-4-a would apply)
vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposed amendment.
vii. There were no additional public comments.
viii. Work is approved at: No prokaryotic work is proposed. Eukaryotic work is approved at BSL-3 (BSL-4 at IRF) and BSL-2 for the attenuated strain MP-12. Animal work is approved at ABSL-4.
ix. Relevant sections of the NIH Guideline: N/A as only work with WT pathogens is being proposed here.
x. The committee unanimously approved as written.
xi. There were no conflicts of interest indicated.

SR08 26-BMC-143, Feldman, Heinz

i. Reviewers: Craigie, Lee, All

ii. Review summary: The NIAID investigators study *Nairovidae* and will be propagating these viruses and characterizing them. The NIAID investigators work with Crimean-Congo Hemorrhagic Fever Virus (CCHFV), Dugbe virus, Nairobi Sheep disease virus, and Hazara virus. Viral preparations will be propagated and titered in eukaryotic cells. These viruses will be characterized in vitro using standard virological assays including growth kinetics, assessment of genome replication and transcription by strand specific qRT-PCR, viral gene expression by Western blotting, and microscopy (immune-fluorescent and electron). Some viruses will be analyzed in relevant animal models of infection. Some orthonairoviruses such as CCHFV are important human pathogens. Others such as Nairobi sheep disease virus are important veterinary pathogens while others such as Hazara virus are not known to cause disease in animals or humans. These viruses will be used to investigate the host and viral determinants of pathogenesis and evaluate countermeasures.

iii. Committee Discussion:

- David Hawman relocated to IRF-Frederick. Dr. Feldmann is dual appointment between IRF and RML. Safety will add people after the research becomes established. These protocols are already approved at RML.
- CCHFV are important human viruses, others are important animal viruses, some like Hazara are neither (except severely immune-competent mice). Viruses will be propagated in eukaryotic cells. Clades should be given for these viruses.
- No DURC or ePPP concerns are present in this project, no work with rDNA or synthetic NA is described.
- Work is approved at BSL-4 for CCHFV, Hazara virus can be worked with at BSL-2.
- Rooms must be identified for storage within the IRF (e.g. remove language stating 'any fridge or freezer'). Cells need to be marked with what human tissues are being used. Indicate a permit is required; however, no permit is attached. For Hazara virus handling at BSL-2 is appropriate. Permit requirements should be vetted through the QPSO.
- Conducting inactivation testing is mentioned for many different viruses and using BSL-2 surrogates. Orthomyxoviruses are NOT covered under this registration. Hazara virus is not acceptable for all bunyaviruses (an entire class). Inactivation data has to be performed with like FAMILY members. Supporting information must be submitted under the registration to which it applies. Approvals are typically given as per the tested amount in the inactivation assay.
- Cloning plasmids were attached in error. The secondary reviewer had no additional comments.

iv. Training on the SOP should be given so all laboratory personnel are aware of the SOP. PPE requirements in-line with regular laboratory requirements for this level.

v. Animal studies proposed: No animal work was discussed in context of this amendment. ASP needs to be provided.

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposed amendment.

vii. There were no additional public comments.

viii. Work is approved at: No prokaryotic work is proposed. Eukaryotic work is approved at BSL-4.

ix. Relevant sections of the NIH Guidelines: N/A since work with WT viruses is approved.

x. The committee unanimously approved as written.

xi. There were no conflicts of interest indicated.

SR09 Exposure Control Plan, Baumann, Richard To be annually reviewed. Edits to be sent electronically.

c. Registrations for committee review

26-BMC-132, Muljo, Stefan

i. Reviewers: Craigie, Denny

ii. Review summary: This NIAID study is entitled "*Elucidating the function of genes in human or mouse cell lines*", describing several multi-aim projects in one registration.

Project 1: They wish to investigate MATRIN3 (MATR3), a multi-functional, nuclear RNA-binding protein that is broadly expressed across human cell types. To understand MATR3 function(s) in relation to human health and disease they propose: (1) to determine whether MATR3 protein is degraded upon Herpes Simplex Virus-1 (HSV-1) infection of a cell line, (2) to determine the functional activity of MATR3 proteins harboring mutations observed in familial amyotrophic lateral sclerosis (ALS)

Patients, and (3) to perform a CRISPR library screen to identify factors required for activation of interferon-stimulated genes (ISGs) in MATR3-deficient human cells.

In Project 2: They will investigate the roles of LIN28 and KLF4 in cells. They aim to (1) determine the downstream effects of LIN28 transduction, and (2) the downstream effects of KLF4 transduction

In Project 3: They will try to detect RNA-DNA hybrids in cells by generating a recombinant protein that can be used to stain RNA-DNA hybrids inside cells

iii. Committee Discussion:

