NYGC Institutional Biosafety Committee
Minutes
Date/Time: Thursday, Nov 20, 2025, 4:00 PM EST
Location: Zoom

Attendees:
- KM: Kevin McGhee (Chair, BSO)
- CC: Christina Caragine, PhD
- HL: Heather Lewis, EdD, MS
- MG: Matthew Geddis, PhD (Community representative)
- SM: Silas Maniatis, PhD
- VF: Vanessa Felice

I. Kevin McGhee (KM) opened the meeting at 4:02 PM with a quorum present.

II. KM reminded the committee of the confidentiality and conflict of interest policies. KM noted that there would be no anticipated conflicts for the single project on the agenda with the members present.

III. KM shared the minutes from the previous meeting on May 22, 2025 and asked for any comments or corrections. Having none, KM moved for approval, seconded by SM. The minutes were approved unanimously.

IV. KM noted two changes to committee membership. Heather Lewis has returned to the committee after returning to her role as Director of Sponsored Research, replacing Khulangoo Rizaj. Chenxu Zhu, PhD, Core Faculty Member, has joined the committee as a scientific representative, replacing Marcello Ziosi, who recently left NYGC. Chenxu is unable to join today due to a scheduling conflict.

V. New recombinant DNA protocol

Protocol Number	IBC019
Protocol Version	Year 0, Modification 0
Principal Investigator	Chenxu Zhu
Project title	Unraveling Epigenetic Mechanisms and Therapeutic Strategies for FXN Silencing in Friedreich's Ataxia
NIH Guidelines section	III-D-3-a
Project lead	Xiaonan Guan, PhD (postdoc)
Scientific summary	Friedreich's ataxia (FRDA) is the most common inherited form of ataxia, caused by an abnormal expansion of GAA triplet repeats in the FXN gene, leading to its silencing and reduced production of frataxin, a protein essential for cell function. However, the exact process by which this GAA

	expansion silences the FXN gene remains unclear, making it difficult to develop effective treatments. This research aims to uncover the epigenetic mechanisms responsible for FXN gene silencing in FRDA. By integrating cutting-edge single-cell multi-omics technologies and CRISPR-based epigenetic editing tools, we seek to establish the causal relationship between epigenetic changes caused by GAA repeat expansion and FXN silencing, thereby advancing the development of therapeutic treatments for FRDA. (e.g. Qian*, Guan* et al., Science Translational Medicine,2023).
Vector details	2nd generation lentivirus. Packaging plasmids: pCMVR8.74, pCMV-VSV-G Transfer plasmids: TRE3G-dCas9, TRE3G-dCas9-P300, TRE3G-dCas9-dP300, pgRNA, rtTA Viral promoters: CMV Inserts: Transfer plasmids will contain fluorescence protein BFP for selection and P300 to modify H3K27ac, sgRNA and dCas9 will functional for targeting the H3K37ac around gene FXN Source: Addgene plasmid, dCas9 from streptococcus pyogenes Cas9, P300 core domain orignial from human EP300 gene Hosts: One Shot™ Stbl3™ Chemically Competent E. coli be used for vector construction and amplification. Ultimate target is Friedriech's Ataxia patient derived iPSCs cell line and iPSCs derived sensory neurons We will use HEK293FT packaging cells from Invirogen to produce the virus using standard transfection techniques (e.g. X-tremeGENE™ 9 DNA Transfection Reagent). Retroviruses will be concentrated via ultracentrifugation or Amicon centrifugal filters. If high titer is not required, viral supernatants will be filtered using 0.45um filters and not concentrated further. The resulting replication-incompetent virus will be used to transduce iPSC lines in vitro.
Training	The project lead is the only person in the lab working on this project for now, and has completed all core EHS trainings, along with lentivirus classroom training and the documented competency observation with KM.
Biosafety level	BSL-2+
Enhanced precautions	Operate with TC room door closed and “Lentivirus work in progress sign” placed. Documented competency observation required for new personnel. Decontaminate consumables inside BSC prior to disposal. Items normally destined for regular garbage (e.g. pipette wrappers) go to red bag.

	PPE: disposable sleeve covers, safety glasses, dedicated fluid-resistant lab coat, double gloves (or spray in + out with 70% EtOH)
Discussion	CC noted that the Zhu lab will be using Sanjana lab's ultracentrifuge and had discussed also using room 434 for this protocol, rather than just 447, which the Zhu lab primarily uses, and which had been indicated in the proposed protocol. KM noted that 434 has been approved for other lentivirus work and is suitable for this purpose.
Vote	KM moved to approve the protocol with the modification to add room 434 as an approved location. CC seconded the motion. The vote to approve was unanimous.

VI. With no further business, KM concluded the meeting at 4:15 PM.