

國立清華大學 IMP

腦科學研究中心 NATIONAL TSING HUA UNIVERSITY Brain Research Center Special Seminar

Speaker: Barry Dickson

奧地利分子病理研究中心主任 Scientific Director, Senior Scientist, Research Institute of Pathology, Austria

Title: Wired for sex: the neurobiology of *Drosophila* mating behavior

- Time: 10:30a.m.~12:00 p.m., Thursday, Feb. 4, 2010
- Place: Room 112, Life Science Building I
- Host: Prof. Ann-Shyn Chiang (Tel:03-5742760)

Language: English

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About Prof. Barry Dickson

Barry Dickson studied at the Universities of Melbourne and Queensland, graduating with a B.Sc. in computer science and a B.Sc.Hons. in genetics. After a brief period at the Salk Institute in San Diego, he then moved for his PhD studies to the University of Zurich, Switzerland, where he worked with Ernst Hafen on receptor tyrosine kinase signalling during *Drosophila* eye development. Barry then moved back to California for a period of postdoctoral work with Corey Goodman at the UC Berkeley, where he began his research on axon pathfinding. He returned again to Zurich to set up his own group in 1996, and in 1998 moved to Vienna, Austria, as a group leader at the Research Institute of Molecular Pathology (IMP). In 2006, he succeeded Kim Nasmyth as Director of the IMP.

Barry's research group has made key contributions to understanding the molecular and cellular mechanisms of axon pathfinding, in particular in the choices axonal growth cones as they navigate the midline of the *Drosophila* central nervous system. Recently, their research focus has shifted to investigating how dedicated neural circuits mediate complex behaviours, and how genes direct the assembly and function of these circuits. As a model system, his group focuses on the innate reproductive behaviours of *Drosophila*. To facilitate the identification of genes that contribute to behaviours, Barry's group has generated the first genome-wide transgenic RNAi library in *Drosophila*, which is now maintained and distributed through the Vienna Drosophila RNAi Center. Their group has successfully used this approach to identify specific genes required in the male or female nervous system for their respective behavioural patterns, and to map the precise cellular requirements for these genes.