

Institutional Biosafety Committee

11/7/2025, 12:00PM – 12:55PM

Teleconference

Minutes

Voting Members Present: Brian Taylor, Ami A. Patel, Karen Scanlon, Ron McNeil, Elizabeth Bramhall, J. Kristie Johnson, John O'Neill, Irina Luzina, Matthew Frieman, Robert Ernst, Ciaran Skerry, Matthew Fischer

Voting Members Absent: Marianne Cloeren, Alan Schmaljohn, Melissa Morland, Anthony Kim, Theresa Marth, Joseph Gillespie, Sammy Almashat, Sherry Bohn, Jessie Duggan, Alfredo Garzino-Demo

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

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

1 Vote on Last Meeting's Minutes

Institutional Biosafety Committee meeting on 10/06/2025

Votes to approve minutes: 9, Disapprove: 0, Abstain: 0

2 New Business

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

- Our 2026 calendar is available at <https://www.umaryland.edu/ehs/research-registration/institutional-biosafety-committee-ibc/ibc-calendar/>. Briefly, meetings will be the first Friday of the month except January, April, July, and September due to holidays. In those months, meetings will be on the second Friday.
- CICERO non-affiliate accounts are migrating over to community IDs.
- At the ABSA conference, UMB's Melissa Morland was honored with the Arnold Wedum Award and the biosafety team won the award for biosafety month celebrations.
- 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, December 5th
- Member issues
 - ChABSA has a dinner meeting on November 12th in Ellicott City entitled "Rate of Errors During Routine Biological Manipulation"

3 Reportable Incidents

- No reportable events occurred this month.

4 Select Agent Program Oversight

- The annual select agent exercise was held on October 22nd.

5 New IBC Submissions

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 protocol 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: Approved
Vote: For: 10, Against: 0, Abstained: 0, Recused: 0

Short Title: Testing the role of neuromodulation in stress-related disorders
Investigator: Tanner Francis
ID: IBC-00008544
Analyst: John O'Neill
VA-Related: No
Discussion: This protocol 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: Approved
Vote: For: 10, Against: 0, Abstained: 0, Recused: 0

6 Modification Discussions

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 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 and is approved using BSL-1 and A-BSL-1 facilities and practices.
Motion: Approve the Modification
Vote: For: 11, Against: 0, Abstained: 0, Recused: 0

Short Title: Role of extracellular RNA and complement factor B in sepsis, cardiac ischemia reperfusion and polytrauma model
Investigator: Wei Chao
ID: IBC-00003470

Analyst: John O'Neill
VA-Related: No
Discussion: This modification involves the use of adenoviral vectors in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-1-a using ABSL-2 facilities and practices. The following modifications are required to secure approval: 1) Acknowledge that tat is derived from HIV and 2) Describe the stability of adenovirus in the environment.
Motion: RMSA
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

Short Title: Utilizing Targeted Therapies to treat orthotopic Prostate Tumors in a mouse and rat Model
Investigator: Hem Shukla
ID: IBC-00003860
Analyst: John O'Neill
VA-Related: No
Discussion: This modification involves the use of previously transduced rodent cells 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: Update the training and procedure details for the newly added person.
Motion: RMSA
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

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 includes mutations in additional genes of interest from the OC43 genome using a plasmid to encode an infectious clone and then subsequent use of the recombinant OC43 in cell culture. It has also been modified to include new strains of influenza. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-D-2-a and III-D-3-a and is approved using BSL-2 facilities and practices.
Motion: Approve the Modification
Vote: For: 10, Against: 0, Abstained, Recused: 2 (Matthew Frieman, Robert Ernst)

Short Title: Mechanisms of fate determination in peripheral T cells
Investigator: Nevil Singh
ID: IBC-00002339
Analyst: John O'Neill

VA-Related: No
Discussion: This modification involves the use of replication incompetent Murine Stem Cell Virus in 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 using BSL-1/ABSL-1 facilities and practices. The following modifications are required to secure approval: 1) Confirm/update personnel; 2) Remove expired animal-use protocol information; and 3) Explicitly include MSCV in the risk assessment responses.
Motion: RMSA
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

Short Title: Molecular Mechanisms of Hormone-independence of prostate cancer
Investigator: Yun Qiu
ID: IBC-00000447
Analyst: Holda Ramos
VA-Related: Yes
Discussion: This modification involves the addition of lentiviral constructs and plasmids used in 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 ABSL-2 facilities and practices with sharps precautions.
Motion: Approve the Modification
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

Short Title: Rational targeting of protein translation for cancer treatments
Investigator: France Carrier
ID: IBC-00002549
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification involves the addition of recombinant cell lines in animals. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-4-b using BSL-2 and A-BSL-2 facilities and practices. The following modification is required to secure approval: Include more detail in the origin section than just the vendor name.
Motion: RMSA
Vote: For: 12, Against: 0, Abstained: 0, Recused: 0

7 RMSA Follow-Up

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: This modification involves an additional wild-type MERS-CoV strain which will be used in animals and is approved using ABSL-3 facilities and practices. The following modifications were made to secure approval: 1) The past statement about a strain to be acquired was removed as it was never received and 2) the biosafety cabinet certification date has been updated.

