Institutional Biosafety Committee
Dec-12-2025

Location: Microsoft Teams

Member Roster: Brad De Pons (IBC Chair), Sonia Bardy (IBC Vice Chair; 1:39-3:18pm), Jill McClary-Gutierrez (Admin/BSO), Zac Driscoll, David Frick (1:31-3:22pm), Andrew Kuzma (2:20-3:22pm), Diane Lindsley, Shama Mirza (1:33-3:22pm), Dean Nardelli, Jenny Nemke, Heather Owen

Additional Attendees:

Non-Voting Members

Melody Harries attended 1:30-3:22pm
Melissa Spadanuda attended 2:09-3:05pm

Guests

Aimee Hamilton attended 1:30-3:22pm
Jeffrey Lopez-Rojas attended 1:41-1:48pm
Avik Roy attended 2:16-2:54pm
Yongjin Sung attended 2:06-2:19pm

1. Call to Order

The meeting was called to order at 1:30pm

2. Announcements

- BSO Updates
    - Spill, Exposure, & Near Miss Reports
        - None to report

3. Protocol Reviews

Renewals

Protocol Number: B23.006

Principal Investigator:	Quinn, Christopher
Protocol Number:	B23.006
Title:	Rescue of mutant phenotypes in C. elegans.
NIH Guidelines Sections:	III-D-4, III-F
Short Summary:	The investigators aim to define the role of voltage gate calcium channels in the development of autism using the model C. elegans.
Materials / Agents:	Animals, CRISPR/ Cas-9, ZNFs, and/ or TALENs, Plasmids, Recombinant DNA/ Synthetic Nucleic Acid Molecules
Inspection Status:	Biosafety inspection expired 7/11/2024
Trainings Status:	UWM biosafety trainings not completed
Proposed BSL(s):	BSL-1
Modifications added:	Personnel updates

Discussion of Protocol B23.006

The BSO provided a brief summary of the submitted protocol, which is a renewal for research using *C. elegans* as a model system for evaluating genes associated with autism. The BSO also shared the PI's responses to questions asked prior to the meeting, confirming that lab-specific training records are maintained in the lab's safety binder and that fume hood testing was scheduled to be completed in mid-December.

The committee briefly discussed the submission and determined that it remains a low risk study with appropriate safety measures applied. However, the committee determined that a biosafety inspection and required biosafety trainings must be complete before the renewal is approved.

1:36pm: Motion made by Jenny Nemke, seconded by Jill McClary-Gutierrez, to approve the renewal of Protocol B23.006 at BSL-1 pending a satisfactory biosafety inspection and completion of required biosafety training.

For: 9
Against: 0
Abstain: 0

Protocol Number: B23.014

Principal Investigator:	Lopez Rojas, Jeffrey
Protocol Number:	B23.014
Title:	Functional interplay of hippocampus, prefrontal and entorhinal cortex in social recognition memory
NIH Guidelines Sections:	III-D-4
Short Summary:	The investigators aim to understand social cognition by elucidating the functional dialogue of lateral entorhinal cortex, medial prefrontal cortex, and dorsal CA2 in social recognition memory using optical techniques.
Materials / Agents:	Animals, Recombinant DNA/ Synthetic Nucleic Acid Molecules, Viruses
Inspection Status:	Biosafety inspections are up to date
Trainings Status:	Biosafety trainings expired 11/08/2025
Proposed BSL(s):	BSL-1, ABSL-1
Modifications added:	We request to add three new mouse lines to this protocol: (1) TRAP2 mice for activity-dependent neuronal labeling, (2) pOxr1-Cre mice for targeting layer III excitatory neurons in entorhinal cortex, and (3) Rbp4-Cre mice for targeting layer Va projection neurons. These lines will be used in combination with our existing C57BL/6J and Df(16)A+/– colonies for circuit-level and behavioral studies. We also request approval to add new laboratory personnel and additional viral vectors to the protocol

Discussion of Protocol B23.014

The PI attended the discussion from 1:41-1:48pm.

The PI described the submitted protocol, which is a renewal of research focusing on interactions between the entorhinal cortex and hippocampus and their role in social recognition memory. The lab uses mouse models and adeno-associated viral vectors to study various brain regions in response to different stimuli. As the project continues, the research will be expanding to other layers of the entorhinal cortex that were not previously studied.

