

INSTITUTIONAL BIOSAFETY COMMITTEE MEETING

April 23, 2018

1 PM, Plant Biotechnology Bldg., Room 410

MEMBERS PRESENT: Chair, David White; Vice Chair, Elizabeth Fozo; Tamara Chavez-Lindell, Lori Cole, Doris D'Souza, George Dizikes, Reza Hajimorad, Jun Lin, Reggie Millwood, Deidra Mountain

Ex-Officio – Linda Hamilton, Scott Moser, Brian Ranger, Jessica Woofter

MEMBERS ABSENT: Marc Caldwell, Paul Dalhaimer, Brittany Isabell, Melissa Kennedy, Jae H Park, Ling Zhao

OTHERS PRESENT: Dr. Neal Stewart

Opening:

The IBC Chair, Dr. David White, called the meeting to order at 1:08 PM. The minutes of March 21, 2018 were reviewed and approved as written.

IBC Applications:

#IBC-12-376-1 (Neal Stewart) Recombinant DNA, III-E-2-a, 3-year rewrite

Dr. Neal Stewart's research covering the enhancement of biofuel productivity through the generation of transgenic plants. Investigations will focus on cell wall biosynthesis/modification genes and genes involved in terpenoid production. Standard Agrobacterium-based transformations are used. Modified plants include switchgrass, rice, Arabidopsis thaliana, and tobacco. Most of the experiments are conducted in small-scale, lab-contained tissue culture. Some transgenic plants, primarily switchgrass, are evaluated under field conditions for growth and agronomic performance to determine their potential as a biofuel feedstock. All field release studies are conducted under the authority of USDA APHIS BRS. The committee approved the registration as written.

#IBC-12-379-1 (Neal Stewart) Recombinant DNA, III-E-2-a, 3-year rewrite

Dr. Neal Stewart's research on developing transgenic plants (e.g. Arabidopsis thaliana, tobacco, and soybean) as phytosensors that can detect early pathogen attack and herbicide contaminants in agricultural lands. Bioreporter constructs include condition/challenge-sensitive promoters fused to red fluorescent protein (RFP) and red colored pap1 reporter genes. Standard Agrobacterium-based transformations are used. Challenge pathogens include Pseudomonas syringae and Pseudomonas marginalis. Soybean cyst nematode (Heterodera glycines) are used as a challenge pest for transgenic soybean constructs. The committee approved the registration pending clarification of disposal method for biohazardous sharps.

Old Business:

Administrative Report

i. Contingencies

Following up on March 21, 2018, IBC meeting, Dr. Juan Jurat-Fuentes' registration (#06-288-1) was edited to include the completion of training dates; clarification of corn as recombinant host; clarification regarding dsRNA and insect testing/containment; and updated autoclave dates.

ii. Administrative Approvals

Dr. Qixin Zhong's registration (#14-416-2) amendment covering the addition of *E. coli* K-12 strain (lacks O-antigen of outer membrane; RG1) was administratively approved by the Biosafety Officer.

iii. Administrative Terminations

Dr. Wusheng Liu's registration (#16-445-1) was administratively terminated on 3/7/2018 (all materials transferred to NC State under BRS permit). Dr. Michael Karlstad's registration (#10-349-2) were administratively terminated on 4/6/2018. All materials have been destroyed or returned to Advanced Plasma Products.

iv. Administrative Exemptions:

None.

v. Accidents, Injuries/Exposures:

There was one reported injury for FAC and two for Necropsy.

vi. Laboratory Report (Hamilton)

None.

vii. iMedRIS Update, Manual Reviews, & System Orientation (Woofter)

None.

Final Revisions of Bylaws, Roles/Responsibilities, Audit, and Escalation SOPs

Brian notified the committee that he would work any genome editing procedures and exclusions into the Standard Operating Procedures for the IBC.

WLS and JHB Lab Moves to the New Mossman Bldg.

Brian notified the committee that the office has been meeting with the various departments affected by the decommissioning of old lab spaces and recommissioning of new lab spaces.

New Business:

Plant Breeding Innovation Announcement by USDA

Brian notified the committee that the USDA does not regulate or have any plans to regulate plants that could otherwise be developed through traditional breeding techniques as long as they are not plant pests or developed using plant pests.

Genome Edit Talk - Dr. Neal Stewart

Dr. Neal Stewart presented a talk on genome editing and discussed with the committee the IBC's purview with regulating genetic engineering.

Review of New SOPs

The committee reviewed and requested a few changes for the flowcharts for the escalation process, registration processing, and iMedRIS workflow.

iMedRIS Form Revisions

Brian notified the committee that the IBC and Radiation Safety Committee will be combining their registration forms and asked the committee for any form revisions.

Materials and Storage

Brian notified the committee that the office would be working a mechanism for tracking archived agents in iMedRIS administratively rather than having the Principal Investigator complete a new registration.

The meeting adjourned at 2:27 PM. The next meeting is tentatively scheduled for May 16, 2018, at 3 pm in the Plant Biotechnology Building, Room 410.