

MINUTES OF THE INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

August 21, 2013

3:00 PM, 410 Plant Biotechnology Building

MEMBERS PRESENT: Chunlei Su, Chair; Jun Lin, Vice-Chair; Seung Baek, David Bemis, Patti Coan, Paul Dalhaimer, Doris D'Souza, Al Iannacone, Dan Kestler, Bonnie Ownley, Ling Zhao

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

MEMBERS ABSENT: Tamara Chavez-Lindell, Melissa Kennedy, Reggie Millwood, Jae Park

OTHERS PRESENT: Jessica Woofter

Opening:

The meeting was called to order by the Chair, Chunlei Su at 3:00 PM.

Minutes of July 19, 2013 were reviewed and approved as written. There were 2 abstentions.

IBC Applications:

#238-13 (Feng Chen) Recombinant DNA Registration, III-E-2-a, 3-year rewrite

Dr. Chen's research employs functional genomics and transgenic plant development to study various plant genes involved in resistance to insect pests or plant biomass production (bioenergy studies). Methyltransferase, acyltransferase, terpene synthase and other cell wall-related genes derived from rice, poplar and *Arabidopsis sp.* will be subcloned and assayed for specific enzymatic activities. Genes of interest will be cloned and mobilized onto binary vectors for Agrobacterium-mediated transformation of Arabidopsis, rice, poplar, tobacco, tomato, soybean, foxtail millet and switchgrass. Pigment regulators are to be used as reporters for the gene transfer and transformants are to be further analyzed and regenerated. The committee approved the registration pending autoclave validation, clarification of "toxin" use in the registration, and the administrative correction of minor typographical errors.

#350-13 (Paul Frymier) Recombinant DNA Registration, III-E, 3-year rewrite

Dr. Frymier's research focuses on optimizing light-induced hydrogen production in prokaryotic systems. Briefly, photosystem I from *Thermosynechococcus elongatus* and various hydrogenase genes from *Ralstonia eutropha* are being hybridized (by traditional molecular techniques) so that light-induced hydrogen production can happen at a faster rate. Ultimately, the hybridized complex will be expressed in *R. eutropha*. The containment level was established at BSL-1. The committee approved the registration as written pending inclusion of a significance statement in the nontechnical summary, inclusion of PI training dates, and the administrative correction of typographical errors.

#352-13 (Elizabeth Fozo) Recombinant DNA, Infectious Agent, and Human Derived Materials Registration, III-D-1-a, 3-year rewrite

Dr. Fozo's research investigates the role that genes encoding small regulatory RNAs (sRNAs) and small proteins play in the Risk Group 2 pathogens *Escherichia coli* O157:H7 and *Enterococcus faecalis*; specifically, are they important for growth under extreme environmental conditions and in inducing disease? Briefly, mutants will be generated using recombinant DNA/molecular techniques to disrupt the genes encoding the sRNAs and small proteins with DNA from selectable marker genes. Mutants will then be examined for any growth defects compared to the wild type organism. The containment level was

established at BSL-2. The committee approved the registration pending the administrative correction of formatting, typographical errors, training dates, and bleach contact time. There was one abstention.

Old Business:

Administrative Report

Brian Ranger provided the committee with the administrative report. Following up on the July 19, 2013 IBC meeting, Dr. Elena Shpak's registration (#313-13) was corrected so that the tables on pages 3 and 4 listing the insert genes are accurate and consistent. Dr. Valerie Berthelier's registration (#348-13) was corrected administratively to change human cell containment to BSL-2 in the technical description. Dr. Mike Karlstad's registration (#349-13) was corrected administratively to include the correct Animal Hazard Control Form for IACUC protocol #2034. Dr. Steve Wilhelm's registration (#404) was updated administratively to include the Principal Investigator's and personnel training dates for BSL-2 refresher training.

Principles and Practices of Biosafety Conference Recap

Dr. Jon Phipps reported to the committee the conference was informative and was designed to introduce those beginning careers in biological safety to the core principles and concepts of the discipline.

Wilhelm #404 Submission to NIH OBA Follow-up

Brian Ranger notified the committee that he submitted Dr. Wilhelm's registration to NIH OBA per their requirements for recombinant toxins (Appendix F). NIH OBA had sent a letter of acknowledgment.

Adoption of Animals Containing (or Challenged with) rDNA-Regulatory Oversight

Brian Ranger notified the committee that there hadn't been an update on the FDA's requirements for releasing companion animals treated with recombinant constructs (viral vector delivery). The animals were put on teaching protocols and Dr. LeBlanc's study was approved by USDA-APHIS Veterinary Services. Brian proposed that the committee make a policy regarding oversight and adoption of animals containing or challenged with rDNA. Dr. Coan volunteered to sit on the subcommittee to review the proposal.

New Business:

2013 Biosafety Refresher Training

Brian Ranger notified the committee that preparation of the 2013 online refresher training is underway. Notifications will be emailed out in early October.

AAALAC Accreditation Visit

Dr. Patti Coan notified the committee that the AAALAC committee made only one suggestion for improvement and overall the site visit was a success.

Steam Cart at North Greenhouse

Dr. Bonnie Ownley requested that the IBC draft a letter of recommendation notifying AgResearch of the need for a new steam cart for use in greenhouses with transgenic plants or other USDA-permitted studies.

The next meeting has been tentatively scheduled for September 18, 2013.

The meeting was adjourned at 3:48 PM.