

—千里ライフサイエンス新適塾—

「脳はおもしろい」第23回会合

Power of the infant brain

講 師 : ヘンシュ 貴雄 (Takao K. Hensch)

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日 時 : 2018年 12月18日(火) 17:30~20:00

場 所 : 千里ライフサイエンスセンタービル

講演会 6階 千里ルーム A (17:30~19:00)

懇親会 6階 千里ルーム B (19:00~20:00)

講演・懇親会ともに参加費無料

コーディネーター

山本 亘彦 大阪大学大学院生命機能研究科・教授

古川 貴久 大阪大学蛋白質研究所・教授

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講演要旨：

Brain function is largely shaped by experience in early life, creating windows of both great opportunity and vulnerability. Our work has focused on the biological basis for such critical periods, identifying both “triggers” and “brakes” on plasticity. Strikingly, the maturation of particular inhibitory circuits is pivotal for the onset timing of these windows. Manipulations of their emergence can either accelerate or delay developmental trajectories regardless of chronological age. Notably, many neurodevelopmental disorders are linked to alterations in excitatory-inhibitory balance, suggesting shifted critical period timing as part of their etiology. Closure of critical periods in turn reflects an active process, rather than a purely passive loss of plasticity factors. Lifting these brakes allows the reopening of plastic windows later in life, but may also underlie instability in disease states. Thus, understanding how brain plasticity and stability are balanced throughout life offers new insight into mental illness and novel therapeutic strategies for recovery of function in adulthood.

講師紹介：

Takao K Hensch

Professor, Molecular Cellular Biology (Harvard Univ)
Director, NIMH Silvio Conte Center for Mental Health Research
Professor, Neurology (Boston Children's Hospital, HMS)
Director, IRCN (Univ Tokyo Institute for Advanced Study)



Education

1996 Univ California San Francisco (UCSF), Ph.D. Neuroscience
1991 Univ Tokyo, M.P.H.
1990 Fulbright Fellow, Max-Planck Institute for Brain Research
1988 Harvard University, A.B. Biological Sciences

Academic Career

2006- Professor, Harvard University / Harvard Medical School (HMS)
1996-2010 Group Director/Team Leader, RIKEN Brain Science Institute

Professional Service

Faculty Affiliate Reischauer Institute of Japanese Studies (Harvard Univ)
Core Member U.S. National Scientific Council on the Developing Child
Senior Fellow Canadian Institute for Advanced Research (Child Brain Development)
Editorial Board *Neuron*, *Curr Opin Neurobiology*, *Neural Development*, *Neurosci Res*
(partial list) *Frontiers in Neural Circuits* (chief editor), *J Neurosci* (reviewing editor)

Awards (representative)

Mortimer D Sackler Prize (2016), NIH Director's Pioneer Award (2007), MEXT Minister's Prize (2006), U.S. Society for Neuroscience Young Investigator Award (2005), NISTEP award (2005), Tsukahara Prize (Japan Brain Science Foundation, 2001), MEXT Research Scholarship (1988-91, U Tokyo), JW Fulbright Fellowship (1990), Thomas T. Hoopes Prize (Harvard, 1988)