

Dr. Wolfgang Kelsch

Work Address RG Developmental Biology of Psychiatric Disorders
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Date of Birth 23 July 1975



Scientific Vita

2011 - present DFG Emmy-Noether Research Group Leader, Dept. of Psychiatry, **Central Institute of Mental Health**, Heidelberg University

2008 - 2010 Postdoctoral fellow, Dept. of Clinical Neurobiology, **German Cancer Research Center** and **Heidelberg University**

2005 - 2008 Postdoctoral fellow, Dept. of Brain and Cognitive Science, **Massachusetts Institute of Technology**, Cambridge, MA, USA

Clinical Training

02 / 2016 Board Certification (Facharzt) in Psychiatry and Psychotherapy

2014 - 2015 Neurology Rotation, Dept. of Neurology, **University Hospital Mannheim**, Heidelberg University

2008 - 2011 Residency in Psychiatry and Psychotherapy, **Central Institute of Mental Health**, Heidelberg University

2004 - 2005 Residency in Psychiatry and Psychotherapy, **Max-Planck-Institute of Psychiatry**, Munich

Education

2004 **Dissertation** (Dr. med.) „summa cum laude“, Dept. of Physiology, Heidelberg University

1996 – 2003 Studies in **Medicine**, Medical Faculty Heidelberg of Heidelberg University, Paris 6, University College London

Awards and Honors

2008 – 2010 Fellowship of the Medical Faculty Heidelberg
2005 – 2008 Paul E. Newton Grant Fellowship
2004 – 2005 Fellowship Max Planck Society
1999 – 2003 Studienstiftung des Deutschen Volkes

Present Funding

Chica and Heinz Schaller Fellowship

DFG SFB1134 TP C04 "Modulation of Odor-entrained Ensembles by Phasic Dopamine"

DFG SPP1665 KE1661/2-1 "Computations of Rule Learning"

DFP Emmy-Noether-Program KE1661/1-3 "Wiring New Neurons in the Adult Brain"

Selected Key Publications

Original Research Articles

1. Oetli LL, Ravi R, Schneider M, Scheller M, Schneider P, Mitre M, Froemke RC, Chao MV, Young WS, Meyer-Lindenberg A, Grinevich V, Shusterman, **Kelsch W** (2016) Oxytocin enhances social recognition by modulating cortical control of early olfactory processing. **Neuron** 90:609-21.

Preview: Ron Stoop (2016) Sniffing and Oxytocin: Effects on Olfactory Memories. **Neuron** 90:431-3
2. Lehardt PS, v Hohenberg CC, Weber-Fahr W, **Kelsch W***, Sartorius A* (2016) Optogenetic fMRI in the mouse hippocampus: Hemodynamic response to brief glutamatergic stimuli. **J Cereb Blood Flow Metab** 36:629-38; * shared last authorship
3. Wieland S, Schindler S, Huber C, Köhr G, Oswald MJ, **Kelsch W** (2015) Phasic Dopamine Modifies Sensory-Driven Output of Striatal Neurons through Synaptic Plasticity. **J Neurosci** 35:9946-56.
4. Ravi N, Li Z, Oetli LL, Bartsch D, Schönig K, **Kelsch W** (2015) Postnatal subventricular zone progenitors switch their fate to generate neurons with distinct synaptic input patterns. **Development** 142:303-13.
5. Wieland S, Dan D, Oswald M, Parlato R, Köhr G, **Kelsch W** (2014) Phasic Dopaminergic activity exert fast control of cholinergic interneuron firing by sequential NMDA, D2 and D1 receptor activation. **J Neurosci** 34:11549-59.
6. **Kelsch W**, Li Z, Wieland S, Senkov O, Herb A, Goengrich C, Monyer H (2014) GluN2B-Containing NMDA Receptors Promote Glutamate Synapse Development in Hippocampal Interneurons. **J Neurosci** 34:16022-30.
7. **Kelsch W**, Lin CW, Mosley CP, Lois C (2009) A critical period for activity-dependent synaptic development during olfactory bulb adult neurogenesis. **J Neurosci** 29:11852-11858.
8. **Kelsch W**, Lin CW, Lois C (2008) Sequential development of synapses in dendritic domains during adult neurogenesis. **Proc Natl Acad Sci U S A** 105:16803-16808.
9. **Kelsch W**, Mosley CP, Lin CW, Lois C (2007) Distinct mammalian precursors are committed to generate neurons with defined dendritic projection patterns. **PLoS Biol** 5:1201-1212.

Selected Review

10. **Kelsch W**, Sim S, Lois C (2010) Watching Synaptogenesis in the Adult Brain. **Ann Rev Neurosci** 33:131-149.