



THE UNIVERSITY OF ARIZONA
COLLEGE OF MEDICINE TUCSON
Pharmacology

Presents

“The mu opioid receptor: synaptic function revisited”

BY



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Abstract: Neuromodulator modification of neural activity is a key component of neural circuit function, and the underlying mechanism by which most drugs impact CNS function. In my lab we investigate how neuromodulator function, especially that of opioids, changes in disease states and following drugs of abuse and/or stress, with the goal of identifying therapeutic targets. In this talk I will describe some of our efforts to determine how mu opioid receptors (MORs) function in the ventral tegmental area (VTA), a critical site for opioid reward that also contributes to relief of ongoing pain. We have identified several unexpected types of mu opioid receptor signaling in this brain region including direct MOR agonist induced depolarizations. In pharmacological studies, the VTA is one brain region we are using to profile MOR agonists that have different in vivo behavioral profiles, revealing clear differences that have not been detected in heterologous systems. I will share an example of this work and our vision for making this a higher throughput approach. Our overall goal is for this improved understanding of MOR synaptic function in behaviorally relevant neural circuits will help identify new molecular targets for therapeutically modulating these circuits.

Wednesday, September 25, 2024

11:00 am – Noon

AHSC - Room 8403

<https://arizona.zoom.us/j/82268538546>