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January 18th, 2024

12:30 – 1:00 PM Coffee/Pastry Mixer

1:00 – 1:50 PM, Foege N130

live stream: <https://washington.zoom.us/j/94375637567>

“Precision anesthesia: towards neural circuit-specific modulation of arousal”

ABSTRACT: Although anesthetic drugs are essential in medicine, they often have significant cardiopulmonary and neurologic side effects likely due to their non-specific neural circuit targeting. To better understand the brain’s arousal circuits, I will describe two approaches in characterizing these circuits with increased precision: 1) a projection-based approach using the noradrenergic circuit as an example, and 2) a molecular-based approach using the nociceptin opioid receptor as an example. By more precisely characterizing these arousal circuits, my long-term goal is to work towards rational neural circuit design to modulate arousal.

BIO: Li Li, MD, PhD is an Assistant Professor in the Department of Anesthesiology & Pain Medicine at the University of Washington, a Principal Investigator at the Seattle Children’s Research Institute, and a member of the UW Center of Excellence in Neurobiology of Addiction, Pain, and Emotion. He is an anesthesiologist-neuroscientist whose lab studies the brain’s arousal circuits in mouse models, focusing on developing molecular and neural circuit-specific modulation of arousal to improve anesthetic care and treatments for sleep disorders.