Boston University  
Institutional Biosafety Committee (IBC)  
Meeting Minutes  
Location: Medical Campus, B-406, 72 East Concord Street  
Date: March 20, 2018   Start time: 12:05 PM   End time: 1:48 PM  

This meeting is open to the public.  

Present:  
Guests:   P. Urick, M. Auerbach, G. Madico, N. Dey.  
Staff:   S. Ghosh, C. Williams, J. Hutchinson.  
Absent:   Members:  I. Afasizheva, J. Keeney, B. Slack, E. Muhlberger, E. Loechler.  

Confidentiality: Members are required to maintain the confidentiality of all non-public information entrusted to them. Members may not disclose any confidential information except as authorized by an appropriate institutional officer or as required by law. They may not use any confidential information except to carry out their obligations as committee members. No information may be used by committee members for their own benefit.  

Conflict of Interest: The NIH Guidelines state that no IBC member may “be involved (except to provide information requested by the Institutional Biosafety Committee) in the review or approval of a project in which he/she has been or expects to be engaged or has a direct financial interest.” The Chair must be notified of the conflict and the member must recuse themselves from the review and vote on the protocol.  

I. Review of February 2018 Meeting Minutes  
A correction was noted for protocol 2274, motion was documented in the minutes as conditional approval per the discussion at the meeting that the BUA Site Assessment would need to be completed and approved before the protocol was approved.  
Motion: Approve  
For: 8  
Against: 0  
Abstain: 1  

II. New Business  
A. Safety Committees Report:  
   a. NIH/CDC Recommended Biosafety Level for Oropouche virus (J. Hutchinson)  
      At the IBC’s request, clarification was sought from the NIH/CDC on the biosafety level under which OROV can be safely handled. Dr. Deborah Wilson, Director, Division of Occupational Health and Safety, Office of Research Services, National Institutes of Health indicated that the NIH and CDC’s recommendation stands (as stated in the letter reviewed by the committee previously dated January 8, 2016 to the University of Michigan), that OROV can be worked with at BSL2 and that this will be changed in the 6th edition of the BMBL. The committee discussed how to proceed and the difference in standard microbiological practices were noted. UTMB was indicated as the source of the virus currently be stored at the NEIDL.
Motion: To reduce the virus storage to BSL2
For: 10
Against: 0
Abstain: 0

b. **Approved Applications/Amendments (S. Ghosh)**

Since the February IBC meeting, one new application, 5 three-year renewals, 11 amendments and 16 annual renewals have been approved.

c. **RIMS Upgrade (M. Auerbach)**

The IBC protocol management software (RIMS) is being upgraded and is scheduled to go live in April. The upgrade will include a nicer interface and SMART form functionality. S. Ghosh will be hosting a training for researchers in April on the CRC utilizing the upgraded version. Additional details will be shared with the IBC and research community as the go live date approaches.

B. **Research Occupational Health Program (ROHP) Report**

a. On 2/15/18, a Veterinary Technician discovered a small amount of mouse urine in the bottom grate/ trough of an ABSL2 room biosafety cabinet (BSC). The concern was that the urine may have contained mouse prion protein. However, EHS confirmed that the biosafety cabinet was functioning properly. The veterinarian and animal care staff supervisor confirmed that staff working with these mice wear double gloves, full front impermeable gown with sleeve covers/ cuffs at wrist, shoe covers and dedicated footwear, face shield, safety goggles, N95 and hair net. No known exposure was noted.

b. On 2/20/18, a veterinary research technician slipped and fell while changing cages (which involved spraying the cages with Microchem) in the NEIDL. She jammed her left 1st toe into a door and also injured her left elbow. There was no runoff from the cages moving toward the area where she was standing and she was wearing the required protective gear. All PPE was intact when she got up, left the room, and changed clothing as required by protocol. It was determined that no potential exposure to herpes B had occurred during this incident.

