

**September 4, 2008**

Cell Division and Interkinetic Nuclear Migration of  
Neuroepithelial Stem Cells

**Yoichi Kosodo**

RIKEN CDB  
Kobe Japan

**ABSTRACT OF THE TALK**

During vertebrate brain development, the nucleus of neuroepithelial stem cells, progenitors of neurons in the central nervous system, shows dynamic movement between the apical and basal region of the ventricular zone according with the cell cycle, named “interkinetic nuclear migration (INM)”. Although the unique phenomenon was first proposed more than 70 years ago, the core question remained to be answered: “how the nuclear movement is correlated with the cell cycle?” I will present our recent results obtained by several experimental approaches, including a novel method to incorporate fluorescent beads to cultured slices. We also have been trying to make computer-assisted simulations to understand the mechanism of INM comprehensively.