



Grenoble Institute of Neuroscience – Inserm U1216 - UGA - CEA - CHU
Director : Pr. Frédéric Saudou

Post-doctoral position in System Neurobiology

Job description: We seek an enthusiastic, highly motivated post-doctoral fellow to study how neuronal network dynamics in the cortex and striatum are associated to specific cerebral functions such as motor learning and procedural memory. The aim of the project is to characterize network connectivity and dynamics in relation to memory formation and to dissect cell-specific roles in population activity, using a multi-scale approach from synapses to neurons to neuronal circuits. Our approach combines novel techniques including multiphoton imaging, optogenetics and electrophysiological multi-recordings in *ex vivo* and *in vivo* transgenic mouse models. Cellular and molecular approaches are also routinely used in the laboratory.

The position is to be filled at the end of 2016. Salaries are secured for 2 to 3 years and depend on experience of the candidate.

Desired skills and experience: The candidate should be highly motivated and should show independent skills and strong interest in neurophysiology and system neuroscience. Prior research experience with multiphoton microscopy and/or electrophysiology will be advantageous. Candidates must hold a PhD degree or equivalent in Neuroscience.

Research environment: The laboratory is part of the Grenoble Institute of Neuroscience (GIN), that provides all required facilities as well as a state-of-the-art imaging platform. The candidate will work in close supervision in a motivated team and stimulating scientific environment.

<https://neurosciences.ujf-grenoble.fr/>

Contact:

To apply, candidates should email a CV, a short statement of research interest and experience and two reference letters to:

Elodie FINO (elodie.fino@univ-grenoble-alpes.fr)

Related publications:

Fino E, Packer A and Yuste R (2013) The logic of inhibitory connectivity in the neocortex. *The Neuroscientist* 19(3) :228-37.

Paillé V. *, Fino E. *, Du K., Hellgren-Kotaleski J. and Venance L. (2013) GABAergic circuits control spike-timing dependent plasticity. *Journal of Neuroscience*, 33: 9353-9363.

Fino E and Yuste R (2011) Dense inhibitory connectivity in the neocortex. *Neuron*, 69: 1188-1203.

Nikolenko V, **Fino E** and Yuste R (2011) Two-photon mapping of neural circuits. *Cold Spring Harb Protoc*, pii: pdb.top111.

Fino E., Araya R., Peterka D.S., Salierno M., Etchenique R. and Yuste R. (2010) RuBi-Glutamate : Two-photon and visible-light photoactivation of neurons and dendritic spines. *Frontiers in Neural Circuits*, 3:2.

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