C. **Environmental Health & Safety Report**

For the 2/15/18 incident, the root cause was failure to follow procedure. The responsible veterinarian contacted the EH&S department for guidance on the BSC decontamination and potential exposure. Since low quantities of prions have been reported to be secreted in the urine of infected animals, this BSC was assumed to be contaminated. Upon initial discovery of the urine the ASC Manager disinfected the urine and interior of the BSC by 5 min exposure to LpH per USDA permit approval. After confirming the proper function of this Class II Biosafety Cabinet, EH&S concluded that there should be no contamination from the urine outside of the BSC. EH&S then instructed the ASC Management to decontaminate the interior of the BSC with LpH for 5 minutes and then wrap it in poly sheeting, have it taken out of service and place in an inactive ASC room until further decontamination by an outside contractor. A non-contaminated BSC was then placed in room W834 to allow procedures to resume in this space. EH&S advised the ASC Managers to speak to their staff about potential exposure during this incident and to contact ROHP if there are any concerns.
The following steps have been taken to prevent recurrence: The ASC staff will express the mouse urine into the cage bedding or an absorbent chuck and then completely saturate the material with LpH, allowing for a contact time of 5 minutes, as identified in the USDA permit. The bedding or chuck will then be properly disposed of via bio-hazardous waste to be incinerated. Decontamination of the BSC has been completed but the report is still pending.

III. Protocol Review:

A. New Applications

None

B. Three-Year Renewal Applications

1. Biohazard (Bhz)

Principal Investigator (PI):

Biological Use Authorization (BUA) Tracking ID #: 2012

Title: 1. Phase 2, Multi-Center Trial of Lorcaserin in the Treatment of Cocaine Use Disorder; 2. Lacosamide effects on alcohol self-administration and craving in heavy drinkers

Primary Reviewer: Debbie Stearns-Kurosawa

Secondary Reviewer: Robert Timmerman

Biosafety Level: BSL-2

Animal Biosafety Level: N/A

Campus: BUMC

Applicable NIH Guidelines: N/A

Protocol Expires: 04/02/2018

Layman’s Description: H-36034: CS1033 will test the effectiveness of the study drug, Lorcaserin, in helping people reduce or quit using cocaine. Subjects are considered for participation based on the number of times they’ve used cocaine in the 30 days prior to their first visit and their desire to reduce or stop using cocaine. The main goal of the study is to compare the effectiveness of Lorcaserin against a placebo on the proportion of subjects who have no cocaine use in the last three weeks of study participation.

H-36766 Lacosamide R21 we will evaluate the effects of lacosamide, a novel anticonvulsant that is FDA-approved for treating partial seizures, on drinking and craving among heavy drinkers in a human laboratory using an alcohol self-administration paradigm. The overarching goal of our research is to identify agents with unique mechanisms that hold promise for treating alcohol use disorder.

**Meeting comments:** This is a renewal of one ongoing clinical study and introduction of another new clinical study. In the first study they are testing the efficacy of a drug in helping cocaine users to reduce or quit cocaine use. In the second study they are testing the efficacy of an FDA approved drug to reduce the drinking habit in people who already are heavy drinkers. In both the studies, blood and urine samples will be collected from the study participants to confirm entry criteria for the study and to analyze behavioral characteristics. Both the studies had objectives that were straightforward. Concerns were noted with one study where participants will be required to consume up to 9 alcoholic beverages within a short period of time. There was concern expressed regarding what would happen to subjects following this period of time and if they would be permitted to drive home. It was noted that IRB protocol information was provided by
the PI and that issues related to human subjects protection fall under the IRB’s purview. Clarification was requested regarding exposure (i.e., if subjects were to vomit) to study personnel.

**Changes/Clarifications Required:**

**Personnel Information:** Please change Dr. Devine’s title to Assistant Professor.

**Research Project Description:**

Q3- The study raises significant site, personnel safety and biohazard questions that are not properly addressed in the protocol because the subjects will have up to 9 alcoholic drinks in a 2 hour period.

i) There are multiple references to the fact that effects of the drug will be evaluated in a “human laboratory”. Please clarify what is this ‘Human Laboratory’ and where is it located.

ii) During the consumption of 9 alcoholic drinks in a 2-hr period are the subjects isolated from other people? Who will be monitoring their behavior and potential after-effects (vomiting for example)?

iii) Please contact hospital epidemiologist Dr. Carol Sulis at 617-414-5037 (or carol.sulis@bmc.org) to clarify the personnel and clinical safety issues of the protocol and indicate the date of communication in this section.

