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## Education

1998 Ph.D. Marseille University, School of physiology and Neuroscience, France

Field of study: Development of brainstem motoneuron

## Work Experience

- 2009- Visiting Professor  
Graduate School of Advanced Science and Engineering, Waseda University
- 2008- Unit Leader, RIKEN BSI
- 2003-2008 Staff Scientist, RIKEN BSI, Lab. for Memory and Learning
- 1998-2003 Research Scientist, RIKEN BSI, Lab. for Memory and Learning
- 1997 Research assistant, Physiology Institute, Bern University
- 1995 Research assistant, CNRS Laboratory Neuroscience of Motor Function
- 1994-1998 PhD student, INSERM/CNRS Laboratory for Cellular Neurocybernetics

## **Publications and invited talks**

Thomas Launey “A self-assembling nanofiber matrix to support the 3D growth of brain neurons” 3rd International Symposium on Nanomedicine (ISNM2009-2) and Molecular Imaging and Systems Biology, 2009 Nov. 04-06 Okazaki

Bannai H, Lévi S, Schweizer C, Inoue T, Launey T, Racine V, Sibarita JB, Mikoshiba K, Triller A. (2009) Activity-dependent tuning of inhibitory neurotransmission based on GABAAR diffusion dynamics. **Neuron**. 62(5):670-82.

Launey T. Spatio-temporally realistic simulation of AMPA receptor trafficking within reconstructed cerebellar Purkinje dendrites. Society for Neuroscience 2007 meeting, Nov 3-7, San Diego.

Launey, T.,(2007) A computational approach to the study of AMPA receptor declustering at Purkinje cell synapses. **Arch. Ital. Biol.**, 145: 299-310.

Launey T., Hashikawa T., Sakai R., Hayashida T., Motoyama Y., Dacher M. and Ito M. Ultrastructural analysis of Purkinje cell spines reveals a highly asymmetrical organization of the PSD and ER, having profound influence on molecular signal processing. 30th annual meeting of the Japan neuroscience Society. September 10-12, 2007. Yokohama Japan. Session Synaptic Plasticity.

Launey, T., Endo, S., Sakai, R., Harano, J., and Ito, M. (2004). Protein phosphatase 2A inhibition induces cerebellar long-term depression and declustering of synaptic AMPA receptor. **Proc. Natl. Acad. Sci. U.S.A** 101, 676-681.

Launey T. Protein phosphatases as a link between nitric oxide and MAPK pathways in cerebellar LTD? 4th Forum of European Neuroscience. July 10-14, 2004. Lisbon Portugal. Symposium S34. “Cerebellar LTD, not just depressing”.

Planel, E., Miyasaka, T., Launey, T., Chui, D.H., Tanemura, K., Sato, S., Murayama, O., Ishiguro, K., Tatebayashi, Y., and Takashima, A. (2004). Alterations in glucose metabolism induce hypothermia leading to tau hyperphosphorylation through differential inhibition of kinase and phosphatase activities: implications for Alzheimer's disease. **J. Neurosci.** 24, 2401-2411.

Endo S, Launey T. (2003) Nitric oxide activates extracellular signal-regulated kinase 1/2 and enhances declustering of ionotropic glutamate receptor subunit 2/3 in rat cerebellar Purkinje cells. **Neurosci. Lett.** 350(2), 122-6.

Endo S, Launey T, and Ito M. (2003) ERKs regulate PKC-dependent synaptic depression and declustering of glutamate receptors in cerebellar Purkinje cells. **Neuropharmacology.** 45(6), 863-72.

Hirai H, Launey T, Mikawa S, Yanagihara D, Kasaura T, Miyamoto A, Yuzaki M. (2003) Antibody against a putative ligand binding site reveals the  $\alpha 2$  glutamate receptor function. **Nature Neurosci.** 6(8), 869-76.

Sallese M, Salvatore L, D'Urbano E, Sala G, Storto M, Launey T, Nicoletti F, Knopfel T, and De Blasi A. (2000) The G-protein-coupled receptor kinase GRK4 mediates homologous desensitization of metabotropic glutamate receptor 1. **FASEB J.** 14 (15), 2569-2580

Matsuda S, Launey T, Mikawa S, and Hirai H. (2000) Disruption of AMPA receptor GluR2 clusters following long-term depression induction in cerebellar Purkinje neurons. **EMBO J.** 19 (12), 2765-2774

Hirai H, and Launey T. (2000) The regulatory connection between the activity of granule cell NMDA receptors and dendritic differentiation of cerebellar Purkinje cells. **J.Neurosci.** 20 (14), 5217-5224

Launey T, Ivanov A, Kapus G, Ferrand N, Tarnawa I, Gueritaud JP. (1999) Excitatory amino acids and synaptic transmission in embryonic rat brainstem motoneurons in organotypic culture. **Eur J. Neurosci.** (4), 1324-34

Ivanov AI, Launey T, Gueritaud JP, Korogod SM. (1998) Electrical properties and morphology of motoneurons developing in dissociated unpurified co-culture of the embryonic rat brainstem, spinal cord and hindlimb tissues. **Neurophysiol.** 30(4-5), 370-5

Larkum ME, Launey T, Dityatev A, Luscher HR. (1998) Integration of excitatory postsynaptic potentials in dendrites of motoneurons of rat spinal cord slice cultures. **J. Neurophysiol** 80(2), 924-35

Launey T, Ivanov A, Ferrand N, Gueritaud JP. (1998) Developing rat brainstem motoneurons in organotypic culture express calcium permeable AMPA-gated receptors. **Brain Res** 781(1-2), 148-58

Launey T., Eustache I., Ferrand N. and Gueritaud JP. (1997) Synaptic inputs on rat brainstem motoneurons in organotypic slice culture. **Neuroreport** 8(15), 3287-91

Gueritaud JP., Eustache I., Launey T. and Seyfritz N. (1996) Innervation of rat brainstem motoneurons in organotypic culture from a co-cultured sensory explant. **Neurosci Lett** 1996 207(2), 85-8