

NEUROSCIENCE Trainee Meet & Greet

VISITING SPEAKER



Monday, May 6th, 2024
12:00 PM - 1:00 PM

Kleysen Institute for Advanced Medicine

Room SR 415

Lunch served

RSVP: Protiti.Khan@umanitoba.ca

DR. MOHIUDDIN AHMAD

Assistant Professor, Department of Cell Biology, University of Oklahoma Health Sciences Center.

I obtained my medical degree from Jawaharlal Nehru Medical College at Aligarh Muslim University in India. I received my PhD in Neuroscience from Georg-August University, Goettingen, Germany with my thesis work on the role of neurexin family of proteins in synaptic transmission. For my postdoctoral training, I joined the laboratory of Robert C Malenka at Stanford University where I worked on the mechanisms underlying long-term synaptic plasticity. I made key discoveries regarding the trafficking of AMPA receptors during synaptic plasticity, including the role of complexin in mediating AMPA receptor exocytosis during long-term potentiation (Ahmad et al., 2012), and the role of Rab11Fip5 during long-term depression (Bacaj et al., 2015). I then joined the University of Oklahoma Health Sciences Center as an Assistant Professor. In my laboratory, I run a cutting-edge program in synaptic physiology. My laboratory has identified the role of neuroligin-2 in controlling the excitatory-inhibitory balance in the lateral septum (Troyano-Rodriguez et al., 2019a), the role of membrane protein PRRT1 as a critical regulator of AMPA receptor trafficking during long-term depression (Troyano-Rodriguez et al., 2019b; Martin et al., 2021), and the function of very long chain fatty acids in regulating synaptic transmission and plasticity (Nagaraja et al., 2021; Nagaraja et al., 2023). My laboratory also has a major focus on the neuromodulation mediated by oxytocin acting on the oxytocin receptor in the brain. In projects funded by the NIH and the Whitehall Foundation, we are working to elucidate the intracellular mechanisms that regulate the trafficking and activity of oxytocin receptors in neurons (George et al., accepted, Hoang et al., under review). My work utilizes multidisciplinary approaches including brain slice patch-clamp electrophysiology, in vivo molecular manipulations, microscopic imaging, receptor trafficking assays, and biochemical methods.

ALL TRAINEES WELCOME