2th Arthropod Neuroscience Network Spring Meeting

Location: Moseltal-Jugendherberge; Klottener Straße 9; 56812 Cochem; phone: 02671/8633

Local Organizers: Hannah Jones, Thomas Riemensberger, Kei Ito
Program Organizers: Susanne Neupert, Andreas Thum, Uwe Homberg

Friday, March 22th

Time	min	Title	Speaker	
13:30	90	Reception & Welcome coffee		
15:00	10	Welcome Remark	**Kei Ito**	
		Session 1: Spatial behaviour and decision making	Chair:	
15:10	25	A circumplex model of affect in *Drosophila*	**Yi Wang**	Würzburg
15:35	25	Social distancing: Group behavior and the underlying neural circuits in *Drosophila melanogaster* larvae	**Akhila Mudunuri**	Konstanz
16:00	25	Optimized to represent orientation: A machine-learning approach to understanding how structure relates to function within the fly's central complex	**Dominik Mühl**	Marburg
16:25	25	Video-based tracking of bees outdoors	**Michael JM Harrap**	Bristol
		Session 2: Learning and memory	Chair:	
16:50	25	Mitochondrial function in dopaminergic neurons in synaptic plasticity in *Drosophila melanogaster*	**Michèle Fraatz**	Köln
17:15	25	Role of local Kenyon cell - Kenyon cell interactions in the γ lobe of *Drosophila melanogaste* r for specificity in olfactory learning	**Ibrahim A. Tunc1**	Köln
17:40		**Session ends**		
18:00	60	**Dinner**		
19:00	60	**Get together meeting**	**ALL participants**	
20:00	120	**Poster session (odd numbers) Beer &Wine**		
		Presentation of poster contributions and discussions		
22:00		**Socializing and networking with Bier & Wine**		

Saturday, March 23th

Time	min	Title	Speaker	
7:00		**Breakfast**		
		Session 3: Circadian rhythms, sleep and endocrine control	Chair:	
9:00	25	Reciprocal inhibition between locomotion- and sleep-promoting neurons facilitates falling asleep in *Drosophila melanogaster*	**Cédric B Brodersen**	Berlin
9:25	25	Multivariate classification of multichannel long-term electrophysiology data identifies different sleep stages in fruit flies	**Sridhar R. Jagannathan**	Cambridge/Berlin

9:50	25	Anatomical and functional characterization of clock input to the Eclosion hormone neurons in *Drosophila*	**Emad Amini**	Würzburg
10:15	25	Characterization of the ion transport peptide signaling system in *Drosophila*	**Jayati Gera**	Würzburg
10:40	20	**Coffee break**		
		Session 4: Sensory systems and neuronal architecture	Chair:	
11:00	25	Decoding modality-specific function and neuromodulation in the *Drosophila* nociceptive network	**Neena Dhiman**	Bonn
11:25	25	Anatomical and Cellular Organisation of the Olfactory System of *Locusta migratoria*	**Eleftherios Dimitriou**	Jena
11:50	25	Neuronal architecture of the posterior slope region in the *Drosophila melanogaster* brain	**Hannah Jones**	Köln
12:15	25	Circuit Variability Underlying *Drosophila* Individuality in Visual and non-Visual Behavior	**Muhammad Ali Haidar**	Berlin
12:40		**Session ends**		
12:45		**Group Picture**		
13:00		**Lunch**		
14:00		**Free Time**		
		Small meeting for future plans (13:30 - 14:30)	**Local organizers** (open for all contributers)	
18:00	60	**Dinner**		
19:00		**Poster session (even numbers) Beer &Wine**		
		Presentation of poster contributions and discussions		
21:00		**Party time (open end)**		

