

Julie Seibt

NeuroCure Cluster of Excellence
Charité Universitätsmedizin
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EDUCATION

- 2001-2005 **PhD in Neurobiology**, Claude Bernard University - Lyon (France)
“Role of the transcription factor Neurogenin2 in the development of thalamo-cortical axons”
Advisors: Drs. Franck POLLEUX and Colette DEHAY
- 2001 **M.S. in Neuroscience**, Claude Bernard University - Lyon (France)
- 2000 **B.S. in Cognitive Science**, Provence University - Marseille (France)

RESEARCH EXPERIENCES

- 2010-present **Post-doctoral fellow**, University of Bern/ Charité Universitätsmedizin Berlin
“Imaging dendritic activity across the sleep-wake cycle”
Advisor: Prof. Matthew E. LARKUM
- 2006-2010 **Post-doctoral fellow**, University of Pennsylvania, USA
“Role of translation regulation during sleep-dependent cortical plasticity”
Advisor: Dr. Marcos G. FRANK
- 2005-2006 **Post-doctoral fellow**, University of Brussels, Belgium
“Role of imprinted genes during corticogenesis”
Advisor: Dr. Pierre VANDERHAEGHEN

AWARDS and FELLOWSHIPS

- 2014 Best Poster Award, Dendrite 2014 - 4th NAMASEN Training workshop, Heraklion (Crete)
- 2014 Excellence Travel Award - Sleep Regulation & Function Gordon Conference, Galveston (USA)
- 2012 SfN Postdoctoral Fellow Travel Award - Neuroscience (SfN) 2012, New Orleans (USA)
- 2012-2016 Marie Curie International Reintegration Grants (IRG)
- 2011 WFSRSMS Travel Award - Worldsleep 2011, Kyoto (Japan)
- 2009 Best Basic Research poster Award – 6th Sleep and Respiratory Neurobiology (CSRN) Research Retreat, University of Pennsylvania (USA)
- 2008-2010 Pickwick postdoctoral fellowship from the National Sleep Foundation (NSF)
- 2007 Best Translational/Clinical Research presentation Award – 4th Sleep and Respiratory neurobiology (CSRN) Research Retreat, University of Pennsylvania (USA).
- 2007 WFSRSMS Trainee Merit Award - Worldsleep 2007, Cairns (Australia)
- 2005-2006 Short-Term Fellowship from European Molecular Biology Organization (EMBO)
- 2004-2005 End of PhD Grant, French Medical Research Foundation (FRM)
- 2002-2003 Marie Curie Training Site Fellowship (EURON)
- 2001-2004 Graduate Award from the French Ministry of Research and Technology

PUBLICATIONS**Journal articles**

[In preparation]

Seibt J., Richard C.J., Sigl-Glöckner J., Takahashi N., de Limoges D., Bocklisch C., Larkum M.E. (in preparation) *Synchronization of cortical dendritic activity during sleep spindles in rodents*

[Published]