- Prokaryotic work will be working with cells- III-D-2 and BSL-1. They propose to purchase the BSL-2 virus HSV-1 strain KOS and HSV-2 strain G, and infect human cell lines: HAP1, HeLa and HEK293T. Following infection (2-24 h), cells will be lysed for Western blot analysis to detect MATR3 protein levels. If MATR3 is degraded, an earlier timepoint will be harvested such that MATR3 can be immunoprecipitated then subjected to Western analysis using anti-sumo antibodies. If MATR3 is degraded following HSV-1 infection, they propose to transiently transfect an expression plasmid encoding ICP0. This experiment should demonstrate that ICP0 is responsible and sufficient for the sumoylation and subsequent degradation of MATR3 protein.
- Eukaryotic work (project 2) proposes to transfect expression plasmid into human cell lines as described. They will transduce MATR3 KO human HAP1 cells with commercially made, lentiviral Cas9. In collaboration with Dr. Pedro Batista (NCI) and screen a custom lentiviral CRISPR library targeting ~1000 RNA-binding proteins. If this pilot screen is successful, they may perform a genome-wide screen using a pooled library. These CRISPR libraries use the lentiGuide-Puro plasmid backbone. They will also transduce human HAP1 cells with commercially made lentiviral particles encoding LIN28, KLF4, or a negative control. Transduced cells will be subjected to analyses including flow cytometry, RNA-seq and Western blot.
- Project 3 aims to generate a recombinant protein that can be used to stain RNA-DNA hybrids inside cells. Recombinant protein will be purified as previously described using the GFP-RnaseH1 D210N plasmid.
- There are no DURC related issues.
- Most can be approved at BSL-2; however, the second-generation lentiviral packaging work can be approved at BSL-2 with certain level 3 practices.

iv. Training and PPE requirements as established with BSL to be in line with a BSL-2 laboratory, to include laboratory safety training and BBP training for individuals handling any human materials. PPE standards include protective labcoat, gloves and eyewear.

v. Animal studies proposed: Not described

vi. The committee discussed the dual-use and ePPP potential of these experiments. All answers were "no" and the committee agreed that there were no dual-use or ePPP concerns with the proposal so long as no GOF experiments were being performed.

vii. There were no additional public comments.

viii. Work is approved at: Prokaryotic work is approved at BSL-1, most eukaryotic work is approved at BSL-2, eukaryotic work with second generation lentiviral packaging is approved at BSL-2/3. No animal work is proposed by this investigator.

ix. Relevant sections of the NIH Guidelines: Prokaryotic work is at III-D-2-a, eukaryotic work is approved under III-D-3-a.

x. The committee unanimously approved with minor modifications and clarifications as discussed.

xi. There were no conflicts of interest identified.

26-BMC-133, Whitehead, Stephen

i. Reviewers: Lee, Craigie

ii. Review summary: The NIAID investigator is submitting this registration entitled “Zika Virus Preclinical Research” to describe pre-clinical research with Zika virus. It is a resubmission and consolidation of previous registrations #6660, 6679, RD-16-I-12 and RD-16-II-09. The primary focus of the ZIKV research is to create live attenuated vaccine candidates to protect against ZIKV. The research flow involves isolation of wt ZIKV, sequencing, recombinant derivation of ZIKV, attenuation of recombinant viruses using genetic methods, preclinical testing of candidate vaccine strains, and preclinical testing ZIKV challenge strains.

To address Zika virus the investigators have sought to develop live attenuated vaccine candidates that would be compatible for co-formulation with an existing tetravalent dengue vaccine. They will make several versions. Recombinant chimeric viruses expressing the prM and E proteins of Zika virus on either the DENV-2 or DENV-4 background will be generated and evaluated in rhesus monkeys. Additional candidates will be created and evaluated in preclinical studies and include full-length ZIKV candidates containing 3’-UTR deletions and microRNA targets that restrict virus replication in tissues (brain, placenta, epididymis, and certain macrophage types). ZIKV isolates (either biologically- or recombinantly-derived) will be used for several approaches: 1. Isolate ZIKV from infected serum or mosquitoes and prepare working stocks of infectious ZIKV in tissue culture -Vero, LLC-MK2, C6/36, 2. Recombinant ZIKV provides a background for the rational design of newly mutated viruses with phenotypes of interest, 3. Recombinant ZIKV and DENV can be used to share attenuation mechanisms between different virus types by exchanging genome regions (chimerization), 4. isolated viruses will be prepared for future use as controlled human infection models (challenge viruses), 5. Use as control viruses in tissue culture plaque titration assays, 6. Use as target virus in plaque reduction neutralization assays, 7. Use as antigen in ELISA, 8. To study ZIKV infectivity for mosquitoes, and 9. Study replication, immunogenicity, and pathogenicity of ZIKV in mice and NHPs.

iii. Committee Discussion:

- This is a consolidation of work approved previously by the IBC, so this is mostly a review. Recombinants were made with dengue and zika virus as described previously.
- No clinical work is being proposed or performed here. These are being created here at the NIH or in a collaborators laboratory. Prokaryotic work in E. coli. Chimeric viruses are being created which attenuate the virus for use as vaccine candidates. Clinical trials are performed in conjunction with Johns Hopkins and their IBC reviews those trials.
- Attenuating methods: Mutations associated through passaging, deletion of RNA structural elements, incorporation of multiple RNA types, chimerization, etc.
- The reviewer asked if there are considerations regarding effects to immunocompromised individuals? In natural infections they do not see a difference in this population. ACL-2 for insectary work in mosquitoes.
- The dual use question of host range consideration was answered “yes”, also for tropism considerations. And “yes” for creating a novel pathogen. Most viruses have been tested in the clinic. The IBC discussed the DURC and ePPP considerations for research and this project involves no concerns regarding this, all answers on the DURC form were correctly

answered in full transparency and the Dual Use aspects of this research have already been reviewed previously by the DURC-IRE.

iv. Training and PPE requirements as established with the ABSL-2 level, to include laboratory safety training and animal training requirements per OACU.
v. Animal studies proposed: Yes, mice (LID-8E) and NHPs (LID-9E) for replication studies and pathogenicity studies.
vi. There were no dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.
vii. There were no additional public comments.
viii. Work is approved at: Eukaryotic work at BSL-2. Animal work at ABSL-2 practices and containment
ix. Relevant sections of the NIH Guidelines: III-D-3- a for eukaryotic work. Animal work approved at III-D-4-a, ABSL-2, and using NIH MC 3044-2 for work with NHPs.
x. The committee unanimously approved as written.
xi. Dr. Whitehead abstained from voting as this was his registration proposal.

