

School of Neuroscience Innovators Seminar Series

Neural-immune signaling governing microglia function at synapses



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Wednesday, May 19, 2021
11:00 AM – 12:00pm

Link to join Webinar

<https://viriniatech.zoom.us/j/84622988399>

Microglia are dynamic sensors of their extracellular environment and regulators of synaptic connectivity. Using a combination of cell-specific molecular genetics, single cell RNA sequencing, and cell-specific translating ribosome affinity purification (TRAP), we are working to molecularly dissect how microglia respond to changes in neural activity and remodel synapses in health and disease. In the process, we have uncovered a novel role for chemokine signaling in microglia-dependent remodeling of cortical synapses within the barrel cortex following sensory deprivation-induced changes in neural activity. Interestingly, this same chemokine signaling seems to also regulate microglia at the vasculature. We are now exploring how these microglia-vascular interactions may intersect with microglia function at developing synapses.

For more information, contact
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