

## IBC Meeting Minutes

09/23/2024

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

### I. Call to Order: 1:02 PM

### II. Roll Call

1. *Members Present:* Jose Barbosa, Jennifer Cunningham, David Giles, Brad Harris, Margaret Kovach, Darrell McGraw, Jessica Sanders
2. *Members Absent:* Henry Spratt
3. *Ex-Officio Present:* Bob Jackson, Cheryl Murphy
4. *Visitors:* N/A

### III. Approval of August 26, 2024 minutes

1. Motion: Approval of August 26, 2024 minutes-Giles; 2<sup>nd</sup> – McGraw
  - a) In Favor: 7
  - b) Opposed: 0
  - c) Abstentions: 0

### IV. Old Business

1. **Approved registration modifications, administrative reviews, annual updates & closures**
  - a) 23-20 – B Harris; Producing organic sweeteners from yeast; Registration Closed 08/26/2024
  - b) 23-16 – N Barbosa; Microbiology Prep Laboratory; Annual Update Approved 09/03/2024.
  - c) 23-15 – H Spratt; Detection of *Staphylococcus aureus* in foods using aptameric-based biosensors, Annual Update Approved 09/03/2024.
  - d) 23-17 – N Barbosa; BIOL 2100-Microbiology & Health Lab, Annual Update Approved 09/06/2024
2. **Inspections conducted, all findings resolved**
  - a) Holt 305 & 305B: All findings resolved 09/03/2024
  - b) Holt 114A & 115: Inspection conducted 09/10/2024
3. **Updates on registrations in progress**
  - a) 23-08 – K Dungey; Atomic Force Microscopy of bacteria *E. coli* and the antibiotic response. Revisions received 09/19/2024.
  - b) 24-02 – Bathi – No word from Dr. Bathi about meeting with IBC/ORI for revisions of registration since May 15, 2024. Cheryl hasn't had a chance to reach out to him about this since previous IBC meeting.

1. Brad will reach out to Dr. Bathi to follow-up. Cheryl will forward him last email that was sent. Need to loop in Dept Head and Dean with this.
- c) 24-04 – W Yong Yang; Study of selective binders targeting single-stranded nucleic acid repeats. Undergoing final revisions to gain approval via Administrative review.

#### 4. Updates on old business items

- a) IBC Administrator Search Update
  1. Zoom interviews September 24 and 26; 6 candidates; will proceed with on-site visit and make recommendations to hiring manager.

### V. New Business –

#### 1. Ex-officio Voting and Quorum

- a) March 27, 2023: Committee discussed *Ex-officio* members have full rights to make motions and vote on committee affairs based on *Roberts Rules of Order*; no vote was taken during this meeting to grant UTC's IBC Ex-officio members these rights.
- b) August 25, 2024: *Ex-officio* members also count towards IBC meeting quorum based on *Roberts Rules of Order*.
- c) UTC IBC Bylaws currently state that *Ex-officio* members are non-voting members.
- d) Discussion regarding instating voting/quorum rights to *Ex-Officio* members
- e) *Motion: Ex-Officio* members become voting members of UTC's IBC – Giles; 2<sup>nd</sup> = Sanders
  1. In Favor = 7
  2. All Opposed = 0
  3. All Abstentions = 0
- f) *Action Item*: At next meeting, vote on updating Bylaws to reflect this decision.

#### 2. Transition to Prior Approval Process for IBC-related activities:

- a) Committee needs to decide if we are transitioning out of grandfathering procedure. Would need to update Bylaws/SOPs if that happens.
- b) Document that was distribute to committee was summarized with information regarding policies from peer institutions and others.
- c) Exempt activities could be reviewed administratively to help speed the process along for PIs.
- d) Committee member suggested direct communication between IBC and UTC Departments that would be impacted by these new policies; they need to know about the timing of review for the registrations, additional information will be readily available for those submitting registrations.
- e) Timeline could be given to the Departments to let them know about the new policies that are coming online.
- f) Question: When submitting a new course, is there a checkbox that could incorporate if an IBC registration would be needed for the course?

- g) Department Heads need to be aware of the courses that may need IBC registrations to help with this process.
- h) *Motion*: Transition to requiring prior registration approval before beginning activities, target date for starting this policy is January 6, first day of classes of Spring 2025 – Kovach; 2<sup>nd</sup> = Barbosa
  - 1. In Favor = 7
  - 2. All Opposed = 0
  - 3. All Abstentions = 0
- i) *Action Items*: Develop memo to send to Department Heads and Deans informing of this policy change; update any Bylaws, SOPs and website.

