Minutes of the CWRU Institutional Biosafety Committee

IBC of record for the Louis Stokes Cleveland VAMC

Meeting Date: June 12, 2025

Members Present:

Charles Bark, Ronald Conlon, John Durfee, Craig Hodges (Chair), Monica Montano (Vice Chair), Sophia Onwuzulike, Reshmi Parameswaran, Ivy Samuels (VA rep), Aaron Severson, John Tilton, Pamela Vanderzalm, Andrew Young

Ex-Officio Members and Guests:

Colleen Karlo, Lorrie Rice

Meeting Convened: 3:02 PM via Zoom

The Chair reminded all members that any conflicts of interest related to a submission must be declared prior to the start of the discussion. Members with a conflict will be temporarily moved to the virtual waiting room for the duration of the relevant discussion.

Approval of Minutes

The IBC Chair asked members for discussion or additional changes to the draft minutes. There were minor changes recommended.

Motion: Approval of the April meeting minutes with the additional, specific changes.
For: 12 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Safety and Incident Reporting

There were no safety or incident reports for the committee.

Review of Prior Business

Based on previous feedback from the committee , a revised guidance document related to risks associated with gene editing experiments was provided. The committee had no further recommendations, so the document will be provided as a resource to researchers.

Review of New Protocols:

Investigator: Beata Jastrzebska
Project Title: G protein-coupled receptors in retina homeostasis
IBC Protocol: IBC-2025-551

Project Overview, Risk Assessment and Discussion:
The research is being done in cell culture to establish stable cell lines (both human and murine) for overexpression and knockdown of receptor genes. Plasmids and retroviral vectors will be used for overexpression, and lentiviral vectors used for expressing shRNA. The retrovirus produced will be specific to mouse cells and express a fluorescent reporter. Work practices, procedures, and facilities are consistent with BSL2 containment and appropriate for the planned research.

NIH Guidelines: III-D-3, III-E-1

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. The laboratory needs to indicate the use of recombinant materials on the sign.

Vote: Approve at BSL2.
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Review of Continuing Protocols:

Investigator: Heather Broihier
Project Title: Synaptic development and plasticity in Drosophila
IBC Protocol: #IBC-2015-228

Project Overview, Risk Assessment and Discussion:
The research is conducted using Drosophila models, and the lab maintains many lines expressing fluorescent markers. The lab generates new lines using gene editing where the lab clones the gRNA into plasmids for the generation of knockout and knock-in lines. The lab has appropriate procedures in place for BSL1 containment and for the disposal of Drosophila as biohazardous waste.

NIH Guidelines: III-D-4

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL1
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Catherine Collins
Project Title: Cellular mechanisms of axonal injury response and synapse loss
IBC Protocol: #IBC-2022-445

Project Overview, Risk Assessment and Discussion:
The investigator has 2 projects and is using both Drosophila and murine models, as well as primary murine cells and murine and human cell lines. Both replication incompetent lentiviral and AAV vectors, as well as transfection of plasmids, are used to knockdown or express genes of interest in the cell culture. The viral vectors will package either shRNA for genes of interest, GFP, or Cre recombinase. AAV vectors will be introduced into animal models, and the animals can be housed in a standard housing room following the introduction of the AAV. The continuing review updated a research location and recombinant materials (additional cell line to be investigated). The disposal of the Drosophila as biohazardous waste is appropriate. Work practices, procedures, and facilities are consistent with BSL2 containment (for lentiviral vector work), and safe sharps practices and PPE are described.

NIH Guidelines: III-D-3, III-D-4,III-E-1

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. The biosafety officer noted that additional signage is needed to indicate the use of recombinant materials.

Vote: Approve at BSL2.
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Changchun (George) Deng
Project Title: Phase 1b Multicenter, Open-label, Study of JNJ-90009530, an Autologous Anti-CD20 CAR-T Cell Therapy in Adult Participants with Relapsed or Refractory B-cell Non- Hodgkin Lymphoma
IBC Protocol: #IBC-2023-495

Project Overview, Risk Assessment and Discussion:
The study involves the offsite manufacturing of CAR-T cells. The investigational product is shipped to the cell therapy lab and does not require further manipulation. Safety precautions for storage and handling in the cell therapy lab and for administration are appropriate for the handling of human cells.

NIH Guidelines: III-C

Training and Facilities: The Investigator and laboratory staff have completed training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL2
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Thomas Kelley
Project Title: Pharmaceutical intervention on infection and inflammation in CF mice.
IBC Protocol: #IBC-2019-333

Project Overview, Risk Assessment and Discussion:
The investigators will use fluorescently labeled RG2 bacteria in murine models. The handling of bacteria and delivery to the animals will be done under BSL2 containment and animals will be housed in an ABSL2 housing room. The work practices, procedures, and facilities are consistent with BSL2 containment, and the committee had no concerns.

NIH guidelines: III-D-1

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL2

For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Paul Tesar
Project Title: Reprogramming of cells with virally expressed genes
IBC Protocol: #20080905

Project Overview, Risk Assessment and Discussion:
Replication incompetent lentiviral and AAV vectors are being used to deliver human transcription factors, marker proteins, and shRNAs into mouse and human cells in culture. Both viral vector systems are also used for CRISPR experiments to knockout genes of interest to investigate cell fate and function. Work practices, procedures, and facilities are consistent with BSL2 containment, and engineering controls (biosafety cabinet) and PPE are described.

