Singapore Developmental Biology Club

SEMINAR ANNOUNCEMENT

25 April 2012, Wednesday
Breakthrough Theatrette, Level 4, Matrix, Biopolis
5:30PM – 6:30PM

Dr. Vincent Cunliffe
Senior Lecturer
University of Sheffield, UK

Seminar Title: Elucidating mechanisms that underlie development and disorders of the nervous system in the zebrafish.

Research in my laboratory aims to better understand how the vertebrate nervous system develops and how the abnormal functioning of molecular and cellular mechanisms can cause nervous system disorders. Over the last few years, our work has focused on determining the developmental roles of transcriptional regulators such as Histone Deacetylase 1 (Hdac1) in specification of neuronal and glial cell fates in the zebrafish embryo. In parallel, we have investigated the developmental functions of genes implicated in the pathogenetic mechanisms underlying disorders such as schizophrenia and hereditary spastic paraplegia. More recently, we have employed a model of epileptic seizure induction in the zebrafish embryo to identify genes whose transcription is induced in the ventral forebrain as a response to seizure onset. We have also used this model to develop high throughout *in vivo* assays for compounds that suppress convulsant-induced seizures, and our results suggest that this approach is a promising way of identifying novel anticonvulsants. We now aim to investigate the mechanisms of action of these compounds, evaluate their efficacy in resolving seizures and determine whether they have potential in ameliorating other forms of neural stress.

No registration required.
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