26-BMC-134, Schiller, John

i. Reviewers: Billioux, Whitehead
ii. Review summary: The NCI investigators submitted a protocol entitled “Assessment of a genetically modified human cancer line (CaSki) to assess the role of MHC-1 presentation in intratumoral immunotherapy”. This group is working with modified cancer lines with CRISPR CAS9 and/or by retrovirus transduction to investigate genetic pathways involved in resistance to cancer immunotherapy. To achieve this, they plan to use genetically modified cell lines for selected genes. They have obtained the cell line CaSki transduced with GFP and modified with a guide RNA to block the expression of the human beta 2 microglobulin. The CASKI-GFP B2M KO cell line is a modified cervical cancer cell line

iii. Committee Discussion.
- Registration was sparse and not clear, especially regarding background. Most information was gleaned from the ASP.
- Adding modified cancer lines with CRISPR/Cas9. It’s not clear if their CaSki cell line from a co-investigator is already transduced with GFP and guide RNA for beta microglobulin or if they are planning to do that. Details provided for the recombinant material suggest that already has been done. If it’s just for the CaSki cell line that is already created, then it’s unclear why there is other information regarding the use of retrovirus.
- The registration notes they are looking at MHC1 deficient tumors in mice, but it is poorly described.
- One IBC member had a very similar review of the work and had the opinion that much of the information was provided as background.
- Use of murine gammaretrovirus was poorly described and the decision of the committee is to TABLE this and return to the PI for a better description.

iv. Training as is standard for the BSL-2 environment and including Laboratory Safety Training and BBP training for individuals working with human materials (as applicable).
v. Animal studies proposed: Yes, mouse
vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal. All answers were no.
vii. No additional public comments were given.
viii. Work is not approved here but may be approved at: Prokaryotic work is approved at BSL-1. Eukaryotic work at BSL-2. Animal work is approved at injection at ABSL-2 and can be downgraded to ABSL-1 after 72 hours.

ix. Relevant sections of the NIH Guidelines: Animal work at III-D-4-a
x. The committee has tabled this registration and states it can be approved after additional information is given as described. It's relatively simple but needs some clarity and the laboratory should properly describe what is being performed. It will be returned for clarity and then reassessed.
xi. No conflicts of interest were identified.

26-BMC-135, Figg, William

i. Reviewers: Whitehead, Denny
ii. Review summary: The NCI investigators have submitted a registration called LuCaP-luciferase to study prostate cancer. The investigators want to perform a process. The plan is to use stable luciferase labelled cells to be injected into mice. Metastasis will be monitored. LuCaP PDX-derived metastasis (PDM) models have been developed and are modified to express luciferase to study the effects of drugs to prevent the formation of metastases (Yin et al. The Prostate. 2024;84:1033–1046). This study will test whether several novel drugs can prevent or inhibit prostate tumor bone metastasis in vivo. LuCaP-luciferase cells (1x10e6 in PBS plus Matrigel) will be administered into the left cardiac ventricle of each mouse while under isoflurane anesthesia. Tumor tissue from established LuCaP PDX models will be dissociated into single-cell suspensions and transduced with a lentiviral vector encoding firefly luciferase driven by a constitutive promoter (e.g., EF1α or CMV), as previously reported for bioluminescent tracking of PDX tumors. A selectable marker such as puromycin resistance will be included to enable enrichment of transduced cells. Animals will be monitored and undergo bioluminescent analysis. Tumor growth will be monitored via bioluminescent imaging on a weekly basis for 7 weeks.

iii. Committee Discussion:
- Their plasmids are attached with descriptions and indicate a third-generation packaging system. 'Rev' gene is on a separate plasmid, but additional information should be provided.
- Details of the recombinant work need to be provided.
- Prokaryotic work is approved at BSL-1. Eukaryotic work is approved at BSL-2. In the registration it described the injection of human cells into left cardiac ventricle of each male? Animal section requests ABSL-1, which is not sufficient for injection practices since these are human cancer cells. The ASP needs to be updated to include this work; there may be an ASP amendment to include, but the current document doesn't contain the information.
- Secondary reviewer had nothing additional to add to these comments.

iv. Training and PPE requirements as established with BSL-2, to include laboratory safety training, and minimal PPE requirements including protective labcoat and eyewear.
v. Animal studies proposed: Yes, in mice
vi. The committee discussed and agreed that there were no dual-use or ePPP concerns with the proposal.
vii. No additional public comments were given.
viii. Prokaryotic work is approved at BSL-1. Eukaryotic work at BSL-2. Animal work is approved at injection at ABSL-2 and can be downgraded to ABSL-1 after 72 hours.
ix. Relevant sections of the NIH Guidelines: Eukaryotic work approved under III-D-3-a, animal work under III-D-4-a.
x. The committee unanimously approved as written.
xi. No conflicts of interest were identified.

