MEETING MINUTES
INSTITUTIONAL BIOSAFETY COMMITTEE (IBC)
CLEMSON UNIVERSITY
August 14, 2025
In-person retreat (AMRL Seminar Room)

Call to order at 2:05PM by the Chair, James Morris. The IBC has 10 voting members, and 6 members are required to conduct business. The Chair votes in the event of a tie vote or a need to have a quorum. The Chair is not voting.

Attending:
James Morris-IBC Chair
Cassie Gregory-Staff member
Sachin Rustgi-Plant Expert *(via Zoom)*
Daniel Whitehead-Chemical Expert
Matt Breed-University Vet
Cheryl Ingram-Smith-IBC Vice Chair
Kerri Kwist-BSO
Chris Saski-Plant Expert/Gene Drive Expert
Michele Eller, Community Member *(via Zoom*)
Jim Grieger (alternate BSO)
Lesly Pekarek-Occupational Health (ex officio)
Robin Tyndall, ORC Director (ex-officio)

Not in Attendance: Bonnie Kelley, Community Member
Rhonda Ryals-Research Security (ex-officio)

In Attendance ORC: Hope Smith-Sielicki-IBC Administrator

Call to Order

- **CONFLICT OF INTEREST**

  All IBC members are reminded of their obligation to disclose any potential conflicts of interest. According to the NIH Guidelines, no member may be involved (except to provide information) in the review or approval of a project in which they have been or expect to be engaged or have a direct financial in the project or its outcomes

I. TRAINING AND ANNOUNCEMENTS

None

II. OLD BUSINESS

1. It was announced we are still working with OGC on the new format for the minutes. Once OGC approves the minutes, we will approve the minutes.

III. NEW PROPOSALS- RECOMBINANT DNA FULL REVIEW

III.a Section III-D - Experiments that Require Institutional Biosafety Committee Approval Before Initiation

IBC2025-0164	**Qing Liu**
Title:	Using human stem cells to understand developmental biology and cardiovascular diseases
Review type:	Full Committee
Designated Reviewers: Chair and BSO	
Purpose:	The purpose is to understand mechanisms underlying development and diseases-controlled gene regulation and metabolism in cardiovascular, by using human stem cells as an in-vitro system.
NIH Guidelines:	III-D-1, 2, 3; III-E-1,4
Biocontainment:	BSL-2
Lab training:	Completed
Status:	On agenda for Full Committee Review

Items discussed included: This is a new protocol from the Liu lab. This protocol describes experiments using human cells (stem cells, HEKs) and recombinant DNA approaches including gene editing, RNAi, and lentiviral transduction (3rd generation; commercially available). The goal is to understand cardiovascular cell gene regulation through manipulation of transcription factors. The work falls under BSL2 containment (for lenti-system and human cells) and under guidelines IIID1,2,3.

A motion was made to approve the protocol.

Tally: For-8 Against-0 Abstain-0

Motion approved

IBC2025-0165	**Rajan Sekhon**
Title:	Genetic and Genomic Approaches to Identify Genes Controlling Important Agronomic Traits in Maize and Related Grasses

Review type: Full Committee
Designated Reviewers: Sachin Rustgi and BSO
Purpose: The purpose is to Identify and characterize genes that control important agronomic traits (e.g. senescence, lodging resistance) in grasses particularly maize.
NIH Guidelines: III-D-5, III-E-2
Biocontainment: BSL-1/1P
Lab training: Awaiting CITI rDNA re-training for PI
Status: On agenda for Full Committee Review

Items discussed included: This is an on-going protocol. The protocol is written to cover the research planned under an NSF-funded project on identifying and characterizing the genes controlling agronomical traits in corn and related grasses, such as sorghum and *Brachypodium*. Both biological and recombinant DNA hazards are checked; however, I do not see significant biological hazards in the proposed protocol. Also, no regulated plant field trials are planned.
An intention to use gene editing is indicated, and a corresponding form is included. While the authors have not elaborated on the elements of the gene-editing constructs in section A.5.C, a plant BSL-1 level was marked, which seems appropriate. Just a note-it is recommended they use a fume hood for the acrylamide work and latex gloves are not recommended.

A motion was made to approve the protocol, pending training completion.

Tally: For-8 Against-0 Abstain-0

Motion approved

III.b Section III-E - Experiments that Require Institutional Biosafety Committee Notification Simultaneously with Initiation

IBC2025-0162 Daniel Jones

Title: Role specific developmental genes have during flower development/evolution in the sunflower family
Review type: Full Committee
Designated Reviewers: Chair and BSO
Purpose: The purpose is to understand the role specific developmental genes have during flower development/evolution in the sunflower family

NIH Guidelines:	III-E-2, III-F-6
Biocontainment:	BSL-2
Lab training:	Awaiting CITI rDNA training for entire lab
Status:	On agenda for Full Committee Review

Items discussed included: This is a new protocol. This protocol describes recombinant DNA work that falls under III-E.2, experiments involving whole plants. The work involves gene editing using CRISPR/Cas9 to modify genes involved in plant development. Mutant lines will then be complemented with wildtype genes to validate the mutation as causal. CRISPR/Cas9 will be used to modify lettuce, marigold, sunflower, scabiosa, and bidens, with constructs introduced into the plants by agrobacterium-mediated transformation.

A motion was made to approve the protocol, pending training completion.

Tally: For-8 Against-0 Abstain-0

Motion approved

IV. NEW RECOMBINANT DNA PROTOCOLS THAT ARE EXEMPT REVIEW (SECTION III-F OR APPENDIX C)

None

V. NEW PROPOSALS NOT INVOLVING RECOMBINANT DNA REQUIRING FULL COMMITTEE REVIEW

None

VI. NEW BUSINESS

- Report of Actions was reviewed and accepted by the committee.
- The BSO reported:
  - No rDNA spills or accidents
- The Occupational Health Office reported:
  - Upcoming changes to Occupational Health/Medical Surveillance Program, which is now operating under Dr. Pekarek instead of Rural Health

VII. NEXT MEETING

Monday, September 9, 2025 at 1pm

VIII. ADJOURNMENT

A motion was made to adjourn at 2:36pm.

Approved by:

_____ _____

James Morris, Ph.D. Date
Chair, Institutional Biosafety Committee
Professor, Genetics and Biochemistry