



IBC Meeting Minutes

Meeting Minutes 9/4/2025

Voting Members Present

Biana Godin, PhD Chair
Daniel Kiss, PhD
Sasha Azar, PhD Vice Chair
Chas Gray, RPh
Jillian Chahal
Nagendran Tharmalingam, PhD
Edward Graviss, PhD, MPH
Vicente Zuno
Tanya Herzog, PhD
Wenhao Chen, PhD
Tamara Steele
Anjana Tiwari, PhD
Francesca Taraballi, PhD
Dimitrios L. Wagner, MD, PhD

Other Non-Voting Attendees:

Shehla Barlas
Malissa Mayer-Diaz
Leola Griffin
Prince Agyapong
Shane Wilson
Perla J. Rodriguez
Joanna Espinosa
Rebecca Corrigan
Joylise Mitchell
Enid Burns

Voting Members Absent:

Sachin Thakkar, PhD
Joan Nichols, PhD
Jiangyong Shao

Non-Voting Members Present:

Leon Brown, M.S
Brenda Hartman, B.S
Astrid Quiroga
Gretchen Gotlieb

Call to Order:

The Institutional Biosafety Committee convened a virtual meeting via Microsoft Teams on September 4, 2025. The meeting was called to order at 10:55 a.m. with 14 members in attendance, exceeding the quorum requirement of 9 members.

Reports:

- **Biosafety Officer Report**

- Needlestick reported. Cause: improper recapping procedures. Retraining will be provided by BSO.
- A new biohazardous waste disposal SOP has been developed for the researchers at the Dynamic location. The SOP has been distributed to the research community at Dynamic.

Conflict of Interest:

Committee members were reminded by the IBC Vice Chair to recuse themselves in the event of any conflicts of interest.

Old Business:

- A list of approved protocols was shown to committee members during the meeting.

New Business:

- A list of approved amendments via designated member review was shown to the committee members during the meeting.
- A list of approved administrative amendments was shown to the committee members during the meeting.
- A list of approved continuing reviews was shown to the committee members during the meeting.

Minutes Review:

- The meeting minutes from August 7, 2025, were reviewed. A motion to approve was made and seconded, and the minutes were subsequently approved.
- **Motion: Approved**
 - Yes votes: 14
 - No votes: 0
 - Abstained: 0

AGENDA ITEMS

IBC NEW APPLICATIONS

IBC00002416

Title: Manufacturing of mRNA vaccine for Expanded Access Use in Osteosarcoma Patient

Principal Investigator: Kai Sun

Study Overview: This protocol outlines the compassionate use of a personalized

mRNA cancer vaccine for a patient with osteosarcoma in the cervical vertebra. The vaccine is based on an FDA-approved investigational protocol (IND status) originally developed for treating triple-negative breast cancer. Under FDA regulations, research groups are permitted to expand the indication to other cancers, provided the methodology remains consistent. The treatment involves sequencing a portion of the patient's tumor to identify novel, tumor-specific neoantigens that are potentially immunogenic. Up to 20 of these neoantigens will be synthesized into mRNA and formatted using a tandem minigene configuration. This configuration separates each neoantigen with short spacer sequences—primarily glycine's (inert) and some serine's—to ensure proper antigen presentation. Collaborators assist in optimizing the neoantigen design to enhance immune system recognition. The encoded mRNA is then encapsulated in a lipid nanoparticle (LNP) to create a personalized vaccine, which will be administered intramuscularly (IM).

- **Dosing Schedule:** This is a dose escalation study. The 3 doses included are 30 µg, 100 µg, and 300 µg. These dosing levels are lower in comparison to other published vaccine studies, for example 1 mg for Moderna's Melanoma vaccine, mRNA-4157.
- **Training:** All staff members have completed and are current with their required training.
- **Applicable NIH Guidelines:** Section III-C-1
- **Containment Conditions to be implemented:** BSL1
- **Risk assessment and Discussion:** All neoantigen sequences are cloned into a single transcription template within a plasmid. Transcription of the plasmid occurs in cGMP-compliant facilities located on the 12th floor. The described safety measures are appropriate, and the proposed dose escalation does not raise any concerns.
- **Comments sent to the PI for clarification:**
 - Section Exposure Management –Laboratory Facility: Regarding the mRNAs encapsulation- Is this step really occurring in Dynamic One on an open bench? Not in the clean room on RI12? Please update accordingly. For the plasmid - the BSC listed for Dynamic 1 room needs to be updated to a recirculating BSC.
- *Dr. Francesca Taraballi excused herself due to a conflict of interest and returned after voting was complete. Quorum was maintained.*
- **The motion to approve the study through designated member review was seconded and passed.**

