

**Institutional Biosafety Committee**

**March 6, 2026**

**12:00PM – 12:55PM**

**Teleconference**

**Minutes**

**Voting Members Present:** Brian Taylor, Ami A. Patel, Marianne Cloeren, Karen Scanlon, Alan Schmaljohn, Elizabeth Bramhall, J. Kristie Johnson, John O'Neill, Irina Luzina, Matthew Frieman, Sherry Bohn, Robert Ernst, Ciaran Skerry, Alfredo Garzino-Demo, Matthew Fischer

**Voting Members Absent:** Ron McNeil, Melissa Morland, Anthony Kim, Janna Barcelo, Joseph Gillespie, Jessie Duggan

**Other Person(s) Present:** Olivia Babick, Edward Case

**Staff Present:** Matthew Fischer, John O'Neill, Holda Ramos

**1 Vote on Last Meeting's Minutes**

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Institutional Biosafety Committee meeting on 2/6/2026

Votes to approve minutes: 15, Disapprove: 0, Abstain: 0

**2 New Business**

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This meeting of the IBC is open to the public pursuant to the NIH Guidelines, Section IV-B-2-a-(6).

- Representatives of the NIH Office of Science Policy came to UMB on February 27<sup>th</sup> to interview us about the modernization effort.
- A replacement US Government policy for Dual Use Research of Concern (or "Dangerous Gain of Function") is expected any day.
- Our next meeting is scheduled for Friday, April 10<sup>th</sup>. This is the second Friday of the month to avoid proximity to the holiday weekend.
- Member issues
  - ChABSA has a dinner meeting in Frederick on March 10<sup>th</sup> entitled "Modernization of Biosafety: Thoughts on Improving NIH Guidelines in a Deregulatory Environment"
  - ASM Maryland has a dinner meeting at IMET on March 11<sup>th</sup> entitled "Out of the Endotoxin Box: Addressing Pyrogen Diversity Challenges Using the Monocyte Activation Test (MAT)"

**3 Select Agent Program Oversight**

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- We had our renewal inspection on March 3-4.

**4 Reportable Incidents**

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- On February 12<sup>th</sup>, we were notified that our incident report from January was closed with no further action required.
- No reportable incidents occurred this month.

## **5 New IBC Submission**

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Short Title: Characterizing the axonal transport proteome of the corticospinal tract  
Investigator: Vladimir V. Gerzanich  
ID: IBC-00008693  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This protocol involves the use of AAV in animals. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-4-a using BSL-1 and A-BSL-1 facilities and practices. The following modification is required to secure approval: Rewrite the lay abstract.  
Motion: RMSA  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

## **6 Modification Discussions**

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Short Title: Automated Stem Cell Radiolabeling via 3D Microprinting-Enabled Microfluidics  
Investigator: Mirosław Janowski  
ID: IBC-00005346  
Analyst: Holda Ramos  
VA-Related: Yes  
Discussion: This modification involves the use of VSV-based vectors *in vitro*. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-3-a using BSL-2 facilities and practices. This modification also involves the addition of a new lentivirus which will be used *in vitro*. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-1-a using BSL-2 facilities and practices. The following modifications are required to secure approval: 1) Update IACUC information and 2) Explicitly include the new vectors in the pre-existing safety language.  
Motion: RMSA  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Dissecting Neural Circuits of Learning and Emotion  
Investigator: Barbara Juarez  
ID: IBC-00007058  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of AAV in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices.

Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Imaging brain cell morphology and activity with genetically encoded reporters  
Investigator: Yajie Liang  
ID: IBC-00006780  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of AAV in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Sexual differentiation of rodent brain  
Investigator: Margaret McCarthy  
ID: IBC-00001615  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of AAV in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices. This modification also involves the use of plasmids in murine cells and BL-21 *E. coli*. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-E-1 and is approved using BSL-1 facilities and practices.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Lineage tracing of optic nerve stem cells  
Investigator: Steven Bernstein  
ID: IBC-00002939  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of AAV in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Molecular and Functional Studies of Depression and Addiction on Brain  
Investigator: Mary Kay Lobo  
ID: IBC-00001687

Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification involves the addition of new AAV constructs and plasmids which will be used in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Biology and Engineering of stem cells  
Investigator: Curt Civin  
ID: IBC-00000270  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of lentiviral vectors used in human cells which will be engrafted in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a and is approved using BSL-2/ABSL-2 facilities and practices with sharps precautions.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Translational Laboratory Shared Service (TLSS)  
Investigator: Rena Lapidus  
ID: IBC-00001298  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification involves the addition of a new lentivirus construct which will be used in cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using BSL-2 facilities and practices with sharps precautions.  
Motion: Approve the Modification  
Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: White matter repair by transplanted glial progenitors guided by multimodality imaging  
Investigator: Piotr Walczak  
ID: IBC-00007091  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of lentiviral vectors in cells which will be subsequently used in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a and is approved using BSL-2/ABSL-2 facilities and practices with sharps precautions. This modification also includes the use

of mRNA in human and rodent cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-F-1 and is approved using BSL-2/ABSL-2 facilities and practices for work with human cells and BSL-1/ABSL-1 facilities and practices for work with rodent cells.

Motion: Approve the Modification

Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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Short Title: Viral Pathogenesis and Immunotherapy

Investigator: Lishan Su

ID: IBC-00005983

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification involves the addition of a new lentiviral vector that will be used in human cells with CRISPR technology for the purpose of a library. It was also modified to include a new cell line under a previously approved lentiviral vector. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using BSL-2 facilities and practices with sharps precautions. The following modifications are required to secure approval: 1) Update biosafety cabinet certification dates and 2) Update the language for lentiviral vector post-exposure prophylactic therapy.

Motion: RMSA

Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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## **7 Standard Operating Procedures**

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Short Title: IBC Charter

Coordinator: Matthew Fischer

ID: IBC-2026

Discussion: The IBC charter was on the agenda for annual review. Changes that were made for the 2024 Dual Use Research of Concern/Pathogens with Enhanced Pandemic Potential Policy were removed.

Motion: Approved

Vote: For: 15, Against: 0, Abstained: 0, Recused: 0

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## **8 RMSA Follow-Up**

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Short Title: Investigation of SARS-CoV-2 and related coronaviruses

Investigator: Matthew Frieman

ID: IBC-00005484

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the use of bacterial artificial chromosomes to express recombinant, but naturally occurring, coronaviruses in mammalian cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic

Acids as III-D-2-b using BSL-3 facilities and practices. The following modifications were made to secure approval: 1) Explicitly added the new bat coronaviruses to the risk assessment and 2) Included a risk/benefit analysis document.

Status: Approved

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Short Title: Engineering Plasmodium parasites to study malaria biology and host responses

Investigator: Hardik Patel

ID: IBC-00008704

Analyst: John O'Neill

VA-Related: No

Discussion: This protocol involves the use of lentiviral vectors in human and murine cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using BSL-2 facilities and practices with sharps precautions. This protocol also involves the use of plasmids and CRISPR/Cas9 technology in *Falciparum spp.* which are used in animals and human cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using BSL-2/ABSL-2 facilities and practices. The following modifications were made to secure approval: 1) The PI has been changed to a faculty member and 2) Qualifying language in the risk assessment has been removed.

Status: Approved

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Short Title: Development and preclinical evaluation of novel therapeutic delivery strategies

Investigator: Jung Soo Suk

ID: IBC-00007510

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the addition of previously transduced murine cells which will be used in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices. The following modifications were made to secure approval: 1) Included procedures and training missing for a laboratory member and 2) Removed the superfluous CpG entry from the Recombinant DNA Questions page.

Status: Approved

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Short Title: Mechanisms of synaptic physiology and neurodegenerative diseases

Investigator: Leonardo Parra-Rivas

ID: IBC-00008690

Analyst: John O'Neill

VA-Related: No

Discussion: This protocol has been approved for the use of lentiviral vectors in mammalian cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using BSL-2 facilities and practices with sharps precautions.

