



Postdoctoral position in Molecular Neuroscience in Lyon, France.

A postdoctoral position is open in the laboratory of Jean-Louis Bessereau at the University of Lyon, France. It will focus on the impact of electrical activity on synaptogenesis and muscle homeostasis using *C. elegans* as a model organism. Funding is supported by an ERC-advanced grant for one year, renewable once.

Our laboratory is focusing on the identification of the cellular and molecular mechanisms involved in the organization and maintenance of the synapse with a specific focus on the control of neurotransmitter receptor expression and localization (http://www.inmg.fr/en/eq_bessereau.php). Our research strategy is based on the combination of genetics, imaging, electrophysiology and biochemistry in the nematode *Caenorhabditis elegans*. Over the last years, we identified an anterograde synaptic organizer, Ce-Punctin, which controls excitatory vs inhibitory identity of postsynaptic domains (*Nature*, 2014, 511:466-70; *Neuron*, 2015, 86:1407-19). In addition, we have accumulated evidence for the existence of retrograde signaling from muscle cells onto motoneurons that regulate axonal outgrowth and synaptogenesis

The postdoctoral project will investigate the mechanisms involved in activity-dependent crosstalk between neurons and muscle by using a combination of transcriptomics, genome engineering and *in vivo* imaging. The project relies on an integrative approach that will be conducted in close collaboration with electrophysiologists.

The candidate should be highly motivated, with a strong attitude towards independent work and must hold good interpersonal and communication skills. Applicants should have a strong background in molecular, cell biology and/or neuroscience. Previous experience of *C. elegans* manipulation and genetics will be appreciated but is not mandatory. Fluency in English and the ability to work in an international environment is mandatory. Ability to speak French is not required.

Our team is part of the Institut NeuroMyoGène, Lyon, France (<http://www.inmg.fr>), which provides access to state-of-the-art facilities and a strong scientific environment, including a large *C. elegans* lab community. The project is funded by a grant from the ERC (European Research Council). Salary will depend on previous experience according to national guidelines and will include health care and pension benefits. The initial appointment is one year, and can easily be renewed for one more year.

Applicants should send a C.V., a statement of research accomplishments and interests, and the contact information of three references to:

jean-louis.bessereau@univ-lyon1.fr.

Applications will be considered until the position is filled.