IBC Meeting Minutes

Chair- Ken Bondioli
Research Safety- Abigail Fish
Thursday, June 12, 2025
1:30 pm via Zoom

Institutions *Louisiana State University Agricultural and Mechanical College (A&M)*
Louisiana State University Ag Center

IBC Members			
	Ken Bondioli	LSU Ag Center	Chair, Animal Expert
	Abigail Fish	LSU A&M	BSO, Administrator, Voting Contact
	Sarah Keeton	LSU A&M	BSO
	Sue Hagius	LSU Ag Center	Animal Expert, Lab Rep
	Michael Hooks	LSU A&M	Member
	Jong Ham	LSU Ag Center	Plant Expert
	Christy White	Pennington Biomedical Research Center	Non-Voting Member
	Jeff Davis	LSU Ag Center	Plant and Insect Expert
	Niranjan Baisakh	LSU Ag Center	Plant Expert
	William Doerrler	LSU A&M	Member
	Ramanuj Lahiri	National Hansen's Disease Program	Member
	Rebecca Christofferson	LSU A&M	Member
	Michelle Dennis	Our Lady of the Lake Hospital	Local Non-Affiliated Member
	Brent Stanfield	LSU A&M	Member
	Ryoichi Teruyama	LSU A&M	Member
	Achyut Adhikari	LSU Ag Center	Member
	Caroline Telles	Southern University	Local Non-Affiliated Member

Members Present:	Ken Bondioli, Sue Hagius, Ryoichi Teruyama, Michelle Dennis (arrived at 1:40 pm and left at 2:58 pm), Abigail Fish, Ramanuj Lahiri, William Doerrler, Michael Hooks, Brent Stanfield, and Sarah Keeton	
Members Absent:	Christy White, Caroline Telles, Achyut Adhikari. Niranjan Baisakh, Jong Ham, Jeff Davis, and Rebecca Christofferson.	
Others Present:	Pu Duan	Professor in Dept of Chemistry
	Johanna Posada	General Counsel at LSU

Call to Order: 1:32 pm

Approval of Minutes from: Thursday, May 15, 2025

Motion Made by:	Sue Hagius
Seconded by:	Ramanuj Lahiri
Abstaining:	William Doerrler

Approved by the Majority

Business and Call for New Business

Per a memorandum issued by the NIH in March 2025, meeting minutes from monthly IBC meetings that take place after June 1, 2025, must be posted online after appropriate redactions have been made. This is the first meeting that is subject to the new requirements.

The meeting-minute template was updated to reflect the changes requested by the NIH. No information was removed from the previous format for minutes. This template includes additional information such as a project summary and a more detailed explanation of the risk assessment provided by the committee.

The standard operating procedure for meeting minute approval will need to be adjusted to reflect the changes requested and the approval process. The updated SOP will need to include approvals pre- and post-review by LSU Legal Counsel.

Per discussion and approval with the IBC committee, Achyut Adhikari and Caroline Telles will be removed from the committee and replaced.

New IBC Registrations and Amendments for Review

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25042	Pu Duan	Chemistry	5/9/2025	Investigation of the Structural and Dynamics of E. coli Biofilm Using Solid State NMR	William Doerrler	Michelle Dennis

Project Overview:

Bacteria that form biofilms—a slimy protective layer they build—are a major cause of long-lasting and device-related infections, making up about 80% of all chronic infections around the world. A common example is urinary tract infections (UTIs) caused by a type of E. coli called UPEC, which forms biofilms. These infections affect around 8 million people each year in the U.S. and cost about $1.6 billion in healthcare.

This project focuses on studying the makeup of the sticky substances (called extracellular polymeric substances, or EPS) that hold UPEC biofilms together. We're using a powerful technique called solid-state NMR to look closely at how these materials are built and how they behave, particularly in a strain of E. coli called UTI89, which was taken from a patient with a UTI.

