University of Massachusetts – Boston

Institutional Biosafety Committee (IBC) Meeting Minutes
October 17, 2025, 1:00PM-2:00PM
Zoom Meeting

Members in Attendance: Changmeng Cai (Biology – IBC Chair), Daniel Dowling (Chemistry), Doug Woodhams (Biology), Joanna Dahl (Engineering), Mike Pollard (Registrar's Office), Niquel Ortega (Community Member), Steven Ackerman (Honors College)

Guests in Attendance: Ted Myatt (EHE Biosafety Consultant)

Staff Present: Lalitha Adusumilli, Biosafety Officer (OEHS), Tracey Poston (ORSP)

Scribe: Sarah Phou (EM/OEHS)

Members Absent: Eric Berry (Psychology), Shailja Pathania (Biology), Phil Cartagena (Community Member)

Quorum: Seven members were present. The IBC needs six members to conduct business

1. The Chair, C. Cai, called the meeting to order at 1:01pm.
2. A motion was made and seconded, and all in attendance voted to approve the meeting minutes from May 2nd, 2025.
3. C. Cai noted IBC-RMS approved until 8/29/26.

The committee members discussed the following new protocol with rDNA work for approval.

Kimberly Hamad Schifferli
IBC-2025-4A
Expression of nonstructural proteins in mammalian cells
This project seeks to make low-cost, portable rapid diagnostics for global health. As part of this, the project will study antibody-protein interactions to help design more sensitive diagnostics.
The protocol involves Human Embryonic Kidney 293 cells obtained from an outside vendor to express custom proteins. Secreted proteins will be purified from the cells using affinity columns. This registration falls under Section III-E of the NIH Guidelines. Biosafety Level 2 (**BL-2**) containment is required for work with all human materials including human cell lines. Compliance with OSHA Bloodborne Pathogens Standard is also required for the use of human materials. All training courses required are complete for lab members listed in the registration.

A motion was made and seconded, and all in attendance voted to approve the above protocol.

The committee members discussed the following protocols with rDNA work for renewal.

Kellee Siegfried Harris
IBC-2015-12D

Germ Cell development and sex determination in Zebra fish.
This project investigates genetic regulation underlying development of the gonad. How do germ cells develop to form functional gametes and how are these differences between the sexes manifested during development? Answering these questions helps us uncover the underlying developmental processes that are essential for fertility and reproduction.
The protocol for the use of *E. coli,* recombinant DNA, transgenic zebrafish (including generation of transgenic zebrafish) and human prostate cell lines was submitted for renewal. Study involves genetic regulation of gonad development and sex determination in the zebrafish. The non-pathogenic E. coli cells obtained from outside vendors are used to grow and assemble recombinant DNA to verify DNA sequences and to assemble recombinant DNAs for production of transgenic zebrafish.
Zebrafish are used to test metastasis of human prostate tumor cell lines. Prostate cells will be provided by Changmeng Cai's lab at UMB.
All zebrafish procedures are approved by the IACUC before being carried out. We use mutant and transgenic zebrafish in our research.
This registration falls under Sections III-D and III-E of the NIH Guidelines. Biosafety Level 1 (**BL-1**) containment is required for work with *E. coli* and zebrafish, and Biosafety Level 2 (**BL-2**) containment is required for work with Human prostate cell lines. Compliance with OSHA Bloodborne Pathogens Standard is also required for the use of human prostate cell lines.
All training courses required were assigned to lab members listed in the registration. BSO will follow up with members for the completion.

Shailja Pathania
IBC-2016-5D
Understanding predisposition to hereditary breast and ovarian cancer.
This project studies how inherited mutations in DNA repair genes, such as BRCA1 and BRCA2, increase the risk of breast, ovarian, and prostate cancer. Using human cells and laboratory models, the research seeks to understand how cancers develop and identify new approaches for prevention and treatment.
The protocol for the use of Human cells (Primary breast epithelial cells and skin cells) obtained from collaborators, Lenti Viral Vectors: psPAX2, pMDG, pMDLV and the Adenoviral Vector (delivering Cre Recombinase) from collaborators and outside vendor is submitted for renewal.
The goal of the study is to understand how and when normal, presumably normal healthy cells become tumor cells by studying the function of DNA repair genes like BRCA1, BRCA2, PALB2, Rad51C and others.
The other goal is to get a better understanding of the function of CHD1 protein in prostate cancer development, especially in BRCA2 deficient prostate cancer using mouse prostate model and studying the tumor generation in Trp53, Pten, Brca2, and Chd1 deletion settings.
This registration falls under Section III-D of the NIH Guidelines. Biosafety Level 2 (**BSL-2**) containment is required for work with Human cell lines, Lentivirus and Adenoviral Cre with gene inserts that are not toxic or oncogenic. Compliance with the OSHA Bloodborne Pathogens Standard is also required for the use of human cells.
All training courses required are complete for lab members listed in the registration.

A motion was made and seconded, and all in attendance voted to approve the above protocols with the above noted exception(s).

4. L. Adusumilli reported that annual biosafety cabinet certification has been completed and is staying on top of training.
5. Protocols with non- recombinant DNA work that are reviewed and approved were displayed in the meeting.
6. The next committee meeting will be planned for January or February 2026.
7. Meeting was adjourned at 1:20pm.