



# CDB SEMINAR

**Speaker:** **Wei Hsu**

◁University of Rochester, New York, USA▷

**Title: “Genetic regulatory circuits in Development and Disease:  
Tales of the Wnt-Axin network”**

**Date: Friday, November 11**

**Time: 11:00 – 12:00**

**Place: 1F Auditorium of Building C, CDB**

## **Summary:**

The primary interest of my laboratory is to study genetic regulatory circuits in development and disease. We investigate the genetic control of cellular signaling and signal transduction mechanisms. By delineating these regulatory networks underlying normal developmental processes, we hope to advance the knowledge base of human diseases, and lead to novel molecular therapies for the treatment of human diseases. To achieve our goals, we focus on (1) characterizing morphogenetic signaling pathways that regulate mammalian development, (2) elucidating the mechanism by which these developmental signals regulate cell survival, proliferation and differentiation, and (3) creating mouse models to study the molecular basis of human diseases. Our current efforts concentrate on the importance of Wnt signaling and its interactions with other cellular signaling pathways during craniofacial morphogenesis, early neural development, and breast development and tumorigenesis. I will discuss first you a brief introduction on our identification of Axin genes and its involvement in Wnt signaling. Then, I will describe our recent discoveries of Axin/Wnt signaling in craniofacial morphogenesis. Finally, I will present our recent study of breast development and cancer.

**Host: Masatake Osawa/ Shin-Ichi Nishikawa <Stem Cell Biology, CDB>**

E-mail: [mosawa@cdb.riken.jp](mailto:mosawa@cdb.riken.jp) Tel: 078-306-1893 (ext:5301)RIKEN Center for Developmental Biology <http://www.cdb.riken.jp/>