

**Institutional Biosafety Committee**  
**7/11/2025, 12:00PM – 12:45PM**  
**Teleconference**  
**Minutes**

**Voting Members Present:** Marianne Cloeren, Karen Scanlon, Alan Schmaljohn, J. Kristie Johnson, John O'Neill, Irina Luzina, Janna Barcelo, Matthew Frieman, Sherry Bohn, Robert Ernst, Ciaran Skerry, Matthew Fischer

**Voting Members Absent:** Brian Taylor, Ami A. Patel, Ron McNeil, Melissa Morland, Elizabeth Bramhall, Anthony Kim, Theresa Marth, Joseph Gillespie, Alfredo Garzino-Demo

**Other Person(s) Present:** No other persons were present at the meeting.

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

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

Institutional Biosafety Committee meeting on 6/6/2025

Votes to approve minutes: 11, Disapprove: 0, Abstain: 0

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**2      New Business**

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

- NIH NOT-OD-25-127 gave institutions 12 days to review their entire research portfolio for what EO 14292 defines as "Dangerous Gain of Function." No NIH-funded studies met this definition.
- The USDA reached directly out to an IMET PI regarding "Dangerous Gain of Function" review. As they are UMBC faculty, that institution took the lead for a response.
- Our next meeting is scheduled for Friday, August 1st.
- Member issues
  - EHS is hiring for a lab inspector.

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**3      Select Agent Program Oversight**

- We received the results from our select agent inspection. We had one request for more information, but no findings at this time.

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**4      Reportable Incidents**

- No reportable events occurred this month.

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**5      Modification Discussions**

Short Title:      Engineering adenoviral vectors as vaccines for infectious disease

Investigator:      Lynda Coughlan

ID: IBC-00005922  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of plasmids in non-pathogenic *E. coli* and mammalian cells. 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-2 facilities and practices.  
Motion: Approve the Modification  
Vote: For: 11, Against: 0, Abstained: 0, Recused: 0

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Short Title: Electrical Signaling at the Mitochondrion in Health and Disease  
Investigator: Vivek Garg  
ID: IBC-00005962  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of a lentiviral vector in mammalian cells. 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 facilities and practices with sharps precautions.  
Motion: Approve the Modification  
Vote: For: 11, Against: 0, Abstained: 0, Recused: 0

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Short Title: Role of Cacna1c in mood disorder related behaviors in the mouse using AAV Cre to delete Cacna1c in Floxed Cacna1c mice.  
Investigator: Todd Gould  
ID: IBC-00002171  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification involves the addition of new recombinant AAV constructs 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: Update the IACUC information.  
Motion: RMSA  
Vote: For: 11, 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

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Discussion: This modification involves the addition of previously transduced human cells 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.

Motion: Approve the Modification

Vote: For: 11, Against: 0, Abstained: 0, Recused: 0

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Short Title: Xenotransplantation of genetically engineered porcine hearts in baboons

Investigator: Muhammad Mohiuddin

ID: IBC-00006063

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the use of lentiviral vectors in murine and porcine 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 facilities and practices with sharps precautions for the lentiviral transduction and ABSL-1 for the engraftment in animals.

Motion: Approve the Modification

Vote: For: 11, Against: 0, Abstained: 0, Recused: 0

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Short Title: Adeno-associated viral (AAV) gene insertion to manipulate neural activity during drug craving and social behaviors

Investigator: Marco Venniro

ID: IBC-00006148

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 using ABSL-1 facilities and practices. The following modification is required to secure approval: Explicitly add DREADD to the genes of interest.

Motion: RMSA

Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

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Short Title: Development and evaluation of novel nanotherapies for glioblastoma in clinically relevant animal models

Investigator: Graeme Woodworth

ID: IBC-00002350

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the use of lentiviral vectors in mammalian 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: 12, Against: 0, Abstained: 0, Recused: 0

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Short Title: Maintenance of transgenic and wild type zebrafish for molecular endocrinology and developmental biology studies.  
Investigator: Yonathan Zohar  
ID: IBC-00002423  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of plasmids for the creation of transgenic animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a using ABSL-1 facilities and practices. This modification also involves the use of Crispr/Cas9 technology without a vector to create transgenic animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-4-a using ABSL-1 facilities and practices. The following modification is required to secure approval: Update the personnel.  
Motion: RMSA  
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

## **6 RMSA Follow Up**

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Short Title: Molecular Imaging Mouse  
Investigator: Vikas Kundra  
ID: IBC-00006585  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of adenovirus, retrovirus, and lentiviral vectors used in *E. coli* and mammalian 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. This modification also involves the use of AAV in *E. coli* and mammalian 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-4-a and is approved using BSL-1/ABSL-1 facilities and practices. The following modification was made to secure approval: Recombinant DNA entries which were made redundant by the latest modification have been removed.  
Status: Approved

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Short Title: Development and evaluation of novel nanotherapies for glioblastoma in clinically relevant animal models  
Investigator: Graeme Woodworth  
ID: IBC-00002350  
Analyst: John O'Neill

VA-Related: No

Discussion: This protocol was previously approved for use of recombinant tumor cell lines in animals. This work is classified by the NIH Guidelines for Recombinant or Synthetic Nucleic Acid Molecules as III-D-4-b and is approved using BSL-2 and ABSL-2 facilities and practices. It has been modified to change committee-approved precautions to administer tumor cell lines to animals outside of a biosafety cabinet. PPE described includes eye protection and masks as outlined in the OSHA bloodborne pathogen standard. The following modification was made to secure approval: Removed the sentence that stated injection is not an aerosol producing procedure.

