

# MINUTES OF THE INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

June 17, 2015

3:00 PM, 410 Plant Biotechnology Building

MEMBERS PRESENT: Jun Lin, Chair; Patti Coan, Vice Chair; Seung Baek, David Bemis, Tamara Chavez-Lindell, Doris D'Souza, Elizabeth Fozo, Al Iannacone, Brittney Isabell, Bonnie Ownley, Reggie Millwood, Jae Park, Ling Zhao

Ex-Officio – Brian Ranger, Jessica Woofter

MEMBERS ABSENT: Paul Dalhaimer, Melissa Kennedy, Deidra Mountain,

OTHERS PRESENT: Dr. Wusheng Liu

## Opening:

The meeting was called to order by the Chair, Jun Lin at 3:01 PM. Minutes of May 20, 2015 were reviewed and approved as written.

## IBC Applications:

### **#277-15 (Tim Sparer) Recombinant DNA & Infectious Agents, III-D-2-a; 3-a; 4-b, 3-year rewrite**

Dr. Tim Sparer's registrations cover various studies involving human and murine cytomegaloviruses (CMVs) and host immunity, particularly the role of viral chemokines in modulating the host immune response to CMV infection. Baculoviruses will be used to generate recombinant viral chemokines to be used in a variety of *in vitro* and *in vivo* assays to determine their effects on neutrophil function. Human CMVs will be propagated and titered for use in viral engulfment experiments. Murine CMVs (wild-type or recombinant) will be used for *in vivo* experiments in mice to determine how the inserted or deleted genes affect viral spread throughout the mouse. Recombinant DNA procedures include the cloning of viral chemokines, host genes, and chemokine receptors into *E. coli* for sequencing, baculoviruses for overexpression/purification, and eukaryotic cell lines for *in vitro* expression studies. For the latter, third-generation, replication-incompetent lentiviral vector delivery systems will be used. The committee voted to approve the registration pending addition of 'melanoma cell lines' to the human-derived materials table and classification of Cos-7 cells as non-human primate cells. Containment was set at BSL-2/ABSL-2.

### **#280-15 (Barry Rouse) Recombinant DNA & Infectious Agents, III-D-2-a; 4-b, 3-year rewrite**

Dr. Rouse's registration uses the mouse model to study herpes simplex virus (HSV) induced immunopathology via ocular HSV infection. The goals of this research are 1) to design an approach that can inhibit virus induced ocular immunopathology, and 2) design an efficacious vaccine against HSV. Briefly, recombinant constructs encoding for viral proteins (e.g. glycoprotein B) or murine cytokines (e.g. IL-15) will be injected into mice intranasally or intramuscularly to enhance the immune response to virus infection and reduce the viral loads. Animals will then be challenged with HSV to determine DNA vaccine efficacy. The committee voted to approve the registration pending correction of minor typographical errors, the clarification of the recombinant DNA construct design/procedures in the Technical Summary, and refresher training for personnel. Containment was set at BSL-2/ABSL-2.

### **#382-15 (Neal Stewart) Recombinant DNA, III-E-2-a, 3-year rewrite**

Dr. Wusheng Liu provided the committee with a summary of Dr. Stewart's research involving the development of new biotechnology for targeting genome-modification in plants. Briefly, the research

involves using newly discovered transcription activation-like effectors (TALEs), virulence factors secreted by *Xanthomonas* species plant pathogens. Specifically, the DNA binding domains will be engineered to bind to the promoter region of select plant genes leading to targeted activation of gene expression. Additionally, the TALE-specific activation domain will be replaced with an appropriate nuclease (TALENs) that could then be used for genome editing. Containment was set at BSL-1/BL-1-P. The committee approved the registration as written. There was one abstention.