This protocol also has been approved for the use of AAV and plasmids in mammalian cells and animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a using BSL-2/ABSL-2 facilities and practices for work with human cells and BSL-1/ABSL-1 facilities and practices for work with murine cells and animals. The following modifications were made to secure approval: 1) The animal-use protocol number has been added; 2) Updated language on the types of genes involved; 3) Acknowledged that lentivirus is not used in live animals; 4) A list of lentiviral backbones has been added; and 5) Clarified which procedures are conducted outside of a biosafety cabinet and ensured precautions are appropriate.

Status: Approved

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Short Title: Therapeutic modulation of comorbid pain conditions

Investigator: Richard Traub

ID: IBC-00008261

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification involves AAV constructs used in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a and is approved using ABSL-1 facilities and practices. The following modification was made to secure approval: Added the control virus described in the IACUC protocol.

Status: Approved

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Short Title: Cytoskeletal Regulation of Lung Endothelial Cell Barrier Function

Investigator: Konstantin Birukov

ID: IBC-00004000

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the use of previously transduced pathogenic *E. coli* in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-b using ABSL-2 facilities and practices. The following modifications were made to secure approval: 1) The personnel profiles for two laboratory members have been updated; 2) The animal-use protocol has been updated; 3) The routes of administration have been updated; and 4) *E. coli* Seattle 1946 has been explicitly added to the risk assessment.

Status: Approved

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## **9 Periodic Reviews of Protocols with Recombinant or Synthetic Nucleic Acid Molecules**

Title: IBC Submission: 22104GCCC: A Phase II Study of CART-ddBCMA for the Treatment of Patients with Relapsed or Refractory Multiple Myeloma

Investigator: Mehmet Kocoglu

ID: IBC-00007161

Analyst: John O'Neill

VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: IBC Submission: 2092GCCC: KITE-363 in Relapsed and/or Refractory B-cell Lymphoma  
Investigator: Jean Yared  
ID: IBC-00006027  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Mapping the innate response to *Bordetella pertussis* and *Bordetella bronchiseptica*  
Investigator: Ciaran Skerry  
ID: IBC-00007009  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Role of ANGPTL4 in the development of pathological angiogenesis in human disease  
Investigator: Silvia Montaner  
ID: IBC-00008109  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Xenotransplantation of genetically engineered porcine kidneys in baboons  
Investigator: Raphael Meier  
ID: IBC-00007225  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Attachment and infectivity of influenza strain PR8 and *Streptococcus pneumoniae* to *in vitro* cultured airway epithelial cell lines  
Investigator: Gerardo Vasta  
ID: IBC-00001896  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: The role of obscurins in breast cancer  
Investigator: Aikaterini Kontrogianni-Konstantopoulos  
ID: IBC-00004157

Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Engineering Immune Responses to Combat Autoimmunity  
Investigator: Jonathan Bromberg  
ID: IBC-00005552  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Overexpression of the Obscurin, Kalirin, or Phospholipase-C Gamma-1 Pleckstrin Homology Domain in Aggressive Breast Cancer Cells to Reduce Metastasis and Chemoresistance to Anthracyclines  
Investigator: Aikaterini Kontrogianni-Konstantopoulos  
ID: IBC-00007240  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Use of SARS-CoV-2 Pseudovirus to Study Receptor-Mediated Internalization  
Investigator: Dudley Strickland  
ID: IBC-00006533  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Engineering of broadly reactive seroantibodies  
Investigator: Mohammad Sajadi  
ID: IBC-00005229  
Analyst: John O'Neill  
VA-Related: Yes  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Elucidating the role of kynurenic acid in development  
Investigator: Sarah Clark  
ID: IBC-00006950  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Mechanisms underlying motor skill learning in rats

