POSTGRADUATE “RITES OF PASSAGE” SEMINAR

Following submission of theses by our postgraduate students, it was considered appropriate to have those students give a final seminar and be farewelled, in a ‘befitting’ manner, by the School at the same time. Ruohan will deliver his “Rites of Passage” seminar as part of the School’s Seminar Series.

Ruohan Li
Cancer Gene Regulation Laboratory
Harry Perkins Institute of Medical Research
&
School of Anatomy, Physiology & Human Biology
The University of Western Australia

‘The long non-coding RNA NEAT1 in cell biology and paraspeckle function’

Tuesday 11 August, 2015 at 2.00pm

Room 1.81, Anatomy, Physiology & Human Biology Building (north)
The University of Western Australia (off Hackett Entrance No. 2)

Ruohan Li is a PhD student based at the Harry Perkins Institute of Medical Research. He completed his BSc (Hons) in Biomedical Science from the University of Western Australia in 2009. After working in the field of plant biochemistry for a year, he then started his PhD under the supervision of Dr Archa Fox, Assoc/Prof Stuart Hodgetts, and W/Prof Alan Harvey. His project focuses on understanding the functional significance of a novel long non-coding RNA named NEAT1, whose main role is thought to be nucleating subnuclear structures named paraspeckles. Over the past decade, despite increasing knowledge of the molecules associated with NEAT1 and paraspeckles, the significance of them on cellular level is still poorly understood. This PhD project addressed this problem by systematically examining the upstream and downstream pathways for NEAT1, utilizing a number of novel techniques including data mining from the ENCODE project, CRISPR genomic engineering, complex three-way transcriptomic analysis, and pathway analysis. The result of this study confirmed a wide range of genes being influenced by NEAT1 and paraspeckles, and also revealed a novel regulatory relationship between the two. This study is important for our understanding of paraspeckles, NEAT1, and the molecular mechanisms used by long non-coding RNAs.