University of Manitoba | Rady Faculty of Health Sciences

manitoba neuroscience network

The Department of Pharmacology and Therapeutics

DR. ALLEN CHAN

Will give a Research Presentation

"Mesoscale functional neuroimaging: Insights into cortical dynamics and neuropsychiatric disorders in mouse models"

Thursday, August 3, 2017
12:00pm - 1:00pm
BMSB Theatre C

And a Teaching Presentation

"Voltage-gated calcium channels: therapeutic targets for treatment of cardiovascular disease and beyond"

Friday, August 04, 2017
12:00pm - 1:00pm
Apotex Centre 164

Student & Postdoctoral Fellows lunch to follow in Apotex Centre 069

Dr. Allen Chan is currently a postdoctoral research associate in the laboratory of Dr. Timothy Murphy in the Department of Psychiatry at the University of British Columbia. Dr. Chan's research training spans both cellular and molecular level approaches and systems-level, in vivo scale examinations of fundamental neurobiology. He performed doctoral training in the Department of Physiology and the Program in Neuroscience at the University of Toronto which was focused on elucidating neuronal ion channel function and its coupling to membrane excitability and synaptic transmission. For this work Dr. Chan was awarded a CIHR Doctoral Canada Graduate Scholarship as well as the Jack Kraicer award for scholarly distinction upon graduation. During his current postdoctoral training at the University of British Columbia he is pursuing questions of impaired cognitive and sensorimotor processing in rodent models of neurodevelopmental disorders and neurodegeneration and has been awarded postdoctoral fellowship awards from the Heart and Stroke Foundation of Canada and the Michael Smith Foundation for Health Research.

Dr. Chan's current research goals involve understanding the functional manifestation of brain network and circuit level dysfunction in the context of neurodevelopmental disorders using advanced optical, in vivo, optogenetic and electrophysiological approaches in mice combined with functional assays of behavior, cognition, and sensory processing. As a postdoctoral fellow and now research associate in Dr. Murphy's laboratory, he has gained expertise in a breadth of functional neuroimaging and optogenetic techniques, spanning multiple imaging modalities, to assess and probe circuit function in the intact brain. His current work describes regional functional connectivity and cortical dynamics using voltage-sensitive dye imaging in anesthetized and awake mice. This work illustrates regional, mesoscale, functional connectivity within mouse cortex with important parallels to human neuroimaging and has resulted in co-first authored publications in top journals in the field including Nature Neuroscience, Nature Communications, and Neuron

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