CDB SEMINAR

Speaker: Yuh- Nung Jan

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Title: " Control of dendrite development"

Date:	**Tuesday, December 7**
Time:	**4:00 P.M. – 5:00 P.M.**
Place:	**1F Auditorium of Building C**

Summary:
The nervous system is composed of a vast number of neurons with strikingly different dendritic morphology. The control of dendrite morphogenesis is an important and unresolved problem. Recently we found that the multiple dendritic (MD) (also known as dendritic arborization (DA)) neurons of the *Drosophila* peripheral nervous system serve as an excellent model system for a genetic dissection of dendrite development. The problem of dendrite development can be broken down into a number of questions including: (1) What controls neuronal polarity? (2) What makes dendrites different from axons ? (3) What initiates dendritic arborization? (4) How do different types of neuron acquire their distinctive dendritic morphology? (5) What is the role of dendritic tiling in shaping dendritic field? From the mutant screen, the molecular genetic study of a subset of the genes identified so far, as well as candidate gene approach, we have begun to gain insight of the molecular mechanisms that control dendrite development in *Drosophila*. We have also begun to extend some of the findings to mammalian neurons. I will discuss our recent progress in this research area.

-References-
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Shi, S.H., Jan, L.Y., and Jan, Y.N. (2003) Cell 112:63-75.
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