**Biosafety Training:** All members are current with all training requirements.

**BUA Site Assessment:** Approved.

**Motion:** Conditional Approval (Primary and Secondary Member Review).

**For:** 10

**Against:** 0

**Abstain:** 1

2. **rDNA/Bhz**

   **PI:** BUA Tracking ID #: 1667

   Title: Fatty Acid Transport: Structural and Cell Biology

   Primary Reviewer: Debbie Stearns-Kurosawa

   Secondary Reviewer: Robert Timmerman

   Biosafety Level: BSL-2

   Animal Biosafety Level: N/A

   Campus: BUMC

   Applicable NIH Guidelines: Section III-D-1-a; Section III-D-2-a; Section III-E-1; Appendix B-II; G-II-B

   Protocol Expires: 04/15/2018

   Layman’s Description: We want to know whether we need a protein to carry fat into cells. Understanding this will aid in diminishing obesity and diabetes.

**Meeting Comments:** The PI continues to investigate mechanisms of fat transportation through cell membrane. Although active transportation of fat molecules typically requires transporter protein/s, based on their recent studies, the PI’s group hypothesized that such protein transporter-based active transport may not always be necessary. In this protocol the PI’s group will further investigate this requirement by either overexpressing or RNAi-mediated silencing of the transporter proteins. Laboratory work involves typical cell culture work, rDNA cloning and plasmid transfection as well as lentivirus-mediated gene expression manipulation work.

**Changes/Clarifications Required:**
Overview and Grant Funding Information: Please change the submission type to a ‘3-Year Re-submittal’.

Research Project Description: Q2- Please correct the typo ‘HEK239 cells’.
Q3- Please provide more information on the lentiviral vector (what generation vector, replication competence, source and safety measures practiced during handing the viruses).

PPE and SE: Q5- Update BSC certification date (should be 3/31/17). Note that recertification is now due.

Materials Used in Research: Please select the highest animal biosafety level for your work (should be N/A).

Recombinant DNA (Section H): Add pCI-neo plasmid in the vector box in the prokaryotic experiment also. Also add lentivirus vector in both prokaryotic and eukaryotic experiments (for plasmid preparation and transfection work, respectively)
Use of lentivirus vector has been stated in the laboratory procedure. Please provide information regarding name of the vector, source and replication competence. If obtained from collaborator, reference of the appropriate publication must be provided.
In question 19 (applicable NIH guidelines) change the statement to Section III-D-1-a; Section III-D-2-a; Section III-E-1; Appendix B-II; Appendix G-II-B.

Biosafety Training: All members are current with all training requirements.

BUA Site Assessment: Approved.

Motion: Conditional Approval (Administrative Review).

For: 11
Against: 0
Abstain: 0

3. rDNA   PI:   BUA Tracking ID: 2296
Title: Fluorescence Resonance Energy Transfer (FRET)-based Biosensing
Primary Reviewer: Rosina Georgiadis
Secondary Reviewer: Robert Timmerman
Biosafety Level: BSL1
Animal Biosafety Level: N/A
Campus: BUMC
Protocol Expires: 04/01/2018

Layman’s Description: We use color-changing indicators for biosensing applications-- for example, detecting hormones in solution.

Meeting comments: This protocol utilizes Fluorescence resonance energy transfer (FRET) technology to understand the biochemical mechanism of interactions of two or more macromolecules in solution. The FRET technology is based on the physicochemical principles that two light sensitive molecules may transfer their energies when in proximity, thereby changing their light emission properties. Because this process is dependent on the structure of the interacting molecules and distance between them, this technology has become an advance methodology for identification of mechanisms of molecular interactions. In this protocol DNA-protein binding or protein dimerization will be investigated using proteins that are being modified by rDNA cloning for easy purification as well as for identification of site molecular interactions. The committee requested clarification on what molecules are being investigated on and which laboratory locations are being used for which laboratory procedures.
**Changes/Clarifications Required:**

**Personnel Information:** Please include yourself (PI – Dr. Dennis) in the personnel list and complete all questions.

**Research Project Description:**

Q2 - Please elaborate on your work by providing a brief description of what biomolecules are being used for FRET-based experiments and what the goals of your work are.

Q3 - Please provide more detail regarding what procedures are being conducted in each research location.

The BME core facility is a BSL2 facility. Please indicate that all personnel in your protocol are aware of the risks associated with working in a BSL2 room and will use appropriate PPE and material handling guidelines while working there.

It is stated in the laboratory procedure section that none of the plasmids to be used code for any human protein, yet in section H- prokaryotic experiments- Donor box, there are two human proteins. Please clarify.

