The 2nd CDB Student Organized SEMINAR

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The Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research
University of California, San Francisco, School of Medicine

Tuesday, February 4, 2014

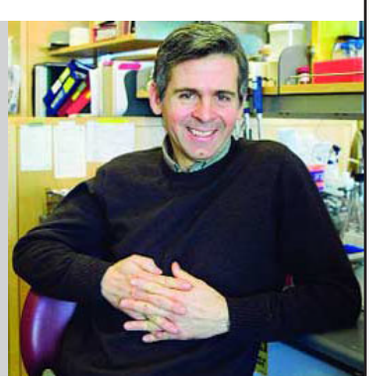
16:00～17:00　C1F Auditorium

Regional Allocation and Origin of Stem Cells in the Postnatal Brain

Summary

Neural stem cells (NSCs) in the Ventricular-Subventricular Zone (V-SVZ), in the walls of the lateral ventricles of the adult brain, produce different subtypes of olfactory bulb inhibitory neurons. I will discuss recent data on the origin of the diversity in neuronal cell types produced in the adult brain and on the continual role of Sonic Hedgehog (Shh) signaling in the postnatal and adult brain. We have recently identified four novel types of local-circuit interneurons born in the postnatal V-SVZ. These cells are born in unique micro-domains, raising interesting questions about the fine organization and evolution of this extensive periventricular germinal layer. Finally I will present unpublished new data on the embryonic origins of adult NSCs and how these changes current views about NSC lineages.

Dr. Alvarez-Buylla has an international reputation for his work in developmental neuroscience and stem-cell neurobiology research. His principal research interests are in neurogenesis of the adult mammalian brain, the assembly of the brain, brain tumors and repair, and the ontogeny and phylogeny of behavior. He addresses questions about the mechanisms of neuronal birth, migration, differentiation and integration, and how neural stem cells or their immediate progeny may be related to brain tumor initiation focusing on the role of primary cilia.



Host students:
Yuiko Hasegawa (Organogenesis and Neurogenesis)
Atsushi Shiraishi (Organogenesis and Neurogenesis)
Shuji Shimamura (Histogenetic Dynamics)

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