

CMU Institutional Biosafety Committee

Meeting Minutes: July 3, 2025

Location: Virtual via Teams

Meeting start and quorum: Quorum was confirmed, the attendance of at least one non-affiliated community member was confirmed, and the meeting was called to order at 1:00 p.m.

1. Attendance

Voting members and roster roles

- Greg Colores, Chair
- Devin Boyles, Biosafety Consultant
- Kevin Park, Animal Expert
- Grant Clarkson, Lab Safety Consultant
- Dawn Polanco, Non-affiliated Community Member
- Jeff Percha, Non-affiliated Community Member

Staff, non-voting

- Belinda Adamson, DRC
- Kristin DeMuro, ADRC
- Jennifer Marrs, Coordinator

2. Review of Minutes

The IBC Chair asked if members had any concerns or suggested changes to the minutes distributed prior to the meeting. None were identified. Minutes from May 27, 2025, were accepted as submitted.

3. Updates and Announcements

There were no announcements.

4. IBC Registrations for Review

Three-year Registration Renewal

Principal Investigator: Julien Rossignol

Registration Number: 2025-149

Registration Title: Delivery of large and small biomolecules, CRISPR Cas9 and gene regulatory plasmids using dendrimer nanoparticles in vitro and in vivo

Location: Health Professions Building; Health Professions Vivarium; CMED South

Project Overview

Agent name: CRISPR Cas9 Plasmids

Host: E. coli

Vectors: Adeno-associated virus 8; Adeno-associated virus 5/9

Genetic modifications: Virus and plasmids will be modified to insert different promoters and gene expression cassettes.

Applicable NIH Guidelines Section: NIH III-D-4-c

Required Training: Biosafety Training; Lab Safety Training; Radiation Safety Training for personnel doing the radioisotope work

Biosafety Level Assignment: BSL-1

Risk Assessment

The existing risk assessment documentation is adequate and covers the proposed work. There are no deviations from previously conducted activities that prompt a new risk assessment for outlined material in this current protocol.

Summary of Discussion

Protocol entails the delivery of CRISPR Cas9 plasmids using dendrimer nanoparticles to efficiently target genes involved in neurodegenerative processes. Additionally, dendrimers will be used to direct large plasmids with fluorescent reporter molecules to regions of interest to visualize the efficiency of dendrimer-assisted targeting. These will be performed in cell culture then later into mice. If successful, this approach will be expanded to other models including stroke, glioblastoma and inflammation.

This is the second meeting convened to review this application. At the previous meeting on May 27, 2025, the IBC voted to request modifications to secure approval of the registration. A written request was sent to the investigator.

The ADRC conducted a congruence review of this application with other related documents, and the information was shared with the IBC.

There was committee concern regarding a lack of clarity in the application due to the large scope and overlapping projects. Based on the discussion, several modifications and clarifications were requested from the PI.

Modifications requested from the Principal Investigator

- Remove reference to unrelated protocols.
- Identify the purpose of all agents, the consequences of use, proposed gene targets, risk group, safety hazards, routes of administration, and the IACUC protocols being applied. A table was attached for reference and may be used as a template.
- Update the protocol with further clarification of the specific routes of administration for the agents listed.
- Remove citations and provide enough brief detail in the protocol submission for committee evaluation.
- Provide enough information specific to the intended use and application of recombinant DNA and/or hazardous agents.
- Specify the intent of the modifications and how they will be utilized.

Motion

Motion was made and seconded to request further modifications to secure approval. A second written request will be sent to the investigator.

Vote: Request Modifications to Secure Approval

- Members present: 6
- Members absent: 0
- Votes for: 6
- Votes against: 0

- Abstained: 0
- Recused: 0

5. Protocol Approvals Since Last Meeting

IBC Amendment Submission

Protocol Number: 2023-1092

Protocol Title: Fate of antibiotic resistance genes by anaerobic digestion of sludge (Microbial analysis is not conducted in Brooks 213 and Brooks 214)

Principal Investigator: Goksel Demirer

6. New Business

None.

7. Adjournment

Meeting end time was 3:15 p.m. A quorum was maintained, and at least one non-affiliated community member was present for the duration of the meeting.