IBC Meeting Minutes

Chair- Ken Bondioli
Research Safety- Abigail Fish
Thursday, July 17, 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

Members Present:	Ken Bondioli, Sue Hagius, Ryoichi Teruyama, Michelle Dennis (arrived at 1:41 pm), Abigail Fish, Ramanuj Lahiri, William Doerrler, Michael Hooks, Brent Stanfield, Jong Ham, and Sarah Keeton	
Members Absent:	Christy White, Niranjan Baisakh, Jeff Davis, and Rebecca Christofferson.	
Others Present:	Zhi-Yuan Chen	Professor in Plant Pathology and Crop Physiology
	Barry Aronhime	Senior Instructor, Biological Sciences

Call to Order: 1:30 pm

Approval of Minutes from: Thursday, June 12, 2025

Motion Made by:	Not Applicable
Seconded by:	Not Applicable
Abstaining:	None

The minutes from the June meeting are not complete due to Dr. Joseph Francis failing to return his revisions prior to the July meeting and as a result were tabled until the next meeting.

Business and Call for New Business

Achyut Adhikari and Caroline Telles were officially removed from the LSU and LSU AgCenter IBC effective July 1, 2025. Both IBCs are searching for a local, non-affiliated community member to replace Caroline Telles.

The committee addressed concerns regarding principal investigator (PI) non-compliance with revision requests. As outlined in the updated meeting template, a project overview is now a required component, and this information must be provided by the PI. Dr. Joseph Francis did not submit the required revisions, including the project overview, in advance of the July IBC meeting. As a result, the meeting minutes were incomplete, and the committee was unable to review and approve them during the session. To ensure timely and complete review in the future, the committee has agreed to implement a formal policy establishing a deadline for submitting revisions to the Assistant Director for Research Safety. Failure to meet this deadline will result in the revocation of project approval. Dr. Abigail Fish will draft the initial version of this policy for review and approval by the committee and the Institutional Official. Based on committee recommendations, all required revisions must be submitted by the IBC registration deadline for the upcoming month's meeting.

The committee was also made aware of the recent request by the NIH and USDA to the IBC regarding dangerous gain-of-function research at LSU.

New IBC Registrations and Amendments for Review

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25045	Zhi-Yuan Chen	Plant Pathology and Crop Physiology	6/17/2025	Enhance Maize and Soybean Resistance to Important Fungal Diseases in Louisiana	Jong Ham	William Doerrler

Project Overview:

This project focuses on improving the natural defenses of maize (corn) and soybeans against harmful fungi that threaten crop health and food safety.

In maize, the goal is to reduce infection by *Aspergillus flavus*, a fungus that produces aflatoxin—a toxic and cancer-causing substance that can contaminate food and feed. To address this, the team is using a method that enables the plant to silence specific genes within the fungus. These genes are essential for the growth of the fungus and for producing aflatoxin. By "turning off" these genes, the maize plants are better able to protect themselves and reduce the risk of aflatoxin contamination in the harvested grains.

In soybeans, the focus is on enhancing resistance to several common fungal pathogens, including *Phakopsora pachyrhizi*, *Cercospora cf. flagellaris*, and *C. sojina*. Instead of modifying the plant, researchers are applying a topical treatment made from double-stranded RNA (dsRNA). When sprayed on the leaves, this dsRNA can interfere with key fungal genes, preventing infection. This approach—called spray-induced gene silencing—is a sustainable and flexible way to boost disease resistance without relying on traditional chemical treatments.

Together, these strategies use cutting-edge, gene-targeting technologies to help crops fight off fungal threats, reduce the need for fungicides, and promote safer, sustainable, and more reliable food production.

