

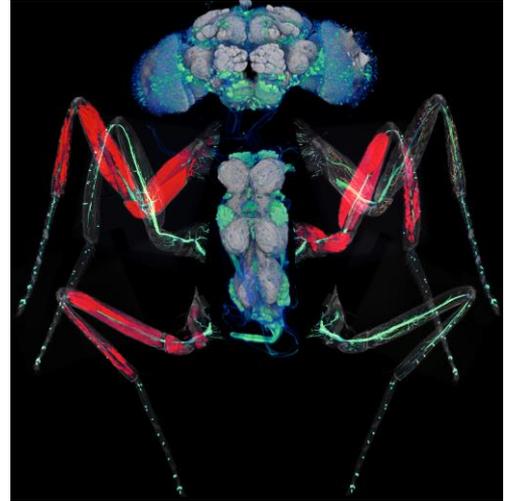


Institute of Functional Genomic of Lyon, France

Team: Development and function of the neuromuscular system
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Post-doc position available from March 2018

Our research: Locomotion is essential for survival as it allows animals to reproduce, find food, or escape predators. Many different modes of locomotion exist in the animal kingdom, such as flying, crawling, swimming or walking, however, among members of the same species, locomotion is very stereotyped and can be modelled in a very precise manner. This invariable pattern of locomotion can be associated with the unvarying morphology of the neuromuscular system. The goal of our team is to study the coordinated development of the three main components of the neuromuscular system -the motoneurons (MNs), muscles and glia- in order to understand how these cells acquire their intricate morphologies to build a functional locomotor system.



Our system: The adult *Drosophila* meets all criteria to achieve our goals with ease; in this model it is possible to study the logic of morphological specification in a small number of easily distinguished cells --~50 MNs per leg--~14 muscles per leg and ~280 neuropile glia per leg neuropile- using a vast array of powerful genetic tools, without abandoning an appendage-based locomotion scheme.

Our techniques: Research in our team uses advanced developments in microscopy, cell markers and post-imaging processing combined with new genetic tools and protocols that we have developed and improved to analyse the development of the locomotor system with high resolution as well as the consequences of modifications of the underlying genetic program on locomotion (see Neuron: [10.1016/j.neuron.2015.04.011](https://doi.org/10.1016/j.neuron.2015.04.011), Neuron: [10.1016/j.neuron.2018.01.007](https://doi.org/10.1016/j.neuron.2018.01.007)).

We aim to recruit a new post-doctoral fellow. Position (funded by Atip-avenir grant) will be open from March 2018 with a flexible starting date.

Please submit a CV, names of at least 2 referees, a statement of past achievements and future research interest to Jonathan Enriquez:
jonathan.enriquez@ens-lyon.fr

