Postdoc in visual physiology and behavior

Study the neural circuitry of visually guided behavior in Drosophila using 2-photon calcium imaging, virtual reality and genetics

The Straw Lab (http://strawlab.org) is seeking an exceptional individual to study the neural circuitry of visual behavior in Drosophila. In recent years, we and others have made several technical advances that now enable us to address an important question: how the coordinated physiological activity of neurons orchestrates behavior of a freely moving animal in a naturalistic setting. These techniques include advanced virtual reality (e.g. Stowers et al. 2014), optogenetic and thermogenetic manipulation of neural activity during unrestrained visual behavior (e.g. Bath et al. 2014), optical physiology during visual behavior (e.g. Seelig et al. 2010), and quantitative modeling linking physiology to behavior (e.g. Fenk et al. 2014).

The project involves linking neural activity of genetically defined groups of visual interneurons neurons during visual behavior elicited under a microscope to the role of those neurons during unrestrained movement in naturalistic settings.

A PhD and substantial quantitative skills are required, with candidates from a wide variety of backgrounds (such as neuroscience, physics and engineering) encouraged to apply. Substantial resources, freedom and support will be provided. The initial appointment will be for two years.

The Straw Lab is a collaborative group with ongoing collaborations studying visual behavior in other organisms such as zebrafish, medaka fish and mice.

Applicants should send their CV and names of references to:

Andrew Straw
Research Institute of Molecular Pathology (I.M.P.)
Dr. Bohr-Gasse 7 A-1030 Vienna, Austria
e-mail: andrew.straw@imp.ac.at

References