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Positions and Education

- Since August 2015 Assistant Professor, Institute of Science and Technology Austria,
Life Sciences, Klosterneuburg, Austria
Neuroimmunology in health and disease
- 07/2011 – 07/2015 Postdoctoral associate, Massachusetts Institute of Technology, The
Picower Institute for Learning and Memory, Cambridge, MA, USA
(Mentor: Li-Huei Tsai, Ph.D.)
Epigenetic mechanisms underlying pathogenesis of schizophrenia
- 10/2010 – 06/2011 Postdoctoral fellow, Friedrich Miescher Institute for Biomedical
Research, Division of Neuroscience, Neural Circuits Laboratories
Basel, Switzerland (Mentor: Botond Roska, MD, Ph.D.)
*Transcriptional barcoding of retinal cells to identify disease target
genes*
- 10/2010 PhD in Neurobiology (University of Basel, Basel, Switzerland)
Thesis: “The molecular logic of retinal cell types”
- 05/2005 – 10/2010 Graduate student, Friedrich Miescher Institute for Biomedical
Research, Division of Neuroscience, Neural Circuits Laboratories
Basel, Switzerland (Mentor: Botond Roska, MD, Ph.D.)
Genetic address book for retinal cell types
- 05/2005 *Diplom*, Johann Wolfgang Goethe-University, Frankfurt/Main,
Germany
*Thesis: “Induction of an immune-response against HIV by
MLV/HIV pseudo-typed particles”*
Work performed at Laboratory of PD Dr. Barbara Schnierle,
Georg-Speyer-Haus, Frankfurt/Main, Germany and Paul-Ehrlich
Institute, Federal Agency for Sera and Vaccines, Langen, Germany

Selected Honors and Awards

- 2017 Liese Prokop-Frauenpreis for science and technology
- 2016 European Research Council (ERC) Starting Grant
(ERC-2016-StG - 715571_MICROGLIA-CIRCUIT)

2014	DAAD (German Academic Exchange Service) travel support
2014	Young Investigator travel award (Molecular Psychiatry Meeting)
2013	SWISS OphthAWARD in the category “Best experimental work”
2012	Human Frontier Science Program (HFSP) long-term fellowship
2011	Molecular Biology Organization (EMBO), long-term fellowship
2011	Swiss National Science Foundation (SNSF), Fellowship for prospective researchers

Publications

Tsai L-H, **Siegert S**,
“How microRNAs are involved in “splitting the mind”,
JAMA Psychiatry, 2016; 73(4): 409-10, doi: 10.1001/jamapsychiatry.2015.3144

Mungenast AE^{*}, **Siegert S**^{*§}, Tsai L-H,
“Modeling Alzheimer’s disease with human induced pluripotent stem (iPS) cells”,
Molecular and cellular neuroscience 2015; 73:13-31, doi: 10.1016/j.mcn.2015.11.010
^{*} contributed equally, [§] corresponding author

Siegert S, Seo J, Kwon EJ, Rudenko A, Cho S, Wang W, Flood Z, Martorell AJ, Ericsson M,
Mungenast AE, Tsai L-H,
“The schizophrenia risk gene miR-137 alters presynaptic plasticity”,
Nature Neuroscience 2015; 18(7): 1008-16, doi: 10.1038/nn.4023

Comment in:

- “Synaptic plasticity: Micro-level disruption” by Yates D. [Nat. Rev. Neurosci. 2015]
- “MIR137: big impacts from small changes” by Han J, Sarkar A, Gage FH [Nat. Neurosci. 2015]
- Schizophrenia Research Forum (www.schizophreniaforum.org/new/detail.asp?id=2182)

Rei D, Mason X, Gräff J, Seo J, Rudenko A, Wang J, Rueda R, **Siegert S**, Cho S, Canter RG,
Mungenast A, Deisseroth K, Tsai L-H,
“The BLA bidirectionally modulates stress-induced hippocampal learning and memory
deficits through a p25/Cdk5-dependent pathway”,
Proc Natl Acad Sci USA 2015; 112(23): 7291-6, doi: 10.1073/pnas.1415845112

Siegert S, Cabuy E, Gross Scherf B, Kohler H, Panda S, Le, Y-Z, Fehling HJ, Gaidatzis D,
Stadler M, Roska B,
“Transcription factor code and disease map for retinal cell types”,
Nature Neuroscience 2012; 15(3): 487-95, doi: 10.1038/nn.3032

Awarded the SWISS OphthAWARD in the category “Best experimental work”

