CHRISTIAN L. EBBESEN, PhD

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POSTDOCTORAL EXPERIENCE

2017- **Neuroscience Institute, New York University,** New York, USA
Oxytocin and hormonal control of neural circuits for social behavior
Advisor: Robert C. Froemke

2017-2017 **Institute of Biology, Humboldt Universität zu Berlin**, Berlin, Germany
Cortical network processing of rat social facial touch
Advisor: Michael Brecht

EDUCATION

2013-2017 **Ph.D. in Neurobiology** (Dr.rer.nat., summa cum laude)
Bernstein Center for Computational Neuroscience / Berlin School of Mind and Brain
Humboldt Universität zu Berlin, Berlin, Germany
Cortical circuits underlying social and spatial exploration in rats
Advisor: Michael Brecht

2008-2013 **M.Sc. in Physics, B.Sc. in Biophysics** (average grade: 11.4/12, M.Sc. and B.Sc. thesis: 12)
Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark

EXCHANGES AND SUMMER SCHOOLS

2015 **Okinawa Computational Neuroscience Course**, Okinawa Inst. of Science and Tech, Okinawa, Japan
2013 **BCF/NWG course Analysis and Models in Neurophysiology**, Bernstein Center, Freiburg, Germany
2010-2011 **Humboldt Universität zu Berlin**, ERASMUS Exchange (1 yr.), M.Sc. in Biophysics, Berlin, Germany
2010 **University of California, Santa Barbara**, B.Sc. thesis research and experiments (6 mo.), CA, USA

GRANTS AND HONORS (accepted)

2017 **Lundbeck Foundation Talent Prize** (100.000 DKK research prize for scientists under 30 yrs)
2017 **Novo Nordisk Foundation Postdoctoral Fellowship** (4 years full postdoctoral funding)
2017 **Humboldt Postdoctoral Scholarship** (6 months full postdoctoral funding)
2015 **Travel grant**, CSN II (Biomimetics and Neurotechnology)
2014 **Best Poster Award**, FENS Brain Prize Conference: Controlling Neurons, Circuits and Behavior
2010 **Travel grant**, Danish Acoustics Society
2008 **Honorable mention,** International Physics Olympiad, Isfahan University of Technology, Iran

INVITED TALKS (accepted)

2019 **BARRELS XXXII,** SfN satellite conference, Feinberg School of Medicine, Northwestern University, USA
2019 **New Frontiers in the Study of Animal Behaviour**, Association for the Study of Animal Behaviour, University of Konstanz, Germany
2018 ***SfN* Mini-Symposium** (chair and speaker), Society for Neuroscience Annual Meeting, San Diego, USA
2016 **BARRELS XXIX,** SfN satellite conference, Brain and Creativity Institute, University of Southern California, USA
2016 **Barrel Cortex Function**, "Multidisciplinary, international meeting on sensory (sub)cortical circuits", VU University, Amsterdam, The Netherlands
2016 **Young Brain Researchers Conference,** Gonda Multidisciplinary Brain Research Center, Bar-Ilan Univ., Israel
2015 **Dept. of Neuroscience and Pharmacology Journal Club** University of Copenhagen Cph, Denmark
2014 **Neural Circuits Controlling Sexual Behavior** (selected "poster blitz" talk), HHMI Janelia, USA
2014 **Barrel Cortex Function** "Developmental, cellular and circuit mechanisms of cortical sensory information processing", Max-Planck-Institute for Experimental Medicine in Göttingen, Germany
2013 **BARRELS XXVI** SfN satellite conference, University of California, San Diego San Diego, USA