NIH Guidelines: III-D-3

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL2
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Ben Tomlinson
Project Title: Phase I Clinical Trial of Human AntiCD19 Chimeric Antigen Receptor T Cells for Treatment of Relapsed or Refractory Lymphoid Malignancies (Non Hodgkin Lymphoma, Acute Lymphoblastic Leukemia, Chronic Lymphocytic Leukemia)
IBC Protocol: #IBC-2020-387

Project Overview, Risk Assessment and Discussion:
The recombinant activities include the manufacturing of CAR-T cells using a lentiviral vector in the cell therapy lab and administration to research participants in the hospital. The cell therapy lab has extensive protocols in place for the manufacturing of clinical grade cell products. The work practices and procedures in the cell therapy lab are appropriate for BSL2 containment and universal precautions are used for administration of the CAR-T cells to participants.

NIH guidelines: III-C, III-D-1

Training and Facilities: The Investigator and laboratory staff have completed training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL2
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Qian Sun
Project Title: Investigating hippocampal functional heterogeneity
IBC Protocol: #IBC-2019-337

Project Overview, Risk Assessment and Discussion:
This submission was reviewed at the May IBC meeting, however the PI determined that rabies virus will not be used and has removed the use of that virus from the IBC protocol. The submission was brought back to the committee to re-evaluate the containment determination. The experiments are now limited to the use of

replication incompetent AAV vectors to deliver reporter genes to animal models. Given the RG1 category of AAV, the experimental procedures and animal housing can be performed at BSL1 containment.

NIH Guidelines: III-D-4

Vote: Approve at BSL1
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Amendments:

Investigator: Qingzhong Kong, PhD
Project Title: Development of gene and cell therapies for cancer, diabetes and neurodegenerative diseases
IBC Protocol: IBC-2016-246

Project Overview, Risk Assessment and Discussion:
The Investigator is working with replication incompetent AAV vectors to introduce therapeutic proteins or RNA into human or murine cells in culture and then introducing those cells into animal models. The amendment adds the introduction of plasmids expressing a reporter gene or a therapeutic protein into animal models. The AAV and plasmids are considered RG1 and BSL1 containment is appropriate for these experiments. The protocol includes additional experiments previously approved at BSL2 containment and these experiments have not changed with this amendment.

NIH Guidelines: III-D-4, III-E-1

Training and Facilities: The Investigator and laboratory staff have completed basic lab safety and biosafety training. There were no concerns regarding the facilities to accommodate the safety and containment requirements of the proposed experiments.

Vote: Approve at BSL2 with administrative corrections to remove reference to an old protocol number.
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Xiaojun Roger Shi
Project Title: Investigation of receptor protein interactions in live cells
IBC Protocol: IBC-2024-526

Project Overview, Risk Assessment and Discussion:
The experiments in the protocol include the retroviral transduction of human cell lines in tissue culture, followed by introduction of the cells into animal models. The replication incompetent vectors will be used for overexpression or knockout of genes, including reporter genes and receptors involved in cellular communication. The amendment adds new cell lines to be used in the experiments. This addition does not alter

the risk assessment so the described work practices and procedures at BSL2 are appropriate. The animals can be housed in a standard housing room after the introduction of the cells.

NIH Guidelines: III-D-3, III-D-4, III-E

Training and Facilities: One individual is being added to the protocol and needs to complete both lab safety and biosafety training.

Vote: Approve at BSL2 pending administrative correction to the study application and completion of EHS training by the new study personnel.
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 | Abstained: 0

Investigator: Derek Abbott
Project Title: Mechanisms of innate immune signaling
IBC Protocol**:** IBC-2023-486

Project Overview, Risk Assessment and Discussion:
The study application includes the use of replication incompetent lentivirus to transduce cell lines and primary cells to knockout or overexpress genes. They are also using non-K-12 strains of E. coli cells to produce proteins. The amendment request is to change the PI from Dr. Abbott to Dr. Xiao. There were no concerns regarding the work practices and procedures being performed under BSL2 containment. Upon inspection of the new tissue culture space by the biosafety officer , it was determined that the biosafety cabinet needs to be certified, and the sign needs to be updated to indicate recombinant materials. Equipment within that space that will be used with the viral vector should be labeled as biohazardous.

NIH Guidelines: III-D-3, III-D-4, III-E-1

Vote: Approve at BSL2 with an administrative correction to add a new research location.
For: 12 | Absent: 0 | Against: 0 | Conflict of Interest: 0 |Abstained: 0

Notice of Administrative Amendments

IBC #	PI	Title	Amendment
2013-158	Ramakrishnan	Regulation of NF-kB activation in autoimmunity and inflammation	Lab personnel updates

Notice of Terminated Protocols

IBC #	PI	Title
2012-100	Garvin	Regulation of thick ascending limb transport by NO and superoxide

2022-456	Hodges	Increasing CFTR expression through integration of a CFTR promoter binding fusion protein
2021-427	Cooper	A First-In-Human, Open-Label, Multicenter Study of VOR33 in Patients with Acute Myeloid Leukemia who are at High-Risk for Leukemia Relapse following Hematopoietic Cell Transplantation (VBP101)
2023-492	Cooper	Phase 1/2 Study of Donor-Derived Anti-CD33 Chimeric Antigen Receptor Expressing T Cells (VCAR33) in Patients with Relapsed or Refractory Acute Myeloid Leukemia After Allogeneic Hematopoietic Cell Transplantation

---

Other Business

The committee discussed the continuing review of clinical studies as it relates to adverse event reports. As these reports are reviewed by the IRB and the FDA, and the scope of the IBC oversight is focused on the biosafety in handling the study agent containing the recombinant nucleic acids, adverse events do not need to be reported to the IBC. Rather, any spills or exposures to staff or others to the recombinant material should be reported to the IBC.

Next Meeting: July 10, 2025

Meeting Adjourned: 4:02 PM.