Sunday, March 24th

Time	min	Title	Speaker	
7:00		**Breakfast**		
		Session 5: Motor systems and navigation	Chair:	
9:00	25	Sensitivity to sky-compass signals in the brain of the cockroach *Rhyparobia maderae*	**Stefanie Jahn**	Marburg
9:25	25	Attraction in Order for Marching Locusts	**Sercan Sayin**	Konstanz
9:50	25	Neuroanatomy and function of fruit fly wing motoneurons	**Erica Ehrhardt**	Köln
10:15	20	**Break**		
		Session 6: Development and genetics	Chair:	
10:35	25	Spectraplakin Couples Microtubule Orientation to Actin During Dendritic Pruning in *Drosophila*	**M Davies**	Münster
11:00	25	Functional characterization of Ceramide Synthase Schlank in neuron-associated glia i*n Drosophila*	**Hannah Rindsfüßer**	Bonn
11:25	25	From intragenomic variance to invariable phenotypes – the fly twin project	**Ayse Kahraman**	Berlin
11:40		**Session ends**		
11:50	30	**Broad discussion for future meeting & Closing remark**	Chair: Kei Ito	
12:20		**Lunch and Félix Dujardin Awards**		

Posters

[1] Pupal development of the *Drosophila* nociceptive circuit
Samuel Matthew Frommeyer, Neeraja Sanal, Sebastian Rumpf

[2] A helicase linking RNA transport to neurite pruning
Ulrike Gigengack, Sandra Rode, Matthew Davies, Sebastian Rumpf

[3] Monitoring memory performance after artificial induction of memory in *Drosophila*
Sridhar R. Jagannathan, David Owald

[4] Trace conditioning in a computational circuit model of insect mushroom body
Alice Ballabio, Ibrahim Tunc, Moshe Parnas, Martin Paul Nawrot

[5] Are some bees smarter than others? Consistent individual differences in the cognitive abilities of honey bees.
Valerie Finke, Aurore Avarguès-Weber, Martin Giurfa, Ricarda Scheiner

[6] A (deep) reinforcement learning approach to visual navigation in insects: Learning salient, robust visual features from high level reward optimisation.
Stephan Lochner, Andrew Straw

[7] Octopaminergic signal input in reward mediating cells of the *Drosophila melanogaster* larva
Alexandra Großjohann, Andreas S. Thum

[8] Neuronal Architecture of the SLP (Superior Lateral Protocerebrum) Region in the Adult *Drosophila* Brain
Maryam Darbanfouladi, Jonas M. Klußmann, Kei Ito

[9] AUD medication acamprosate mediates neuronal oxidative stress
Magdalena Gompert, Henrike Scholz

[10] Linking Brain to Behavior in the Dung Beetle Sun Compass
Linnéa Jürgensen, Christian Kraus, Shahrzad Shaverdian, Basil el Jundi, and Marie Dacke

[11] Effect of a magnetic pulse on the gaze direction during learning walks in ants (*Cataglyphis nodus*)
Chiara Tenneriello, Robin Grob, Maximilian Fuchs, Wolfgang Rössler, Pauline N. Fleischmann

[12] High resolution tracking of individual *Drosophila* larval exploratory behavior
Marit Praetz, Christian Klämbt

[13] Ant Antenna: A potential candidate for detecting magnetic fields in desert ants
Johanna Wegmann, Robin Grob, Valentin L. Müller, Wolfgang Rössler, Pauline N. Fleischmann

[14] Functional and connectomic analysis of a sensory circuit bridging larval metabolic and brain
Damian D. Demarest, Andreas Schoofs, Anton Miroschnikow, Philipp Schlegel, Ingo Zinke, Casey M. Schneider-Mizell, Albert Cardona, Michael J. Pankratz.

