

## New EU-funded neuroscience network launched!

[Date: 2012-02-13]



A new EU-funded network for training researchers on the cutting edge of neuroscience has just been launched. Funded entirely by more than EUR 3 million through a Marie Curie Training Network grant, the FLIACT ('Systems neuroscience of *Drosophila*: from genes to circuits to behaviour') network brings together early-stage researchers to carry out studies on the brain of the fruit fly.

The aim is to interconnect eight academic centres and three industry partners from Austria, Belgium, France, Germany, Portugal, Spain, Switzerland and the United Kingdom. These institutions making up the network all specialise in different complementary fields of neuroscience, including molecular genetics and bioengineering.

Understanding how our brains function still remains an enigma. The four-year project aims to go some way towards answering questions surrounding the subject; this complex task requires research into genes, biochemical pathways, circuits of neurons, and behavioural patterns.

In recent years, the tiny fruit fly *Drosophila melanogaster* has become the main model system for studying how we perceive and integrate information arising from our five senses. *Drosophila* has also emerged as a powerful model for studying the genetic bases of neurodegenerative diseases that affect humans. As *Drosophila* has a million times fewer neurons than humans, the study of its brain is expected to shed light on general principles underlying the functional organisation of neuronal circuits.

Through collaborative and tailored research projects, the FLIACT researchers will seek to uncover how neural circuits are genetically encoded, and how neuronal computation controls behaviour. Through exchanges and joint experiments, the young researchers will also be trained in the most innovative technologies through a series of interdisciplinary scientific workshops on neurogenetics, neuroanatomy, neuroimaging and behavioural analysis.

The three industry partners participating in the project are all small and medium-sized enterprises (SMEs): their participation illustrates how vital it is that researchers have the opportunity to engage with the private sector. The SMEs will train them in technology transfer, entrepreneurship, intellectual property management, business presentations, marketing and project management.

Project coordinator Dr Louis, from the Centre for Genomic Regulation in Barcelona, Spain,

describes FLIACT as 'an unprecedented opportunity for Drosophila systems neuroscience to gain momentum in Europe'.

He explains: 'This network will allow us to enhance our individual research potential through collaborations. We are really excited that Europe is giving us a chance to progress towards a fundamental understanding of how brains create internal representations of the world and how multisensory signals are integrated to make complex decisions. Given the nature of these questions, working with a "simple" organism amenable to genetics represents an extraordinary advantage. With only 100 000 neurons and sophisticated behaviours, the flies represent a perfect trade-off between simplicity and tractability.'

As part of FLIACT, cooperation will also be fostered with non-European research institutions such as the Janelia Farm Research Campus of the Howard Hughes Medical Institute, in the United States.

For more information, please visit:

FLIACT:

<http://www.fliact.eu/>

**Category:** Projects

**Data Source Provider:** FLiACT

**Document Reference:** Based on information from FLIACT

**Subject Index:** Coordination, Cooperation; Innovation, Technology Transfer; Life Sciences; Medicine, Health; Scientific Research

RCN: 34286