

## CURRICULUM VITAE

### 1. Personal Data

**Last name:** SCHWARTZ  
**First name (s):** Sophie Isabelle

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**Current affiliations:**

1. Dept of Neuroscience, Faculty of Medicine, University of Geneva
2. Geneva Neuroscience Center, University of Geneva
3. Swiss Center for Affective Sciences (NCCR)
4. Brain and Behavior Laboratory (BBL), University of Geneva

**Personal information:** Born on the 21<sup>st</sup> of December 1965 in Geneva  
Citizen of Switzerland, married, one child (April, 2008)  
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### 2. Main academic responsibilities

**Since 2012** Associate Professor, Department of Neuroscience, University of Geneva  
**2005-2011** Senior researcher/lecturer (Maître d'Enseignement et de Recherche), Department of Neuroscience, Faculty of Medicine, University of Geneva  
**Since 2005** Head of the Laboratory for Neuroimaging of Sleep and Cognition, Faculty of Medicine, University of Geneva  
**Since 2003** Co-director of the Laboratory for Neurology and Imaging of Cognition (LabNIC), Faculty of Medicine, University of Geneva  
**Since 2003** Thesis director for 6 PhD students; thesis co-director for 1 PhD student; thesis director for 7 master students; supervision of 6 post-doctoral students, and 1 senior postdoc (Maître Assistant).  
**Since 2009** Member of the Executive Committee of the Brain and Behavior Laboratory, Faculty of Medicine, University of Geneva

### 3. Education

**1987** Bachelor in Biology, Faculty of Sciences, University of Geneva, Switzerland  
**1988** Master in Biology, Faculty of Sciences, University of Geneva, Switzerland  
**1991** Bachelor in Psychology, Faculty of Social and Political Sciences, University of Lausanne, Switzerland  
**1999** Ph.D. Faculty of Social and Political Sciences, University of Lausanne, Switzerland

### 4. Post-doctoral training

**2000-2003:** Post-doc, Institute of Cognitive Neuroscience, University College London & Wellcome Dept. of Imaging Neurosciences, London, UK

**2003-2005** Researcher/Lecturer (Maître Assistant), Dept. of Clinical Neurosciences, University of Geneva, Switzerland

## 5. Teaching

- 1994-1997** Responsible for the tutorials in experimental psychology (6h/wk, seminar + workshop), Faculty of Social and Political Sciences, University of Lausanne, Switzerland
- 1995-1997** "Developmental psychology", Faculty of Social and Political Sciences, University of Lausanne (1h/wk)
- 1995-1997** "Epistemology in psychology", Faculty of Social and Political Sciences, University of Lausanne (1h/wk)
- 2001-2003** fMRI Methods for Retinotopic Mapping of the Human Visual System (PhD students and post-docs), UCL, London, UK
- 2003-2005** Programming experiments with E-Prime, Cogent, etc (PhD students and post-docs), Geneva, Switzerland
- 2003-2005** SPM and Matlab programming, (PhD students and post-docs), Geneva, Switzerland
- 2004, 2007** "Sleep and Learning: Contribution of brain imaging", School of Psychology, University of Geneva (2h/yr)
- 2004** "Modification de la réponse cérébrale après apprentissage et sommeil", Psychiatry, Belle-Idée, University of Geneva (2h)
- 2006** "Cerebral correlates of visual learning", EPFL, Lausanne (2h)
- 2008** "Voir le cerveau rêver", Training course ("Formation continue"), Geneva Medical School, Geneva (2h)
- 2008** PENS school (Program of European Neuroscience Schools, Cheybres) "Probing neural plasticity in adult humans with functional MRI"
- 2009** "Sommeil et Imageries", Training course at the Sleep laboratory, Geneva University Hospital (2h)
- 2009** Seminar Series on "Creativity and the Dreaming Brain" (organizer), Lemanic Neurosciences PhD program (35h)
- 2004-2009** Teaching at the medical school (Problem Oriented Learning, "APP"; 3rd year medical students), "Perception, Emotion, and Cognition", Geneva Medical School (30h/yr)
- 2003-pres** Lemantic Neurosciences PhD program:  
- Topics in Cognitive Neuroscience (3h/yr)  
- Intensive PhD Course in Neuroimaging (3h/yr)
- 2008, 2010** "Advanced topics in functional MRI in cognitive and clinical neuroscience" (co-organizer) (36h/yr)
- 2003-pres.** Geneva Neurosciences MA program:  
- Introduction aux neurosciences cognitives (2h/yr)  
- Neurobiologie des états de vigilance (4h/yr)
- 2010-pres.** Responsible for the course: "Anatomy and physiology of the nervous system"; teaching from the Faculty of Medicine to 1<sup>st</sup> year psychology students (46h/yr)
- 2011** PENS school (Program of European Neuroscience Schools), Lausanne & Geneva Training Centre: Imaging brain function in animals and humans
- 2003-pres** Supervision of 7 PhD students, 6 post-doctoral students, and 1 senior postdoc
- 2005-pres** Supervision of 5 master students in neuroscience and 2 master in medicine