Status: Approved

Short Title: Mechanism of Rickettsia-Host-interaction (BSL-2)

Investigator: Mohammed Rahman

ID: IBC-00007650

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification involves the addition of previously transposed *R. parkeri* mutants in animals. They also added a new gene of interest to all previously approved work in the rDNA table. 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 and ABSL-2 facilities and practices. The following modifications were made to secure approval: 1) Updated IACUC protocol number, 2) Clarified the use of antibiotic resistance, and 3) Updated BSC certification date.

Status: Approved

Short Title: Molecular Drivers of Pulmonary Vascular Remodeling in PH-HFpEF

Investigator: Yen-Chun (Charly) Lai

ID: IBC-00008473

Analyst: John O'Neill

VA-Related: No

Discussion: This protocol 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 protocol also involves the use of plasmids and siRNA in human 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 III-F-1, respectively, and is approved using BSL-2 facilities and practices. The following modifications were made to secure approval: 1) The Lay Abstract has been re-written for non-scientists; 2) Scrambled control AAV constructs have been added; 3) Clarified AAV constructs for the expression or knock down of genes; 4) The fact that CAT2 and hSLC7A2 are the same gene has been confirmed; 5) Added fluorescent molecule under genes to be expressed; 6) The NIH Guideline for the use of siRNA has been corrected to III-F-1; and 7) The typo of the word "human" has been corrected.

Status: Approved

Short Title: Labeling glioma or neural stem cells with fluorescent reporters for multiplex single cell tracking

Investigator: Yajie Liang
ID: IBC-00006162
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification involves the use of murine retroviral vectors in mammalian cells. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-1-a and is approved using BSL-2 and A-BSL-2 facility and practices. The following modifications were made to secure approval: 1) Elaborated in the experimental design, 2) Added discussion of the tropism of the vector, and 3) Removed superfluous entry in the lentivirus table.
Status: Approved

Short Title: ProSAAS-mediated neuroprotective mechanisms in Alzheimer's and Parkinson's diseases
Investigator: Iris Lindberg
ID: IBC-00004821
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification involves the addition of a lentivirus and AAV in animals. This work is classified by the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules as III-D-1-a and is approved using BSL-2 and ABL-2 facilities and practices. The following modification was made to secure approval: Updated the IACUC number.
Status: Approved

Short Title: Gut Microbiome in Immune Tolerance
Investigator: Mustafa Ozcam
ID: IBC-00008456
Analyst: John O'Neill
VA-Related: No
Discussion: This protocol involves the use of plasmids in K12 *E. coli* and *Limosilactobacillus reuteri*, 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 BSL-1/ABSL-1 facilities and practices. The following modifications were made to secure approval: 1) Provided more detail under procedures to be performed and qualifications and training of Principal Investigator; 2) Elaborated on the animal portion of the study and how it relates to the overexpression of the gene of interest in *L. reuteri*; 3) Acknowledged that replication competent *L. reuteri* may be transmitted horizontally; and 4) Added a statement for the collection and disposal of animal bedding when working at UMB.
Status: Approved

Short Title: Molecular Imaging Mouse

Investigator: Vikas Kundra
ID: IBC-00006585
Analyst: Holda Ramos
VA-Related: No
Discussion: This protocol was previously approved for work with AAV, retrovirus, and lentivirus vectors *in vitro*, and plasmids *in vitro* and *in vivo*. It has been modified to include all the work being done *in vivo* and *in vitro*, and the addition of new cell lines. 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 and A-BSL-1 facilities and practices. The following modification was made to secure approval: Updated procedure rooms.
Status: Approved

