



POST-DOC POSITION AVAILABLE: Regulation of neuronal RNA granules and function in long-term memory

A three-year post-doctoral position is available in the group of Florence Besse (<http://ibv.unice.fr/EN/equipe/besse.php>) at the Institute of Biology Valrose (iBV-UMR7277, Nice, France).

Project description

Long-term molecular and structural changes occurring at synapses in response to neuronal activation provide the mechanistic bases for the establishment and retention of memories, and are altered in both developmental and age-related memory disorders. Such changes rely on local experience-induced translation of quiescent mRNAs packaged together with regulatory proteins into neuronal RNA granules transported and stored at synapses. How RNA granules are remodeled in response to neuronal activity to relieve translation repression of mRNAs is unclear. Furthermore, the importance of such a remodeling in the establishment of long-term memories remains to be demonstrated *in vivo*.

The successful candidate will address these questions in *Drosophila*, by dissecting the cellular and molecular mechanisms underlying the remodeling of conserved neuronal RNP granules in response to activity. She/he will also participate in characterizing how such a remodeling impacts on the establishment of long-term memory traces assessed *via* learning and memory behavior assays (in collaboration with K. Keleman's lab).

Qualifications and Experience

Candidates should have a PhD in cell biology, molecular biology, genetics, or neurobiology. Experience with fly genetics, behavior assays and/or transcriptomics will be considered advantageous.

English is the working language in the lab and in the Institute.

Funding

The position is funded for 3 years, and the starting date is October 2018

Applications

Interested candidates are encouraged to send a CV, a description of research interests and accomplishments, and names and contact information of 2 referees to Florence Besse: besse@unice.fr.

Selected references:

- De Graeve F. and Besse F. (2018). *Biol.chem* doi: 10.1515/hsz-2018-0141
- Medioni C., Ephrussi A. and Besse F. (2015). *Nat. Protoc.* doi: 10.1038/nprot.2015.034.
- Marchetti G. et al., (2014). *J. Neurosci.* doi: 10.1523/JNEUROSCI.3285-13.2014.
- Medioni C. et al., (2014). *Cur Biol.* doi: 10.1016/j.cub.2014.02.038.