The committee requested that the PI clarify details about training record retention and housing requirements for the new mouse lines that have been added to the protocol. The PI clarified that training records are retained in safety binders in the lab and that the new mouse lines do not require housing in barrier conditions as they are not immunocompromised.

Following discussion with the PI, the committee continued to discuss the protocol. A committee member requested clarification on safety of use of paraformaldehyde, which is used as a fixative. The BSO confirmed that this information is kept in the lab's chemical hygiene plan, and that confirmation of this safety information is requested in the protocol form.

1:49pm: Motion made by Jenny Nemke, seconded by Dean Nardelli, to approve the renewal of protocol B23.014 at BSL-1/ABSL-1 pending minor updates to the protocol form including updating inspection dates, confirming maintenance of chemical handling SOPs, and updating animal housing room numbers.

For: 10
Against: 0
Abstain: 0

Amendments

Protocol Number: B22.018

Principal Investigator:	Sung, Yongjin
Protocol Number:	B22.018
Title:	Development of Novel 3-D Optical Microscopes
NIH Guidelines Sections:	III-D-1, III-D-3, III-E, III-F
Short Summary:	The investigators aim to develop a variety of 3D optical microscope using Class IIIB lasers or an interlocked Class IV laser to enhance cellular imaging techniques. Additionally, the investigators will develop near-infrared spectroscopy methods to obtain chemical signatures from biological specimens. Human cell lines with be transfected with molecular material that will produce florescent proteins for visualization using the different imaging techniques.
Materials / Agents:	Human or NHP Blood, Cells, Tissue, and/ or Fluids, Plasmids, Recombinant DNA/ Synthetic Nucleic Acid Molecules, Viral Vectors, Viruses
Inspection Status:	Biosafety inspections are up to date
Trainings Status:	Biosafety trainings are up to date
Proposed BSL(s):	BSL-2
Modifications added:	Add pLentiFUCCI(CA)5 lentiviral plamids. Remove milk cells. Remove Cory Juntunen and Add Khaled Hasan. Add the use of human induced pluripotent stem cells (iPSCs) and kidney organoids generated using the STEMdiff™ Kidney Organoid Kit (Catalog #05160).

Discussion of Protocol B22.018

The PI attended the discussion from 2:06-2:19pm.

The PI described the submitted study, which aims to develop optical microscopes that take 3D images of cells in microfluidic channels. Previous experiments have used imaged radioisotope uptake in living cells, with various biospecimens used to demonstrate the imaging technique.

Previous experiments have also involved HeLa cells transfected with FUCCI, a cell cycle fluorescent labeling system. However, the FUCCI-HeLa cells are no longer available, and the lab is now submitting additional experiments which aim to establish a new FUCCI-labeled cell line using plasmids purchased from Addgene. The plasmids will be purchased and purified by an external company before their use to transfect cell lines. The amendment also includes new experiments involving commercially available organoid culture, which follows standard recommendations and reagents for culture of induced pluripotent stem cells.

The committee requested clarification from the PI, primarily focusing on gaining a better understanding of the experiments and reagents included in the new plasmid transfection experiments. Specifically, the PI clarified that the FUCCI encoding lentiviral plasmid will be used to transfect colon and breast cancer cell lines only, and that the lab will not be packaging or using lentiviral vectors. The committee also requested clarification on waste disposal methods. The PI confirmed that the lab does not have access to a bulk autoclave and therefore any biohazardous waste is decontaminated using bleach before disposal in the trash or drain.

Following discussion with the PI, the committee continued to discuss the submitted protocol amendment. Based on the PI's provided information, the committee felt confident that no lentiviral vectors were being used in the planned experiments and that this should be clarified in the submitted protocol materials before approval. The committee also determined that if the PI's plans change and lentiviral vectors are going to be used, the amendment should be re-reviewed by the full committee to confirm sufficient safety information.

3:21pm: Motion made by Dean Nardelli, seconded by Jenny Nemke, to approve the amendment to protocol B22.018 at BSL-2 pending protocol edits to confirm that experiments do not involve packaged lentiviral vectors or helper cell lines.