26-BMC-137, Feldmann, Heinz

i. Reviewers: Goff, Lee

ii. Review summary: The NIAID investigators have submitted a registration called “Nucleic acid vaccines against viral pathogens”. Nucleic acid vaccines such as DNA, messenger RNA and circular RNA are powerful tools to address emerging and endemic pathogens. The purpose of this proposal is to develop these vaccine platforms against high-consequence pathogens. These vaccines will be
evaluated in vitro and in pre-clinical animal models.

For many emerging and endemic pathogens vaccines are urgently needed. Nucleic acid vaccines provide robust vaccine platforms to address this need due to their ease of production, flexible antigen selection, potent immunogenicity and varied delivery mechanisms that enable tissue-specific delivery. Nucleic acid vaccines based on plasmid DNA, messenger RNA (mRNA), self-amplifying or replicating RNA and closed circular RNA vaccines are under development for numerous pathogens. Some vaccines have reached human clinical trials and many more are in pre-clinical development.

iii. Committee Discussion.
- Various NA potential epitopes will be inserted within the open reading frame (ORF) of an alphavirus particle in a manner so is no way to create a replication competent particle. There are many viruses listed here. Three different plasmids are given, and Dr. Goff briefly described some of the plasmids that were presented. These may be created by collaborators.
- Eukaryotic work can be approved at BSL-2 under III-D-3-a, and animal work in mice using ABSL-2 under III-D-4-a. Draft ASP attached indicated animal work is at ABSL-4 for challenge work. Prokaryotic work in E. coli to propagate plasmids at BSL-2.
- ASP is a “prototype” of their typical vaccine studies and how they will go and they are requesting to perform the animal work at ABSL-4. D. Hawman commented that the initial work could be performed at ABSL-2 in an appropriate space and then moved to ABSL-4 for the challenge.
- All DURC questions were “no”. Is there active work across all 30 listed viruses? This is the intention for the purpose of
- Secondary reviewer asked if there was active work across all thirty of the viruses listed, and there are many under study but the large list is given for the purpose of being able to respond readily if a public health emergency arises.

iv. Training and PPE requirements as established, including laboratory safety training (LST), and Bloodborne Pathogen Training (BBP) for those working directly with human materials. Animal training for ABSL-2 work as outlined by OACU, and/or ABSL-4 where appropriate for personnel working in maximum containment.

v. Animal studies proposed: Yes, NHPs and ferrets

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. No additional public comments were received.

viii. Work is approved at: Prokaryotic work is proposed at BSL-2, and this is fine, eukaryotic work is approved at BSL-2, Animal work is approved at ABSL-4. (due to potential for challenge follow-up).

ix. Relevant sections of the NIH Guidelines: Eukaryotic work approved under III-D-3-a, animal work is approved under section III-D-4-a

x. The committee unanimously approved as written.

xi. No conflicts of interest were identified.

26-BMC-138, Feldmann, Heinz

i. Reviewers: Lee, Goff

ii. Review summary: The NIAID investigators propose to use VSV to study a number of viruses. Vesicular stomatitis virus (VSV) is a well-characterized virus with a broad host range and is relatively easy to culture in the laboratory. VSV genome is highly amenable to genetic manipulation, allowing the replacement or insertion of genes from other viruses. It is classified as a BSL-2 pathogen, whereas many viruses of interest are classified as BSL-3 or BSL-4. By inserting foreign genes of interest, such as those derived from filoviruses, bunyaviruses, paramyxoviruses, arenaviruses, orthomyxoviruses, coronaviruses, and flaviviruses into the VSV genome, they wish to study the function of these proteins under BSL-2 conditions. These glycoproteins are primarily involved in viral attachment or release. Additionally monoclonal antibodies and nanobodies may be expressed for antiviral functions.

They also are developing vaccine candidates using VSV as a vector to express viral proteins from these high-risk pathogens, and therapeutic agents to co-express along with the viral antigens. They have developed and continue to advance VSV-based vaccine candidates using a replication-competent vector to express proteins of interest from these virus families. These vaccine candidates are being evaluated in relevant animal disease models, such as mice as proposed here (The laboratory may also be interested in hamsters, guinea pigs, ferrets, and non-human primates, as mentioned).

iii. Committee Discussion.

- Proposing rDNA work with a pathogen, and rescue or replication competent VSV (without its own glycoproteins).
- Sequences listed should be derived from 'viruses' (not human or animal). Question about animal work and samples being stored in BSL-4, and this is for the purpose of the challenge experiments according to K. ODonnell form the laboratory. A Permit is required, but in this case, none is uploaded.
- Alcohols and Microchem are typically used as disinfectants in the BSL-4.
- Various animal disease models will be used with vaccination and challenge models.
- Objective of the animal work will assess the vaccination. ASP attached is only to test the efficacy, so is there an additional ASP. So additional ASPs would be needed in order to work with other viral models that are not represented here. Containment and viruses can be held at BSL-2 in the absence of any challenge work as described in the ASP.
- DURC is all "no", should question 5 be answered yes for the host range change? There was a question about the DURC response- and there was no statement about what they are putting in such there could be an envelope change that could be changed. GPs are being changed here. The opinion of the IBC was that DURC review was not necessary. Usually, VSV has a wide tissue tropism and when VSV GP is removed, that usually limits it. It might be useful to add specifics as to what glycoproteins will be used. For these viral vectors, it doesn't warrant DURC review and the committee unanimously agreed.
- Secondary reviewer had a similar question about the listed ABSL, but that question has been answered in discussion here. There was also a question about what was being placed in the vectors, and so long as it's an envelope, or glycoprotein change it would not be an issue. The group states that also antibody or marker proteins may be used as well.

