

## MINUTES OF THE INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

October 15, 2014

3:00 PM, 410 Plant Biotechnology Building

MEMBERS PRESENT: Jun Lin, Chair; Patti Coan, Vice Chair; David Bemis, Tamara Chavez-Lindell (via phone), Elizabeth Fozo, Al Iannacone, Reggie Millwood, Deidra Mountain, Bonnie Ownley, Ling Zhao

Ex-Officio –Brian Ranger, Jonathan Phipps, Mark Smith

MEMBERS ABSENT: Seung Baek, Paul Dalhaimer, Doris D'Souza, Melissa Kennedy, Jae Park

OTHERS PRESENT: Dr. Raul Almeida, Dr. Feng Chen, Dr. Oudessa Kerro Dego, Jessica Woofter

### Opening:

The meeting was called to order by the Chair, Jun Lin at 3:07 PM.

Minutes of August 20, 2014 were reviewed and approved pending correction of typographical errors.

### IBC Applications:

#### **#238-13 (Feng Chen), Recombinant DNA (Infectious Agent Amendment)**

Dr. Chen was present to discuss his proposed amendment. Briefly, six mycobacteria species including *M. avium* subsp. *intracellulare*, *M. scrofulaceum*, *M. bovis* BCG, *M. marinum*, *M. ulcerans* and *M. liflandii* will be cultured in Dr. Shige Eda's lab. The culture in liquid and agar plate will be subject to headspace collection in the PI's lab using solid phase microextraction (SPME). In this procedure, the fiber of SPME will be inserted and exposed to the airspace of mycobacteria culture (the SPME fiber will not touch the culture). Typically after 6 hours, the exposed fiber will be withdrawn and injected to GC-MS. After headspace collection, the culture will be returned to Dr. Eda's lab. Additionally, methyltransferase genes from *M. tuberculosis* will be amplified from genomic DNA (BEI Resources/ATCC) and inserted into a protein expression vector. Recombinant proteins expressed in lab strains of *E. coli* will be subject to *in vitro* biochemical characterization and crystallography work. The lab will not work with viable *M. tuberculosis* or cell extracts. The committee approved the amendment pending clarification of *M. tuberculosis* genomic DNA source, assurance of cell-free genomic extracts, BSL-2 training updates, and correction of minor typographical errors. The approval results in a change in the NIH review category (III-E-2 to III-D-2-a). Containment was set at BSL-1 for molecular biology protocols and BSL-2 for culturing of mycobacterial species (Dr. Eda lab).

#### **#248-14 (Raul Almeida) Recombinant DNA & Infectious Agent, III-D-4-b, 3-year rewrite**

Dr. Almeida and Dr. Oudessa Kerro Dego were present to discuss Dr. Almeida's registration covering various recombinant techniques used to establish the role of *Streptococcus uberis* adhesion molecule (SUAM) in the pathogenesis of bovine mastitis. The registration includes: 1) the use of site-specific mutagenesis (plasmid-mediated homologous recombination) to knock out the SUAM gene; 2) the use of transposon-mediated random mutagenesis to identify other potential *S. uberis* virulence factors; 3) the use of *E. coli* as a surrogate host for the expression of recombinant SUAM protein; 4) *in vivo* use of *sua*-mutants in a bovine mastitis model; and 5) the use of various Risk Group 1 and Risk Group 2 bacteria as control strains for several cell culture based *in vitro* assays and bacterial culture methods. The

committee approved the registration pending clarification of the spill response, inclusion of an explanation of pathogen use in the technical summary section, and correction of minor typographical errors. There was one abstention. Containment was set at BSL-1 for *S. uberis* procedures and BSL-2 for culturing Risk Group 2 agents.