**Biosafety Training:** All members are current with all training requirements.

**BUA Site Assessment:** Approved.

**Motion:** Conditional Approval (Administrative Review).

- **For:** 11
- **Against:** 0
- **Abstain:** 0

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4. **rDNA/Bhz**

**PI:**

**Title:** Mechanisms of metastatic melanoma phenotype development

**Primary Reviewer:** Debbie Stearns-Kurosawa

**Secondary Reviewer:** Rao Varada

**Biosafety Level:** BSL-2

**Animal Biosafety Level:** ABSL-2

**Campus:** BUMC

**Applicable NIH Guidelines:** Section III-D-I-a, Section III-D-2-a, Section III-E-1; Appendix B-II-D

**Protocol Expires:** 04/15/2018

**Layman’s Description:** The goal of this project is to determine the functional role of the genes that we think play important roles in the cancer spreading from one organ to the other organs in human body. We will manipulate these gene functions in cancer cell and inject these cells into mice to see how that affects the growth and ability to spread of the cancer cells. In addition, we will use human patient samples to verify the significance of the metastasis genes in human cancer, This study will provide us important information that we can use to find a way to prevent cancer spreading which is main cause of cancer death.

**Meeting Comments:** The PI continues to investigate the mechanism of cancer metastasis with particular attention to melanoma. They have hypothesized that there are subpopulations of cells in melanoma tumors that are capable of forming secondary metastases in distal organs. Role of selected metastasis –specific genes in this subpopulation of cells will be investigated by lentivirus-mediated gene manipulation followed by induction of xenograft tumors in mice using these transduced cells and following how they affect tumor metastasis. The PI’s group will also investigate microRNAs associated with melanoma progression in serum samples obtained from
melanoma patients. MicroRNA expression in formalin-fixed paraffin-embedded (FFPE) melanoma tissue samples obtained from patients will also be investigated.

**Changes/Clarifications Required:**
Research Project Description: Q3- Please clarify what is the source of formalin-fixed paraffin-embedded (FFPE) melanoma tissue samples. Please state if the PI or the lab is handling fresh tissue, doing the fixing, and paraffin embedding. Please indicate if the work with human tissues requires IRB approval and if so, please provide the information requested in the application.

If these melanoma tissues are obtained from any clinical space, please contact hospital epidemiologist Dr. Carol Sulis (carol.sulis@bmc.org or csulis@bu.edu or 617-414-5037) to clarify the issues of safe handling and transport of human clinical samples. Also indicate the date of this communication with Dr. Sulis.

PPE and SE: Q7A- Please correct the typo ‘breach’.

Other Potentially Infectious Material (Section B): Note that the referenced IRB protocol H-31660 is currently closed. Please provide updated information as requested in the application.

Recombinant DNA (Section H): Provide current IACUC approval number in Section A table 4 as well as in the animal experiment section in Section H.

Q19- Please modify your response to Applicable NIH guidelines to: Section III-D-I-a, Section III-D-2-a, Section III-E-1; Appendix B-II-D.

**Biosafety Training:** All members are current with all training requirements.

**BUA Site Assessment:** Approved.

**Motion:** Conditional Approval (Administrative Review).

**For:** 11

**Against:** 0

**Abstain:** 0

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**5. Bhz**  
**PI:**  
**BUA Tracking ID:** 1487

**Title:** CLASSIFICATION OF STUDIES: 1. Human Studies-IMPAACT/ACTG 2. Human Studies-NIH, industry and internally sponsored 3. IACUC/Animal Protocols  

*Specific titles are listed in Section VII.*

**Primary Reviewer:** Robin Ingalls  
**Secondary Reviewer:** Erin Sawyer  

**Biosafety Level:** BSL-2  
**Animal Biosafety Level:** ABSL-2  

**Campus:** BUMC  
**Applicable NIH Guidelines:** N/A  

**Protocol Expires:** 04/30/2018  

**Layman’s Description:**

Human studies:
The human studies involve the evaluation of new treatments for HIV in children and adolescents and new strategies for preventing the transmission of HIV from pregnant women to the newborn, plus evaluation of risk factors for transmission of hepatitis C virus (HCV) from mother to infant. We are also conducting a study on an oral live-attenuated cholera vaccine, PaxVax PXVX-VC-200-006, in children 2-17 years of age. We are also conducting two RSV vaccine studies: IMPAACT 2013, a double-blind, randomized, placebo-controlled trial that will evaluate the infectivity, safety, and immunogenicity of Recombinant Live-Attenuated Respiratory Syncytial Virus Vaccine in...
infants and children confirmed to be RSV-seronegative within 42 days prior to inoculation; and IMPAACT 2018, a double-blind, randomized, placebo-controlled study design that will be used to evaluate the safety and immunogenicity of the vaccines in RSV-seronegative infants. Participants will be randomized to receive RSV ΔNS2/Δ1313/I1314L vaccine, RSV 276 vaccine, or placebo in a 2:2:1 ratio.