Motion: Approve by Designated Member Review

- Yes Votes: 13
 - No Votes: 0
 - Abstained: 0
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IBC00002404

Title: IBC for Role of Histone deacetylase in mesenchymal stem cell senescence

Principal Investigator: Thandavarayan Rajarajan Amirthalingam

Study overview: The research team is investigating gene therapy strategies to treat heart failure by delivering therapeutic genetic material to cardiac cells. Two primary approaches are being used:

- mRNA Delivery via Lipid Nanoparticles (LNPs): Messenger RNA is encapsulated in LNPs to direct cells to produce specific therapeutic proteins
- Viral Vector Delivery: Adeno-associated virus serotype 9 (AAV9) will be used to deliver fluorescent markers (e.g., GFP) and gene-silencing tools (e.g., shRNA) to cardiac cells. These tools allow for tracking gene expression and selectively silencing genes implicated in heart disease.
- To investigate the role of RNA processing in cardiac function, the team will target proteins involved in RNA cleavage and polyadenylation—specifically CPSF6, NUDT21, MAGEA11, CSTF2, and PCF11—using AAV9-delivered shRNA. Disruption of these proteins may help elucidate mechanisms contributing to heart failure. Additionally, adenoviral vectors (e.g., pAd5-GFP-PAI-1 and pAd5-GFP-NAMPT) will be used to deliver genes related to inflammation and metabolism.
- All experiments will be conducted in human cardiac-related cell lines, including cardiac fibroblasts, cardiac microvascular endothelial cells, and human umbilical vein endothelial cells (HUVECs).
- The overall goal of the protocol is to better understand the mechanisms of heart failure and recovery, and to evaluate potential therapeutic interventions. Each individual experiment uses a unique biological material that will be used either in vitro or in vivo.
- **Training:** All staff members have completed and are up-to-date with their required training.
- **Applicable NIH Guidelines:** Section III-D-4
- **Containment Conditions to be implemented:** BSL2
- **Risk Assessment & Discussion:** The adenoviral and AAV vectors used in this study are replication-deficient. While exposure may result in a single round of infection and localized overexpression of the delivered gene in host cells, the likelihood of replication is negligible. These vectors are not expected to transfer to animal bedding; however, they will be handled under conditions appropriate for potentially infectious agents. All personnel will follow established decontamination procedures, wear appropriate personal protective equipment (PPE), and adhere to approved disposal methods. First aid protocols for accidental exposure will be communicated, and emergency contact information will be readily available. Biohazard signage will be prominently displayed on animal cages and treatment cards. The mRNA used in these studies does not integrate into the host genome. Although BSL-1 containment is appropriate for mRNA work, the study team will conduct all procedures under BSL-2 conditions as an added precaution. All human cell lines will be handled using universal precautions.

- **Comments sent to the PI for clarification:**
 - **Hazard Identification:** Please identify all human derived cells as RG2
 - **Summary Of Proposed Research:** Adenoviruses pAd5-GFP-PAI-1 and pAd5-GFP-NAMPT are referenced in the summary of proposed research but are not included in the hazard identification table. While the table lists 'adenovirus', it does not specify these particular constructs. It is requested that the hazard name be updated to 'Adenoviruses pAd5-GFP-PAI-1 and pAd5-GFP-NAMPT,' or that clarification be provided. For clarity, is there a procedural document available that can be attached below to help better visualize the experimental groups?
 - **Animal Studies:** Under Animal Housing: All AAVs are listed as being housed in the 'Rodent SPF Barrier Room,' except for AAV9-GFP and AAV9-GFP-CPSF6, which are listed under the 'ABSL2 Rodent Room.' Clarification is requested regarding why these specific vectors are assigned different housing.
- **The motion to approve the study through designated member review was seconded and passed.**

Motion: Approvable by designated member review

- Yes Votes: 14
- No Votes: 0
- Abstained: 0

IBC00002358

Title: Phase 1/2, Open-Label, Multicenter, Dose Finding and Dose Expansion Study to Investigate the Safety, Tolerability, and Efficacy of ALXN2350