iv. Training and PPE requirements as established, including laboratory safety training (LST), and Bloodborne Pathogen Training (BBP) for those working directly with human materials. Animal training for ABSL-2 work as outlined by OACU, and/or ABSL-4, where appropriate, for personnel working in maximum containment.

v. Animal studies proposed: Yes, mice

vi. The committee discussed the dual-use and ePPP potential of these experiments. While one DURC question may be answered yes, the committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. No additional public comments were received.

viii. Work is approved at: Prokaryotic work is proposed at BSL-2, eukaryotic work is approved at BSL-2, Animal work is approved at ABSL-2 in the absence of challenge studies, or ABSL-4 is appropriate for experiments where challenge virus will be used in maximum containment conditions.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work is approved under section III-D-3-a, animal work is approved under section III-D-4-a

x. The committee unanimously approved as written.

xi. No conflicts of interest were identified.

26-BMC-139, Kelley, Mathew

i. Reviewers: Denny, Billioux

ii. Review summary: The NIDCD investigators have submitted a proposal entitled “Lentiviral tracing of chicken auditory neurons”. The investigators seek to use a LV constrict to express GFP in a subset of nerves in the inner ear and into the brainstem. Vectors will express GFP in chicken embryos without being altered. Not really using the LV particles in mice. No chick embryo will hatch. This will allow them to visualize the routes that these fibers follow as they project into the brainstem. Only 3 viral genes (gag pol and rev exist) therefore this is a third generation.

The peripheral ear in birds and mammals is organized such the different pitches or tones stimulate sensory cells at different locations along an elongated auditory organ. Neurons that make contacts with those sensory cells then project into the brainstem. The organization based on the tone of a sound, or tonotopic, is maintained in the brainstem. So, neurons that respond to high tones project to one part of the brainstem while neurons that respond to low tones project to another part. Recently, the group discovered a way to change the peripheral ear in a chicken so that all the cells are stimulated by only low tone sounds. They hypothesize that this will change the pattern of the auditory neurons as they project into the brainstem and to test this, they need to be able to label a subset of these neurons.

iii. Committee Discussion:

- No prokaryotic work being performed here. LV vector is being purchased here. Chicken eggs with developing embryos inside will be "windowed" to create access to the developing embryo. The developing inner ear will be visualized, and a small amount of a lentiviral-GFP expression construct will be injected into the auditory nerve located just adjacent to the developing inner ear. Pulled glass electrodes will be used to inject the virus. The correct animal study proposal was noted. LV particles are only used in eggs according to this registration.
- BSC will be used for all in vitro work. Vector info sheets and LV maps included, which will be provided commercially.
- Should check to ensure the correct ASP uploaded
- Secondary reviewer notes agree with the assessment given.

iv. Training and PPE requirements as standard for BSL-2 to include laboratory safety training and BBT training for individuals working with human cell lines.

v. Animal studies proposed: No animal work, work in chicken egg cells

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. There were no additional public comments.

viii. Work is approved at: Eukaryotic work will be approved at BSL-2.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work approved under III-D-3-a, ABSL-2 for egg handling purposes, but this is more in vitro work rather than animal work.

x. The committee unanimously approved the proposal as written.

xi. There were no conflicts of interest identified.

26-BMC-140, Zhao, Chen

i. Reviewers: Goff, Denny

ii. Review summary: The NCI investigators propose work with adenoviral and lentiviral vectors in "Intratracheal delivery of Adenovirus and Lentivirus to KP mice". This study aims to establish and optimize intratracheal delivery of adenovirus and lentivirus in Kras/p53 (KP) mouse models to enable efficient gene manipulation in the lung. The goal is to introduce and/or modify target genes in lung epithelial cells to study tumor initiation, progression, and response to genetic perturbations in vivo. Genetically engineered KP mouse models are widely used to study lung cancer biology, but efficient and controlled delivery of genetic material to the lung remains a key technical step. Intratracheal administration vectors enable localized and reproducible gene delivery to lung tissue. This approach allows for activation or suppression of specific genes, facilitating investigation of molecular mechanisms driving tumor development and progression. The use of these vectors provides a flexible and well-established platform to model disease-relevant genetic changes and evaluate potential therapeutic targets.

iii. Committee Discussion:

- Work in E. coli is approved at BSL-1. Their 3-plasmid system for lentiviral work is approved at BSL-2/3 (second generation) into HEK-293T cells, animal work is approved at ABSL-2.
- Recombinant adenovirus (Ad5CMVCre) will be delivered via intratracheal injection into KP mice to express Cre recombinase in lung epithelial cells. This induces recombination of conditional alleles, leading to activation of oncogenic Kras and deletion of p53 to initiate lung tumor development. And lenti will be used for some CRISPR editing. Plasmids are propagated at BSL-1.
- All DURC questions are correctly answered "no". There are no DURC related issues here.
- Secondary reviewer agrees and had no additional comments.

iv. Training and PPE requirements as standard for a BSL-2 laboratory to include laboratory safety training and BBT training for individuals working with human cell lines.

v. Animal studies proposed: Yes, mice

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. There were no additional public comments.

viii. Work is approved at: Prokaryotic work is approved at BSL-1. Eukaryotic work will be approved at BSL-2, animal work at ABSL-2.

ix. Relevant sections of the NIH Guidelines: Prokaryotic work approved under III-D-2-a. Eukaryotic work at III-D-3-a, Animal work at III-D-4-a.

x. The committee unanimously approved the proposal as written.

xi. There were no conflicts of interest identified.

