

Sylvia Schröder

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Employment

2021- Sir Henry Dale Fellow (Group Leader), University of Sussex
2018-2020 Senior Research Fellow, University College London
2014-2018 Postdoctoral Fellow, University College London

Education

2009-2013 PhD in Biology, Institute of Neuroinformatics, ETH Zurich
Thesis supervisor: Prof Kevan Martin
2007-2009 MSc in Neural Systems and Computation, Institute of Neuroinformatics, University of Zurich
Thesis supervisor: Prof Kevan Martin
2003-2007 BSc in Cognitive Science, University of Osnabrück; Passed with distinction
Thesis supervisor: Prof Peter König
2003-2007 Intermediate diploma in Mathematics, University of Osnabrück

Publications

Schröder S, Steinmetz NA, Krumin M, Pachitariu M, Rizzi M, Lagnado L, Harris KD, Carandini M (2020) Arousal modulates retinal output. *Neuron*

Diamanti EM, Reddy CB, **Schroeder S**, Harris KD, Saleem AB, Carandini M (2019) Spatial encoding in the visual pathway arises in cortex and depends on active navigation. *bioRxiv*

Burgess CP, Lak A, Steinmetz NA, Zatka-Haas P, Reddy CB, Jacobs EAK, Linden JF, Paton JJ, Ranson A, **Schröder S**, Soares S, Wells MJ, Wool LE, Harris KD, Carandini M (2017) High-yield methods for accurate two-alternative visual psychophysics in head-fixed mice. *Cell Reports* 20: 2513-2524

Pachitariu M, Stringer C, **Schröder S**, Dipoppa M, Rossi LF, Carandini M, Harris KD (2016) Suite2p: beyond 10,000 neurons with standard two-photon microscopy. *bioRxiv*

Schröder S[†], Martin KAC (2016) Phase Locking of Multiple Single Neurons to the Local Field Potential in Cat V1. *J Neurosci* 36: 2494-2502

Schröder S, Carandini M (2014) A Cortical Rein on the Tectum's Gain. *Neuron* 84:6-8.

Schröder S[†], Martin KAC (2013) Functional Heterogeneity in Neighbouring Neurons of Cat Primary Visual Cortex in Response to Both Artificial and Natural Stimuli. *J Neurosci* 33:7325-7344.

Kollmorgen S*, Nortmann N*, **Schröder S***, König P (2010) Influence of low-level stimulus features, task dependent factors, and spatial biases on overt visual attention. *PLoS Comp Biol* 6:e1000791.

[†] Had the role of first author, order on publication was alphabetical

* These authors contributed equally

Scholarships and Funding

2021-2026 Sir Henry Dale Fellowship (£1,256,713)
2016-2019 BBSRC Response Mode grant, named Researcher Co-Investigator (£620,000)
2014-2016 Marie Curie Actions – Intra European Fellowship (€221,600)

- 2014-2016 Mobility-Fellowship of Swiss National Science Foundation (CHF72,000; declined due to MCA)
- 2008-2009 Scholarship of the German Academic Exchange Service for Master's program in CH (€7,400)
- 2006-2008 Scholarship of the Carl-von-Bach-Stiftung (€18,000)

Invited Talks

- 2020 2020 FASEB Retinal Neurobiology and Visual Processing, Colorado, USA
Processing and Modulation of Sensory Signals, The Royal College of Physicians, London, UK
- 2019 BrainLinks-BrainTools Annual Workshop 2019, University Freiburg, Germany
Centre for Neurosciences, Ludwig Maximilian University Munich, Germany
Centre for Integrative Neuroscience, University Tuebingen, Germany
Research Centre Juelich, Germany
- 2018 7th International Caesar Conference, Caesar Bonn, Germany
Symposium of Institute of Ophthalmology, University College London, UK; prize for best talk
University College London, United Kingdom
University of Sussex, United Kingdom
- 2013 7th INI-Hifo Symposium, ETH Zurich and University of Zurich, Switzerland
University College London, United Kingdom

Teaching and Supervision

- 2017-2019 **Teaching assistant** in four summer schools/courses:
2019 Cajal Course on Interacting with Neural Circuits, Champalimaud, PT
2019 Neuropixels course, University College London, UK
2018 Neuropixels course, University College London, UK
2017 Imaging Structure and Function in the Nervous System, Cold Spring Harbor, US
- 2014-2019 **Supervision** at University College London, UK
Zhewen (Vane) He, 2019, MSc project, orientation columns in superior colliculus
Julie Fabre, 2019, PhD rotation, interhemispheric interaction of collicular neurons
Charlie Dowell, 2018, PhD rotation, functional role of sup. colliculus in decision task
Matteo Alleman, 2017, MSc project, cell types in sup. colliculus
Matteo Alleman, 2016, BSc project, 2P imaging of sup. colliculus during decision task
Julija Baginskaite, 2014, MSc project, behavioural training of mice
Elina Jacobs, 2014, PhD rotation, optogenetic stimulation of dopamine neurons
- 2009-2013 **Supervision** at ETH Zurich, CH
Jonas Klein, 2013, MSc project, predict neural responses with generalised linear models
Peter O'Connor, 2010, MSc project, comparison of spike statistics between neurons
Oleksandr Ivanov, 2009, MSc project, comparison of receptive fields between neurons
- 2009-2012 **Teacher** of undergraduate block course on electrophysiology and data analysis, ETH Zurich, CH
- 2011 **Lecture** on Computational Principles of Primary Visual Cortex in course Computational Vision.
- 2010 **Teaching assistant**, ETH Zurich, CH
2010 Foundational Literature in Neuroscience (graduate)
2010 Neuroscience (undergraduate)
- 2004-2006 **Tutor**, University of Osnabrück, DE:
2006 Methods for Artificial Intelligence (undergraduate)
2005 Introduction to AI and Logic Programming (undergraduate)
2004 Logic I (undergraduate)