



INSTITUTIONAL BIOSAFETY COMMITTEE (IBC)

Meeting Minutes

March 23, 2026, 10:00 AM, Zoom

List of 2026 IBC Members

- Adams, Dave
 - IBC Chair and Biosafety Officer
 - Professor Emeritus, Biology and Biotechnology
 - Contact Information: gr-IBC@wpi.edu
- xxx (Institutional Member, Professor BB)
- xxx (Community Member)
- xxx (EHS Safety Technician)
- xxx (Community Member)

Members Present

Adams (Chair and BSO), xxx (BB), xx (External), xxx (EHS), xxx (External), xxx (Executive Director, EHS) (guest) (quorum of ≥ 3 met)

Welcome to new member xxx who is replacing outgoing member xxx.

Welcome to guest xxx (Executive Director EHS)

Requirements for Conducting IBC Business

- Because WPI performs recombinant DNA (rDNA) research, the City of Worcester requires WPI to follow the *NIH Guidelines for Recombinant DNA Research*.
- According to the guidelines, each IBC committee decides their **own rules for conducting business**.
- In a previous meeting, WPI's IBC agreed to follow the recommendation of Michelle Johnson-Lancaster (Director of NIH's Office of Science Policy) (the office oversees all IBCs) to **have a minimum of the following members** present to conduct business:
 - Committee Chair and Biosafety Officer
 - At least one external member
 - Sufficient scientific expertise to discuss the research items at hand
 - Simple quorum (our IBC has **5 members**, so a **quorum is ≥ 3 members**)

Plan for 2026 Form Reviews

- **Information Gathering and Initial Chair Review:**
 - The IBC Chair obtains the following information from all **bio-related** WPI principal investigators (PIs) and enters it on the form:
 - **Courses Taught** (a list of the courses taught by each bio-related PI for that year and noting whether the course has a lab component).
 - **Papers Recently Published** (a list of papers published by each bio-related PI since the last IBC meeting and whether the papers used any biological agents).
 - **IACUC Protocols** (a list of PI's approved by WPI's IACUC committee to perform research on live vertebrate animals (mice, rats, and pigs). WPIs IBC co-oversees live animal work with IACUC if it involves biological agents (such as injecting human cell lines into mice).
 - The Chair lists the new information on the declaration form (in a different colored font to allow easy identification by the committee members).
 - The Chair contacts each PI to show them the information obtained for their lab and to obtain any new information they also need to declare.

- The Chair helps the PI add new information to the form.
- The Chair briefly summarizes the new information in a **summary file** to be presented at the IBC meetings to expedite discussion.
- The Chair places the files on the IBC share-drive in view-only mode, and notifies committee members they are ready for committee review.
- **Meeting Discussions:**
 - During the IBC meetings, the Chair uses the summary file to introduce the new information to the committee, and records any discussions for inclusion in the minutes.
 - In some cases, further research is required to answer a question, so the committee formulates a plan to obtain that information either from the PI or from published articles.
 - The Chair adds any new information to the forms.
- **Minutes:**
 - The Chair prepares the minutes from the IBC meeting, listing which forms were discussed, and briefly summarizing key items of discussion.
 - The Chair emails a copy to committee members.
 - If the members approve, the chair redacts any personnel names from the minutes (except the chair), and emails to xxx who **posts the redacted copy on WPI's EHS website** (as per NIH recommendation).

March Meeting Lab Declaration Form Reviews

- At this **March 2026 meeting**, the committee **reviewed and approved** the following IBC Declaration Forms and Control Plans:
 - Biology and Biotechnology (BB): **20 forms**
 - Bioengineering Institute (BEI), Biomanufacturing Education & Training Center (BETC), and Biomedical Engineering (BME): **10 forms** (of 20 in this category)

March Meeting Special Discussion Items

- **Changes to NIH Guidelines on Transparency and Trust:**
 - **Letter of 3-27-25 to all IBCs.**
 - Sent to all IBC Chairs and Biosafety Officers from Lyric Jorgenson, PhD, NIH Associate Director for Science Policy.
 - The topic was a change to the NIH guidelines on how to **promote maximal transparency and build trust in the biosafety business.**
 - Starting on June 1, 2025, the NIH will publicly post the:
 - Contact information for the IBC Chair and Biosafety Officer.
 - The member roster with no contact information.
 - Expects all IBCs to **publicly post on an institutional website the minutes of their IBC meetings** after appropriate redactions have been made.
- **Presidential Executive Order of 5-5-25 on Dangerous Gain-of-Function Research:**
 - The U.S. President issued an executive order to **increase the accountability** and public transparency of dangerous gain-of-function biological research.
 - The order require the Director of the Office of Science and Technology Policy (OSTP) to work with the heads of other government agencies [including NIH] to **govern, limit, and track any dangerous gain-of-function research** across the United States.
 - The order requires government agencies to ensure that **research institutions receiving federal funding must review and report any dangerous gain-of-function research** (and includes non-federally funded institutions as allowed by law).
 - The gain-of-function research shall be reported and conducted in way that does not compromise national security or legitimate intellectual property interests of subject institutions.
 - **The presidential order was followed by a related NIH announcement of 5-7-25** (same topic).
 - **At WPI:**
 - A copy of the executive order was received by **WPI's IBC Chair**, and by xxx, Director of WPI's Office of Research Integrity and Compliance.
 - xxx put xxx, WPI Research Compliance Analyst, in charge of making sure that WPI responds to the executive order.

