



SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by Asst. Prof. Adam Claridge-Chang:

Date: 13 May 2019, Monday

Time: 11:00AM – 12:00PM

Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Professor Richard Baines, Professor of Neuroscience, Division of Neuroscience and Experimental Psychology, The University of Manchester

Title: Exploiting *Drosophila* to identify novel antiepileptic treatments

Abstract:

There is significant clinical need to extend understanding of epilepsy and to find more effective approaches for treating this common condition. Bang-sensitive (seizure) *Drosophila* mutants, which exhibit reduced thresholds for seizure, offer an attractive possibility to combine tractable genetics, electrophysiology and high-throughput screening. In this seminar I will present two related projects. In the first, I describe how manipulation of neuronal activity, during a window of heightened plasticity (i.e. a critical period) in embryogenesis, can induce or, importantly, prevent epileptogenesis, dependent on genetic background. In the second project, I describe how the mechanism of neuronal homeostasis is a favourable drug-target for the design of next-generation antiepileptic drugs.

Biography:

Richard Baines has been a Professor of Neuroscience in the Faculty of Biology, Medicine & Health at the University of Manchester since 2010. Prior to this he has held a number of postdoctoral and lecture posts both within the UK and in Canada. His research focuses on understanding how neurons and networks set appropriate functional properties. A specific focus is homeostatic mechanisms that modify neuron excitability in response to synaptic excitation. His group is also translating this knowledge in order to design next-generation antiepileptic treatments. Research in the Baines group primarily uses the fruitfly *Drosophila*, but also vertebrates (zebrafish and rodents).