Risk Assessment and Discussion:	This project involves work with plant fungal pathogens, recombinant DNA, transgenic materials, and small amounts of fungal toxins. The pathogens used—*Aspergillus flavus*, *Phakopsora pachyrhizi*, *Cercospora cf. flagellaris*, and *C. sojina*—are naturally present in Louisiana and pose minimal risk to healthy individuals. To minimize exposure, all handling of infected plant material, fungal spores, and cultures is conducted within a certified Class II biosafety cabinet, with appropriate personal protective equipment (PPE) including gloves, lab coats, and N95 masks as needed, particularly during field collections or spore-rich procedures. Recombinant DNA work and use of transgenic maize and dsRNA-treated soybean samples follow NIH guidelines and pose low risk, as the constructs target only fungal genes and are handled under BSL-1 conditions. Small amounts of aflatoxins and cercosporin, used only as analytical standards, are securely stored in locked freezers with restricted access. All containers in contact with these toxins are decontaminated in 10% bleach before disposal. Standard PPE is used during handling. With proper containment, training, and safety protocols in place, this work presents low risk to personnel and the environment. Please
NIH Guidelines:	Section III-E-2-a
Biosafety Level:	BSL-2 and BL1-P
Training Requirements:	All personnel, including the PI, involved in this project must complete BSL-2 training in accordance with LSU's Environmental Health and Safety (EHS) and Institutional Biosafety Committee (IBC) requirements. Respiratory Protection training and fit testing are also required when utilizing an N95. All training must be completed before beginning work and refreshed as required by LSU policies and SOPs.
IBC Vote:	**Approved at BSL2 and BL1-P pending receipt of modifications**
	Motion made by: Jong Ham
	Seconded by: William Doerrler
	Abstaining: None
	Conflicts of Interest: None

Requested Modifications:

- Section A. Project Information.
  - Room numbers. Please add the room number for the growth chamber.
  - Personnel. Training. Please have all lab personnel, including the PI, complete the EHS-required online BSL2 safety training and list the courses under specific training. Training will be verified by the Biosafety Officer.
- Section B. Project Description.
  - Project Goals. Please update project goal 1 and objective 1 from procedures to agree with each other.
  - Procedures and Methods. Please update project goal 1 and objective 1 from procedures to agree with each other. Please indicate what work occurs in what lab. Please update all incidents of biosafety hoods to biosafety cabinets. Please briefly describe the

transportation of transgenic materials per APHIS guidelines. Please change ventilated hood to chemical fume hood. Please spell out HPLC the first time you use it. Please also add location and safety information for the HPLC. Please elaborate on how seeds were surface sterilized. Please clarify aflatoxin analysis—is this HPLC? Please clarify how you control aerosols when spraying dsRNA and pathogens in the greenhouse and/or field. Please also indicate how inoculations will be done in the greenhouse. Please clarify how transgenic plants are transported to and from the greenhouse.

- Section C. Risk Evaluation.
  - Biosafety. Please update all incidents of biosafety hoods to biosafety cabinets. Please list room numbers for the HPLC and the room where toxins are stored.
  - Biosecurity. Please describe solid and liquid waste handling. Please also indicate how plants, seeds, etc., are decontaminated and disposed of. Please describe secure transport between the labs, greenhouse, and field. Please briefly describe the proper handling of transgenic maize seeds and seedlings.
- Section T. Transgenic Plants
  - Item 6. Please add relevant information for coding sequences.
  - Item 7. Please list the gene products and their known effects.
  - Item 13. Please briefly describe the attached SOP.
- Section I. Plant Pathogens
  - Item 13. Please briefly describe containment, disposal, and destruction measures.
  - Plant Pathogen Field Trial. Item 3. Please specifically state that A. flavus suspensions will be transported in primary and secondary leak-proof containment.

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25046 (Renewal)	Barry Aronhime	Biological Sciences	6/23/2025	Biol 4263 Marine Communities Laboratory Activities	Ryoichi Teruyama	Sue Hagius

Project Overview: This laboratory course is designed to give students hands-on experience studying marine communities and the organisms that live in them. Students will learn how to use common field sampling tools like multiparameter probes, Secchi disks, and fluorometers to collect and analyze data from aquatic environments. They'll practice identifying different species of fish and zooplankton and learn how to measure the diversity within those communities. The course also explores how environmental conditions affect marine life—for example, students will test how copepods respond to changes in salinity and measure how efficiently oysters filter water. In addition, students will study key

physical and chemical properties of seawater, gaining a deeper understanding of the factors that shape marine ecosystems.