1. Dumoulin Bridi M.C. , Aton S.J. , Seibt J., Renouard L., Coleman T., Frank M.G. (2015) *Rapid eye movement sleep promotes cortical plasticity in the developing cat*, **Sci. Adv.** 1(e1500105)
 2. Aton S.J., Broussard C., Dumoulin M.C., Seibt J., Watson A., Coleman T., Frank M.G. (2013) *Visual experience and subsequent sleep induce sequential plastic changes in putative inhibitory and excitatory cortical neurons*, **PNAS** 110(8):3101-6
 3. Seibt J., Armant O., Le Digarcher A., Castro D., Ramesh V., Journot L., Guillemot F., Vanderhaeghen P., Bouschet T. (2012) *Expression at the imprinted Dlk1-Gtl2 locus is regulated by proneural genes in the developing telencephalon*, **PLoS ONE** 7(11)
 4. Seibt J., Dumoulin M.C., Aton S.J., Coleman T., Watson A., Frank M.G.(2012) *Protein synthesis consolidates sleep-dependent cortical plasticity in vivo*, **Current Biol.** 22(8): 676 - 682.
 5. Aton S.J.* , Seibt J.*, Dumoulin M.C., Coleman T., Shiraishi M., Frank M.G. (2009) *The sedating antidepressant trazodone impairs sleep-dependent cortical plasticity*, **PLoS ONE** 4(7).
- * These two authors contributed equally to this work
6. Uebele V.N., Nuss C.E., Santarelli V.P., Garson S.L., Kraus R.L., Stauffer S.R., Barrow J.C., Koblan K.S., Renger J.J., Aton S., Seibt J., Dumoulin M., Jha S.K., Coleman T., Frank M.G.(2009) *T-type calcium channels regulate cortical plasticity in vivo*. **NeuroReport** 20(3): 257- 62.
 7. Aton S.J, Seibt J., Dumoulin M.C., Jha S.K., Steinmetz N., Coleman T., Naidoo N., Frank M.G. (2009) *Mechanisms of sleep-dependent consolidation of cortical plasticity*. **Neuron** 61(3): 454-66.
 8. Seibt J., Aton S.J., Jha S.K., Coleman T., Dumoulin M.C., Frank M.G.(2008) *The non-benzodiazepine Zolpidem impairs sleep-dependent cortical plasticity*. **SLEEP** 31(10): 1381-1392.
 9. Schuurmans C., Armant O., Nieto M., Stenman J.M., Britz O., Klenin N., Brown C., Langevin L.M., Seibt J., Tang H., Cunningham J.M., Dyck R., Walsh C., Campbell K., Polleux F., Guillemot F. (2004) *Sequential phases of cortical specification involve Neurogenin-dependent and -independent pathways*. **EMBO J.** 23(14):2892-902.
 10. Dufour A., Seibt J., Passante L., Depaape V., Ciossek T., Frisé J., Kullander K., Flanagan J.G., Polleux F., Vanderhaeghen P. (2003) *Area specificity and topography of thalamocortical projections are controlled by ephrin/Eph genes*. **Neuron**. 39(3):453-65.
 11. Seibt J., Schuurmans C., Gradwohl G., Dehay C., Vanderhaeghen P., Guillemot F., Polleux F. (2003) *Neurogenin2 specifies the connectivity of thalamic neurons by controlling axon responsiveness to intermediate target cues*. **Neuron** 39(3):439-52.

Reviews / addendum

1. Aton S.J., Seibt J., Frank M.G. (2009) *Sleep and Memory*. In: **Encyclopedia of Life Sciences** (Levitani I, ed), Chichester: John Wiley & Sons.

2. Seibt J. and Frank M.G. (2012) *Translation regulation in sleep: making experience last*. **Communicative & Integrative Biology**. 5(5): 1-5.

ABSTRACTS (last 5 years)

1. Seibt J., Richard C.J., De Limoges D., Larkum M.E. (2014) *Sleeping dendrites: fiber-optic measurements of dendritic calcium activity in freely moving and sleeping animals*. **Front. Syst. Neurosci.** Conference Abstract: 4th NAMASEN Training Workshop - Dendrites 2014, Heraklion (Crete) - July 2014
*Best Poster Award
2. Seibt J., Richard C.J., De Limoges D., Larkum M.E. *Sleeping dendrites: fiber-optic measurements of dendritic calcium activity in freely moving and sleeping animals*. Sleep Regulation & Function Gordon Conference, Galveston (USA) – March 2014
*Excellence Travel Award
3. Seibt J., De Limoges D., Larkum M.E. *Cortical calcium activity across wake and sleep: Fiberoptic measurements in anesthetized and freely behaving animals*. SfN 2012, New Orleans (USA) – Oct 2012 * Postdoctoral Fellow Travel Award
4. Seibt J., Aton S.J., Dumoulin M.C., Coleman T., Watson A., Naidoo N., Frank M.G. *Sleep-dependent mRNA translation consolidates cortical plasticity in vivo*. EMBO|EMBL Symposium: “The Complex Life of mRNA”, Heidelberg (Germany) – Oct. 2012
5. Seibt J., Dumoulin M.C., Aton S.J., Coleman T., Mackiewicz M., Naidoo N., Frank M.G. *Role of protein synthesis in sleep-dependent cortical plasticity*. Worldsleap 2011, Cairns (Australia) - Oct. 2011 * WFSRSMS Travel Award
6. Seibt J., Dumoulin M.C., Aton S.J., Coleman T., Mackiewicz M., Naidoo N., Frank M.G. *Role of protein synthesis in sleep-dependent cortical plasticity*. 8th IBRO World Congress, Florence (Italy) - July 2011