#### **#422 (Jiangang Chen) Infectious Agents, amendment**

Dr. Jiangang Chen's registration is being amended to include *in vivo* mouse infections with *Clostridium difficile*. Briefly, the study aims at determining the effect of exposure to a commonly used non-prescription antimicrobial compound, triclocarban (3,4,4'-trichlorocarbanilide; TCC), found in personal care products, on gut bacterial composition and subsequent pathogenic bacteria outgrowth. Test animals will be exposed to TCC at various developmental stages and for various durations and then challenged with  $10^5$  CFU/ml of *C. difficile* spores inoculated onto an approved rodent feeding bar. Fecal samples will then be collected during the post-infection period to determine gut flora composition. Animals will be sacrificed at the end of the study for GI tract histological analyses. Infections, animal handling procedures, and necropsies will all be conducted at BSL-2/ABSL-2. The committee approved the amendment as written. There was one abstention.

#### **Old Business:**

##### Administrative Report

Brian Ranger provided the committee with the administrative report. Following up on the May 20, 2015 IBC meeting, Dr. Shigetoshi Eda's registration (#276-15) was corrected administratively to include testing dates for bloodborne pathogen screening information performed on human serum samples; bleach shelf-life; and typographical errors. Dr. Juan Luis Jurat-Fuentes' registration (#288-15) was corrected administratively for minor typographical errors. Dr. Maria Prado's registration (#381-15) was corrected administratively for minor typographical errors; the inclusion of the "Concentration of Agents" and "Use of Sharps" indication in her registration; and the addition of Susan Headrick as personnel. Dr. Oudessa Kerro Dego's registration (#430) was corrected administratively to include the "Off Campus Collection" indicator on his registration for organisms obtained from ATCC; and the correction of *E. faecalis* as a Risk Group 2 organism. Dr. Kerro Dego also corrected the registration to indicate any known antibiotic resistance for listed pathogens; cited the IACUC approval number for the collection of specimens from animals (cows); and clarified the spill response in his registration. Dr. John Buchanan terminated his registration (#424). All infectious agent stocks/materials have been autoclaved and discarded.

##### BSL-3 Progress Updates

Brian notified the committee that the floors in the BSL-3 may be too rough in some areas. Dr. DeNovo is working with the contractor to reevaluate and repair the floor as necessary.

##### BSL-3 SOPs

Brian has sent registration information for work in the BSL-3 laboratory to the researchers involved and is working on several standard operating procedures for review by the IBC.

##### iMedRIS Updates

Brian and Jessica went through the online form and came across several issues with the form. Jessica will communicate form problems and corrections to Patricia Paige.

### Teaching Lab Program-Revised Framework

Brian notified the committee that the Teaching Lab program framework is being modified to clarify language concerning animal work involving field work and farm studies. The committee made other minor comments and will send their recommendations to Brian for inclusion into the framework.

### Policy Revisit

The committee reviewed the Biosafety Policy Draft and commented that the appropriate roles between the IBC and the Biosafety Office, particularly regarding teaching laboratories, should be outlined separately. Brian requested that further comments on the policy should be directed to him by no later than Wednesday, June 24, 2015.

### Spring 2015 Inspection Summary

Brian presented the Spring 2015 Inspection Summary (compiled by Jonathan Phipps). There was a minor uptick in eyewash test/documentation deficiencies and a few other minor findings. All issues were resolved within 2 weeks of the inspections.

### **New Business:**

#### IBC Self-Assessment Subcommittee

Brian notified the committee that he is working on an internal review process to look at the IBC policies and procedures. The next step would be to do a peer-to-peer review. Brian has already received interest from Clemson University to do a peer-to-peer review. Drs. Patricia Coan and Elizabeth Fozo volunteered to serve on the subcommittee for IBC self-assessment. Brian will reach out to other compliance personnel and non-affiliated faculty to volunteer as well. The assessment will take place during the upcoming Fall semester.

#### Biosafety Specialist Position Vacancy

Brian announced the Biosafety Specialist position, previously staffed by Jonathan Phipps, is now vacant. The search committee is chaired by Marsha Smith (Radiation Safety Officer), and includes: Susan Fiscor (UTIA Safety Officer), Dr. Melinda Hauser (Research Assistant Professor, Microbiology), Dr. Dana Glass-Mattie (Director of Animal Compliance Support) and Dr. Jun Lin (Professor, Animal Science & IBC Chair). The position is anticipated to be filled by September 1, 2015.

The meeting was adjourned at 4:13 PM. The next meeting has tentatively been scheduled for July 29, 2015 at 3 PM.