26-BMC-141 Ferrer-Alegre, Marc

i. Reviewers: Billioux, Goff

ii. Review summary: The NCATS investigators have submitted a proposal entitled "Utilizing immunocompetent human neural organotypic models to understand HIV subtype-dependent neurotrophic infection".

The laboratory studies neurocognitive disorders, such as dementia, that occur in people with HIV despite current antiviral treatments. Population studies suggest that different HIV subtypes have varying risks of dementia that may be related to differences in neurovirulence, viral replication

capacity, and disease progression. Mechanistic studies are limited by the lack of physiologically relevant human brain models and accessible samples from people with HIV. In the brain, HIV infection is mediated by variants that infect microglial cells, a neuro-derived monocyte/macrophage (immune) cell type. Here, they propose to test the population-based observations regarding differences in HIV subtype associations with neuropathogenesis. The hypothesis is that HIV-associated dementia incidence is related to viral variant affinity for microglial cells. They will assess the ability of different HIV subtypes to infect, replicate, and kill microglial cells in their novel immunocompetent human neural organotypic brain model that includes microglia.

They will also assess viral persistence after ART and use this model for high-throughput screening of neuroprotective molecules to treat HIV-associated neurocognitive disorders (HAND). Several studies found that HAND was more common in adults with HIV-1 subtype D compared to those with subtype A1-4, although this same association was not found in children with HIV-15. Another study reported low incidences of HAND in people with HIV-1 subtype C infection6. To test these population-based observations, they plan to collaborate and will utilize HIV-1 expertise and technologies in the NCI and NIAID, and the immunocompetent human neural organotypic models developed in NCATS to assess HIV-1 subtype-dependent neurotropic infection. Their approach is to measure levels of subtype-specific HIV-1 infectivity and replication capacity to determine if these viral features are associated with neuro-pathogenesis.

iii. Committee Discussion:
- Propose to test different incidences of HIV infection. Cooperating with Dr. Freed's lab (approved under a separate RD), no additional cloning will be performed. A list of strains is provided- see document for the numerous strains. All personnel will be trained appropriately and NO sharps will be used. Propose BSL-2/3 work eukaryotic work.
- All DURC questions are appropriately answered "no" and there are no DURC or ePPP concerns.
- Secondary reviewer notes III-D-4-b for the RG-3 practices virus. The organoids are excellent for testing these issues seen in humans.

iv. Training and PPE requirements for working in the BSL-2 environment and to include laboratory safety training and BBT training for individuals working with human cell lines. A complete sharps reduction.

v. Animal studies proposed: No, n/a for this registration.

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. There were no additional public comments.

viii. Eukaryotic work is approved at BSL-2 with 3 level practices, animal work at ABSL-2.

ix. Relevant sections of the NIH Guidelines: III-D-1-b and BSL-2 with containment centrifuge and no sharps.

x. The committee unanimously approved with minor modifications.

xi. There were no conflicts of interest identified.

26-BMC-144, Feldmann, Heinz

i. Reviewers: Lee, Whitehead

ii. Review summary: The NIAID investigators propose expressing recombinant proteins in various prokaryotic and eukaryotic cells in the proposal "Molecular characterization of viral proteins of pathogenic RNA viruses". They propose to characterize the roles that pathogen proteins play in the viral replication cycle and pathogenesis using both in vitro systems and animals. They will express viral, host and reporter proteins (cDNAs) in various eukaryotic and prokaryotic (ie, E. coli) cells to attempt to define their functions, structures, and interactions with host cellular proteins

including those from humans, other mammals, or insects. Pathogen proteins to be used in these studies primarily include those from filo-, bunya-, arena-, paramyxo-, rhabdo-, orthomyxo-, corona-, and flaviviruses, but also include non-viral pathogens such as Plasmodium. To goal is to study these recombinant viral, host cellular, and reporter proteins (ORFs) expressed by plasmid expression systems to characterize their functions and pathogen protein/host cellular protein interactions.

iii. Committee Discussion.

- Describes the expression of numerous proteins in lower prokaryotic and eukaryotic cells, which are less than 60% of all genomes. The viruses and the reporters are described; however, the host genes for co-expression are not described. There are no specific eukaryotic cells listed and they need to elaborate on what cells they plan to use. There is also no limit to the number of co-expressions, so even though each clone is less than 60 percent, they should clarify their co-expression experiments. Proposal for all the work is at BSL-2. No animal work is being proposed here.
- In some cases, there is a large percentage of the viral genome, so risk is difficult to assess without more specifics. “Mutant clones” are not well defined here. There is transient expression as well as stable transfection, and all replication-incompetent.
- Secondary reviewer has an issue with the “blanket approval” nature of the registration. They gave specific viruses, but there are many. Viral genomes must be less than 60 percent. No viruses are going to stem from this work. There is no table for the host cell or other genes to be used.

iv. Training and PPE requirements as established, including LST and BBP training. Animal training for ABSL-2 work as outlined by OACU.

v. Animal studies proposed: No. If proposed in the future, the registration should be amended.

