

## Michael Brecht

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### Curriculum vitae

Since 2017	Spokesperson, Interdisciplinary Center for Computational Neuroscience, Berlin
Since 2016	Director, Institute of Biology, Humboldt-Universität zu Berlin
2008 – 2016	Coordinator, Bernstein Center for Computational Neuroscience Berlin (BCCN), Berlin
Since 2007	Member, board of directors, NeuroCure – Cluster of Excellence, Berlin
Since 2006	Full professor (W3), Animal Physiology/Systems Neurobiology and Computational Neuroscience, Humboldt-Universität zu Berlin
2004 – 2005	Assistant professor, Department of Neuroscience, Erasmus Medical College, Rotterdam, NL
2004	Venia legendi (Habilitation), Universität Tübingen
1999 – 2004	Research group leader, Max Planck Institute for Medical Research, Heidelberg
1998 – 1999	Postdoctoral fellow, Max Planck Institute for Brain Research, Frankfurt
1995 – 1998	PhD thesis, Max Planck Institute for Brain Research, Frankfurt
1994	Diploma thesis, Keck Center for Integrative Neuroscience, University of California, San Francisco, US; Universität Tübingen
1988 – 1994	Studies in Biochemistry and Biology, Universität Tübingen

### Research fields

Our group is active in the field of cellular and systems neuroscience with the following major areas:

- Active touch and object recognition
- Social touch
- Cortical organization
- Cellular basis of sensations and movement generation
- Hippocampal activity and navigation

### Activities in the scientific community, honors, awards

Since 2016	Member, board of directors, Einstein Center for Neurosciences Berlin
Since 2016	Jury member, Berliner Wissenschaftspreis
Since 2016	Member of the Faculty Council, Faculty for Life Sciences, Humboldt-Universität zu Berlin
Since 2014	Principal investigator, German Center for Neurodegenerative Diseases (DZNE), Berlin
Since 2012	Reviewing board member, European Research Council (ERC)
2012	Gottfried Wilhelm Leibniz Prize, German Research Foundation (DFG)
2008	Advanced Investigator Grant, European Research Council (ERC)
2008	Grant for major instrumentation ( <i>in vivo</i> two-photon microscope), German Research Foundation (DFG)
2004	Vidi Young Investigator Grant, The Netherlands Organisation for Scientific Research (NOW)
2004	Long-Term Fellowship, Human Frontier Science Program (HFSP)

## **Selected publications**

- Schmidt H, Gour A, Straehle J, Boergens KM, Brecht M, Helmstaedter M. Axonal synapse sorting in medial entorhinal cortex. *Nature* 2017; 549:469-475
- Ishiyama S, Brecht M. Neural correlates of ticklishness in the rat somatosensory cortex. *Science* 2016; 354:757-760
- Lenschow C, Brecht M. Barrel cortex membrane potential dynamics in social touch. *Neuron* 2015; 85:718-725
- Tang Q, Burgalossi A, Ebbesen CL, Ray S, Naumann R, Schmidt H, Spicher D, Brecht M. Pyramidal and stellate cell specificity of grid and border representations in layer 2 of medial entorhinal cortex. *Neuron* 2014; 84:1191-1197
- Ray S, Naumann R, Burgalossi A, Tang Q, Schmidt H, Brecht M. Grid-layout and theta-modulation of layer 2 pyramidal neurons in medial entorhinal cortex. *Science* 2014; 343:891-896
- Doron G, von Heimendahl M, Schlattmann P, Houweling AR, Brecht M. Spiking irregularity and frequency modulate the behavioral report of single-neuron stimulation. *Neuron* 2014; 81:653-663
- Burgalossi A, Herfst L, von Heimendahl M, Forste H, Haskic K, Schmidt M, Brecht M. Microcircuits of functionally identified neurons in the rat medial entorhinal cortex. *Neuron* 2011; 70:773-786
- Epsztein J, Brecht M, Lee AK. Intracellular determinants of hippocampal CA1 place and silent cell activity in a novel environment. *Neuron* 2011; 70:109-120
- Epsztein J, Lee AK, Chorev E, Brecht M. Impact of spikelets on hippocampal CA1 pyramidal cell activity during spatial exploration. *Science* 2010; 327:474-477
- Houweling AR, Brecht M. Behavioural report of single neuron stimulation in somatosensory cortex. *Nature* 2008; 451:65-68