Michael Brecht

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Curriculum vitae

since 2013	Member, Integrative Research Institute (IRI) for the Life Sciences at the HUB
since 2008	Coordinator, Bernstein Center for Computational Neuroscience Berlin
since 2007	Member, Board of Directors, NeuroCure Cluster of Excellence
since 2006	Professor (W3), Animal Physiology/ Systems Neurobiology and Computational Neuroscience, Humboldt-Universität zu Berlin (HUB)
2004 - 2005	Assistant Professor, Department of Neuroscience, Erasmus Medical College, Rotterdam, The Netherlands
2004	Habilitation, University of Tübingen
1999 - 2004	Head of a research group, Department of Prof. Dr. Sakmann, Max Planck Institute for Medical Research, Heidelberg
1998 - 1999	Postdoc, Laboratory of Prof. Dr. Singer, Max-Planck Institute for Brain Research, Frankfurt
1995 - 1998	PhD thesis: Temporal coding in the cat superior colliculus, Laboratory of Prof. Dr. Singer, Max Planck Institute for Brain Research, Frankfurt
1994	Diploma thesis: The vibrissal system of the rat, supervised by Prof. Dr. Merzenich, Keck Center for Integrative Neuroscience, University of California, San Francisco, and Prof. Dr. Preilowski, University of Tübingen
1988 -1994	Studies in Biochemistry & Biology, University of 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
- Cortical organization
- Cellular basis of sensations and movement generation
- Hippocampal activity and navigation

Activities in the scientific community, honors, awards

2012	Gottfried Wilhelm Leibniz Prize
2008	ERC Advanced Investigator Grant
2008	DFG Two-Photon Grant for an in vivo two-photon microscope
2004	NWO Vidi Grant: Young Investigator Grant Reverse Physiology of Cortical Action Potentials
2004	HFSP Grant

Selected publications

Lenschow C, Brecht M. Barrel cortex membrane potential dynamics in social touch. Neuron. 2015;85(4):718-25.

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(6):1191-7.

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 (New York, NY. 2014;343(6173):891-6.

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(3):653-63.

Epsztein J, Brecht M, Lee AK. Intracellular determinants of hippocampal CA1 place and silent cell activity in a novel environment. Neuron. 2011;70(1):109-20.

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(4):773-86.

Epsztein J, Lee AK, Chorev E, Brecht M. Impact of spikelets on hippocampal CA1 pyramidal cell activity during spatial exploration. Science (New York, NY. 2010;327(5964):474-7. 8. Houweling AR, Brecht M. Behavioural report of single neuron stimulation in somatosensory cortex. Nature. 2008;451(7174):65-8.

Lee AK, Manns ID, Sakmann B, Brecht M. Whole-cell recordings in freely moving rats. Neuron. 2006;51(4):399-407.

Feldman DE, Brecht M. Map plasticity in somatosensory cortex. Science (New York, NY. 2005;310(5749):810-5.