Status: Approved

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Short Title: Xenotransplantation of genetically engineered porcine kidneys and livers in baboons

Investigator: Raphael Meier

ID: IBC-00008213

Analyst: John O'Neill

VA-Related: No

Discussion: This modification involves the xenotransplantation kidneys and livers from genetically engineered 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: Removed mention of modified mesenchymal stem cells.

Status: Approved

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Short Title: Target validation studies in lung pathogenesis

Investigator: Alison Scott

ID: IBC-00008240

Analyst: Holda Ramos

VA-Related: No

Discussion: This protocol involves the use of SARS-CoV-2-infected cells and is approved using BSL-2 facility and practices. The following modifications were made to secure approval: 1) Provided references for fixation methods, 2) Updated the medical monitoring plan, 3) Updated the health risk factors, and 4) Provided detailed procedures for the pre-fixation stage.

Status: Approved

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Short Title: Anti-Cancer Therapies

Investigator: Joseph P Stains

ID: IBC-00006568

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification involves the use of previously transfected murine carcinoma cells in animals. This work is classified by the NIH Guidelines for Research Involving

Recombinant or Synthetic Nucleic Acid Molecules as III-D-4-a and is approved using BSL-1/ABSL-1 facilities and practices. The following modification was made to secure approval: Corrected risk group and vector information.

Status: Approved

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Short Title: Target Validation and Screening (CBT) and Therapeutic Working Group (TWG)  
Investigator: David Weber  
ID: IBC-00004265  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of previously transduced murine cells 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: Elaborated further for the experimental design.  
Status: Approved

## **7 Non-Exempt Protocols with Periodic Reviews**

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Short Title: IBC Submission: Malaria CVD 35000; BNT165-02  
Investigator: Matthew Laurens  
ID: IBC-00007459  
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 trkB in Descending Pain Modulation  
Investigator: Susan Dorsey  
ID: IBC-00001192  
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: i-LIVER  
Investigator: Lydia Tang  
ID: IBC-00007631  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Animal models with increased RBC turnover  
Investigator: Elizabeth Rochon  
ID: IBC-00006924

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

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Short Title: Effect of gene transfer of anti thrombotic factors on the formation and resolution in mouse inferior vena cava (IVC) thrombus  
Investigator: Rajabrata Sarkar  
ID: IBC-00000993  
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: 2091GCC: GMCI plus Standard of Care Immune Checkpoint Inhibitor for Stage III/IV NSCLC Patients (HP-00094281)  
Investigator: Ranee Mehra  
ID: IBC-00006005  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Neural mechanisms of allergic symptoms in rhinosinusitis  
Investigator: PANG-YEN TSENG  
ID: IBC-00007547  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Animal Models in Cortical Dysplasia  
Investigator: Peter Crino  
ID: IBC-00003858  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Assessment of sex differences and estrogen effects on sleep regulating cells in preoptic brain regions  
Investigator: Jessica Mong  
ID: IBC-00005329  
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: DMID 23-0015; Lassa Fever CVD 1000  
Investigator: Justin Ortiz  
ID: IBC-00007865  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Opioid withdrawal and depression comorbidity  
Investigator: Gregory Elmer  
ID: IBC-00006937  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: IBC: 2259GCC: Axicabtagene Ciloleucel vs SOC Therapy in Participants with R/R Follicular Lymphoma  
Investigator: Jean Yared  
ID: IBC-00007027  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Specific cell protein depletion using small inhibitory RNA species  
Investigator: Stephen Thom  
ID: IBC-00003564  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: L plastin-a novel target for intervention in the treatment of osteoporosis  
Investigator: Meenakshi Chellaiah  
ID: IBC-00002812  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Recombinant Hemoprotein Creation and Testing  
Investigator: Jason Rose  
ID: IBC-00006979  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: IBC: 2339GCC: Ph I/IIa of BNT142 in patients with CLDN6-positive advanced solid tumors  
Investigator: Heather Manuel  
ID: IBC-00007420  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Gene transfer in mouse hindlimb ischemia.  
Investigator: Rajabrata Sarkar  
ID: IBC-00000618  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Co-transplantation of MMP-9 enhanced Mesenchymal Stem Cells and Pancreatic Islets for the Treatment of Type 1 Diabetes  
Investigator: Raphael Meier  
ID: IBC-00007965  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Animal Models in Cortical Dysplasia  
Investigator: Peter Crino  
ID: IBC-00003858  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Recombinant Anthrax Toxin Studies  
Investigator: Bryan Krantz  
ID: IBC-00002947  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: IBC Submission: CMV CVD 2000; mRNA-1647-P104  
Investigator: James Campbell  
ID: IBC-00006870  
Analyst: John O'Neill

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

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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 changes in personnel.