CONFERENCES

Society for Neuroscience (2019, 2018, 2017, 2016, 2014, 2013), **FENS Brain Conference: Dynamics of the brain: temporal aspects of computation** (2019), **FENS Brain conference: Controlling Neurons, Circuits and Behaviour** (2014), **BARRELS** (2019, 2018, 2016, 2014, 2013), **NIH BRAIN initiative meeting** (2019), **Society for Social Neuroscience** (2017), **FENS Forum** (2018, 2016), **Barrel Cortex Function** (2016, 2014), **Nordic Neuroscience** (2019, 2017), **Sense to Synapse** (2018), **Young Brain Researchers Conference** (2016), **Cosyne workshops** (2019),

Bernstein Computational Neuroscience Conference (2016), **Janelia Conference: Neural Circuits Controlling Sexual Behavior** (2014), **Association for the Study of Animal Behaviour** (2019)

PUBLICATIONS

Journal articles

2019 **Ebbesen CL**, Bobrov E, Rao RP & Brecht M (2019) Highly structured, partner-sex– and subject-sex-dependent cortical responses during social facial touch. **Nature Communications** 10(1):4634. doi: 10.1038/s41467-019-12511-z. PMID: 31604919 (bioRxiv 545434. doi: 10.1101/545434).

2018 **Ebbesen CL**, Insanally MN, Kopec CD, Murakami M, Saiki A & Erlich JC (2018) More Than Just a "Motor": Recent Surprises From the Frontal Cortex. **Journal of Neuroscience** 38(44):9402-13. doi: 10.1523/JNEUROSCI.1671-18.2018. PMID: 30381432

↑ Invited review, based on a "mini-symposium" that I organized and chaired at SfN 2018 in San Diego.

2017 **Ebbesen CL** & Brecht M (2017) Motor cortex – to act or not to act? **Nature Reviews Neuroscience**. 18(11):694-705. doi: 10.1038/nrn.2017.119. PMID: 29042690

2017 **Ebbesen CL**, Doron G, Lenschow C & Brecht M (2017) Vibrissa motor cortex activity suppresses contralateral whisking behavior. **Nature Neuroscience**. 20(1):82-89. doi: 10.1038/nn.4437. PMID: 27798633

↑ Previewed by: Kim J & Hires A (2017) Brake and gas pedals in motor cortex. Nature Neuroscience. 20(1):4-6. doi: 10.1038/nn.4461. PMID: 28025981

2016 **Ebbesen CL**, Reifenstein ET, Tang Q, Burgalossi A, Ray S, Schreiber S, Kempter R & Brecht M (2016) Cell Type-Specific Differences in Spike Timing and Spike Shape in the Rat Parasubiculum and Superficial Medial Entorhinal Cortex. **Cell Reports**. 16(4):1005-1015. doi: 10.1016/j.celrep.2016.06.057. PMID: 27425616

2016 Tang[*] Q, Burgalossi[*] A, **Ebbesen[*] CL**, Sanguinetti-Scheck[*] JI, Schmidt H, Tukker JJ, Naumann R, Ray S, Preston-Ferrer P, Schmitz D & Brecht M (2016) Functional Architecture of the Rat Parasubiculum. **Journal of Neuroscience**. 36(7):2289-301. doi: 10.1523/JNEUROSCI.3749-15.2016. PMID: 26888938 **[*] Co-first author**

↑ "Featured Article", previewed by: Esch, T (2016) This Week in The Journal: Anatomy and Physiology of Parasubiculum. Journal of Neuroscience. 36(7):i-i.

2016 Reifenstein ET, **Ebbesen CL**, Tang Q, Brecht M, Schreiber S & Kempter R (2016) Cell-Type Specific Phase Precession in Layer II of the Medial Entorhinal Cortex. **Journal of Neuroscience**. 36(7):2283-8. doi: 10.1523/JNEUROSCI.2986-15.2016. PMID: 26888937

2015 Tang Q, **Ebbesen CL**, Sanguinetti-Scheck JI, Preston-Ferrer P, Gundlfinger A, Winterer J, Beed P, Ray S, Naumann R, Schmitz D, Brecht M & Burgalossi A (2015) Anatomical Organization and Spatiotemporal Firing Patterns of Layer 3 Neurons in the Rat Medial Entorhinal Cortex. **Journal of Neuroscience**. 35(36):12346-54. doi: 10.1523/JNEUROSCI.0696-15.2015. PMID: 26354904