Risk Assessment and Discussion:

This laboratory course involves field sampling simulations and biological experiments using live aquatic organisms and synthetic seawater. While the overall risk is low, certain safety measures are in place to protect students and instructors. Students will work with sampling tools such as multiparameter probes, Secchi disks, and fluorometers, all of which require basic lab safety practices to prevent spills or equipment damage. Activities involving the identification and analysis of fish and zooplankton carry minimal biological risk, as these organisms are not hazardous under normal laboratory conditions.

Live oysters, which may harbor human pathogens such as *Vibrio* species, present a slightly higher biological risk. To minimize potential exposure, only the instructor and teaching assistant will handle oysters during filtration experiments. They will wear appropriate personal protective equipment (PPE), including gloves, lab coats, and safety glasses and follow strict handwashing and disinfection protocols. Students will wear the same PPE. All tools and containers that come into contact with oysters will be thoroughly decontaminated after use.

Experiments involving copepods and synthetic seawater will use small volumes of lab-prepared solutions and standard glassware. Students will receive instruction on safe lab practices and wear PPE as appropriate. All biological materials and laboratory waste will be managed according to LSU Environmental Health and Safety and Institutional Biosafety Committee guidelines. With these controls in place, the course presents a low overall risk to participants.

NIH Guidelines: Not Applicable

Biosafety Level: BSL1 and BSL-2

Training Requirements: Students participating in the Marine Communities Laboratory course will receive both written and verbal safety instructions before each lab activity. The PI and Teaching Assistant (TA) will receive the EHS-required online safety training for BSL2 workers. Students will be provided with standard operating procedures (SOPs) as part of the lab handouts. Appropriate personal protective equipment (PPE), including nitrile gloves, lab coats, and goggles, will be worn during all activities. Workstations and equipment will be cleaned with 70% ethanol at the start and end of each lab, and tools will be washed with hot water and antibacterial soap.

Students will not handle preservatives or stains; all preservation using ethanol and Rose Bengal will be done by the instructor or teaching assistant (TA), who will also handle oysters, in accordance with BSL-2 safety training. Students will receive instruction on ethanol spill containment and will be closely monitored due to the small class size (13 students). Experiments involving copepods and seawater of varying salinities will require the use of goggles and gloves, and copepods will be euthanized in a -15°C freezer before disposal. Students are also instructed on the safe use of hot plates and acids, with multiple forms of instruction emphasizing not touching heated surfaces. Overall, safety practices are strictly enforced and aligned with LSU lab safety standards.

IBC Vote: **Approved at BSL1 and BSL2 pending receipt of modifications**

Motion made by: Ryoichi Teruyama

Seconded by: Sue Hagius

Abstaining: None

Conflicts of Interest: None.

Requested Modifications:

[redacted]

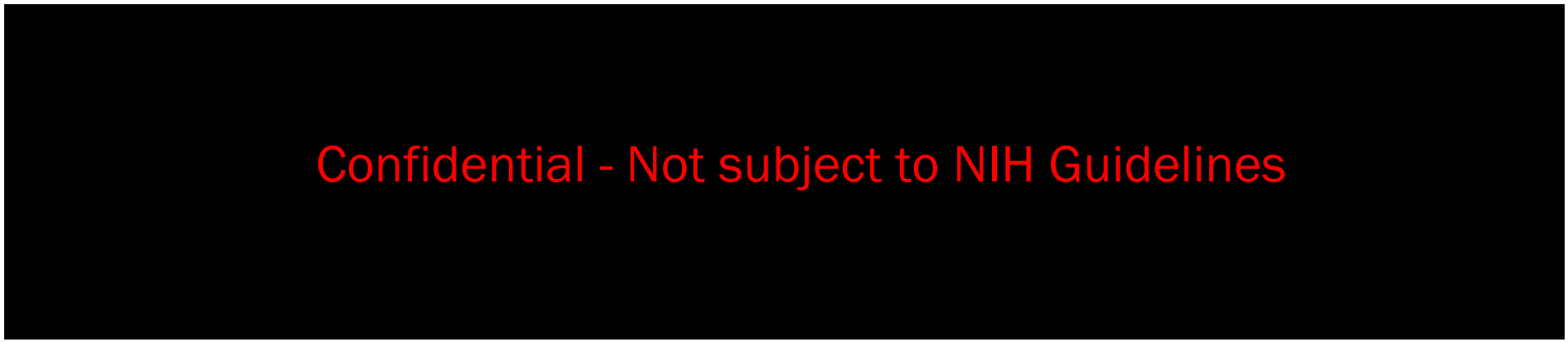
Confidential - Not subject to NIH Guidelines

