

Curriculum Vitae

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PERSONAL INFORMATION

Born September 8th 1980, Viña del Mar, Chile
Married, two daughters.
Nationalities: Austrian, German, & Chilean
Languages: English, Spanish, German & Portuguese.

EDUCATION

11/2009 Dr. rer. nat.
Max-Planck-Institute of Neurobiology & Ludwig-Maximilians University
Munich, Germany.
04/2005 Diplom in Biochemistry
Eberhards-Karls-Universität
Tübingen, Germany.
1999 Astronomy and Physics
Pontificia Universidad Católica, Santiago – Chile

EXTRACURRICULAR COURSES

2014 Mini MBA, Harvard Business School
2010 Machining course, Physics Department, Harvard University
2007 Advance Course in Computational Neuroscience, Gatsby and Bernstein Neuroscience
Course, Arcachon, France.

CURRENT POSITION

01/2017 Assistant Professor, IST Austria
06-11/2016 Research Associate. Harvard University, Cambridge MA, USA.
Laboratory of Prof. David Cox.

PREVIOUS POSITION

09/2010 Postdoctoral Fellow, Harvard University, Cambridge, MA, USA.
-05/2016 Laboratory of Prof. Markus Meister
Visual processing in the mouse retina, function and structure.
12/2009 Postdoctoral Fellow, Max Planck Institute of Neurobiology, Martinsried, Germany,
Department of Prof. Alexander Borst
Dissection of direction selective circuitries of the fly.
09/2005 Graduate Student, Max Planck Institute of Neurobiology, Martinsried, Germany,
- 11/2009 Department of Prof. Alexander Borst
Response properties, Synaptic Organization & Input Channels.
07/2005 Scientific and Mountaineering Assistant, CECS Institute – Chile
Geophysics and glaciology research project

FELLOWSHIPS, AWARDS AND HONORS

2016	Article Recommendation by F1000
2014	Best Poster Award, Retina FASEB Meeting
2011	Otto Hahn Medal, Max Planck Society
2011	Best Neuroscience Article, Neuroforum
2010	HFSP Long-term Fellowship
2009	Summa Cum Laude, PhD thesis
2005	Highest Overall Grade, Biochemistry degree

SUPERVISION OF STUDENTS

Since 2009	Supervision of 2 Master Students, Lab Technicians. Max Planck Institute of Neurobiology, Martinsried, Germany. Harvard University, Cambridge, MA.
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TEACHING AND OUTREACH ACTIVITIES

2012	Guest Lecturer, Harvard University, Cambridge, MA <i>The Physics of Sensory Systems in Biology</i>
2007	Founder and Chief Organizer Life Science PhD Symposium Interact - http://www.munich-interact.org/
2006	Speaker of the Max-Planck-Neurobiology Graduate Students
2005-2007	Course Assistant, Ludwig-Maximilians-University, Munich – Germany <i>Practical course on animal physiology</i>

PUBLICATIONS

1. **Joesch M** & Meister M. A Neuronal Circuit for Color Vision based on Rod-Cone Opponency. *Nature* (2016)
2. **Joesch M**, Mankus D, Yamagata M, Shahbazi A, Schalek R, Suissa-Peleg A, Meister M, Lichtman JW, Scheirer WJ, Sanes JR. Reconstruction of genetically identified neurons imaged by serial-section electron microscopy. *Elife* (2016)
3. Haikala V, **Joesch M**, Borst A, Mauss A. Optogenetic control of fly optomotor responses. *J. Neurosci.* (2013)
4. **Joesch M**, Weber F, Eichner H, Borst A . Functional specialization of parallel motion detection circuits in the fly. *J. Neurosci.* (2013)
5. Eichner H, Joesch M, Schnell B, Reiff DF, Borst A. Intrinsic Structure of the Flies motion detector. *Neuron* (2011)
6. **Joesch M**, Schnell B, Raghu SV, Reiff DF & Borst A. ON- and OFF-Pathways in *Drosophila* Motion Vision. *Nature* (2010)
7. Schnell B, **Joesch M**, Foerstner F, Raghu SV, Ito K, Borst A & Reiff DF. Processing of horizontal optic flow in three visual interneurons of the *Drosophila* brain. *J. Neurophys.* (2010)
8. Raghu SV, **Joesch M**, Siegrist S, Borst A, Reiff DF. Synaptic Organization of Lobula Plate Tangential Cells in *Drosophila*: Dalpha7 Cholinergic Receptors. *J. Neurogenetics* (2009)
9. **Joesch M**, Plett J, Borst A, Reiff DF. Response properties of motion-sensitive visual interneurons in the lobula plate of *Drosophila melanogaster*. *Curr. Biol.* (2008)
10. Raghu SV, **Joesch M**, Borst A, Reiff DF. Synaptic organization of lobula plate tangential cells in *Drosophila*: gamma-aminobutyric acid receptors and chemical release sites. *J. Comp. Neurol.* (2007)
11. Reiff DF, Ihring A, Guerrero G, Isacoff EY, **Joesch M**, Nakai J, Borst A. In vivo performance of genetically encoded indicators of neural activity in flies. *J. Neurosci.* (2005)

INVITED TALKS

2016	Institute of Science and Technology, Austria, Klosterneuburg <i>How mice see color.</i>
2015	Norwegian University of Science and Technology, Trondheim, Norway <i>How mice see color.</i>

- 2015 Brandeis University, Waltham, MA
How mice see color.
- 2015 European Retina Meeting, Brighton, UK
Assisted reconstruction technique for electron microscopic interrogation of structure (ARTEMIS).
- 2014 Harvard Medical School, Boston, MA
A selective color-opponent pathway in the mouse retina.
- 2014 Harvard University, Cambridge, MA
Targeted Connectomics for Circuit Dissection.
- 2014 Harvard University, Cambridge, MA
A Selective Color-Vision Pathway in Mice.
- 2011 Vision in Flies Conference, Janelia Research Campus, Ashburn, VA
ON- and OFF-pathways in Drosophila motion vision.
- 2010 Harvard University, Cambridge, MA
Dissecting Motion Vision in Drosophila.
- 2008 Universidad Playa Ancha, Valparaiso – Chile
Zooming into the motion processing circuitry of Drosophila melanogaster.

HOBBIES

Climbing, Woodwork, Tae kwon do.