Investigator: Steffen Wolff  
ID: IBC-00006385  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Analgesic Mechanisms of Motor Cortex Stimulation  
Investigator: Radi Masri  
ID: IBC-00002372  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Enhanced mesenchymal stem cell to treat chronic liver fibrosis and diabetes  
Investigator: Raphael Meier  
ID: IBC-00006994  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Non infectious assays for SARS-COV2  
Investigator: Alfredo Garzino-Demo  
ID: IBC-00005583  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Role of rickettsial effectors in host colonization (BSL3)  
Investigator: Mohammed Rahman  
ID: IBC-00007649  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Evaluation of nucleic acid delivery system  
Investigator: Ryan Pearson  
ID: IBC-00006638  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: VZV virus studies

Investigator: Mohammad Sajadi  
ID: IBC-00007629  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: ProSAAS-mediated neuroprotective mechanisms in Alzheimer's and Parkinson's diseases  
Investigator: Iris Lindberg  
ID: IBC-00004821  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Roles of galectins in viral infection of mucosal epithelia using the zebrafish model system (NSF Grant Proposal IOS- 223555)  
Investigator: Gerardo Vasta  
ID: IBC-00007176  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Posttranscriptional Control of Gut Mucosal Defense and Homeostasis  
Investigator: Jian-Ying Wang  
ID: IBC-00004665  
Analyst: Holda Ramos  
VA-Related: Yes  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Mitochondrial dynamics and proteostasis  
Investigator: Mariusz Karbowski  
ID: IBC-00003227  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel and locations.

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Short Title: Engineering adenoviral vectors as vaccines for infectious disease  
Investigator: Lynda Coughlan  
ID: IBC-00005922  
Analyst: Holda Ramos  
VA-Related: No

Discussion: This modification has been administratively approved to update the biosafety cabinet certification dates.

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Short Title: Engineering Plasmodium parasites to study malaria biology and host responses

Investigator: Hardik Patel

ID: IBC-00008704

Analyst: John O'Neill

VA-Related: No

Discussion: This modification has been administratively approved for a change in personnel.

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Short Title: AAV-mediated modulation of neuronal activity related to spatial navigation in mice

Investigator: Emily Aery Jones

ID: IBC-00008579

Analyst: John O'Neill

VA-Related: No

Discussion: This modification has been administratively approved for a change in laboratory location.

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Short Title: Screening for Lateral Gene Transfer (LGT) Between Wolbachia and Drosophila Using CRISPR

Investigator: Julie Hotopp

ID: IBC-00004649

Analyst: John O'Neill

VA-Related: No

Discussion: This modification has been administratively approved for a change in personnel.

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Short Title: Investigation of Lateral Gene Transfer Between Bacteria and Animals

Investigator: Julie Hotopp

ID: IBC-00002346

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification has been administratively approved for a change in personnel.

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Short Title: Enhancing FLT3 inhibitor efficacy in acute myeloid leukemia with FLT3-ITD

Investigator: Maria Baer

ID: IBC-00007725

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Novel Mechanisms of Beta-lactam Resistance in *Staph aureus*

Investigator: Som Chatterjee

ID: IBC-00004995  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Using Human Cell Lines to Test Interdomain Lateral Gene Transfer (LGT)  
Investigator: Julie Hotopp  
ID: IBC-00002457  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for a change in personnel.

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Short Title: Immunopathogenesis of Infectious Diseases  
Investigator: Joao Pedra  
ID: IBC-00002247  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for updates in personnel and biosafety cabinet certification dates.

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Short Title: Evaluation of new vaccines in animal models and laboratory assays  
Investigator: Marcela Pasetti  
ID: IBC-00000540  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Mechanisms of Lipids and Inflammation  
Investigator: Alison Scott  
ID: IBC-00006888  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Molecular Imaging Mouse  
Investigator: Vikas Kundra  
ID: IBC-00006585  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for an update to cell lines.

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Short Title: Understanding and targeting breast cancer metastasis-initiating circulating tumor cells and niches  
Investigator: Min Yu  
ID: IBC-00007171  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for a change in personnel.

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Short Title: Genetic studies of hearing and vision impairment  
Investigator: Saima Riazuddin  
ID: IBC-00002828  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Cancer Biology and Novel Agents in Lung Cancer  
Investigator: John Schmitz  
ID: IBC-00007728  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for updates to the laboratory location.