Principal Investigator: Mahwash Kassi

- **Study Overview:** This clinical study involves adult participants diagnosed with BAG3 Mutation-Associated Dilated Cardiomyopathy (DCM). The investigational product, ALXN2350, is a non-replicating adeno-associated virus serotype 9 (AAV9) vector that encodes a codon-optimized sequence of the wild-type human BAG3 protein. The transgene is under the control of a cardiac-specific cTNT promoter, with SV40 intron and polyadenylation elements included to enhance and prolong expression. A stuffer sequence is incorporated to optimize vector packaging and reduce the likelihood of non-transgene DNA inclusion. The study is divided into two phases: Phase 1 will evaluate the safety and tolerability of a single intravenous (IV) infusion of ALXN2350 across three dose levels, administered to separate cohorts. Cohort 1 will receive a dose of 2.00×10^{13} vg/kg over 60 minutes via peripheral IV. Cohort 2 will receive a dose of 6.00×10^{13} vg/kg over 120 minutes via peripheral IV. Dosing will be performed by trained personnel who will verify participant identity and confirm investigational product labeling prior to administration. Phase 2 will begin following a comprehensive review of Phase 1 safety data and will assess the

clinical efficacy of ALXN2350 compared to an external control group.

- **Training:** All staff members are currently up to date with their training.
- **Applicable NIH Guidelines:** Section III-C-1
- **Containment Conditions to be implemented:** BSL1
- **Risk Assessment & Discussion:** ALXN2350 is a recombinant AAV9 vector and is classified as a Biosafety Level 1 (BSL-1) agent. Standard microbiological practices and universal precautions will be followed during handling. Personnel retrieving the investigational product from shipping containers will wear appropriate personal protective equipment, including a lab coat or impermeable gown, safety glasses, and gloves. The vector will be processed at the Ann Kimball & John W. Johnson Center for Cellular Therapeutics cGMP facility. It will be transported in a labeled, sealed bag prepared by the study team and delivered to the bedside in a biohazard-designated cooler using off-stage elevators to minimize exposure risk. The overall risk to human health and the environment is considered negligible for the following reasons: ALXN2350 is replication-incompetent and will be administered in a controlled clinical setting. Neither wild-type AAV nor ALXN2350 is known to be pathogenic to humans. The ALXN2350 expression cassette does not contain harmful genetic sequences. The expressed protein, human BAG3, is a naturally occurring human protein and is not considered hazardous. AAV vectors persist primarily as episomal DNA, significantly reducing the risk of insertional mutagenesis compared to integrating viral vectors. Exposure to individuals other than the study participants is not expected to result in significant gene expression or safety concerns. Environmental exposure, if any, would be minimal and insufficient to pose a hazard to non-target organisms. As a replication-deficient vector, ALXN2350 is expected to be rapidly cleared from any unintended hosts without adverse effects.
- **The motion to approve the study was seconded and passed. The IBC subsequently approved the study.**

Motion: Approve

- Yes Votes: 14
- No Votes: 0
- Abstained: 0

IBC AMENDMENTS

IBCA00001347

Title: Hazard Amendment 5 for A Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of AAV2-hAQP1 Gene Therapy in Participants with Radiation-Induced Late Xerostomia

Principal Investigator: Nadia Mohyuddin

Amendment Overview: This amendment introduces **Cohort 2**, which includes two higher dose concentrations of the investigational product. Re-consent of currently enrolled participants is required. The rationale for the amendment includes: The addition of higher dose levels aims to identify the optimal therapeutic dose to support a future biologics license application and to offer treatment to participants previously randomized to placebo. These dose levels were previously evaluated in a Phase 1 study with a limited number of participants. The current trial allows for broader evaluation of safety, tolerability, and efficacy in a larger population. Manufacturing limitations at the time of study initiation (2023) prevented production of these doses. Recent advancements have now made them feasible. The decision to include higher doses was made in consultation with regulatory authorities and subject matter experts. Participants who received placebo may be eligible to receive the optimal dose in a long-term follow-up study, pending eligibility. Additional Cohort Doses: AAV2-hAQP1 Group 3: 2.2×10^{12} vg/mL, AAV2-hAQP1 Group 4: 5.0×10^{12} vg/mL