We'll examine the structure of two key parts of the biofilm—cellulose and curli (a type of protein fiber)—by comparing normal UTI89 bacteria with mutant versions that can't produce one or the other. We'll also look at curli proteins made in the lab to get a very detailed, atomic-level picture of their structure.

Overall, the goal is to fully understand how these main biofilm-building materials are structured and how they function in infections caused by UPEC.

Risk Assessment and Discussion:

The PI plans to work with a risk group 2 strain of *E. coli* that is generally responsible for human urinary tract infections. As this is a human pathogen, BSL2 practices and containment are required to safely handle the pathogen. Once inactivated, the PI may work with the inactivated material at BSL1 containment. The PI will use a biosafety cabinet when handling bacteria to contain aerosols. He will also use a sonicator to extract proteins from bacteria. The sonicator is located inside an enclosure to contain aerosols. Surgical masks are worn as additional protection during sonication. Long pants, close-toed shoes, lab coats, and disposable gloves are required. Safety glasses/goggles are required as dictated by the work.

NIH Guidelines:

Section III-F-8

Biosafety Level:	BSL-2
Training Requirements:	No personnel were listed on the protocol apart from the PI. PI has three individuals listed as staff/students in his lab. PI will clarify if the staff is working with RG2 material. Those who will need to be added to other protocols and complete the EHS-required online BSL2 safety training. PI will also complete online BSL2 safety training.
IBC Vote:	**Approved at BSL2 pending receipt of modifications**
Motion made by:	William Doerrler
Seconded by:	Michelle Dennis
Abstaining:	None
Conflicts of Interest:	None

Requested Modifications:

- Section A. Project Information.
  - Project title. Please spell out NMR.
  - Personnel. Training. Please complete the EHS-required online BSL2 safety training and list the courses under specific training. Please also add personnel who will work on this project and have them complete the same training. Training will be verified by the Biosafety Officer.
- Section B. Project Description.
  - Project Summary. Please provide a summary of the work in layman's terms that will be published in the meeting minutes and online per NIH guidelines. Please provide this summer under project goals.
  - Project Goals. Please add a statement to summarize the overall goal of the work.
  - Procedures and Methods. Please indicate what work takes place inside a biosafety cabinet. Please describe csg and bsc genes and the purpose of knockouts. Please describe the procedure for sonication. Be sure to include control of aerosols. Please spell out EPS and describe what it is. Do you verify overexpression of proteins via western immunoblotting? If yes, please briefly describe that procedure, including how bacteria are inactivated. Please state that you will not transport pathogenic E. coli strains. Please briefly describe what you do with proteins after purification. Be sure to add a statement about the overall goal of purifying proteins under project goals.
- Section C. Risk Evaluation.
  - Biosafety. Please indicate what type of mask is being worn. Please describe safety procedures for the use of the sonicator. Please ensure sonicator users wear hearing protection and document that information here.
  - Biosecurity. Please describe liquid biological waste handling procedures.
- Section F. Recombinant DNA.
  - NIH Guidelines. Please add Section III-F-8.
- Section J. Human Pathogens.
  - Please change "no" to "yes" for the preparation of a stock culture.