**2011-pres** Contribution to the teaching program “Initiation to psychiatric neuroscience research (clinical and basic)” for 3<sup>rd</sup> yr medical students (organized by N. Ginovart) (40h/yr)

***Jury for doctoral theses:***

Thesis director: Aurélie Ponz, University of Geneva (2008), Stéphanie Duhoux, University of Geneva (2009), Karsten Rauss, University of Geneva (2010), Irina Constantinescu, Université de Genève (2011), Amal Achaibou, University of Geneva (defense date, July 2011); Hamdi Eryilmaz (defense date, April 2012).

External expert: Ralph Schmidt, University of Geneva (2006); Nicolas Silvestrini, University of Geneva (2008); Elisa Tartaglia, EPFL (2009); Luca Matarazzo, University of Liège, Belgium (2010); Delphine Oudiette, Université Pierre et Marie Curie, France (2011); Sarah Chellappa, University of Basel (2011); Rémy Schmitz, Université Libre de Bruxelles (2011)

***Jury for MA theses:***

Thesis director: Leonardo Ceravolo (2009); Maximilien Catsiyannis (2010); Francesco Turri (2011)

External expert: Mihaela Vicleanu (2010)

***Cultural activities and relations with the public***

- 2000** Exhibition: “Looking without seeing”, The Royal Society, London
- 2003** Exhibition: “Regarder/Voir” presenting modern neuroimaging methods applied to the study of human vision, Jeantet Foundation for Medicine, Geneva
- 2005** “Neuroimagery of visual perception”, Arts School, University of Geneva
- 2005** “Science et Cité”, member of the organizing committee for the University of Geneva; Exhibition at the Villa Bernasconi (movie presented at “Let’s celebrate”, dialogue between artists and scientists)
- 2006** Publication of “the Dream Factory” (La Fabrique des Rêves), a book for 9-12 y-o children, an introduction to the neuroscience of dreaming, Eds. Le Pommier, Paris
- 2007-2008** “Goûters scientifique: un cerveau de rêve”, for 8-10 y-o children, University of Geneva
- 2007** Lemanic-Neurosciences Annual Meeting for the PhD program in Neuroscience, member of the organizing committee, Diablerets
- 2008** “Café scientifique: A quoi servent les rêves?” for adults, University of Geneva
- 2003-pres.** Brain Awareness Week (“Semaine du cerveau”): member of the organizing committee
- 2006-pres** “Café scientifique” for high school and college students (brains and virtual realities) with C. Pellegrini
- 2009** Scientific animation and presentation in the context of the 450<sup>th</sup> anniversary of the University of Geneva
- 2009** Publication of “The Sleep Laboratory” (Le Laboratoire du Sommeil), a book for 9-12 y-o children, an introduction to the neuroscience of sleep, Eds. Le Pommier, Paris
- 2010** Publication of “At the Heart of Emotions” (Au Coeur des Emotions), a book for 9-12 y-o children, an introduction to the neuroscience of emotions, Eds. Le Pommier, Paris

***Communication of scientific news related to the lab’s work in the media***

Regular interviews for local and international newspapers, radio and television channels.