For: 10
Against: 0
Abstain: 0

New Submissions

Protocol Number: B26.010

Principal Investigator:	Roy, Avik PhD
Protocol Number:	B26.010
Title:	Effect of JRM-28 on Improving Cognitive Skills and Memory.
NIH Guidelines Sections:	III-D-4, III-F
Short Summary:	Studying novel therapies against Alzheimer's disease (AD), the investigators are using knock out mice that exhibit classical AD pathophysiology. Using a novel compound JRM-28, the investigators will conduct memory studies on mice after administering the compound to see if JRM-28 provides positive affects on the AD condition.
Materials / Agents:	Animals, Recombinant DNA/ Synthetic Nucleic Acid Molecules
Inspection Status:	Biosafety inspections are up to date
Trainings Status:	Biosafety trainings are up to date
Proposed BSL(s):	BSL-2

Discussion of Protocol B26.010

The PI attended the discussion from 2:16-2:54pm.

The PI described the submitted study, which is a collaboration with the Chemistry department at UWM to study the compound JRM28 and its role in assisting learning and memory. Previous experiments have evaluated the compound in cell culture with promising results. In the submitted project, the PI aims to evaluate whether JRM28 can be beneficial in a disease model for Alzheimer's. The protocol involves feeding JRM28 to 5xFAD mice, behavioral testing of mice after JRM28 treatment, and harvesting of brain tissues to evaluate the effect of JRM28 on amyloid plaque formation and gene expression.

The committee requested clarification on various procedures in the submitted protocol. Discussion focused primarily on evaluating the safety of handling of 5xFAD mouse brain tissues which express human amyloid beta. The PI was asked whether these brain tissues would require handling at BSL-2 due to the presence of a prion-like protein. The PI clarified that while the mice do express human amyloid beta in their brain tissue, the protein is not being purified or directly handled through the submitted procedures and stays fixed in the brain tissue, leading to minimal risk. Additional clarification was requested related to PPE use and procedure-specific training. The PI clarified that regular cotton lab coats, as opposed to disposable coats, would be used for this study and that personnel would receive procedure training in gavage and tissue sectioning.

After discussion with the PI, the committee continued to discuss the protocol and its potential risks. The discussion focused on risk assessment for both *in vivo* and *in vitro* procedures. The BSO clarified that the 5xFAD mouse is a model for Alzheimer's disease, which is not

communicable, and the mice do not excrete or shed any prion-like proteins. In discussion of *in vitro* procedures involving brain tissue, it was determined that activities were low risk because the amyloid beta protein was not being extracted or directly manipulated by the research team and has only been demonstrated to be transmissible via direct injection into neural tissue. Analogous to autopsy procedures involving Alzheimer's, the committee determined that no special additional precautions should be required.

3:06pm: Motion made by Sonia Bardy, seconded by Diane Lindsley, to approve protocol B26.010 at BSL-1 pending updates to the protocol form to reflect the risk assessment, addition of lab-specific procedural training as described by the PI, and other minor clarifications to PPE and lab documentation.

For: 11
Against: 0
Abstain: 0

4. Notifications

Administrative Approval of New Submissions

Study Number	Title	PI	NIH Section III Subsection / Containment Level	Note
B26.011	Algal bioremediation of PFAS compounds	Berges, John	F / BSL-1	This protocol aims to survey different species of microalgae under different growth conditions to determine potential for PFAS bioremediation.

Administrative Approval of Protocol Amendments

Study Number	Title	PI	NIH Section III Subsection / Containment Level	Note
B23.014	Functional interplay of hippocampus, prefrontal and entorhinal cortex in social recognition memory	Lopez Rojas, Jeffrey	III-D-4 / BSL-2	Amendment to add and remove research personnel approved administratively

Approval of Minor Modifications on Renewals

Study Number	Title	PI	NIH Section III Subsection / Containment Level	Note
B20.013	Role of cell cycle regulators in bone healing	Premnath, Priyatha	F/ BSL-2	3-year renewal reviewed by the full committee

5. Old Business

1. Approve November Meeting Minutes

1:39pm: Motion made by Heather Owen, seconded by Jenny Nemke to approve meeting minutes from the Institutional Biosafety Committee meeting on November 14, 2025.

For: 8
Against: 0
Abstain: 2 (Jill McClary-Gutierrez, Shama Mirza)