2014 Tang[*] Q, Burgalossi[*] A, **Ebbesen[*] CL**, Ray S, Naumann R, Schmidt H, Spicher D & Brecht M (2014) Pyramidal and stellate cell specificity of grid and border representations in layer 2 of medial entorhinal cortex. **Neuron**. 84(6):1191-7. doi: 10.1016/j.neuron.2014.11.009. PMID: 25482025 **[*] Co-first author**

↑ Previewed by: Savelli F & Knierim JJ (2014) Strides toward a Structure-Function Understanding of Cortical Representations of Allocentric Space. Neuron. 84(6):1108-1109. doi: 10.1016/j.neuron.2014.12.013. PMID: 25521370

2012 **Ebbesen CL** & Bruus H. (2012) Analysis of laser-induced heating in optical neuronal guidance. **Journal of Neuroscience Methods.** 209(1):168-77. doi: 10.1016/j.jneumeth.2012.02.006. PMID: 22387314

2012 Adams[*] JD, **Ebbesen[*] CL**, Barnkob R, Yang AHJ, Soh HT & Bruus H (2012) High-throughput, temperature-controlled microchannel acoustophoresis device made with rapid prototyping. **Journal of Micromechanics and Microengineering**. 22(7): 075017 **[*] Co-first author**

Peer-reviewed conference proceedings

2010 **Ebbesen CL**, Adams JD, Barnkob R, Soh HT & Bruus H (2010) Temperature-controlled highthroughput (1 L/h) acoustophoretic particle separation in microchannels. **Proc 14th MicroTAS**, 3-7

Doctoral thesis

2018 **Ebbesen CL** (2018) Cortical circuits underlying social and spatial exploration in rats. **Humboldt-Universität zu Berlin, Lebenswissenschaftliche Fakultät**. doi: 10.18452/19231

Popular science and commentary

2019 **Ebbesen CL** (2019) Det er lige så biologisk korrekt at sige 'hen' som at sige 'rødhåret'. [The use of gender neutral pronouns does not conflict with biological science.] **Dagbladet Information** [Danish national newspaper], 21. October 2019, pp. 16-17

↑ Interview on national public radio: Hjerneforsker kritiserer Berlingskes chefredaktør for at "vrøvle", når hun siger, at der kun findes to køn. [Interview about the neuroscience of sex and gender.] **Radio24syv** [National Danish public–service radio station], kulturprogrammet AK24syv, 15. October 2019, 18:40–19:00.

TEACHING EXPERIENCE

2012-2017 **Teaching asst.,** course: **Acquisition and Analysis of Neural Data** (M.Sc. in Computational Neuroscience)**,** Bernstein Center for Computational Neuroscience, Berlin

2012-2017 **Teaching asst.,** course: **Animal physiology** (B.Sc. in Biology), Humboldt Universität zu Berlin

2009-2013 **Teaching asst./'Coach', International Physics Olympiad** in Mexico, Thailand, Estonia & Denmark

OTHER EXPERIENCE AND SERVICE

2019-2020 **NYU SPiNES Selection Committee** (Seminars by Postdocs in Neuroscience: Extramural Series)

2019-2020 **NYU Neuroscience Postdoc Mentorship Committee** (mentoring and development)

2018 **Chair, organizer and speaker**, Minisymposium, *SfN* Neuroscience Annual Meeting 2018, San Diego

2012 **FELASA B certification**, Federation of European Laboratory Animal Science Associations

Reviewing: Journal of Neuroscience Methods, Journal of Motor Behavior

Memberships: Society for Neuroscience (2013-), New York Academy of Sciences (2017-), Danish Society for Neuroscience (2019-), Association for the Study of Animal Behaviour (2019-)