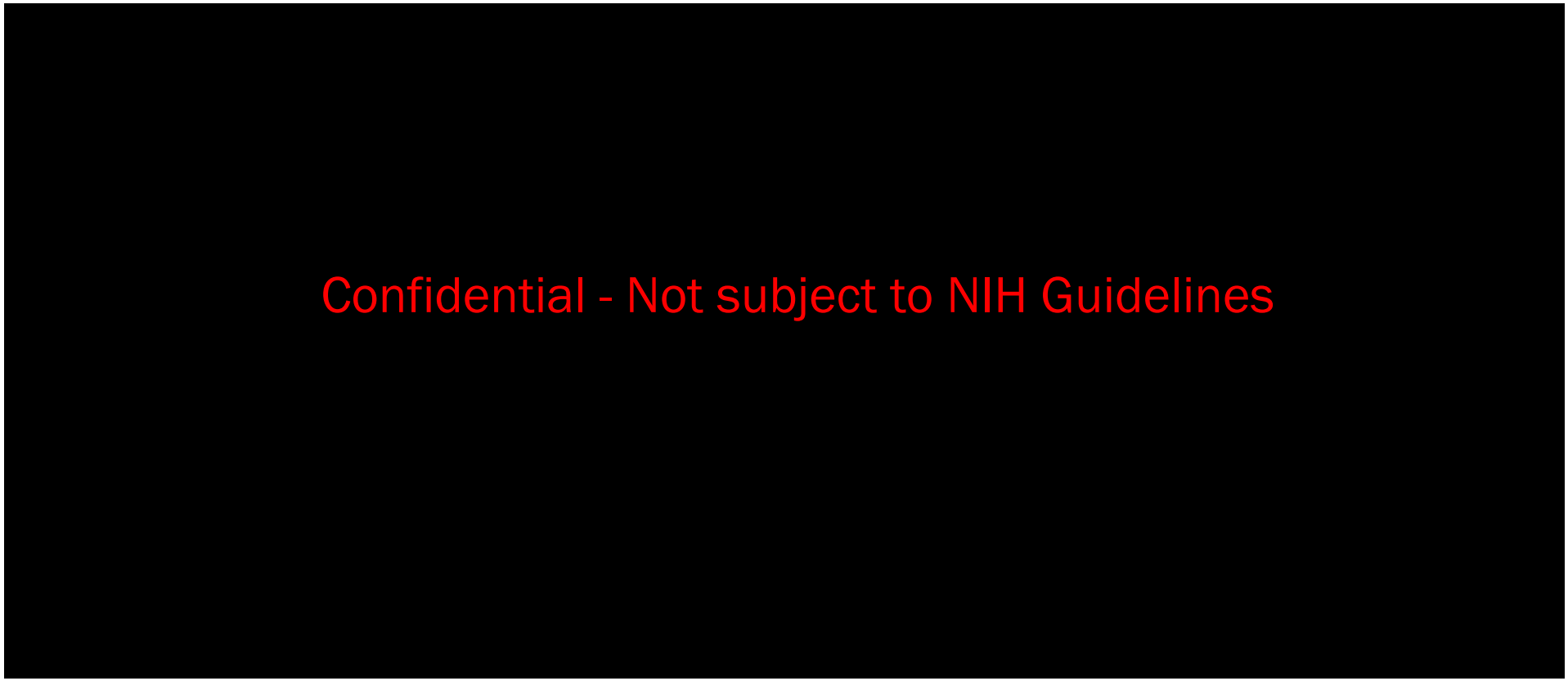
- Section N. Safety.
  - Administrative Controls. Stock cultures. Please uncheck not applicable box for stock cultures.
  - Engineering Controls. Biosafety Cabinet. Please change “no” to “yes” for biosafety cabinet located in general lab area.
  - Personal Protective Equipment. Please check other and indicate the type of mask worn.

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25043	Crystal Johnson	Environmental Sciences	5/3/2025	Antibiotic-Resistant Bacteria (ARB) and Antibiotic Resistance Genes (ARG)	Ryoichi Teruyama	Sarah Keeton

