

Curriculum Vitae

Name Lena van Giesen
E-mail lvangiesen@brandeis.edu
Date of birth January 15th 1987
Nationality German
OrcID 0000-0001-6370-744X

Education

January 2012- may 2016 University of Fribourg (Switzerland); PhD student in Neurobiology / Neurogenetics; Supervisor Prof. Simon G. Sprecher
PhD Thesis: “Genetic and functional studies on the gustatory system of *Drosophila* larvae”
2006 - 2011 Diploma in Biology; Christian-Albrechts-University Kiel (Germany)
Diploma-thesis: ‘Regulation of adventitious root growth in rice and *Arabidopsis*’ Supervisor: Prof. Margaret Sauter
1996 - 2006 High school
Friedrich von Bodelschwingh Gymnasium Bielefeld (Germany)

Appointments

June 2016 – July 2018 Post Doc, Brandeis University (Waltham, MA, USA), Prof. Paul Garrity's Lab, Molecular Basis of temperature sensing in *Drosophila melanogaster* and *Anopheles Gambiae*
July 2018- current Postdoctoral Fellow, Harvard MCB, Dr. Nicholas Bellono, Evolution of sensory systems

Oral contributions to conferences

Swiss *Drosophila* Meeting 2015 (Lausanne): Coding of gustatory stimuli by multimodal sensory neurons of *Drosophila* larvae

13th ESITO (Villasimius) **2013**; Talk: Peripheral coding of gustatory cues in the *Drosophila* larvae.

Honours and awards

- Scholarship Neuroscience Summer school Woods Hole (2016)
- Early Post Doc Mobility Grant SNF (Swiss National Science Foundation)
- FENS Travel Grant 2018

- Postdoc.mobility Grant SNF (Swiss National Science Foundation)

Supervision of junior researchers

- Yvonne Buntschu, Master thesis, Gustatory response in the dorsal organ of *Drosophila* larvae (2013-2014)
- Maëlle Bochud, Bachelor thesis, Physiology and Behavior of CO₂ sensing in the *Drosophila* larvae (Spring 2014)
- Tatevik Sarkissian, Rotation Student, The role of IR21a and IR60a in Gravitaxis and Proprioception (Spring 2017)
- Alena Lokhmanenko; Summer student REU programm, Courtship-behavior in IR-mutant flies (Summer 2017)
- Tyler Hill, Rotation Student, Gravitaxis-behavior in IR-mutant flies (Fall 2017)
- Jenna Harris, Rotation Student, Electrophysiology- screen for IR21a-Cofactors in *Drosophila* Cold Cells (Winter 2017)
- Mason Towne, Rotation student (Spring 2018)

Teaching activities

- Teaching assistant in Plant Physiology (2010-2011), Prof Margaret Sauter (University of Kiel)
- Teaching assistant Microscopy course (December 2014, December 2015) Dr. Boris Egger (University of Fribourg)
- Teaching assistant Proseminar (introductory class for 1st year grad school students), Fall 2017 with Prof Garrity (Brandeis University)

Publications:

Post Doc

van Giesen, L; Garrity, PA. More than meets the IR: the expanding roles of variant Ionotropic Glutamate Receptors in sensing odor, taste, temperature and moisture. **F1000Res.** 2017 Sep 26;6:1753. <https://www.ncbi.nlm.nih.gov/pubmed/17735065>

Budelli, G; Ni, L; Berciu, C; **van Giesen, L;** Knecht, Z; Chang, E; Kaminski, B; Silbering, AF; Benton, R; Samuel, A; Klein, M; Nicastro, D and Garrity PA. Ionotropic Receptors control the morphogenesis of phasic thermosensors mediating warm and cool avoidance in *Drosophila*. Submitted

PhD:

van Giesen, L; Neagu-Maier, GL; Kwon, JY; Sprecher SG. A microfluidics-based method for measuring neuronal activity in *Drosophila* chemosensory neurons. *Nature Protocols* 2016 Dec;11(12):2389-2400. doi: 10.1038/nprot.2016.144

Choi, J; **van Giesen, L**; Choi, MS; Kang, K; Sprecher, SG; Kwon JY. A Pair of Pharyngeal Gustatory Receptor Neurons Regulates Caffeine-Dependent Ingestion in *Drosophila* Larvae. *Front Cell Neurosci.* 2016 Jul 19;10:181. doi: 10.3389/fncel.2016.00181

van Giesen, L; Hernandez-Nunez, L; Delasoie-Baranek, S; Colombo, M; Renaud, F; Bruggmann, R; Benton, R; Samuel, AV and Sprecher, SG. Multimodal stimulus coding by a gustatory sensory neuron in *Drosophila* larvae. *Nature Communications* 2016 Feb 7:10687. doi: 10.1038/ncomms10687

Sprecher, SG; Bernardo-Garcia, FJ; **van Giesen, L**; Hartenstein, V; Reichert, H; Neves, R; Martinez, P; Brauchle. Functional brain regeneration in the acoel worm *Symsagittifera roscoffensis*. **Biol. Open** 2015 Nov 18; 4(12): 1688-95 doi: 10.1242/bio.014266

Pauls, D; von Essen, AL; Lyutova, R; **van Giesen, L**; Rosner, R; Wegener, C; and Sprecher, SG. Potency of transgenic effectors for neurogenetic manipulation in *Drosophila* larvae. *Genetics.* 2015 Jan; 199(1): 25-37 doi: 10.1534/genetics.114.172023

Egger, B; **van Giesen, L**; Moraru, M and Sprecher, SG. In vitro imaging of primary neural cell culture from *Drosophila*. *Nature Protocols* 2013 May;8(5):958-65. doi: 10.1038/nprot.2013.052

Personal skills

- Languages: German (Mother tongue), English (fluent), French (basics)