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25047	Robb Brumfield	Biological Sciences	6/27/2025	LSU Museum of Natural Science Research Collections	Sarah Keeton	William Doerrler

Project Overview:	The LSU Museum of Natural Science (LSUMNS) is dedicated to collecting, preserving, and studying specimens that help us understand the diversity of life on Earth, both past and present. Through active research, world-class collections, and robust educational programs, the museum plays a key role in advancing scientific knowledge and sharing it with students, researchers, and the public in Louisiana and beyond. To support its mission, the museum acquires vertebrate specimens, including birds and mammals, from around the world. Some of these collections originate in regions where diseases like Exotic Newcastle Disease are present, which requires special import permits regulated by the USDA. In order to legally and safely import these specimens, the museum must maintain Biosafety Level 2 (BSL-2) status. This project summary pertains to maintaining that status, which allows LSUMNS to continue its nationally and internationally recognized research and educational work in biodiversity and conservation.
Risk Assessment and Discussion:	There was not enough information in the IBC protocol to complete a thorough risk assessment. The protocol was placed "on hold" and sent back to the PI for additional information before full committee review.
NIH Guidelines:	Not Applicable
Biosafety Level:	BSL-2
Training Requirements:	Pending additional information.

IBC Vote:	**The protocol was placed "ON HOLD" due to insufficient information to complete a thorough risk assessment.**	
	Motion made by:	Not Applicable
	Seconded by:	Not Applicable
	Abstaining:	Not Applicable
	Conflicts of Interest:	None

Requested Modifications:



Confidential - Not subject to NIH Guidelines

Reg. #	PI Name	Affiliation of PI	Date Received	Title of Project	Reviewer 1	Reviewer 2
25048 (Renewal)	Weishan Huang	Pathobiological Sciences	7/8/2025	Signaling Regulation of Immune Homeostasis	Ramanuj Lahiri	Brent Stanfield

Project Overview:	This project investigates how genetic and environmental factors shape the regulation of the mammalian immune system, particularly the balance between pro-inflammatory and immunosuppressive responses. Proper immune regulation is essential for maintaining homeostasis—an imbalance can contribute to chronic inflammation, autoimmune disease, or increased susceptibility to infection. Using murine models, including genetically modified mice, we are examining how specific genes and molecular pathways modulate immune responses following exposure to allergens and pathogens. By analyzing the function and behavior of immune cells in these models, we aim to better understand the mechanisms that maintain immune equilibrium and how disruptions in this balance may contribute to disease. This research will advance our understanding of immune regulation and inform potential strategies for therapeutic intervention.
Risk Assessment and Discussion:	This research involves working with multiple infectious agents and biologically active substances that require Biosafety Level 2 (BSL-2) containment practices to ensure safety. The study includes handling allergens such as house dust mite protein extract (HDM) and protease papain, which can cause allergic reactions and must be handled carefully to avoid inhalation or skin exposure. Infectious agents used to infect mice—including *Toxoplasma gondii*, *Nippostrongylus brasiliensis*, *Listeria monocytogenes*, *Saccharopolyspora rectivirgula*, influenza virus, murid herpesvirus 68, and murine cytomegalovirus—pose moderate risk through accidental exposure, requiring work within certified biosafety cabinets and strict adherence to BSL-2 protocols. Procedures involving injection of human tumor cells into mice also necessitate standard BSL-2 precautions to prevent exposure to potentially infectious material. Additionally, tamoxifen, a chemical used in genetic studies, must be handled according to chemical safety standards, including use of PPE and proper waste disposal. All work will be conducted following institutional biosafety guidelines, including proper training, use of personal protective equipment (lab coat, gloves, and eye protection), decontamination procedures, and waste management, to minimize risk to lab personnel.
NIH Guidelines:	Section III-D-4-a and Section III-D-4-b
Biosafety Level:	BSL-1, BSL-2, ABSL-1, ABSL-2, and BL2-N
Training Requirements:	All personnel, including the PI, involved in this project must complete BSL-2 training in accordance with LSU's Environmental Health and Safety (EHS) and Institutional Biosafety Committee (IBC) requirements. Staff participating in animal procedures are also required to complete Institutional Animal Care and Use Committee (IACUC) training. This training covers biosafety practices, proper use of personal protective equipment, chemical safety, and animal care protocols to maintain a safe research environment and minimize exposure risks.
IBC Vote:	**Approved at BSL-1, BSL2, ABSL-1, ABSL-2 and BL2-N pending receipt of modifications**
Motion made by:	Brent Stanfield
Seconded by:	Ramanuj Lahiri
Abstaining:	Not Applicable
Conflicts of Interest:	None