### 3. **New Registration:**

- a) **IBC Registration #24-07, Dr. Henry Spratt, Pathogen Monitoring on Environmental Surfaces in Clinics**
  - 1. CITI Training – All personnel listed on registration have up-to-date required training.
  - 2. Containment Level: BSL-2
  - 3. NIH Category: No recombinant or synthetic nucleic acids will be used
  - 4. For non-rDNA projects; Project summary:
    - a. Collection of swabs from clinical surfaces, use of these swabs to inoculate various selective and differential growth media to detect specific types of potential bacterial pathogens from the surfaces sampled.
  - 5. List hazard(s):
    - a. Blood Agar: TSA Agar with sheep blood at 5%. Purchased from Fisher Scientific ready made in sterile form.
    - b. *Staphylococcus aureus* – BSL2
    - c. *Pseudomonas* sp. – BSL2
    - d. *Salmonella* sp. – BSL2
    - e. *Shigella* sp. – BSL2
    - f. *Klebsiella* sp. – BSL2
    - g. *Clostridium difficile* – BSL2
    - h. *Bacillus* sp. – BSL1
    - i. Coliforms – BSL1
  - 6. Summary of manipulations planned:
    - a. Environmental swabs are collected from medical and veterinary clinics (specific clinics identified as project continues). Swab samples are used to inoculate selective and differential media agar surfaces for the specific target bacteria.
- b) Additional committee concerns/corrections needed
  - 1. Lab Inspection has already been completed in July.
  - 2. Terminal handling of biohazardous waste language: Does IBC need to have specific language about biohazardous waste, about what they

need to do after it is placed in biohazardous waste room – at least for BGE? IBC wants to make sure the information is correct and thorough for how it is handled.

- a. Jess will work on developing some common language. Would need the name of the Office in charge of picking up the biohazardous waste for terminal disposal.
- b. Need a good place to show this information where the PI would be able to insert the wording in the appropriate places.
3. EH&S: not all departments have a separate room to place biohazardous waste for pick-up. Bob could work with Jess on the wording to help accommodate all processes across campus.
- c) *Motion*: Approve registration pending adding language for terminal sterilization – Giles; 2<sup>nd</sup> – Barbosa
  1. In Favor = 7
  2. All against = 0
  3. All abstentions = 0

4. **Revised Registration:**

- a) **IBC Protocol #24-05, Dr. Jannatul Ferdoush, BIOL 4200 – Molecular Genetics Teaching Laboratory**
- b) CITI Training – All personnel listed on registration have up-to-date required training.
- c) Containment level: BSL-1
- d) For rDNA projects:
  1. NIH Category – III-E Miscellaneous; III-F-8b, III-F-8c
  2. Agent characteristics (e.g., virulence, pathogenicity, environmental stability)
    - a. *Saccharomyces cerevisiae* (via Horizon Discovery): BSL-1
    - b. *Escherichia coli* (via Carolina Biological): BSL-1
    - c. pUB221 plasmid: BSL-1
    - d. pRS406 plasmid: BSL-1
  3. Types of manipulations planned:
    - a. *S. cerevisiae* transformation using pRS406 & pUB221 plasmids
    - b. Protein purification, SDS PAGE and western blot with yeast cells
    - c. DNA purification and agarose gel electrophoresis with yeast cells
    - d. *E. coli* transformation using pRS406 plasmids.
    - e. Site directed mutagenesis to amplify target gene by PCR.  
Molecular cloning to replace endogenous yeast gene by target gene.
    - f. Ubiquitination assay with yeast cells.
  4. Source(s) of the nucleic sequences (e.g. species)
    - a. pUB221 plasmid: Source = *Escherichia coli*

- b. pRS406 plasmid: Source = *Escherichia coli* and *Saccharomyces cerevisiae*.
- 5. Nature of the nucleic acid sequences (e.g. structural genes, oncogenes): ampicillin cassette
- 6. Host and vector to be used
  - a. Host: *Saccharomyces cerevisiae* and *Escherichia coli*
  - b. Vector: pUB221, pRS406
- 7. Whether an attempt will be made to obtain expression of a foreign gene, and if so, the protein that will be produced:
  - a. Yes, but need more information about which protein(s) will be produced/expressed.
- e) Additional committee concerns/corrections needed
  - 1. For the site-directed mutagenesis, more information needed regarding the target genes or target family of genes. P.9 Question 4 – need to indicate the genes that will be cloned.
  - 2. Same comment about terminal handling of the biohazardous waste as above (terminal destination and who is handling that).
  - 3. P.3 Question 6: Methodology for yeast cell transformation needs to be reviewed/revised, it isn't a yeast protocol.
- f) Motion: = Davy; Revisions requested with subsequent full committee review- Giles, 2<sup>nd</sup> = Kovach
  - 1. In Favor = 6
  - 2. All Opposed = 0
  - 3. All Abstentions = 0
- 5. **Upcoming Lab Inspection(s) –**
  - a) Grote 406 - W Yong Yang; Scheduled 09/25/2024
  - b) Grote 104 – Luis Sanchez-Diaz; Need to schedule lab inspection
- 6. **Additional items for discussion**
  - a) No new items were discussed

**VI. Next Meeting: October 7, 2024**

**VII. Adjournment – 1:55 PM**