



RESEARCH CONFERENCES

ESF Research Conference 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

Chair: **Matthieu Louis**, CRG-Centre for Genomic Regulation, EMBL-CRG Systems Biology Unit, ES Co-Chairs: **Richard Benton**, University of Lausanne, CH **Bertram Gerber**, Wuerzburg University, DE

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LIST OF ACCEPTED POSTERS

| | Surname | First Name | Poster Title |
|----|--------------------|-------------|--|
| 1 | Bartussek | Jan | A nonlinear dynamics approach on control of flapping flight in Drosophila |
| 2 | Behnia | Rudy | In Vivo Whole-Cell Patch-Clamp Recordings of Optic Lobe Neurons in Drosophila |
| 3 | Chen | Yi-Chun | A behavioural odour-similarity 'space' in larval Drosophila |
| 4 | Ejaz | Naveed | Blowfly brain-machine interface: Performance of a proportional controller in a closed-loop visual stabilization task |
| 5 | Expert | Fabien | Miniature bio-inspired optic flow sensors |
| 6 | Feng | Kai | Quantitative analysis of female responses to courtship song |
| 7 | Friederich | Uwe | Invariant contrast processing in Drosophila photoreceptors |
| 8 | Gomez-Marin | Alex | Deciding "when" and "where" to turn in Drosophila larval chemotaxis |
| 9 | Garcia Bermudez | Fernando L. | Flapping oscillations versus optical flow motion estimation |
| 10 | Grabe | Veit | In vivo visualization of inhibitory odor responses in the olfactory system of Drosophila melanogaster |
| 11 | Grunwald- Kadow | llona | Screening for novel neuronal circuits that underlie innate olfactory behavior |

| 12 | Guerrero González | Antonio | A biologically inspired neural network for autonomous robotic systems |
|----|----------------------|-------------|--|
| 13 | Gutierrez- Galvez | Agustín | Comparison of biological and artificial chemical sensing populations based on information theory |
| 14 | Inagaki | Hidehiko | Visualizing dopamine modulated circuits between different behavioral states in Drosophila melanogaster |
| 15 | lyengar | Balaji G. | Localization of function through random-genetic silencing of neurons in intact-behaving Drosophila larva |
| 16 | Jansen | Stefan | Artificial Gene Expression: A modeller's take on the nature-nurture debate |
| 17 | Joerchel | Sabrina | Fruitless isoforms regulate distinct aspects of neural circuit development and male courtship behavior |
| 18 | Larsen | Camilla | Function of a novel group of neurons associated with the Mushroom body |
| 19 | Li | Xiaofeng | Do quantal dynamics of graded synaptic signal transfer adapt to maximise the rate of information? |
| 20 | Longden | Kit D. | Multiple strategies for processing conflicting patterns of visual motion in the blowfly |
| 21 | Marter | Kathrin | The impact of reward magnitude on associative strength and memory formation |
| 22 | Mckiernan | Erin | Title: The contribution of MN calcium-dependent potassium currents to shaping the timing of rhythmic motor output underlying crawling in Drosophila larvae |
| 23 | Medici | Vasco | Reverse engineering speed control in Drosophila and robotic implementations |
| 24 | Miyazaki | Takaaki | Neural Structure of the Drosophila primary gustatory center revealed with GAL4 and LexA enhancer-trap systems |
| 25 | Nawrot | Martin Paul | Dynamic encoding of stimulus-reward association in the honeybee mushroom body |
| 26 | Neriec | Nathalie | The first neuronal steps in Drosophila color vision |
| 27 | Neuser | Kirsa | Stepping into the Neural Circuitry of the Central Complex |
| 28 | Nordstrom | Karin | Gain in small target motion detection |
| 29 | Pereanu | Wayne | Using a mesoscopic connectivity map of the adult Drosophila brain to investigate neural circuitry at multiple levels of resolution |
| 30 | Peterson | Kristopher | An implantable micro-recording probe for the blowfly brain |
| 31 | Plett | Johannes | Bio-Inspired Visual Ego-Motion Sensor for Unmanned Aerial Vehicles |
| 32 | Ramaekers | Ariane | Evolution of the eye in the genus Drosophila: a study of the molecular and cellular bases of morphological variation between and within species |
| 33 | Ramdya | Pavan | Quantifying collective olfactory behaviour |
| 34 | Schleyer | Michael | How outcome expectations organize learned behaviour in larval Drosophila |
| 35 | Seki | Yuuichi | Ultradian rhythm is revealed by disruption of circadian clock in Drosophila melanogaster |
| 36 | Shinomiya | Kazunori | Comprehensive map and nomenclature system of the brain of Drosophila |
| 37 | Spence | Andrew | Insects running on elastic surfaces: the role of feedforward control |
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| 38 | Strutz | Antonia | Representation of odors activating inhibitory Projection neurons in the lateral horn of Drosophila melanogaster |
|----|----------|--------------|---|
| 39 | Suver | Marie | Modulation of visual interneurons by octopamine in Drosophila melanogaster |
| 40 | Vogt | Nina | Behavioral analysis of color vision in Drosophila |
| 41 | Weir | Peter Thomas | Celestial navigation in Drosophila |
| 42 | Wicklein | Martina | Receptive field organization in lobula-plate tangential cells in male and female blowflies |
| 43 | Zabala | Francisco | Aerobatic control of free-flight maneuvers in Drosophila |