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. No additional public comments were received.

viii. Work is approved at: Prokaryotic work is proposed at BSL-2, and this is fine, eukaryotic work is approved at BSL-2. No animal work is being proposed.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work is approved under III-D-2-a, and III-E-1.

x. The committee unanimously approved as written.

xi. No conflicts of interest were identified.

d. Registration amendments for committee review

AM01 RD-23-I-03 amend 250506, Bhandoola, Avinash

i. Reviewers: Whithead, Craigie

ii. Review Summary: This registration RD-23-I-03 is entitled “Transferring Lentiviral transduction of mouse bone marrow into mouse”. They wish to use LV vectors with the CRISPR/Cas9 based system. Previously they used a third-generation system, now they propose to work with a second-generation system. The plasmid they are using is the lentiviral vector lenti U6-sgRNA/EF1a-mCherrywhich is a second generation nonreplicative lentiviral vector previously used by multiple other groups for CRISPR-based studies. It contains a mCherry-expressing cassette and a sgNRA expressing cassette. The animal work involving lentivirus and the gene insert (U6-sgRNA/EF1a-mCherry) will be conducted at NCI Frederick under a site-specific animal study proposal.

iii. Committee Discussion.

- They study the Tox2 gene. Dr. Whithead mentioned they provided maps for the vectors. While they propose BSL-2 for this work, the packaging system described in the amendment is a second-generation system. Germline Cas9 expressing cells will be used.

- Will use infected mouse bone marrow cells in their mouse work.
- Reviewer indicated that the correct part is apparent and it's just unusual to see the documents in this context. It all is rather straightforward.
- All DURC questions are answered "N/A", and these should be change to "no". There are no DURC issues.
- Secondary reviewer agreed with all comments with nothing additional to add.

iv. Training and PPE requirements as established, using standard precautions.

v. Animal studies proposed: None in Bethesda, performed under NCI-Frederick-approved animal studies.

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that they felt were no dual-use or ePPP concerns with the proposal.

vii. No additional public comments were received.

viii. Work is approved at: Eukaryotic work is established at BSL-2 with 3 level practices.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work is approved under III-D-3-a.

x. The committee unanimously approved as written.

xi. No conflicts of interest were identified.

AM02 24-BMC-163 amend 250506, Johnson, Andrew

i. Reviewers: Craigie, Lee

ii. Review Summary: The investigators were previously approved for working with human cell samples in a registration entitled "*Platelet Volunteers, Longitudinal and Multi-omic Study*". They propose to use the Sendai viral vectors to create iPS cells. They are planning to use Sendai Virus to transform isolated PBMCs into iPSC lines and conduct further lab research. This use of these cells has been approved in their IRB review.

iii. Committee Discussion.

- No additional comments; they can perform this work at BSL-2.
- There are no DURC or ePPP concerns with this simple amendment.
- Reviewer agreed and had no additional comments.

iv. Training and PPE requirements as already established.

v. Animal studies proposed: N/A

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. No public comments were given.

viii. Work with Sendai viral vectors is approved BSL-2.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work is approved under section III-D-3-a.

x. The committee unanimously approved as written.

xi. No conflicts of interest were identified.

RD-15-III-06 amend 250506, Malech, Harry

i. Reviewers: Denny, Billioux

ii. Review Summary: Laboratory is studying cell-based therapies to target immune deficiencies. This amendment adds to this RD the generation and application of Virus-Like Particles (VLP) containing no virus DNA or RNA, that package CRISPR editing elements (CRISPR-Cas9, CRISPR Base-editors, or CRISPR Prime editors) for ex vivo delivery to established human tissue culture cell types representative of hematopoietic stem cell (HSC) or immune cell phenotypes, or for ex vivo deliver to primary human HSCs or immune blood cells derived from patients or healthy volunteers, or for in vivo delivery by tail vein injection into immunodeficient mice that have engrafted a human marrow xenograft to target human hematopoietic stem cells or differentiated T, B or myeloid cells arising from the human marrow xenograft in these mice.

The purpose of these VLPs is to serve as an alternate more efficient, non-integrating, and safer system to deliver CRISPR editing elements that is an alternative to the use of the 3rd generation lentivectors described in the currently approved RD, for the same purpose and with the same immune cell and blood stem cell targets as the currently approved RD. The overall goal remains the same, which is to develop potentially curative therapies for inborn errors of immunity by correcting or inducing mutations in immune system genes that when mutated cause any of the more than 500 known inborn errors of immunity, though the laboratory currently is particularly focused on study and correction of mutations in the immune system genes causing Chronic Granulomatous Disease, the more than 10 genetic forms of Severe Combined Immune Deficiencies, leukocyte adhesion deficiency 1, WHIM Syndrome, X-linked agammaglobulinemia, STAT1 gain of function, STAT3 loss of function, CD40 ligand deficiency hyper-IgM syndrome. CTLA4 deficiency, MagT1 deficiency, CARD9 deficiency, and Deficiency of IL1-Receptor Antagonist.

The VLPs are composed of the following elements:

1. The VLP core element consists of a mixture of gag protein from either lentivector or Murine Moloney retrovirus vector together with a fusion gag-CRISPR (base or prime editor) protein. The non-fusion gag forms a stable core that binds to and holds in place also in the core the gag-CRISPR fusion protein.

2. A guide RNA containing CRISPR protein binding sequence plus a variable region specific for the targeting the specific gene sequence designed to correct or induce a genetic mutation.

3. An envelope consisting either of the same VSV-g envelope as already described in this RD for generation of lentivector or the baboon retrovirus envelope that has been shown to enhance specificity and efficiency of targeting of human hematopoietic stem cells.