Requested Modifications:

- Section A. Project Information.
  - Personnel. Training. Please have all lab personnel, including the PI, complete the EHS-required online BSL2 safety training and list the courses under specific training. Please elaborate on experience for PI.
- Section B. Project Description.
  - Procedures and Methods. Please indicate what work occurs in what lab. Please indicate when transgenic mice will be used. Please briefly describe cell culture. A long list of cell lines is listed under Section M. Human and Primate Tissues; however, their use is not described. Please indicate what they are used for. Please describe the culture and maintenance of bacteria, parasites, viruses, etc., listed in the first paragraph of this section. Please specifically state that you will be doing live cell sorting and reference Marilyn's approved protocol number. Please briefly describe primary cell isolation procedure, RNA extractions, cytokine/chemokine/growth factor ELISA, and other procedures utilized in the lab. Specifically include information on when the potentially infectious material is inactivated. Please describe cell transduction and elaborate on the use of retroviral and lentiviral vectors. The attached SOP for standard procedures is very good, but this information needs to be included in the body of this protocol. The committee recommends summarizing the procedures and adding that information to Section B. Procedures.
- Section C. Risk Evaluation.
  - Biosafety. Please describe what additional PPE is worn when handling animals and during live cell sorting.
  - Biosecurity. Please describe how solid and liquid biohazardous waste are handled. Please also indicate how animal carcasses are disposed of. Please briefly describe secure transport between labs and inventory management. The attached SOP describes biosafety and biosecurity practices very well. Please add relevant information to Section C. Biosafety and Biosecurity.
- Section F. Recombinant DNA.
  - NIH Guidelines. Remove Section III-D-1 and Section III-E-1. Change Section III-D-4 to Section III-D-4-a and Section III-D-4-b.
- Section G. Transgenic Animals.
  - Please update the list of transgenic animals to include information on whether these animals are knock-ins, knockouts, or knockdowns, what genes are modified, and what is the expected result of gene modifications.
  - Item 13. Breeding Control. Please state that males and females are separated unless actively being bred.
  - Item 14. Please verify ABSL2 disposal information for animal carcasses. Plastic bags are not permitted in the incinerator.
- Section J. Human Pathogens.
  - Please list PBS faculty members who are collaborators.
- Section K. Animal Pathogens.
  - Please list all collaborators by name.
- Section M. Human or Primate Blood, Body Fluids, or Tissues.
  - Please briefly describe the use of listed cell lines under Section B. Procedures.
  - Please add additional collaborators to the source of materials.
- Section N. Safety.
  - Engineering Controls. Biosafety Cabinet. Please confirm that the BSC [redacted] is a class II BSC.

Upcoming Meetings:	August 14, 2025 @1:30 pm via Zoom
Adjourned:	3:20 pm