

Understanding the mechanisms allowing brains to collect sensory input and control adaptive behaviour represents one of the most challenging endeavours in science. The goal of this symposium is to review progress towards an integrated understanding of the genetic, molecular, and neuronal basis of behaviour in the fruit fly, *Drosophila melanogaster*. We will examine how our knowledge about biological neural processes can influence (and be influenced by) the design of robotic neural systems. Our aim is to bring together researchers from the *Drosophila* and insect community with experts in computational neurobiology and robotics. We will promote discussion on how to quantitatively describe working hypotheses about brain functions and behavioural control, and how bio-inspired robots may be used to test the validity and limits of our current models.

Conference format:

- lectures by invited high level speakers
- short talks by young & early stage researchers
- poster sessions, round table and open discussion periods
- forward look panel discussion about future developments

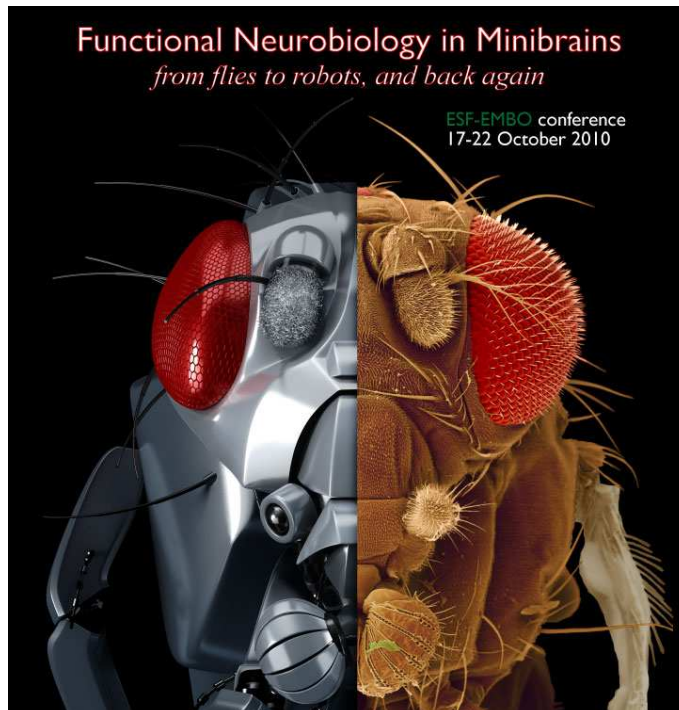
RESEARCH CONFERENCES

ESF-EMBO Symposium

Functional Neurobiology in Minibrains: From Flies to Robots and Back Again

Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava) • Spain
17-22 October 2010

With support from



Chair: Matthieu Louis – CRG-Centre for Genomic Regulation, ES

Co-Chairs: Richard Benton – University of Lausanne, CH

& Bertram Gerber – Wuerzburg University, DE

Invited Speakers will include

Alexander Borst – NEURO-MPG, DE

Michael Dickinson – Caltech, US

Barry Dickson – IMP, AT

Dario Floreano – EPFL, CH

Nicolas Franceschini – ISM Etienne-Jules Marey, FR

Steven Fry – Swiss Federal Institute of Technology (ETH), CH

Martin Goepfert – U. Cologne, DE

Bill Hansson – ICE-MPG, DE

Martin Heisenberg – U. Wuerzburg, DE

Mikko Juusola – U. Sheffield, UK

Holger Krapp – Imperial College London, UK

Gero Miesenböck – U. Oxford, UK

Gerry Rubin – HHMI-Janelia Farm Research Campus, US

Marla Sokolowski – U. Toronto Mississauga, CA

Roland Strauss – U. Johannes Gutenberg, DE

Barbara Webb – U. Edinburgh, UK

Application form & programme available from

www.esf.org/conferences/10324

Closing date for application 17 August 2010

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