## CUNY Neuroscience Collaborative Seminar Series SPRING 2024

## Friday, April 12th, 3:00 - 4:30 PM The CUNY Graduate Center, Rm. 6495



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## Memory modulation using epigenetic control of cortical plasticity

Sensory systems are highly dynamic across the lifespan. For example, associative learning experiences can re-tune stimulus representation of remembered cues in the sensory cortex. However, learning-induced effects in the sensory brain are tightly controlled to balance plasticity with the stability of our internal sensory representations. At the core of our research is the hypothesis that epigenetic controls on neuroplasticity may be key to this balance. When the conditions are right, sensory cortical transformation can make learned behaviorally salient signals stand out in a world with many inputs. We examine how our individualized sensory representations may channel the ease of cued recall, initiate passive recall, and facilitate cue detection in ways that reflect our preferences, trigger our emotions, and guide behavioral action. This talk will overview key open questions that the CLEF (Cortex, Learning, Epigenetics & Functional physiology) Lab has addressed in an auditory model of learning and cortical plasticity to identify mechanisms that integrate across levels of neural representation, from genes and molecules to circuits and systems, that together may establish sound-cued behaviors.

Zoom Broadcast:

## https://ccny.zoom.us/j/87527538326?pwd=N04rcnoxNDZ5NUI5aTVHcitIWXE4UT09 Hosts: Dr. Nesha Burghardt (nb844@hunter.cuny.edu) and Dr. Asohan Amarasingham (aamarasingham@ccny.cuny.edu)

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