7 Non-Exempt Protocols with Periodic Reviews

Short Title: Candida albicans-Staphylococcus aureus Mixed-Species Biofilms
Investigator: Janette Harro
ID: IBC-00000172
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Role of Lipid metabolic signatures in induced pluripotent stem cell derived AD neurons.
Investigator: Robin Roychaudhuri
ID: IBC-00008072
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: optogenetic and chemogenetic stimulation
Investigator: Todd Gould
ID: IBC-00003451
Analyst: John O'Neill
VA-Related: Yes
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Biofilm Studies
Investigator: Janette Harro
ID: IBC-00000040
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Fish immune response to *M. marinum* infection and genetic analysis of fish muscle development and disease
Investigator: Shaojun Du
ID: IBC-00001186
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC Submission: 2320GCCC: Expanded Access Study for the Treatment of Patients with Commercially OOS Brexucabtagene Autoleucel
Investigator: Aaron Rapoport
ID: IBC-00007195
Analyst: Holda Ramos
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC: 2478GCCC: A Phase 2 of Olvi-Vec + Pembrolizumab Compared with Docetaxel in Patients w/ NSCLC
Investigator: Samuel Rosner
ID: IBC-00008080
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC: 2325GCCC: Expanded Access Study for the Treatment of Patients with Commercially Out-of-Specification Axicabtagene Ciloleucel
Investigator: Aaron Rapoport
ID: IBC-00007238
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Surgical Studies of Gut Permeability
Investigator: Jian-Ying Wang
ID: IBC-00000072
Analyst: Holda Ramos
VA-Related: Yes
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Validating ASCT2 for the Treatment of Chronic Postsurgical Pain
Investigator: Ohannes Melemedjian
ID: IBC-00005906

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

Short Title: Protein NEDD9 in pulmonary arterial hypertension
Investigator: Bradley Maron
ID: IBC-00007440
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Inhibition of Innate Immune Signaling by SARS, MERS, HKU4 and HKU5 Coronavirus Proteins
Investigator: Matthew Frieman
ID: IBC-00000315
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Examining the role of micro-RNAs in inflammation
Investigator: Kamal Moudgil
ID: IBC-00004429
Analyst: Holda Ramos
VA-Related: Yes
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC: 2493GCCC: Autologous SCG142 TCR-T Cell Therapy in Patients with Advanced or Metastatic HPV16- or HPV52-positive Carcinomas
Investigator: Raneer Mehra
ID: IBC-00008096
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Analysis of Animal Viromes
Investigator: Matthew Frieman
ID: IBC-00001349
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: White matter repair by transplanted glial progenitors guided by multimodality imaging

Investigator: Piotr Walczak
ID: IBC-00007091
Analyst: Holda Ramos
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Blood Flow in Learning and Memory
Investigator: Thomas Longden
ID: IBC-00005260
Analyst: Holda Ramos
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: HIV-1 mediated Pathophysiology
Investigator: Chozha Rathinam
ID: IBC-00003929
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC Submission: RPower-HCC RP2-003 GCCC2350
Investigator: Hyun Kim
ID: IBC-00007348
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Targeting microtentacles on circulating breast tumor cells to reduce metastasis.
Investigator: Stuart Martin
ID: IBC-00000475
Analyst: John O'Neill
VA-Related: Yes
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Epigenetic regulation in prostate cancer progression and therapeutic resistance of prostate cancer
Investigator: Jianfei Qi
ID: IBC-00002354
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Biofilm studies
Investigator: Mary Ann Rizk
ID: IBC-00000578
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Modulation of autoimmune processes by alteration of miRNA levels in vivo in rodent models and in vitro
Investigator: Kamal Moudgil
ID: IBC-00006038
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Intestinal Mucosal Growth in Health & Surgical Diseases
Investigator: Jian-Ying Wang
ID: IBC-00004027
Analyst: John O'Neill
VA-Related: Yes
Discussion: There have been no substantive changes to this protocol submission.

Short Title: IBC: 2394GCCC: VX0120 / Phase 1 Study of Intratumoral Administration of VAX014 in Subjects with Advanced Solid Tumors
Investigator: Katherine Tkaczuk
ID: IBC-00007606
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Primary Chondrocyte Immortalization for Drug Screening
Investigator: Stephanie Jo
ID: IBC-00007694
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: Molecular and neural circuit basis of craniofacial pain
Investigator: Man-Kyo Chung
ID: IBC-00001592
Analyst: Holda Ramos
VA-Related: No

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

Short Title: Mucosal Repair in Gut Surgical Disorders

Investigator: Jian-Ying Wang

ID: IBC-00000087

Analyst: Holda Ramos

VA-Related: Yes

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

Short Title: Role of RGC-32 in gliosis

Investigator: Horea Rus

ID: IBC-00002541

Analyst: Holda Ramos

VA-Related: Yes

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

Short Title: Blood Flow in Learning and Memory

Investigator: Thomas Longden

ID: IBC-00005260

Analyst: Holda Ramos

VA-Related: No

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

Short Title: Vascular signaling plasticity

Investigator: Thomas Longden

ID: IBC-00006386

Analyst: Holda Ramos

VA-Related: No

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

Short Title: Determine the efficacy of morpholino oligonucleotides in a rodent models of myotonic dystrophy

Investigator: Joseph P Stains

ID: IBC-00006467

Analyst: Holda Ramos

VA-Related: No

Discussion: This modification has been administratively approved for updates to biosafety cabinet certification dates.

