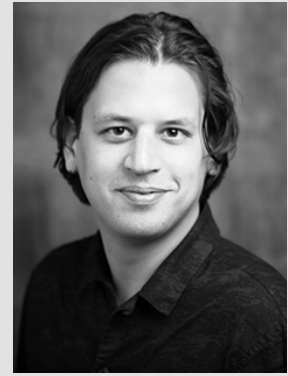


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Curriculum vitae

- Since 2016 Emmy Noether Independent Junior Research Group Leader, Behavioral and Physiological Neurogenetics, Institute of Neurophysiology, Charité, Berlin
- 2011 – 2016 Postdoctoral fellow, University of Oxford, UK
- 2010 – 2011 Postdoctoral fellow, Neuroscience Research Center (NWFZ), Charité, Berlin
- 2006 – 2010 PhD (Dr. rer. nat.) in Neurosciences, Georg-August-Universität Göttingen; Max Planck Institute for Biophysical Chemistry, Göttingen; Universität Würzburg, and Charité, Berlin
- 2005 – 2006 Master studies in Neurosciences, Georg-August-Universität Göttingen
- 2002 – 2005 Bachelor of Science in Molecular Biotechnology, Universität Heidelberg

Research fields

Our research focuses on understanding the neurophysiological underpinnings of behavior. We study the model organism *Drosophila melanogaster* and make use of both the intermediate complexity of its brain and the genetic access to identified single neurons in the behaving animal. We are primarily interested in:

- Structural and functional modification of identified synapses; synaptopathies; nicotinic cholinergic synapses
- Network activity patterns during memory consolidation and recall; behavior selection
- Dopaminergic signaling: reinforcement, reward and punishment, motivation; dopaminergic signals in addiction
- Network synchronization signalling sleep need

Activities in the scientific community, honors, awards

- Since 2019 Principal investigator, NeuroCure Cluster of Excellence, Berlin
- 2018 Instructor FENS Cajal course on advanced imaging, Bordeaux, FR
- Since 2017 Principal investigator, Einstein Center for Neurosciences, Berlin
- 2017 Schilling Research Award, German Neuroscience Society (NWG)
- 2013 Junior Research Fellow, Wolfson College Oxford, UK
- 2013 James Martin Fellow, Mind and Machine, Oxford Martin School, UK
- 2013 Otto Creutzfeldt PhD Award, Georg-August-Universität Göttingen
- 2012 Sir Henry Wellcome Postdoctoral Fellow, The Wellcome Trust, UK
- 2011 Long-Term Fellowships, European Molecular Biology Organization (EMBO)
- 2010, 2011 Teaching assistant/lecturer 'Neurobiology of Drosophila', Cold Spring Harbor, US
- 2005 Student scholarship, International Max Planck Research Schools (IMPRS)

Selected publications

- Raccuglia, D., S. Huang, A. Ender, M. M. Heim, D. Laber, R. Suarez-Grimalt, A. Liotta, S. J. Sigrist, J. R. P. Geiger, and D. Oswald. 2019. 'Network-Specific Synchronization of Electrical Slow-Wave Oscillations Regulates Sleep Drive in *Drosophila*', *Curr Biol*, 29: 3611-21 e3.
- Perisse, E., D. Oswald, O. Barnstedt, C. B. Talbot, W. Huetteroth, and S. Waddell. 2016. 'Aversive Learning and Appetitive Motivation Toggle Feed-Forward Inhibition in the *Drosophila* Mushroom Body', *Neuron*, 90: 1086-99.
- Barnstedt, O., D. Oswald, J. Felsenberg, R. Brain, J. P. Moszynski, C. B. Talbot, P. N. Perrat, and S. Waddell. 2016. 'Memory-Relevant Mushroom Body Output Synapses Are Cholinergic', *Neuron*, 89: 1237-47.
- Owald, D., and S. Waddell. 2015. 'Olfactory learning skews mushroom body output pathways to steer behavioral choice in *Drosophila*', *Curr Opin Neurobiol*, 35: 178-84.
- Owald, D., J. Felsenberg, C. B. Talbot, G. Das, E. Perisse, W. Huetteroth, and S. Waddell. 2015. 'Activity of defined mushroom body output neurons underlies learned olfactory behavior in *Drosophila*', *Neuron*, 86: 417-27.
- Lin, S., D. Oswald, V. Chandra, C. Talbot, W. Huetteroth, and S. Waddell. 2014. 'Neural correlates of water reward in thirsty *Drosophila*', *Nat Neurosci*, 17: 1536-42.
- Burke, C. J., W. Huetteroth, D. Oswald, E. Perisse, M. J. Krashes, G. Das, D. Gohl, M. Silies, S. Certel, and S. Waddell. 2012. 'Layered reward signalling through octopamine and dopamine in *Drosophila*', *Nature*, 492: 433-7.
- Owald, D., O. Khorramshahi, V. K. Gupta, D. Banovic, H. Depner, W. Fouquet, C. Wichmann, S. Mertel, S. Eimer, E. Reynolds, M. Holt, H. Aberle, and S. J. Sigrist. 2012. 'Cooperation of Syd-1 with Neurexin synchronizes pre- with postsynaptic assembly', *Nat Neurosci*, 15: 1219-26.
- Owald, D., W. Fouquet, M. Schmidt, C. Wichmann, S. Mertel, H. Depner, F. Christiansen, C. Zube, C. Quentin, J. Korner, H. Urlaub, K. Mechtler, and S. J. Sigrist. 2010. 'A Syd-1 homologue regulates pre- and postsynaptic maturation in *Drosophila*', *J Cell Biol*, 188: 565-79.
- Fouquet, W., D. Oswald, C. Wichmann, S. Mertel, H. Depner, M. Dyba, S. Hallermann, R. J. Kittel, S. Eimer, and S. J. Sigrist. 2009. 'Maturation of active zone assembly by *Drosophila* Bruchpilot', *J Cell Biol*, 186: 129-45.