IBC Meeting Minutes

10/07/2024

1:00; 326 Library (Conference Room); ZOOM

I. Call to Order

II. Roll Call:

1. *Members Present:* Jose Barbosa, Jennifer Cunningham, David Giles, Brad Harris (arrived after minutes approval), Margaret Kovach, Darrell McGraw, Jess Sanders, Henry Spratt
2. *Members Absent:* None
3. *Ex-Officio Present:* Bob Jackson, Cheryl Murphy
4. *Visitors:* N/A

III. Approval of September 23, 2024 minutes

1. Motion: Approval of September 23, 2024 minutes-Kovach; 2nd-Spratt
    a) In Favor = 6 (one member stepped away during vote)
    b) Opposed = 0
    c) Abstentions = 1

IV. Old Business

1. **Approved registration modifications, administrative reviews, annual updates & closures**
    a) 23-06: Giles – Modifications approved 09/29/2024
2. **Inspections conducted, all findings resolved**
    a) Grote 406: Lab inspection conducted 09/25/2024
3. **Updates on registrations in progress**
    a) 24-07: Spratt – Action form sent 09/26/2024
    b) 24-04: Wang – Action form sent 09/29/2024
    c) 23-08: Dungey – Action form sent 09/30/2024
    d) 24-05: Ferdoush – Action Form sent 10/01/2024

V. New Business –

1. **Updated Bylaws:**
    a) Track changes in bylaws document showed suggested updates: 1) update office name throughout document (Environmental Health and Safety) and 2) update voting rights language for Ex-officio members.
    b) 2/3 majority vote required to pass Bylaw revisions (=7)
    c) Motion: Approve suggested changes – Spratt; 2nd - Kovach

1. In Favor = 8
2. Opposed = 0
3. Abstentions = 2

2. **New Registration:**
    a) **IBC Protocol #24-06, Dr. Luis Sanchez-Diaz, Viscoelasticity of bacteria *E. coli* and the antibiotic response**
        1. CITI Training – All personnel listed on registration have up-to-date required training.
        2. Containment conditions to be implemented: BSL-1
        3. For non-rDNA projects: Project Summary
            a. To develop new antibacterial strategies, knowledge must be obtained regarding how bacteria respond to the presence of antibiotics and under shear stress, as a complex population both as biofilms and in the planktonic state. The goal of the study is to examine the viscosity and elasticity of *E. coli* with and without antibiotics using a rheometer and compare with statistical models.
        4. List hazard(s):
            a. *Escherichia coli k-12* (via Carolina Biological)*:* BSL-1
        5. Summary of manipulations planned
            a. *Escherichia coli* will be grown in Lysogeny Broth, transferred to cuvettes. Two cuvettes will be treated with minimum inhibitory concentration (MIC50) of 4.0ug/ml ampicillin, one cuvette will serve as control. After incubation, growth rates will be determined, across 10 generations.
            b. *Escherichia coli* will be suspended in different viscosities (polyvinylpyrrolidone 360k polymer, latex particles) to observe changes in viscoelastic properties when bacteria become resistant to the antibiotic.
        6. Additional committee concerns/corrections needed
            a. Section A.3: Project end date needs clarification; encourage to maximize the 3yr period if applicable
            b. Section A.5: Search Award information needs update: should be 6/30/2025.
            c. Section D.6: Needs more detail about the process for handling biohazardous waste; does it stay in lab room before pick-up, moved to another location before pick-up (if yes, what room and list that room in appropriate areas on registration), who picks up the biohazardous waste within the Department and for incineration.

i. Needs clarifications at the end of this section and any other applicable areas on the registration (e.g. Section D9).

ii. 417 Grote is a biohazard waste room – Heather Riley would be point person for this.

d. Section D.9: How often are bleach solutions being made and used?

i. Deemed not a concern for this registration. Would be more of concern with different containment levels.

7. Vote: Motion: Approve pending modifications and approved by Chair – Kovach, 2nd – Spratt
   - **a.** In Favor = 9
   - **b.** Opposed = 0
   - **c.** Abstentions = 1

3. **New Registration:**

a) IBC Protocol #24-08, Dr. Bradley-Harris, Producing organic sweeteners from yeast.

b) Harris left meeting during discussion of his registration

c) CITI Training – As of October 1, 2024, training for Ronan Latham is not completed.

d) Containment conditions to be implemented: BSL-2

e) For non-rDNA projects:

1. Project summary:
   a. Objective is to produce organic sweeteners from microbes as an alternative to chemical methods. The three main tasks include 1) engineer an optimal microbial strain using metabolic modeling, 2) cultivate the microbe and isolate and characterize the sweetener obtained, and 3) evaluate the economic feasibility of the full-scale process.
2. List hazard(s):
   a. *Candida tropicalis* (Castellani) Berkhout – ATCC 750
3. Summary of manipulations planned:
   a. General procedure: 1) media preparation, 2) inoculum preparation, 3) yeast fermentation, 4) sample collection and 5) mild centrifugation to isolate supernatant and 6) colorimetric assay for xylitol quantification.

f) Additional committee concerns/corrections needed

1. Section D6: include more description regarding biohazardous waste removal and terminal destination.
   a. Typically, in engineering, PI calls EHS for a pickup, not transferred to another room.

2. Section B2: Brad answered question prior to leaving meeting and committee discussion
    a. No cellular engineering at this stage – determining which growth media produces highest xylitol production – not initiating a genetic change.
3. Vote: Motion: Approve pending modification and CITI Training Completion – Giles; 2nd – Kovach
    a. In Favor = 9
    b. Opposed = 0
    c. Abstentions = 1

4. **Revised Registration:**

a) IBC Protocol #24-05, Dr. Jannatul Ferdoush, Molecular Genetics (BIOL 4200) Teaching Laboratory

b) Whether an attempt will be made to obtain expression of a foreign gene, and if so, the protein that will be produced:

1. At previous meeting, committee determined 'yes', but couldn't determine the protein that will be produced. Has that been answered in the revisions?
    a. No, still needs to address what protein/gene is being expressed (in all applicable sections).

c) Additional committee concerns/corrections needed

1. Section D.6: Yeast transformation – described, but that same information needs to be included in Section G6. Within Section G6, incorrect methods is still being described.
2. General comment: make sure any revisions made in one section are included in all relevant sections throughout the registration. May need to update the same information in multiple locations. This ensures consistency throughout the registration.
3. Section D.6: Information regarding site-mutagenesis references information that is either not applicable to the registration or was not provided with the registration (e.g. references Figures 1). This section should be refined.
4. Section G.4: Question still was not answered.
5. Still needs to address what protein/gene is being expressed, in all applicable sections.

d) Vote: Motion: Modifications requested and registration tabled until next scheduled full committee review – Kovach, 2nd - Giles

1. In Favor = 9
2. Opposed = 0
3. Abstentions = 1

5. **Upcoming Lab Inspection** – Grote 104, Sanchez-Diaz

a) Resend scheduling poll to Jose

6. **Additional items for discussion**
    a) Lab inspection for 330 Holt – final items should have been completed this week.

VI. Next Meeting – October 28, 2024

VII. Adjournment – 1:48 PM