

MINUTES OF THE INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

June 18, 2014

3:00 PM, 223 Plant Biotechnology Building

MEMBERS PRESENT: Jun Lin, Vice Chair; Seung Baek, David Bemis, Tamara Chavez-Lindell, Patti Coan, Doris D'Souza, Al Iannacone, Dan Kestler, Reggie Millwood, Bonnie Ownley

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

MEMBERS ABSENT: Paul Dalhaimer, Melissa Kennedy, Jae Park, Chunlei Su, Ling Zhao

OTHERS PRESENT: Dr. Dana Glass-Mattie, Dr. Tom Masi, Adam Thompson, Dr. Hwa-Chain Wang, Jessica Woofter

Opening:

The meeting was called to order by the Vice Chair, Jun Lin at 3:01 PM.

Minutes of April 16, 2014 and April 24, 2014 meetings were reviewed and approved as written.

IBC Applications:

#115-14 (Hwa-Chain Wang) Recombinant DNA Registration, III-D-3-a/4-b, 3-year rewrite

Dr. Wang was present to discuss his research on the role(s) of select genes involved in cell growth, death, and transformation related to cancer development. Specifically, he will be using commercially available, replication incompetent retroviral and lentiviral systems to deliver genes of interest (e.g. transcription factor genes, stress-related genes) into mouse and human cell lines for expression. Some transformed cell lines will be xenografted into an animal model for *in vivo* studies. Dr. Wang aims to understand the role(s) of genes implicated in cancer formation for development of cancer prevention/therapeutic strategies. The containment level was established at BSL-2. The committee voted to approve the registration pending correction of the spill response.

#364-14 (Cong Trinh) Recombinant DNA, III-E, 3-year rewrite

Adam Thompson was present to discuss Dr. Trinh's research on *Escherichia coli* BL21 as a host for creating recombinant ethanol producing pathways. The goal of his research is to generate biocatalysts for producing biofuels and biochemical from renewable and sustainable lignocellulosic biomass. The containment level was set at BSL-1. The committee voted to approve the registration pending the addition of a statement indicating that the laboratory where research will be conducted is capable of BSL-2 work and/or the updating of training dates for Dr. Trinh.

#422 (Jiangang Chen) Infectious Agent, new registration

Dr. Chen's registration covered his research on gut microbiota and their symbiotic relationship with their hosts contributing to intestinal health and the onset of disease. The proposed study will investigate the effects of triclocarbon (TCC) on the proliferation of *Clostridium difficile* *in vitro*. Techniques will include: growth curve determination, minimal inhibitory concentration (MIC) assays, and determination of the growth and toxin production of *C. difficile* in TCC-exposed fecal samples. The containment level was set at BSL-2. The committee voted to approve the registration pending addition of the IACUC protocol number, clarification of safety/containment protocols during growth curve determination (assay conducted in lab without biosafety cabinet), and clarification of the source of the cecal samples and their storage. There was one abstention.

#423 (Stacy Stephenson) Recombinant DNA & Human Derived Materials, III-D-1, new registration

Dr. Tom Masi was present to discuss Dr. Stephenson's research on mesenchymal stem cells as a source for tissue engineering. The study aims to incorporate pLUX into a lentiviral vector, optimize the transduction of mesenchymal stem cells, evaluate stem cell growth rates, and verify long term constitutive expression of bioluminescence of mesenchymal stem cells transduced with pLUX. The containment level was set at BSL-2. The committee voted to approve the registration pending the clarification of the bacterial hosts (*E. coli*); correction of the vendor source of HEK 293FT cells; and clarification of the source of the stem cells along with an IACUC protocol reference.

Old Business:

Administrative Report

Brian Ranger provided the committee with the administrative report. Following up on the April 16, 2014 IBC meeting, Dr. Andreas Nebenfuhr's registration (#177-14) was corrected to include clarifications about lab coat laundering protocols and bleach preparation. Dr. Todd Reynold's registration (#245-14) was corrected to include a clarification on the type of cancer cell line being used and the update of training information for personnel listed in the registration. Dr. Matthew Cooper's registration (#421) was corrected to include a clarification that only the viral vector stock will be purchased and that there is no lab propagation. His registration also included corrections to the nontechnical summary and clarification of the viral titer. Dr. Mark Radosevich's registration (#363) has been terminated and his infectious stock of *E. coli* O157:H7 remains securely stored.

Biosafety Policy (Revised)

Brian notified the committee that final comments on the Biosafety Policy should be emailed to him by end of June 20th and a final draft will be posted by the end of the month.

Lab Coat Laundering

Brian presented the committee with a flow diagram for lab coat laundering procedures. The committee asked that a note be added about labeling the collars using indelible ink on inside of the neck to identify the owner of the coat.

Biosafety Program Survey (Final Report)

Brian notified the committee that the final Biosafety Program Survey report was completed by Jon Phipps. The committee reviewed the report and approved to post the final draft to the Biosafety website.

Membership Status/Vice-Chair

Brian notified the committee that Dr. Jun Lin has accepted the position of Chair for the IBC. Dr. Patti Coan volunteered to take over the Vice-Chair position. Dr. Dan Kestler and Dr. Chunlei Su will be departing the committee. They will be replaced by Dr. Deidra Mountain (Department of Surgery, UTMCK GSM) and Dr. Elizabeth Fozo (UTK, Microbiology) when the new committee commences in July.

New Business:

Reporting Noncompliance

Brian reported to the committee that a faculty member in the Plant Sciences department is currently six months overdue for an annual update, and the Biosafety Office has not received a response from him despite repeated efforts. Prior to final disciplinary action, the committee recommended copying the notifications to the Department Head and emphasizing that the project could be terminated due to the failure to update the registration according to IBC policies.

Registration Review Mechanisms (Dr. Dana Glass-Mattie)

Dr. Dana Glass-Mattie was present to discuss IACUC's approval mechanisms, including a designated member review procedure. The IACUC example may be useful in adapting a similar approach for the IBC as it will be using a DMR format to bolster the technical review aspects and to prepare for a similar workflow in iMedRIS.

Committee vs. Administrative Review

Brian asked the committee to be thinking in terms of risk assessment and assignment of various types of research registrations to either: full committee review (e.g. rDNA and new infectious agent registrations), designated member review (e.g. 3-year renewals, diagnostic materials), or IBC Chair/Biosafety Office administrative review only (e.g. human-derived materials).

Required IBC Training for All Members

Brian notified the committee that the next IBC meeting will include a mandatory member training. The training will include an overview of the NIH Guidelines, risk assessment and other considerations, and upcoming changes in policy/procedures. The training will start at 1 PM on July 16, 2014 in the Plant Biotechnology Bldg., Room 410 (lunch will be provided).

iMedRIS Status

Brian notified the committee that the Biosafety Office is currently working on the iMedRIS Biosafety module development with Phil Campo from the Office of Research and Engagement. Currently the IRB module has been scheduled to be completed by August 1, 2014. The IBC platform is tentatively scheduled to be completed by December, 2014.

The meeting was adjourned at 4:40 PM.

The next meeting has tentatively been scheduled for July 16, 2014 at 3 PM (training session to begin at 1 PM).