Animal studies:
We are performing studies of how bacteria overcome the host defense systems, specifically how they escape the disposition of complement, which is one of the body’s ways of making bacteria more susceptible to host defenses, and of vaccine candidates for prevention of Respiratory Tract Infection (RTI) due to *Streptococcus pneumoniae* and Non-typable *Haemophilus influenzae*. We are also evaluating new vaccine candidates (PNAG conjugate) and passive immunization for prevention of experimental otitis media (EOM).

**Meeting comments:** This is an umbrella protocol for multiple clinical studies that investigate new treatment and prevention strategies for HIV infection, study factors affecting transmission of hepatitis C virus in pregnant women, evaluate live-attenuated cholera vaccine, and evaluate the efficacy of a number of respiratory syncytial virus (RSV) vaccine strategies. They also conduct several animal model studies where a number of vaccines are tested against experimentally-induced Otitis Media (EOM). Laboratory procedures include separation of serum or plasma from patient blood and measurement of antibody response by ELISA or immunological assays. These studies also require cultivation of *Streptococcus pneumoniae*, non-typable *Hemophilus influenza* and *Staphylococcus aureus*. For animal studies, following induction of EOM and vaccination, animals are challenged with appropriate pathogen and as a measure of efficacy of the vaccine, survival of pathogens in animal body fluids are monitored by a variety of bacteriological assays.

**Changes/Clarifications Required:**
**Personnel Information:** Please provide information on how long the following individuals have been trained at their respective jobs (Megan, Anisha, Yida and Kavin).
**Research Laboratory Facility Information:** Please remove W719A as an animal procedure space. The lab now has a procedure room at the back of their housing room and W719A has been converted to an imaging space.
**Research Project Description:** Q2- Please try to conform to the recommendation of 200 words or less. The long description of justification of risk group classification of the RSV vaccine is not appropriate for this section. This text may be included in the next section (laboratory procedure section in Section VII.3). Please clearly distinguish the human subject/clinical trial studies from the animal studies. It was recommend that future submissions be submitted as two separate IBC applications; one on human/clinical studies and the other one on animal studies.
Q3- The Flow cytometry core is listed in the project description section as 670 Albany but it is 650 Albany. Please make this correction.
Please clarify which drug is being compounded in the pharmacy or laboratory for this study.
At the beginning of animal studies, please state which animals are being used for your work.
**Staphylococcus aureus** is noted in some detail for animal experiments in section A.4 table but is not listed among the agents used in the laboratory procedure portion of the protocol.

Use of *Corynebacterium pseudodiphtericum* is mentioned in the project description section for preliminary studies but it is not listed anywhere else, including the biohazard tables.

PPE and SE: Q4- Double gloves are worn in the animal facility when inoculating or handling inoculated animals. Please check the box.

Q5- Update BSC certification date (should be 3/31/17 – recertification scheduled).

Q6- Please clarify what is meant by ‘Sharps are removed with gloves’ or provide a clear description of how it is done safely.

**Materials Used in Research:** Please check the ‘Yes’ button to indicate that this is happening in BMC clinical space.

**Hazardous Biological Agent (Section A):** Please add *Corynebacterium pseudodiphtericum* in the list. Please indicate if IRB approval is needed for *H. influenzae* and *S. pneumoniae*?

Note that three members (Elizabeth, Ritta and Rong) need to complete their training requirements (BSL1/2 and Bloodborne pathogen training).

