MINUTES OF THE INSTITUTIONAL BIOSAFETY COMMITTEE MEETING
March 20, 2013
3:00 PM, 410 Plant Biotechnology Building

MEMBERS PRESENT: Chunlei Su, Chair; Jun Lin, Vice-Chair; Seung Baek, David Bemis, Tamara Chavez-Lindell, Patti Coan, Paul Dalhaimer, Doris D'Souza, Al Iannacone, Melissa Kennedy, Dan Kestler, Reggie Millwood, Bonnie Ownley, Jae Park, Ling Zhao

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

OTHERS PRESENT: Dr. Rebecca Trout-Fryxell, Jessica Woofter

Opening:

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

Minutes of February 20, 2013 were reviewed and approved pending the correction of typographical errors. There was one abstention.

IBC Applications:

#291-13 (Mariano Labrador) Recombinant DNA Registration, III-D-4-a, 3-year rewrite
Dr. Labrador's registration covered his research on gene expression, DNA repair, and cell cycle regulation by chromatin insulator proteins in *Drosophila melanogaster*. Briefly, transgenic flies are created by microinjecting constructs consisting or a Drosophila gene or interest (e.g. suppressor of hairy wing) in a commonly used vector (Drosophila pUST). Similar constructs are also prepared for *in vitro* studies in Drosophila S2 cells. The committee approved the registration pending correction of typographical errors and updating of the personnel list. Containment was set at BSL-1.

#299-13 (David Golden) Infectious Agent Registration, 3-year rewrite
Dr. Golden's registration covered the use of foodborne pathogens (e.g. non-typhoid *Salmonella spp.*, *Listeria monocytogenes*, *Shigella spp.*, and various strains of toxigenic *E. coli*) to: determine the efficacy of food spoilage prevention strategies; evaluate the molecular basis of resistance to antimicrobial treatments; improve methods of detection; and investigate the effects of stress and microbial ecology on the growth and survival of foodborne microorganisms. The committee requested additional information regarding the characteristics and source of all listed infectious agents; reworking of the non-technical summary; clarification of PCR/DNA sequencing methodology (are recombinant DNA molecules created?); correction of minor typographical errors; and updated training for all listed personnel. The committee voted to table this registration for the next IBC meeting.

#302-13 (Daniel Roberts) Recombinant DNA Registration, III-E-2-a; 3-year rewrite
Dr. Roberts' registration covered molecular cloning of plant membrane transporters, regulatory protein kinases and calcium binding proteins from soybean, Arabidopsis and Medicago for structure-function analysis in *E.coli*, *Xenopus laevis* oocytes in culture, and *Pichia pastoris*. Briefly, oocytes from *Xenopus laevis* will be used to allow the production of soybean, Medicago or Arabidopsis transporters to ascertain structural and functional relationships between the protein sequence and transport function *in vitro*. Additionally, the recombinant molecules will be used to investigate gene expression, characterize Arabidopsis mutants, and generate transgenic Arabidopsis plants (fluorescent reporter

systems, e.g. GFP). For the latter, standard *Agrobacterium tumefaciens*-mediated transformation techniques will be used. The committee approved this registration pending an IACUC reference for harvesting *X. laevis* oocytes. Containment was set at BSL-1/BL-1-P.

#376 (Neal Stewart) Recombinant DNA Registration, III-E-2-a; Amendment
Dr. Stewart's amendment proposed the development of solid and liquid tissue culture from transgenic plants and transformation of liquid tissue culture samples from wild-type (non-transgenic) switchgrass. Briefly, transgenic switchgrass plants housed in growth chambers will be used to gather inflorescence meristem tissue to induce callus. Callus will be added to a liquid culture system to produce aggregate and non-aggregate cells to be evaluated by spectral and chemical analysis for cell wall properties. Similarly, wild-type plants will be used to generate callus which will also be used for development of a liquid culture system. Wild-type aggregate and non-aggregate cell cultures will then be transformed with genes of interest using standard *Agrobacterium tumefaciens* techniques and analyzed for cell wall content. Hormones will be added to both sets of cultures to induce cell wall physiological responses and compare/contrast cell wall changes. The committee approved this amendment as written, there was one abstention. Containment (BSL-1/BL-1-P) and review category were unchanged.

#384 (Rebecca Trout-Fryxell) Infectious Agent Registration, Amendment
Dr. Trout-Fryxell's amendment proposes to establish a colony of veterinary important flies (stable flies, house flies, face flies, horn flies) and field-collected mosquitoes for the purpose of testing insecticides for conducting vector ecology studies. The committee approved this amendment as written, with one abstention. Containment was set at ACL-1 for flies and ACL-2 for mosquitoes.

Old Business:

Administrative Report
Brian Ranger provided the committee with the administrative report. Following up on the February 20, 2013 IBC meeting, Dr. Steve Ripp's registration (#260-13) was corrected administratively to include the source of the reporter gene used as *Photorhabdus luminescens*. Dr. Mark Radosevich's registration (#301-13) has had no follow-up due to his registration preparer being out of country. Dr. Jeff Becker's registration (#308-13) was updated administratively to include the clarification of HIS3 function listed in his registration. Dr. Richard Gerhold's registration (#397) was updated administratively to expand his nontechnical summary. Dr. Nathan Schmidt's amendment (registration #367) was approved administratively to include the addition of *Streptococcus pneumonia* TIGR4. Two registrations were terminated administratively (Dr. Chunlei Su's #283-11 and Dr. Kevin Moulton's #378; projects concluded).

IBC Form: BSL-1 Modification
Brian Ranger proposed to the committee that the current registration form be revamped to remove non-pertinent fields for principal investigators registering research conducted in BSL-1 laboratories. The committee offered comments and alternative ways of handling BSL-1 registrations, but opted to leave the form as is.

New Business:

DURC-NIH/NSABB Policy Update-Call for Comments
Brian Ranger notified the committee that the federal policy for dual use research of concern (DURC) will be updated to include all institutions receiving federal funding. The announcement was sent to the research community through the UT Biosafety Listserv with a call for any comments. However, the policy does not currently apply to the University of Tennessee.

Website Redesign-Comments

Brian Ranger notified the committee that the Biosafety website is currently being revised. The committee was asked to notify the Biosafety Office of any comments regarding content or design of the website.

The committee will reconvene April 17, 2013.

The meeting was adjourned at 3:54 PM.