- xxx contacted the IBC chair who informed her that we have been monitoring for potentially dangerous gain-of-function research at WPI for years now with our IBC declaration forms. The chair informed her on how we **define** dangerous gain-of-function research at WPI (we use NIH's definition on our declaration form) and how we **track** this information (on the forms).
- **Discussion of the Continued Increase of Highly Pathogenic Avian Influenza (HPAI) (H5N1) in Massachusetts:**
 - The committee continued its ongoing discussion of the expansion of H5N1 virus in the wild bird population in Massachusetts relative to our PI who traps and bands birds.
 - The committee acknowledged H5N1's now widespread prevalence in birds of several species in the state, but noted that no human case of H5N1 has yet been reported in the state as of March 2026.
 - The PI acknowledged working with a high level of PPE when banding (declared on the form), and to especially warn any personnel with cuts or abrasions on the hands to be especially careful.
 - The committee noted that the standard seasonal flu vaccine does not protect against H5N1, but several **human H5N1 vaccines** have been developed and are licensed in the U.S. They are not yet available to the general public because they are currently stockpiled for pandemic preparedness and targeted for individuals with a high risk of exposure (such as poultry or dairy workers), but we could recommend this vaccine for bird banding personnel in the future if available.
- **Work with *Borrelia burgdorferi* in Ticks and Mice:**
 - The committee discussed the addition of a new ABSL-2 IACUC protocol to study *Borrelia burgdorferi* (Lyme disease agent) transmission and pathogenesis in ticks and mice.
 - WPI's IACUC committee and the IBC helped establish several safety features to help protect animal handlers and other mice from tick bites carrying the Lyme disease agent, including:
 - Use of water moats to prevent tick movements outside their cages (ticks cannot swim).
 - Handling of the mice and cages only by trained individuals (no bumps to splash the moats).
 - Counting the number of ticks applied versus those recovered whenever possible.
 - Use of ticks from a reputable lab (The National Tick Research and Education Resource at Oklahoma State University) (not ticks from the environment that can carry other diseases).
 - ABSL-2 work done in a separate room in the vivarium.
 - Some of the experiments are with tick larvae that do not carry Lyme disease and rarely bite humans, but tick nymphs can bite and carry the disease.
 - The committee noted that there has never been a report of a lab-acquired case of Lyme disease in humans to date (the Plum Island lab leak theory has been discredited, Lyme was in the area years prior).
 - The committee also discussed the **typical treatments** for Lyme disease, and made sure the personnel understood the main symptoms and treatments (seen in the lab's Control Plan). The typical treatment for Lyme disease is a 10-to-21-day course of oral antibiotics (such as doxycycline, amoxicillin, or cefuroxime axetil) to eliminate the *Borrelia burgdorferi*. Early diagnosis and treatment are critical for a full recovery. Severe or late-stage cases may require intravenous (IV) antibiotics.
- **Boost of BSL-2+ Cell Lines:**
 - The committee continued to review the use by several labs of human cell lines immortalized by rDNA encoding oncogenes, such as the SV-40 viral T-antigen, human TERT, or viral E6/E7 proteins (potent viral oncogenes).
 - The vendor sometimes ranks the use of human cell lines as BSL-1, but WPI's IBC agrees with NIH's assessment of all work with human tissues and cells as BSL-2. When the vendor boosts their human cell lines from BSL-1 to BSL-2 it is often due to the presence of oncogenes; so, this is our cue to review the work closer, and boost to BSL-2+ whenever appropriate.
 - The IBC's declaration form has a section for declaring the special BSL-2+ conditions, which vary depending on the reason for the boost (oncogene presence, potential viral shedding, etc).
- **Publications Using RG-3 Agents:**
 - The committee discussed two labs who published papers with RG-3 agents (not allowed at WPI), but quickly determined that those agents were not worked with at WPI.
- **Engineered Chicken Muscle:**

- The committee discussed the work by one lab with “engineered” chicken muscle, wondering why the work was not listed in the rDNA section. The committee determined the muscle is not recombinant, the muscle cells and ligaments were incubated in special media to increase their strength.