The VLPs are produced in human HEK 293T cells by transfection with 4 plasmids:

A. A plasmid encoding sequence for production of HIV lentivector gag protein or a plasmid encoding murine Moloney retrovector gag protein. B. A plasmid encoding sequence for production of a gag-CRISPR editor protein. C. A plasmid encoding for production of a guide RNA, and

D. A plasmid encoding for either VSV-g envelope protein or Baboon retrovirus envelope protein. The VLPs self-assemble and are shed from the 293T cells as enveloped particles containing the gag/gag-CRISPR protein core with the guide RNA tightly bound to the CRISPR protein. VLPs are harvested from the culture supernatant by centrifugation or PEG precipitation centrifugation. These particles / VLPs will be handled and used at biosafety level 2 and at time of injection in mice also at animal biosafety level-2.

iii. Committee Discussion.

- CRISPR editing of marrow xenografts are being performed.
- VLPs will contain infectious particles and should be handled at BSL-2. Prokaryotic work in E. coli is approved at BSl-1 under section III-D-2-a.
- VLPs will be used to target various cell types. Eukaryotic work is approved at BSL-2, under section III-D-3-a. VLPs then used in tissue culture cells. Animal work is approved at ABSL-2 under III-D-4-a.
- There were no dual-use issues or ePPP concerns with this amendment.
- Secondary reviewer had no additional comments.

iv. PPE and training requirements as established and to include BBP training for individuals handling human materials.

v. Animal studies proposed: Yes, approved at BSL-2 in mice

vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.

vii. No public comments were given.

viii. Work is approved at: Eukaryotic work at BSL-2, animal work is approved at BSL-2.

ix. Relevant sections of the NIH Guidelines: Eukaryotic work is established at III-D-3-a, animal work is approved under section III-D-4-a.
x. The committee unanimously approved the registration with minor corrections as mentioned.
xi. No conflicts of interest were identified, Dr. Malech was not present at this meeting.

26-BMC-105 amend 250506, Schiller, John

i. Reviewers: Billioux, Whitehead (re-review of amendment from April with complete ASP)
ii. Review Summary: The investigators were previously approved to express human polyomavirus proteins in various systems in efforts to generate vaccine candidates in mice. A formal ASP is now being submitted for review. VLP polyomavirus vaccine treatments in mice. (proteins expressed in bacteria, or yeast, or in insect cells). In April 2026 the IBC reviewed 26-BMC-105 amendment from Dr. Schiller that involved making a polyoma vaccine in yeast, using bacteria or baculovirus and it also it mentioned the inclusion of animal work. However, the ASP was not available at that time and therefore it's prudent that we review and approved the actual ASP, which is presented here. Mouse will be inoculated: (1) Intramuscularly with purified non-infectious VLPs produced in yeast, and (2) using live non-pathogenic yeast or bacterial cells producing non-infectious self-assembled VLPs will be administered via the following routes: intranasal, with a derma roller, intrarectal, or combined with normal mouse chow for the mice to eat.
iii. Committee Discussion:
- The description of animal work as presented in the ASP was well described regarding various routes including IM oral, intravaginally, etc.
- There are a few minor points, one bacterial species to be added under oral delivery (Lactobacillus sakei). Baculovirus expression in insect cells yields purified VLPs.
- Reviewer agrees the ASP accurately covers the work, including use of purified VLPs coming from baculovirus.

iv. PPE and training requirements as established.
v. Animal studies proposed: Yes, in mice
vi. The committee discussed the dual-use and ePPP potential of these experiments. The committee agreed that there were no dual-use or ePPP concerns with the proposal.
vii. No public comments were given.
viii. Prokaryotic work is approved at BSL-1. No eukaryotic work. Animal work is approved at ABSL-1 containment and practices.
ix. Relevant sections of the NIH Guidelines: prokaryotic work is approved under III-D-2-a, animal work approved under III-D-4-a
x. The committee unanimously approved with minor modifications.
xi. No conflicts of interest were identified.

III. Committee Review of Inactivation Procedures: None other than as reviewed in the #6718 amendment.

IV. Standard Operating Procedures/Plans: None

V. Serious Adverse Events in Clinical Trials reviewed by the Committee: None

Reports

I. Biosafety Officer Report will be electronically sent for committee review. In March 2026, there were 24 research-related incidents. one apparently involved work with rDNA (discussed at the April IBC meeting), 10 sharps-related incidents, 8 related to work with NHPs, 7 involving research with other animals (mostly rodent bites), 2 related to potential exposures to HBBF for research related incidents (not related to patient care), and none involved potential exposure to “other” human pathogens.

The BSO reminded everyone he has reviewed the preliminarily approved registrations and registration amendments and asked again if there were any other concerns or questions about those approvals. In the absence of any further comments, these registrations and registration amendments are formally approved.

Other reports: None

Around the Room/Committee Discussion

- The date of the next IBC meeting is set for June 3rd, early invitations will be sent. The July meeting will be scheduled for July 22th, 2026 to avoid potential conflicts around July 4th Holiday week before and after.
- As June 2025 the OSP has mandated all IBC minutes will be publicly posted in a streamlined format. The four NIH IBCs have agreed on and are using a new template and it is expected that IBC members must recuse themselves from discussions where they have conflicts of interest (as they have always done).
- The BSOs are always available prior to the meeting for any questions or concerns on reviews.

Adjournment

The meeting was adjourned by Dr. Craigie at 5:02 PM.

Next meeting: June 03, 2026