**Old Business:**

Administrative Report

Brian Ranger provided the committee with the administrative report. Following up on the August 20, 2014 IBC meeting, Dr. John Buchanan’s registration (#424) was reviewed to ensure adequate disinfectant for enteroviruses was included in the registration. Dr. Jun Lin’s registrations (#265-12/266-12) was administratively approved to include *Staphylococcus aureus* isolates. Dr. Becky Trout Fryxell’s registration (#384) was administratively approved to include the addition of mosquito feeding protocol involving ranavirus-infected frogs. The following seven registrations have been terminated: Dr. Gary Saylor (#239-11); Dr. Jeffrey Becker (#244-11); Dr. Kurt Lamour (#246-11); Dr. Andy Sarles (#377); Dr. Melissa Hines (#386); Dr. Neal Stewart (#391); and Dr. Mohamed Mahfouz (#406). All materials have been neutralized, secured, or autoclave-inactivated and discarded.

Dr. Schmidt requested a two-month extension on his registrations (#367 & #368) until he leaves. He will be taking his stocks with him. The committee approved the extension.

Written Plan for Teaching Labs-Taskforce Discussion Points

The Biosafety Teaching Task Force met on September 30, 2014 and consisting of faculty and staff from both campuses. They still have several questions regarding the scope and structure of the program covering teaching labs, including if/how the IBC should be involved. The IBC discussed several pros and cons with a framework that includes IBC oversight and approval. The committee opted to defer the conversation until recommendations from the task force are made available.

IBC Member Profiles for Website-Revisited

Brian will provide the committee with a subset of questions for members to complete for their website profiles.

Full vs. Designated Member vs. Administrative Reviews-Categorical Review

The committee discussed which registration types would be considered for Full Member Review, Designated Member Review, and Administrative Review. Checklist for review process by category is as follows:

<b>Registration Type</b>	<b>Designated Review Category</b>
Infectious Agents	Full Member Review
Recombinant DNA	Full Member Review
Acute Biological Toxins (LD <sup>50</sup> < 100 ng/kg) & Select Agent Toxins	Full Member Review
Human-Derived Materials	Administrative Review (unless combined with another category)
Field Collection Procedures	Designated Member Review
Primary Diagnostic Samples from Animals & Humans	Administrative Review
Identification/Enumeration Procedures	Administrative Review

Nanoparticles	Designated Member Review
Venomous Animals	Designated Member Review
Poisonous Plants	Designated Member Review
Teaching Materials	Pending Committee Discussion/Task Force recommendations

#### BSL-3 Facility Planning/Construction Updates

Brian notified the committee that the retrofitting of the BSL-3 lab facility went out for competitive bid and the Office of Research & Engagement approved the bid.

#### **New Business:**

#### Edward Hammond-Request for IBC Documents

Brian received a request from Edward Hammond through his website at [www.pricklyresearch.com](http://www.pricklyresearch.com). Mr. Hammond was seeking meeting minutes and any noncompliance/exposure reports provided to NIH during the past ~6 months. Brian directed him to the Biosafety website for past meeting minutes and informed him that no noncompliance/exposure reports had been filed during the requested timeframe.

#### Federal Government Stand-Down and Biosafety Stewardship Month

Brian notified the committee that the Federal Government declared September as Biosafety Stewardship Month. Dr. Nobles and Brian sent a message through the Biosafety listserv encouraging faculty to inventory their biological stocks and review their safety/containment SOPs.

#### LACS Isolation Stalls-HVAC Concerns

Brian notified the committee about reported concerns regarding reversal of airflow in the LACS equine isolation stalls. Investigation of the stalls confirmed the complaint, and the results were sent to Dr. Anderson, LACS Department Head, and Dr. DeNovo, Associate Dean of Hospital Operations. Dr. Anderson called an engineer and had the HVAC balances repaired. A report of the air balance adjustments and flow rates was provided to the Biosafety Office.

#### Training-Annual Refresher and Special Groups Trainings

Brian notified the committee that the annual refresher training has been launched. Additionally, Brian has given Forestry, Wildlife, & Fisheries a special field safety training. Forensic Anthropology also had their annual training for their volunteers.

#### 2014-15 BBP Exposure Control Plan

Brian notified the committee that the new 2014-15 Bloodborne Pathogen Exposure Control Plan is posted to website. There were no major changes from last year.

#### 2014 ABSA Conference Updates

Brian gave a highlights of the ABSA conference and provided the committee with a printed overview of discussion points and presentations.

The meeting was adjourned at 4:51 PM.

The next meeting has tentatively been scheduled for November 19, 2014 at 3 PM.