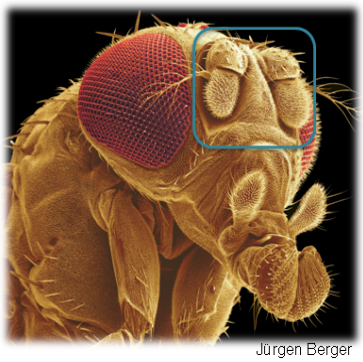
Press release.

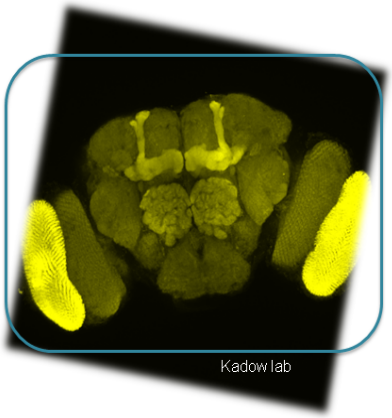
Studying the brain of a fly to understand complex nervous functions

• New European network to train early stage researchers in cutting edge areas of neuroscience

• The project will join efforts from eight academic centers and three industrial partners to promote research in systems neuroscience with the financial support of the European Commission

The *Marie Curie Training Network FLiACT (Systems neuroscience of Drosophila: from genes to circuits to behaviors)* will be launched this Thursday 9th of February in Barcelona. The principal investigators will gather in Hotel Casa Camper with the objective of interconnecting eight European research institutes and three industrial partners from different complementary fields of neuroscience (from molecular genetics to bioengineering). *FLiACT* aims to create a unique training network to explore new areas of research in neuroscience and to foster collaborations with research institutions outside Europe such as the *Janelia Farm Research Campus* of the *Howard Hughes Medical Institute*. This initiative is funded by the European Commission and coordinated by Dr. Matthieu Louis from the Centre for Genomic Regulation in Barcelona (Spain).





Understanding how the brain functions, is one of the most important questions that remains unanswered at the dawn of this new century. This question embraces mechanisms spanning multiple levels of description: from genes to biochemical pathways, to circuits of neurons, to behaviors.

During the last decades, the tiny fruit fly *Drosophila melanogaster* has turned into a premier model system to study how we perceive and integrate information arising from our five senses (vision, smell, etc.). *Drosophila* has also emerged as a powerful model to study the genetic bases of neurodegenerative diseases affecting humans. With a million times fewer neurons than humans, the study of the fly brain is expected to shed light on general principles underlying the functional organization of neuronal circuits.

The mission of the *FLiACT* project is to allow a group of 12 early stage researchers from all over the world to be trained in Europe in cutting-edge neuroscience. Through collaborative and personalized research projects, the *FLiACT* fellows will seek to elucidate how neural circuits are genetically encoded and how neuronal computation controls behavior. Each fellow will carry out a significant part of his/her research in collaboration with the partners of the network through exchanges and joint experiments. The fellows (and mentors!) will also be trained in the most innovative technologies through a series of interdisciplinary scientific workshops on neurogenetics, neuroanatomy, neuroimaging and behavioural analysis.

Three Small and Medium-sized Enterprises (SMEs) also participate in the project. All fellows will have the opportunity to interact with the private sector, and the SMEs will train them in technology transfer, entrepreneurship, intellectual property management, business presentations, marketing and project management. In collaboration with the *Janelia Farm*

Research Campus, fellows will have the opportunity to broaden their career perspectives at an international level while contributing to one of the most fascinating fields of modern science.

FLiACT intends to have a timely structuring effect in a strategic area for European research and technology: systems neuroscience. Dr Louis, leader of the Sensory Systems and Behaviour group at the *Centre for Genomic Regulation* and coordinator of the project, envisions *FLiACT* as "an unprecedented opportunity for Drosophila systems neuroscience to gain momentum in Europe. 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 behaviors, the flies represent a perfect tradeoff between simplicity and tractability."

Project Acronym: *FLiACT*
Funding scheme: Marie Curie Initial Training Network
Start Date: 1st January 2012
Duration: 4 years
EC Funding: ~€3 million
Website: http://www.fliact.eu
Kickoff meeting:, 9th of February 2012, Hotel Casa Camper, Barcelona, 11.00 GMT

***FLiACT* European partners:**

(Academic)

- Centre for Genomic Regulation, ES
- VIB, Leuven, BE
- Johannes Gutenberg Universität Mainz, DE
- University of Fribourg, CH
- Institute of Molecular Pathology, AT
- Max Planck Institute for Chemical Ecology, Jena, DE
- Max Planck Institute of Neurobiology, Martinsried, DE
- Institut de Biologie du Développement de Marseille-Luminy, FR
- Champalimaud Centre for the Unknown, PT

(SMEs)

- Brainwave-Discovery Ltd, UK
- Peira, BE
- Digital Cell Imaging Laboratories, BE

Notes for editors:
The *FLiACT Project, (Systems neuroscience of Drosophila: from genes to circuits to behaviours)* is an International Training Network funded by the European Commission under the 7th framework program, and coordinated by Matthieu Louis at the Center for Genomic Regulation in Barcelona.

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