- **Training:** All staff members have completed and are current with their required training
- **Applicable NIH Guidelines:** Section III-C-1
- **Containment Conditions to be implemented:** BSL2
- **Risk Assessment & Discussion:** AAV2-hAQP1 is classified as a genetically modified organism under the Genetically Modified Organisms (Contained Use) Regulations 2000. It is a recombinant AAV2 vector and is considered a Risk Group 1 agent. While generally regarded as low-risk, additional precautions may be required based on institutional biosafety policies. As AAV2-hAQP1 is a novel therapeutic agent tested in a limited number of participants, there may be unknown or unanticipated risks associated with its use. Therefore, it will be handled as potentially infectious material in accordance with the OSHA Bloodborne Pathogen Standard (29 CFR 1910.1030). Universal microbiological practices will be followed, and personnel handling the agent must wear appropriate personal protective equipment (PPE), including lab coats or impermeable gowns, safety glasses, and gloves.
- *Voting member Nagendran Tharmalingam exited the meeting during this discussion and did not vote on any of the following protocols. Quorum was maintained.*
- **The motion to approve the amendment by designated member review was seconded and passed.**

Motion: Approved by Designated Member Review

- Yes Votes: 13
- No Votes: 0
- Abstained: 0

IBCA00001342

Title: PI Amendment 4 for IBC for Youker Laboratory-IBC related studies

Principal Investigator: John Cooke

- **Amendment Overview:** This amendment updates the protocol to reflect a change in principal investigator. The previous PI retired, and the role has been transferred to a new investigator from the same department, Dr. John Cooke. No changes to the study design, procedures, or scope were introduced as part of this amendment.
- **Risk Assessment & Discussion:** The Office of Research Protection will contact the study team to request updates to the protocol title and to confirm any changes related to storage locations or room assignments.
- **The motion to approve the amendment was seconded and passed. The IBC subsequently approved the study.**

Motion: Approve

- Yes Votes: 13
- No Votes: 0
- Abstained: 0

IBCA00001321

Title: Hazard Amendment 20 for IBC for Brannan Lab

Principal Investigator: Kristopher Brannan

- **Amendment Overview:** This amendment was submitted to include mRNA constructs that will be used for in-vitro and in-vivo work to combine with lipid nanoparticles (LNP) and deliver to tissues; such as mRNAs of anti-cancer target genes, mRNA sensors with various payloads (GFP, RFP, cancer killing targets, drug inducible targets).
- **Risk Assessment & Discussion:** The protocol did not previously include animal work, thus expanding the scope of the protocol and introducing new risks. The containment procedures described are appropriate. However, there were a few inconsistencies with the animal use protocol.
- **Comments sent to PI for clarification:**
 - **Hazard Amendment Summary:** Remove the lab location updates, these were previously approved in a former amendment.
 - **Hazard Identification:** In the linked animal use protocol, the following is stated: "III. Reporter-Labeled Tumors Xenograft tumor cells and breast cancer cell lines stably expressing luciferase and/or GFP reporters will be injected into mice to generate primary tumors and possible metastases." Please specify in the IBC that cells will be modified with GFP and luciferase reporters. Additionally, please add PDX to the IBC protocol if these are going to be transfected for animal work or remove this description from IACUC. For 'Human TNBC Cells Expressing STAMP' -Based on the description- in vitro work will be performed with this agent. Please select 'Human sources for laboratory work (cells, tissue, and fluids)'. For Lentiviral Vector System for In Vitro Transduction of Tumor cells - MDA-MB-231, BT549 & HS578t - In the description "The assigned risk level for

this procedure is Low-Risk Group 1" - please update, since the work will also be done in human cancer cells, it should be RG2 as stated under "Risk group".

- **Recombinant and Synthetic Nucleic Acids:** Human TNBC cells expressing STAMP: Please complete all the sections for this agent
- **The motion to approve the amendment by designated member was seconded and passed.**

Motion: Approve by designated member review

- Yes Votes: 13
- No Votes: 0
- Abstained: 0

IBC Continuing Reviews

IBCC00000575

Title: 2025 IBC Review for A Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of AAV2-hAQP1 Gene Therapy in Participants with Radiation-Induced Late Xerostomia

Principal Investigator: Nadia Mohyuddin

- **Continuing Review Summary:** Over the past year, three subjects were enrolled in the study. Of these, two did not pass the screening process, and one subject is currently undergoing screening. Updated documentation approved by the IRB was provided. No adverse events have been reported during this period. An amendment to the original protocol (IBCA00001347) was submitted to include additional cohorts and a dose escalation. This amendment was reviewed and approved by the committee.
- **Training:** All staff members are currently up to date with their training.
- **Applicable NIH Guidelines:** Section III-C-1
- **Containing Conditions to be implemented:** BSL2
- **The motion to approve was seconded and passed. The IBC subsequently approved the study.**

Motion: Approved

- Yes Votes: 13
- No Votes: 0
- Abstained: 0

Adjournment:

- The meeting adjourned at 11:50 am.
-