Project Overview:	This project aims to study the presence of antibiotic-resistant bacteria in natural environments such as coastal waters, oysters, and sediments. By analyzing environmental samples, we hope to understand how environmental conditions—like temperature and salinity—affect the abundance of these bacteria and their resistance traits. We extract DNA from previously collected and enriched samples to test for the presence of antibiotic resistance genes. Using techniques like PCR and qPCR, we look for genetic markers that indicate resistance to antibiotics such as ampicillin. We are also culturing bacteria from new environmental samples on antibiotic-containing media to identify which organisms can survive and what resistance genes they may carry. This research contributes to our understanding of how antibiotic resistance spreads in the environment, which is essential for protecting public health and informing environmental monitoring efforts.
Risk Assessment and Discussion:	The PI is going to collect water samples from the local LSU lakes. These lakes have high fecal coliform units and are known to harbor risk group 2 bacteria. The PI has appropriate safety practices in place for water collection. The IBC is concerned that the PI does not have a biosafety cabinet for bacterial enrichment procedures. We have asked for additional details regarding the containment of aerosols during bacterial culture to ensure personnel are protected from unknown pathogens in the water samples. Because the PI is working with environmental samples that may contain human or animal pathogens, BSL2 containment and practices are required. Apart from bacterial culture, no other manipulations are performed on live bacteria. Once the PI identifies antibiotic-resistant microbes, they are inactivated for PCR analysis. This work may be performed at BSL1 containment. PI has extensive experience working with environmental water samples and has no documented laboratory incidents.
NIH Guidelines:	Not Applicable
Biosafety Level:	BSL-2

Training Requirements:	All personnel in the lab, including the PI, will receive the EHS-required online safety training for BSL2 workers, and courses will be listed under specific training in Section B. The PI also has an extensive hands-on training procedure in place to ensure all personnel are proficient in lab-specific techniques. PI documents this approval and maintains signatures of all personnel when completed.
IBC Vote:	**Approved at BSL2 pending receipt of modifications**
	Motion made by: Ryoichi Teruyama
	Seconded by: Sarah Keeton
	Abstaining: None
	Conflicts of Interest: None.

Requested Modifications:



Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25044 (Renewal)	Joseph Francis	Pathobiological Sciences	6/5/2025	Establishing a Mouse Model of Cancer and Studying the Efficacy of Herbal Supplements	Ramanuj Lahiri	Sue Hagius

Project Overview: This project aims to better understand how diet may influence breast cancer progression and the body's immune response to the disease. Researchers will use well-established preclinical mouse models by injecting human breast cancer cells into the mammary tissue of mice to simulate tumor development. To explore the potential benefits of nutrition, one group of mice will receive a diet supplemented with blueberry extract throughout the study. At the end of the study, researchers will humanely euthanize the animals to collect blood, tumors, lungs, and spleens. These tissues will be analyzed to investigate how blueberry compounds may impact molecular pathways related to tumor growth, immune function, and the spread of cancer. Advanced laboratory techniques such as Western blotting, qPCR, immunohistochemistry, and flow cytometry will be used to identify changes in specific markers linked to cancer survival and immune regulation. This research could provide insight into how natural dietary components may help reduce cancer progression or improve immune defense.

Risk Assessment and Discussion: This project involves injecting human breast cancer cell lines into mice and treating them with a blueberry-supplemented diet to study tumor progression. Working with human cells requires BSL-2 practices, as they are considered potentially infectious. All lab procedures involving these cells must be performed under BSL-2 containment using proper PPE and biosafety protocols. Because human cells are introduced into animals and tissues will be collected at necropsy, ABSL-2 containment is also required. Animal work must be conducted in approved ABSL-2 spaces, following LSU IBC and IACUC protocols. Personnel must wear appropriate PPE, complete EHS required BSL-2 training, and follow decontamination procedures to manage potential risks.

NIH Guidelines: Not Applicable

Biosafety Level: BSL-2

Training Requirements: All personnel in the lab, including the PI, will receive the EHS-required online safety training for BSL2 workers, and courses will be listed under specific training in Section B. Additionally, staff involved in animal work will be required to complete IACUC training.