**Biosafety Training:** Three members are not current with all training requirements.

**BUA Site Assessment:** Approved.

**Motion:** Conditional Approval (Administrative Review).

**For:** 12

**Against:** 0

**Abstain:** 0

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### 6. rDNA/Bhz: PI: BUA Tracking ID: 641

**Title:** Quantitative Analysis of RET Receptor Activation and Signaling Macroyclic Inhibitors of the NEMO/IKKbeta Protein-Protein Interaction

**Primary Reviewer:** Robin Ingalls

**Secondary Reviewer:** Ron Morales

**Biosafety Level:** BSL-2

**Animal Biosafety Level:** N/A

**Campus:** CRC

**Applicable NIH Guidelines:** Section III-D-1-a, Section III-D-2-a, Section III-E-1; Appendix B-II-D

**Protocol Expires:** 04/07/2018

**Layman’s Description:** This project will provide a deeper understanding of how cells sense and respond to specific cues in their surrounding environment. These cues, and a cell’s "machinery" for interpreting them, ultimately tell a cell to respond to its environment in a certain way, such as to live or die. Understanding what causes these responses can thus allow for better approaches to treating diseases, such as cancer. Our work on the NF-κB Essential Modulator (NEMO) protein work will help us develop new drug discovery technologies.

**Meeting Comments:** The PI continues to investigate how receptors allow cells to sense and respond to their environments by coupling between ligand binding, receptor activation, intracellular signaling and cellular responses using a model receptor known as Rearranged during Transcription or RET receptor. The project will use standard procedures to clone and express recombinant NEMO protein, or other recombinant proteins, into non-pathogenic *E. coli* expression strains, and transfection of these
expression plasmids into mammalian cell lines and stimulating these cell lines under different conditions to quantify different aspects of the cellular response. Laboratory procedures and manipulations include a variety of cell-based assays including ELISA and flow cytometric analysis. In some cases lentiviral vectors will also be used to deliver protein expression cassettes to the cells. Safety measures and waste disposal procedures are clearly described.

**Changes/Clarifications Required:**

**Overview and Grant Funding Information:** Please remove text from the summarize changes box. This is only for amendments and annual renewals.

**Personnel Information:** It is mentioned in this section that Michael Susoeff will be trained by Jennifer Chow. Please clarify the affiliation of Jennifer to your work.

Note that Dr. Whitty needs to update his lab safety and BSL1/2 training.

**PPE and SE:**

Q3- Please check the ‘Other’ box in this section.

Q5- Please update the BSC certification date (should be 7/31/2017).

Q6- Remove reference to “EHS/Triumvirate”. Triumvirate is no longer the waste contractor for BU. You may just reference a “hazardous waste vendor”.

Q7A- Indicate the percentage of Wescodyne in your liquid wastes. EHS recommends a final concentration of 1% (V/V) with a minimum 2hr treatment time.

**Biosafety Training:** All members, except the PI, are current with all training requirements.

**BUA Site Assessment:** Approved.

**Motion:** Conditional Approval (Administrative Review).

**For:** 12

**Against:** 0

**Abstain:** 0

C. Amendments & Annual Renewals for Committee Review

None

IV. Approved Amendments & Annual Renewals

A. Amendments

1. BUA Tracking ID: 2260
   
   Title: Optical imaging and phototherapy in drug-resistant microorganisms
   
   Biosafety Level: BSL-2
   
   Animal Biosafety Level: ABSL-2
   
   Method of Review: Expedited, Administrative Review
   
   Modification: Extend microscopy work on fixed and live *Plasmodium falciparum* strain

2. BUA Tracking ID: 2259
   
   Title: Metabolism and regeneration in primary neurons
   
   Biosafety Level: BSL-2
   
   Animal Biosafety Level: ABSL-1
   
   Method of Review: Expedited, Administrative Review
   
   Modification: Move lab to 8th floor of the Photonics Building
3. BUA Tracking ID: 2256
Title: Imaging cancer cell metabolism
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Move lab to 8th floor Photonics Building

4. BUA Tracking ID: 1537
Title: Engineering T cells response for cancer adoptive immunotherapy using synthetic genetic and signaling networks
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add 6 new cell lines

5. BUA Tracking ID: 2113
Title: Zika virus growth and characterization
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Add one and delete two personnel

6. BUA Tracking ID: 1728
Title: New strategies to control hemorrhagic fever virus infection
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add one personnel

7. BUA Tracking ID: 1000
Title: Molecular basis of cancer metastasis and the elucidation of genetic and epigenetic markers for diagnosis and therapy of cancer and psychiatric disorders
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add several commercially available cancer cell lines

8. BUA Tracking ID: 1820
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add human hepatocyte, dermal fibroblasts and iPS cells