Short Title: Gut Microbiome in Immune Tolerance

Investigator: Mustafa Ozcam

ID: IBC-00008456

Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for the potential exposure to bloodborne pathogens using BSL-2/ABSL-2 facilities and practices..

Short Title: Role of pertussis toxin in Bordetella pertussis infection
Investigator: Nicholas Carbonetti
ID: IBC-00000427
Analyst: John O'Neill
VA-Related: No
Discussion: This modification involves the use of siRNA in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-F-1 and is administratively approved using ABSL-1 facilities and practices.

Short Title: Autoimmune Regulation of Synapse Structure and Function
Investigator: David Benavides
ID: IBC-00004135
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

Short Title: Long-term Inhibition of HIV transcription by targeting cellular CDK9 in vivo
Investigator: Alonso Heredia
ID: IBC-00003501
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for the use of an mRNA vaccine in animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-F-1 and is approved using ABSL-1 facilities and practices.

Short Title: HK Delivery of Nucleic Acids
Investigator: Archibald Mixson
ID: IBC-00001842
Analyst: John O'Neill
VA-Related: No
Discussion: This modification involves the use of siRNA in murine cells and animals. This work is classified by the NIH Guidelines for Research with Recombinant or Synthetic Nucleic Acids as III-F-1 using BSL-1/ABSL-1 facilities and practices.

Short Title: Ultrasound-Mediated Microbubble Coupled Plasmid sFlt-1 or VEGF Gene Delivery in the Pregnant Baboon and offspring.
Investigator: Graham Aberdeen

ID: IBC-00001512
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

Short Title: White matter repair by transplanted glial progenitors guided by multimodality imaging
Investigator: Piotr Walczak
ID: IBC-00007091
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

Short Title: Translational Laboratory Shared Service (TLSS)
Investigator: Rena Lapidus
ID: IBC-00001298
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for the addition of primary human cells which will be used in animals using ABSL-2 facilities and practices.

Short Title: Iron homeostasis of bacterial pathogens
Investigator: Amanda Oglesby
ID: IBC-00001885
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

Short Title: Cloning and characterization of immune genes from non-mammalian species
Investigator: Helen Dooley
ID: IBC-00003926
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

Short Title: DNA library production and delivery for manipulation and labeling of neurons in the rodent brain
Investigator: Alexandros Pouloupoulos
ID: IBC-00004060
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for the use of plasmids in animal cells *in vitro*. This work is classified by the NIH Guidelines for Research with

Recombinant or Synthetic Nucleic Acids as III-F-8 Appendix C1 and is approved using BSL-2 facilities and practices.

Short Title: Anti-Cancer Therapies
Investigator: Joseph P Stains
ID: IBC-00006568
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for updates to biosafety cabinets certification dates.

Short Title: Iron homeostasis of environmental Pseudomonads
Investigator: Amanda Oglesby
ID: IBC-00004194
Analyst: John O'Neill
VA-Related: No
Discussion: There have been no substantive changes to this protocol submission.

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

Short Title: Microbiome studies of de-identified samples
Investigator: Jacques Ravel
ID: IBC-00000989
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for updates to rooms numbers.

Short Title: Calcium Imaging in Cell Culture
Investigator: David Benavides
ID: IBC-00004420
Analyst: Holda Ramos
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

Short Title: Role of Immune system on Tumor antigens
Investigator: Anirban Banerjee

ID: IBC-00005821
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for changes in personnel.

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

Short Title: Novel Therapies for Improved Muscle Growth and Function
Investigator: Joseph P Stains
ID: IBC-00004286
Analyst: John O'Neill
VA-Related: No
Discussion: This modification has been administratively approved for updating the biosafety cabinet certification date.

Short Title: Blood Flow Control in Heart
Investigator: W. Jonathan Lederer
ID: IBC-00008572
Analyst: John O'Neill
VA-Related: No
Discussion: Due to a technical issue, IBC-7574 became uneditable. This protocol is an exact copy and replacement of IBC-7574, and it has been administratively approved for the use of AAV in animals using ABSL-1 facilities and practices.

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 has been administratively approved for updates to *in vivo* procedures and biosafety cabinet certification dates.