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Short Title: Ultrasound-Mediated Microbubble Coupled Plasmid sFlt-1 or VEGF Gene Delivery in the Pregnant Baboon and offspring.  
Investigator: Eugene Albrecht  
ID: IBC-00001512  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Animal models with increased RBC turnover  
Investigator: Elizabeth Rochon  
ID: IBC-00006924  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Lentivirus transduction into cells for virus trafficking experiments and CRISPR-CAS9 gene targeting  
Investigator: Matthew Frieman  
ID: IBC-00002935  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Stem cell therapy for brain injury and peripheral nerve injury  
Investigator: Xiaofeng Jia  
ID: IBC-00002658  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Role of Drug Transporters in Xenobiotic Disposition and Transporter Physiology  
Investigator: Yan Shu

ID: IBC-00000213  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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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: There have been no substantive changes to this protocol submission.

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Short Title: IL-1( $\beta$ ) regulation of perinatal brain injury  
Investigator: Irina Burd  
ID: IBC-00007015  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for work with non-recombinant HIV in tissue culture using BSL-2 and A-BSL-2 facility and practices with sharps precautions.

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Short Title: Comprehensive Analysis of Polycystin Related Endothelial Cell Signaling Pathways  
Investigator: Terry Watnick  
ID: IBC-00002098  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification involves the use of plasmids in murine cells. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-F-8 Appendix C-1 and is approved using BSL-2 facilities and practices.

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Short Title: In vitro and In vivo analysis of the MERS Coronavirus  
Investigator: Matthew Frieman  
ID: IBC-00002089  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for the removal of experiments that are no longer being performed.

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Short Title: Automated Stem Cell Radiolabeling via 3D Microprinting-Enabled Microfluidics  
Investigator: Miroslaw Janowski  
ID: IBC-00005346  
Analyst: John O'Neill

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VA-Related:

Yes

Discussion:

This modification has been administratively approved for the change of title.

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Short Title:

Interferon stimulated gene screening for inhibition of Coronavirus replication

Investigator:

Matthew Frieman

ID:

IBC-00002073

Analyst:

John O'Neill

VA-Related:

Yes

Discussion:

There have been no substantive changes to this protocol submission.

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Short Title:

In vitro and In vivo analysis of the SARS Coronavirus

Investigator:

Matthew Frieman

ID:

IBC-00000711

Analyst:

John O'Neill

VA-Related:

No

Discussion:

There have been no substantive changes to this protocol submission.

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Short Title:

Viral inducers for use in mice

Investigator:

Phuoc Tran

ID:

IBC-00006675

Analyst:

Holda Ramos

VA-Related:

No

Discussion:

This protocol has been administratively approved for changes in personnel.

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Short Title:

Molecular and Cellular Physiology of HERG K channels

Investigator:

Matthew Trudeau

ID:

IBC-00001397

Analyst:

Holda Ramos

VA-Related:

No

Discussion:

This modification has been administratively approved for changes in personnel.

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Short Title:

Evolution of pathogenic Aeromonas species

Investigator:

David Rasko

ID:

IBC-00007713

Analyst:

Holda Ramos

VA-Related:

No

Discussion:

This protocol has been administratively approved for changes in work location.

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Short Title:

Lipid A modification of BSL-3 Gram-negative bacteria

Investigator:

Robert Ernst

ID:

IBC-00000133

Analyst:

John O'Neill

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

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Short Title: In vitro and In vivo analysis of the MERS Coronavirus  
Investigator: Matthew Frieman  
ID: IBC-00002089  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Investigation of SARS-CoV-2 and related coronaviruses  
Investigator: Matthew Frieman  
ID: IBC-00005484  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for the removal of experiments that are no longer being performed.

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Short Title: Molecular and Cellular Physiology of HERG K channels  
Investigator: Matthew Trudeau  
ID: IBC-00001397  
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: Breeding of Genetically Deficient Mice  
Investigator: Toni Antalis  
ID: IBC-00001180  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Recombinant Hemoprotein Creation and Testing  
Investigator: Jason Rose  
ID: IBC-00006979  
Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for changes in personnel.

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Short Title: Screening of BSL2 viruses with anti-viral compounds  
Investigator: Matthew Frieman  
ID: IBC-00002948

Analyst: Holda Ramos  
VA-Related: No  
Discussion: This modification has been administratively approved for the removal of experiments that are no longer being performed.

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Short Title: Expression of Viral Proteins in Yeast for Function Identification and Drug Screens  
Investigator: Matthew Frieman  
ID: IBC-00003326  
Analyst: John O'Neill  
VA-Related: No  
Discussion: There have been no substantive changes to this protocol submission.

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Short Title: Cyclic nucleotide signaling in memory and social behaviors  
Investigator: Michy Kelly  
ID: IBC-00005947  
Analyst: John O'Neill  
VA-Related: No  
Discussion: This modification has been administratively approved for work with human and NHP tissue using BSL-2 facilities and practices.