9. BUA Tracking ID: 1974
Title: Migration of human tumors in xenografted mice; Role of the AHR in mammary, oral, and brain tumorigenesis; Role of the AHR in blood cell development
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add hMAD human mesenchymal adipocyte cells

10. BUA Tracking ID: 1461
Title: 1) Neural Substrates of Cognitive Decline in Aging 2) Neurobiological Consequences of Hypertension &Aging 3) Memory/Executive Function in Prefrontal & Temporal Lobe Cortex 4) Non-human Primate Model for Assessing Motor Recovery after Stroke 5) iPSC infusion as a treatment for ischemic stroke in the non-human primate
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Provide IACUC protocol number

11. BUA Tracking ID: 648
Title: Role of ACLP in Vascular Smooth Muscle Biology; Regulation of fibroblast and myofibroblast transitions
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add tamoxifen use detail in the protocol

B. Annual Renewals

1. BUA Tracking ID: 2099
Title: BME Core Facility
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Delete one personnel, delete research room 720, and add shared laboratory space

2. BUA Tracking ID: 2190
Title: Feedback, Noise, and Dynamics in Synthetic and Natural Gene Circuits
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Add five and delete two personnel

3. BUA Tracking ID: 1234
Title: Endocrinology, Diabetes and Nutrition Research Center
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Add four and delete one personnel, add one and delete one laboratory room, and remove closed studies

4. BUA Tracking ID: 940
Title: Immunopotentiating ability of Neisserial Porins
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Delete one personnel

5. BUA Tracking ID: 1737
Title: Hippocampal and Cortical Coding in Memory
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Delete one personnel and update IACUC approval information

6. BUA Tracking ID: 1151
Title: Mechanisms regulating megakaryocyte endomitosis and polyploidy
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-1
Method of Review: Expedited, Administrative Review
Modification: No changes

7. BUA Tracking ID: 542
Title: Enhancing Collectin Mediated Host Defense Against Influenza
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: No changes

8. BUA Tracking ID: 837
Title: Iodine, Perchlorate, and Thiocyanate: Effects on Thyroid Function in Pregnant Women
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Change funding source and delete IRB protocol H-33177

9. BUA Tracking ID: 1079
Title: Elucidating multiple roles of IpaD during infection by *Shigella flexneri* AND The multiple states of IpaB Shigella type III secretion
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: No changes

10. BUA Tracking ID: 487
Title: Initiation and regulation of RSV mRNA transcription and genome replication (NIH) Development of an in vitro assay for paramyxovirus
polymerases (Alios BioPharma) A structure analysis of the intact virion and replicative complexes of human respiratory syncytial virus (MRC, UK) Treating respiratory syncytial virus infection by targeting the viral polymerase (The Hartwell Foundation) Development of a non-radioactive assay for the RSV polymerase (Merck) The B cell repertoire as a window into the nature and impact of the lung virome (NIH)
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Update grant titles and funding source

11. BUA Tracking ID: 2109
Title: Generating full-length clones of negative-sense RNA viruses
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: No changes

12. BUA Tracking ID: 1902
Title: Biological function of Epstein Barr Virus in dermal fibroblasts, endothelial- and immune- cells
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: No changes

13. BUA Tracking ID: 1260
Title: DEFINING CELL POLARITY AND HIPPO PATHWAY SIGNALING IN DEVELOPMENT AND DISEASE
Biosafety Level: BSL-2
Animal Biosafety Level: ABSL-2
Method of Review: Expedited, Administrative Review
Modification: Add one and delete three personnel and funding source

14. BUA Tracking ID: 2116
Title: Gene regulation by non-coding RNA and chromatin modifications
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Add one personnel, add a shared laboratory space, add one human cell line and provide further detail of laboratory procedures

15. BUA Tracking ID: 600
Title: Development of Tissue Engineering Solutions for Pediatric Vascular Surgical Repair and Reconstruction
Biosafety Level: BSL-2
Animal Biosafety Level: N/A
Method of Review: Expedited, Administrative Review
Modification: Update the list of human cell lines, update laboratory rooms and add two and delete four personnel
16. BUA Tracking ID: 1748
   Title: Tumor suppressor gene functions in development and cancer
   Biosafety Level: BSL-2
   Animal Biosafety Level: ABL-1
   Method of Review: Expedited, Administrative Review
   Modification: No changes