[15] Effect of temperature on the wide-field motion-sensitive neurons of *Bombus terrestris*
Clarita Mendes, Bianca Jaske, Keram Pfeiffer

[16] tsCRISPR based identification of Rab proteins required for the recycling of *Drosophila* TRPL ion channel
Matthias Zeger, Lena Sarah Stanisławczyk and Armin Huber

[17] Pharyngeal Sense Organs of *Drosophila* larvae
Vincent Richter, Andreas S. Thum

[18] To wake up or not to wake up: state-dependent auditory filtering in *Drosophila*
Johannes Wibroe, Davide Raccuglia

[19] Sexual dimorphism of the blood-brain barrier affects macrophage invasion of the *Drosophila* brain
Dominik Funke, Bente Winkler, Simone Rey, Christian Klämbt

[20] Role of the Parkinson's disease-associated protein DJ-1 in protection against oxidative stress and glycation studied in vitro and in the *Drosophila* model
Gabrielle Poncet, Elodie Gonis, Tristan Herskovits, Julien Dairou, Serge Birman

[21] Modulation of glial signaling rescues behavioural and neurodegenerative symptoms in a *Drosophila* model of Parkinson's disease
Céline Costa, Amélie Hu, Baya Cherif-Zahar, Serge Birman

[22] Dithiocarbamates Pesticides Effects On DJ-1 (Park7) Characterization: Molecular and Cellular Consequences in Parkinson's Disease on *Drosophila melanogaster* Model
Elodie Gonis, Gabrielle Poncet, Tristan Herskovits, Nicolas Mathas, Julien Dairou, Serge Birman

[23] Inhibition by pesticides of the DJ-1/Park7 protein related to Parkinson's disease: a biochemical and *in vivo* study in *Drosophila*
Elodie Gonis, Gabrielle Poncet, Tristan Herskovits, Nicolas Mathas, Serge Birman, Julien Dairou

[24] Identification and characterization of brain interneurons enabling adaptive walking in *Drosophila*
Fathima Mukthar Iqbal, Jens Goldammer, Hannah Volk, Sophie Dejosez, Chris J. Dallmann, Hannah Soyka, Till Bockemühl, Sander Liessem, Ansgar Büschges, Kei Ito, Jan M. Ache

[25] State-dependence and multimodal integration in a brain interneuron controlling a walking sequence in *Drosophila*
Hannah Soyka, Moritz Haustein, Sirin Liebscher, Fathima Mukthar Iqbal, Jens Goldammer, Till Bockemühl, Sander Liessem, Kei Ito, Ansgar Büschges, Chris J. Dallmann, Jan M. Achea

[26] Inter-Life Stage Communication in *Drosophila* - How Adult Pheromones Affect Larval Behaviour
Hari P Narayanan, Katrin Vogt

[27] A optogenetic pipeline for *Drosophila melanogaster* curve walking - Role of Leg*Campaniform sensilla*
Ricardo Custódio, Axel Gorostiza, Till Bockemühl, Ansgar Büschges

[28] Sleep Deprivation Improves Behavioral Performance in Zebrafish Larvae
Paula Pflitsch, Nadine Oury, Kumaresh Krishnan, William Joo, Kristian Herrera, Declan Lyons, Armin Bahl, Jason Rihel, Florian Engert, Hanna Zwaka

[29] Specifications of arborisations and influences of the leg campaniform sensilla in the the fruit fly
Anna Pierzchlińska, Gesa F. Dinges, Erica Ehrhardt, Till Bockemühl, Kai Feng, Julija Semionova, Kei Ito, Ansgar Büschges

[30] Investigating the function of the PDE4D orthologue Dunce in olfactory learning and memory in the adult *Drosophila melanogaster*
Duran Emre Kanacı, Henrike Scholz

[31] Architecture and organization of ascending neurons from the nerve cord to the brain in the adult fruit fly
Massimo Thiel, Erica Ehrhardt, Kei Ito

[32] Anatomical Templates for Pupal Brain Development in *Drosophila melanogaster*
Sandor Kovacs, Anne Oepen, Jiajun Zhang, Oren Schuldiner, Thomas Riemensperger, Kei Ito

[33] Behavioral Consequences of dysfunctional trans-neuronal Dpr12/DIP-δ interaction in *Drosophila melanogaster*
Anne Oepen, Tom Schuh, Oren Schuldiner, Kei Ito, Thomas Riemensperger

[34] Identification, Organization, and Connectomics of Monoamine Neurons in the Adult *Drosophila* Brain
Jiajun Zhang, Thomas Riemensperger, Kei Ito