



VANDERBILT
School of Medicine Basic Sciences
Department of Pharmacology

2023 - 2024 Seminar Series

Rewiring persistence by targeting dopamine-neuron inhibitory synaptic receptors

My lab studies how neurochemical circuits influence behavior, taking a multidisciplinary engineering meets neurobiology approach. A pivotal development is our Drug Acutely Restricted by Tethering (DART) technology, which allows precise manipulation of neurochemical synapses. Recently, we made a surprising discovery about the role of GABA in modulating dopamine neurons in the ventral tegmental area. By selectively blocking GABAA receptors on these dopamine neurons, we observed precise changes in neural activity and surprising behavioral effects that challenge longstanding assumptions about behavioral persistence. Through these findings, we continue to expand and refine our toolset, while matching tools to critical questions in neuroscience, both independently and collaboratively.



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7 May 2024

4:00 PM

1220 MRB III

Host : Erin Calipari