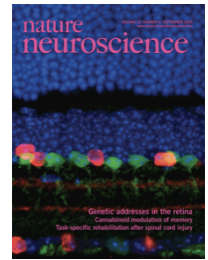
Busskamp V, Duebel J, Balya D, Fradot M, Viney TJ, **Siegert S**, Groner AC, Cabuy E,
Forster V, Seeliger M, Biel M, Humphries P, Paques M, Mohand-Said S, Trono D, Deisseroth
K, Sahel JA, Picaud S, Roska B,
“Genetic reactivation of cone photoreceptors restores complex visual responses in *Retinitis
pigmentosa*”,
Science 2010; 329(5990): 413-7

Comment in:

- “Sensory systems: Back into the light” by Bodo C [Nat. Rev. Neurosci. 2010]
- “Neuroscience. Seeing the light of day” by Cepko C [Science 2010]

Siegert S, Gross Scherf B, Del Punta K, Didkovsky N, Heintz N, Roska B,
 “Genetic address book for retinal cell types”,
Nature Neuroscience 2009; 12(9): 1197-204, doi: 10.1038/nn.2370

Featured on the **Nature Neuroscience cover** (September 2009, Vol 12, No 9)



Münch TA, da Silveira RA, **Siegert S**, Viney TJ, Awatramani GB, Roska B,
 “Approach sensitivity in the retina processed by a multifunctional neuronal circuit”,
Nature Neuroscience 2009 Oct;12(10):1308-16. doi: 10.1038/nn.2389

Comment in:

- “A night vision neuron gets a day job” by Oesch N, Diamond J [Nat. Neurosci. 2009]

Viney TJ, Balint K, Hillier D, **Siegert S**, Boldogkoi Z, Enquist LW, Meister M, Cepko CL
 Roska B,
 “Local retinal circuits of melanopsin-containing ganglion cells identified by transsynaptic
 viral tracing”,
Current Biology 2007 Jun 5; 17(11): 981-8

Siegert S, Schnierle P, Schnierle BS,
 “Novel anti-viral therapy: Drugs that blocks HIV entry at different target sites”,
Mini Reviews in Medicinal Chemistry 2006 May; 6(5): 557-62. Review

Siegert S, Thaler S, Wagner R, Schnierle BS,
 “Assessment of HIV-1 entry inhibitors by MLV/HIV-1 pseudotyped vectors“,
AIDS Research and Therapy 2005 Sep 12, 2:7

Patent

“Rod cell-specific promoter”, WO 2013068413 A1, filed November 7, 2012, and issued May
 16, 2013, Roska B, Jüttner J, **Siegert S**

Memberships

2017 - present International Society for Stem Cell Research (ISSCR)
 2016 - present Austrian Neuroscience Association (ANA)
 2015 - present European Molecular and Cellular Cognition Society (EMCCS)
 2006 - present The Association for Research in Vision and Ophthalmology (ARVO)
 (Interruption: 2010- 2015)
 2011 – 2015 Broad Institute, Cambridge, MA, USA

Invited presentations

2017 University Ulm, Germany
 2016 World Congress of Psychiatric Genetics, Jerusalem, Israel
 2016 VBC recess meeting: “Microglia and the nervous system”, Hernstein, Austria
 2015 ENI-MIT Symposium: “Synaptic basis of neuron network dysfunction in
 brain disorders”, Göttingen, Germany (2015)
 2015 Simon Center for the Social Brain lunch series, MIT, Cambridge/MA, USA
 2015 Italian Institute of Technology (IIT), Genova, Italy
 2015 Institute of Science and Technology (IST), Klosterneuburg, Austria
 2014 Molecular Psychiatry Meeting, San Francisco/ CA, USA
 2014 Center for Regenerative Therapies TU Dresden (CRTD), Dresden, Germany

2014	Augenlinik University Bonn, Germany
2014	caesar (center of advanced European studies and research), Bonn, Germany
2013	The Picower Institute for Learning and Memory, Plastic Lunch Series, MIT, Cambridge/MA, USA
2013	Harvard University, Department of Molecular and Cellular Biology, Cambridge/MA, USA
2011	Society for Neuroscience (SfN), Washington D.C., USA
2011	European Retina Meeting, Amsterdam, The Netherlands

Teaching

- Advanced Course
“Advanced Techniques in Life Sciences: Manipulation of Gene Expression level”
IST Austria, Fall 2017/18, 3 ECTS
- Field-specific track core course
“Neuroscience”
IST Austria, Spring 2017, 6 ECTS
- Successfully participated at the “Kaufman Teaching Certificate Program (KTCP)”
MIT, 2015

Languages

German (native language)
English