



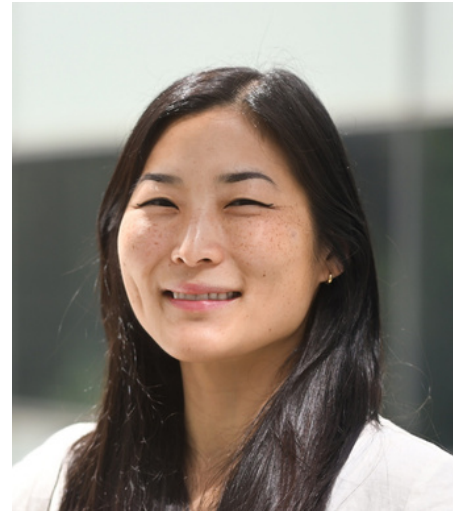
FALL 2026 SEMINAR SERIES

“Isolating drug-activated ensembles using activity integrators”

Probing the molecular and functional properties of neuronal ensembles is essential for understanding how these networks give rise to circuit function and animal behavior. Our group specializes in developing molecular and optical approaches to study different types of neuronal signaling in the brains of awake, behaving mice. We utilize real-time, cellular-resolution imaging techniques for recording activity during behavior, in addition to next-generation molecular activity integrators for tagging and manipulating activated neuronal circuits.

To allow investigations into the molecular cell-types of these neurons, we engineer technologies that encode the cellular activity history into the transcriptome of individual neurons. This activity tag is read-out during single-cell RNA sequencing, and can then be linked to specific set of relevant cell-types. Alternatively, the activity tag can encode an actuator, such as an opsin, to enable subsequent manipulation of the tagged neurons.

Here I will discuss our work using a family of light- and calcium-dependent transcription reporters and proximity enzymes to tag and manipulate neurons that respond to psychedelic drugs in mice.



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Date:

Thursday, September 10, 2026

Time:

12:00 p.m. to 1:00 p.m.

Location:

ASRC — 1st Floor I Auditorium
85 Saint Nicholas Terrace
New York, NY 10031

Host:

J. Wren Kim, PhD

Zoom:



Meeting ID: 856 8679 1013
Passcode: 503671

[Meeting Link](#)