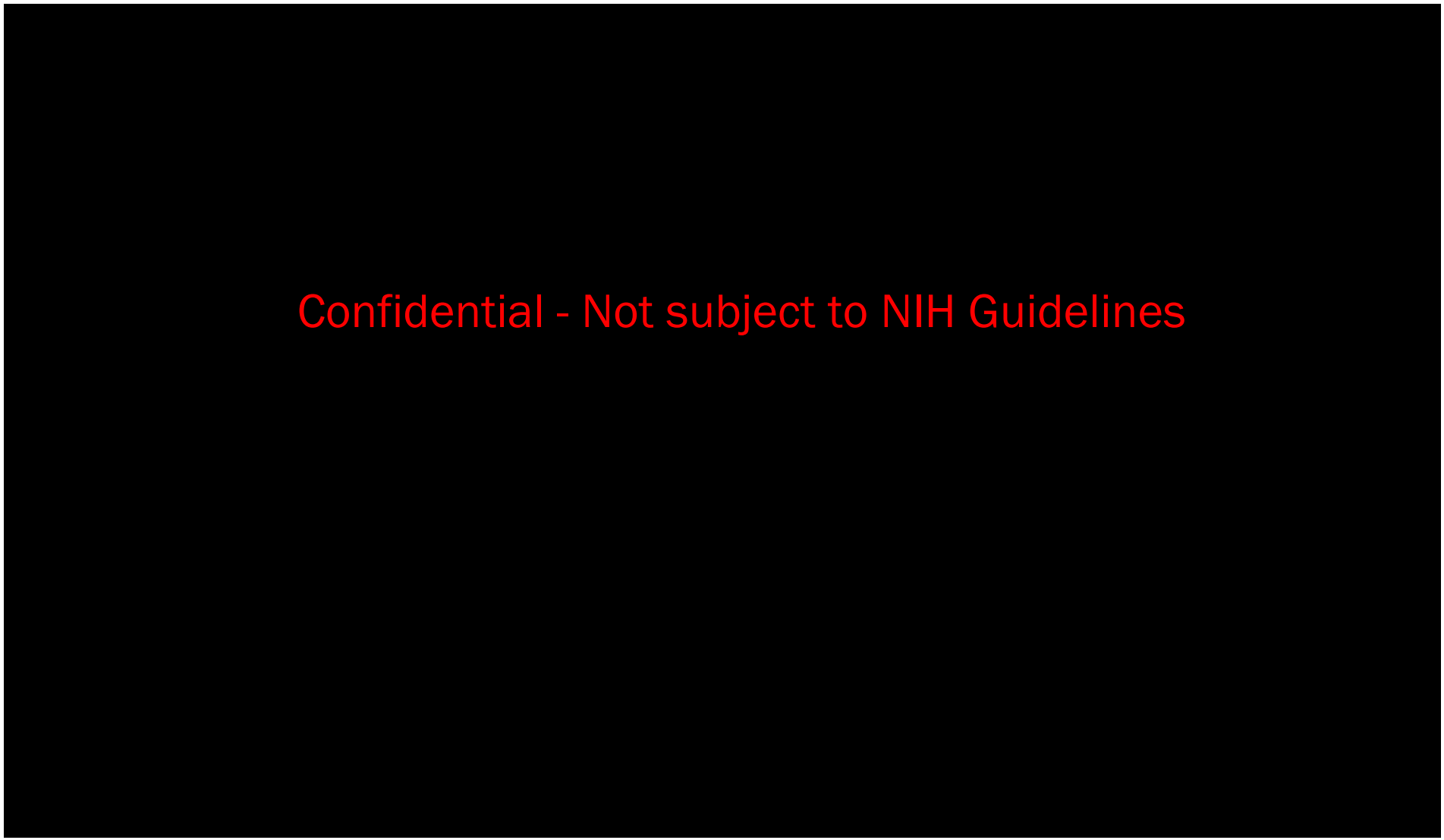
IBC Vote: **Approved at BSL2 pending receipt of modifications**

Motion made by: Ramanuj Lahiri

Seconded by: Sue Hagius

Abstaining: None.
Conflicts of Interest: None.

Requested Modifications:



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Upcoming Meetings:	July 17, 2025 @1:30 pm via Zoom
Adjourned:	3:27 pm