ORAL PRESENTATIONS

1. 7th Congress of the World Sleep Federation (WFSRSMS) - Istanbul (Turkey) - Nov. 2015
2. Actual Topics in Sleep and Chronobiology Research - UZH/ETH - Nov. 2012
3. 6th Congress of the World Sleep Federation (WFSRSMS) - Kyoto (Japan) - Oct. 2011
4. 19th European Sleep and Research Society (ESRS) - Glasgow (Scotland) - Sept. 2008
5. Associated Professional Sleep Societies (APSS) - Baltimore (USA) - June 2008
6. 5th Congress of the World Sleep Federation (WFSRSMS) - Cairns (Australia)- Sept. 2007
7. 7th EURON Ph.D. Students Days – Free University of Brussels - Brussels (Belgium) – Jan. 2004

TECHNICAL SKILLS

Molecular/cellular biology: RNA/protein labelling (*in situ* hybridization and immunocytochemistry, Western and Northern blotting), synaptoneurosome protein extraction, DNA cloning, quantitative PCR and data analysis (mouse and cat), cell culture (embryonic tissue and mouse primary neuronal culture), *in utero/in vivo/ex vivo* DNA electroporation, RNA Sindbis expression system, neuronal tracing (DiI/DiA/DiO, Biotin-dextran), microarray

Microscopy and imaging: optical imaging of intrinsic cortical signal, confocal and epifluorescence microscopy, Ca²⁺ imaging

In vivo: polysomnography (EEG) recordings and analysis (cat and rodent), behaviour, stereotaxic surgical procedures (cat and rodent), single-unit electrophysiological recordings (anaesthetized), targeted virus (AAV) injections, pharmacology

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

03/2015-present Co-supervisor - Johanna Sigl-Glöckner – PhD student (Charité Universtätsmedizin Berlin)

TEACHING ACTIVITIES

2005-2006 TA in Neuropathology - University of Brussels (Belgium)
 09/2008-12/2008 Co-supervisor - Meghan A. McDonald - Master student (University of Pennsylvania).
 Project “*Regulation of translation across the sleep-wake cycle in a model of visual plasticity in mice*”

ORGANISATION OF SCIENTIFIC MEETINGS/SERVICES

5/2009 Planning committee member of the 6th Annual Centre for Sleep and Respiratory Neurobiology (CSRN) Research Retreat, University of Pennsylvania (USA)

MAJOR COLLABORATIONS

Jini Naidoo, *in vivo imaging of endoplasmic reticulum (ER) calcium in condition of extended wakefulness*, University of Pennsylvania, US

Matthew Larkum, *dendritic activity regulation during sleep*, Charité-Universtätsmedizin Berlin, Germany

SERVICES

5/2009 Planning committee member of the 6th Annual Center for Sleep and Respiratory Neurobiology (CSRN) Research Retreat, University of Pennsylvania, Philadelphia.

5/ 2014 Invited speaker for « le Cerveau dans tous ses états – Le Sommeil » - Nonards (France)

MEMBERSHIPS

2007-Present Society of Neuroscience (SfN)

2007-Present Sleep Research Society (SRS)

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