## 6. Administration

- 2007** Annual Meeting of the Lemanic Neuroscience PhD program: member of the organizing committee
- 2003-pres.** Brain Awareness Week ("Semaine du cerveau"): member of the organizing committee
- 2005-pres.** Organization of the Alpine Brain Imaging Meeting (Neuroimaging Meeting, Champéry)
- 2010** Local Organizer of the Annual Meeting of the Lemanic Neuroscience PhD program.
- 2011** First International Meeting on Emotional Architecture, University of Geneva; member of the scientific committee
- 2011-pres.** Project Leader, NCCR Affective Sciences

## 7. Professional Societies

- 1997-2000** Member of the Société Académique Vaudoise
- 2000-pres.** Member of the Cognitive Neuroscience Society
- 2003-pres.** Member of the Sleep Research Society
- 2006-pres.** Member of the Swiss Society for Neuroscience
- 2008-pres.** Member of the Society for Neuroscience

## 8. Technical and Scientific Roles:

- Reviewer** **Journals:** Psychophysiology, Neuroimage, Sleep, Sleep Research, Trends in Cognitive Sciences, Cerebral Cortex, Brain, Brain & Cognition, Neuroscience Letters, Learning & Memory, Neuropsychologia, Psychiatry Research, Journal of Neuroscience, European Journal of Neuroscience, Journal of Cognitive Neuroscience, BMC Neuroscience, Cognition, Cognitive Brain Research, Neuroscience, Visual Cognition.
- Funding agencies:** NSF (National Science Foundation, USA), BMRC-NMRC (Biomedical Research Council & National Medical Research Council), ESRC (Economic & Social Research Council, UK), German Research Foundation; Agence Nationale de la Recherche (France)
- Editions:** Oxford University Press
- 2010-pres.** Member of the European Sleep Research Society (ESRS) Scientific Committee
- 2010-pres.** Associate Editor of Frontiers in Sleep and Chronobiology
- 2011-pres.** Member of the Editorial Board: NeuroImage
- 2012-pres.** Review Editor: Frontiers in Perception Science
- 2007-pres.** Review Editor: Frontiers in Behavioral Neuroscience
- 2003-2008** Member of Editorial Board: Journal Sleep

## 9. Research grants

- 1997-1999** Research Fellowship from the Swiss National Science Foundation (Thesis work, University of California, Berkeley, USA); 40'000 CHF
- 2000-2003** Research Fellowship from the Swiss National Science Foundation (Postdoc, University College London, London, UK); 144'000 CHF
- 2003-2006** Grant from the Swiss National Science Foundation (main investigator - 3100A0-102133). "How the brain changes its mind: Behavioral and functional magnetic resonance imaging study of perceptual learning"; 232'440 CHF
- 2004** Foundation Ernst & Lucie Schmidheiny, grant for PSG system; 30'000 CHF
- 2004-2007** Grant from the Swiss National Science Foundation (co-investigator - 3200B0-104100). "Pathophysiology of narcolepsy: A multimodal approach"; 405'875 CHF
- 2007-2009** Grant from the Swiss National Science Foundation (co-investigator - 3200B0-104100). "Pathophysiology of narcolepsy: A multimodal approach"; 141'667 CHF
- 2007-2010** Grant from the Swiss National Science Foundation (main investigator - 310000-114008). "Sleep-related changes in cerebral activity underlying perceptual and emotional learning"; 260'000 CHF
- 2009-2011** Grant from the Pierre Mercier Foundation, Lausanne (main investigator). "Lack of Sleep: A Contemporary 'Disease' with Major Consequences on Waking Emotional Brain Responses and Decision Making"; 200'000 CHF
- 2009-2012** Grant from the Swiss National Science Foundation (co-investigator - 32003B-124763). "Interactions of dopamine and hypocretin in sleep-wake functions: Vigilance, emotional processing, and learning in patients with narcolepsy, restless legs syndrome, Parkinson's disease and healthy controls"; 375'000 CHF
- 2010-2011** Grant from the National Centre of Competence in Research "SYNAPSY – Synaptic Bases of Mental Diseases" (Swiss National Science Foundation); project no. 31: "Fast antidepressant response"; 30'000 CHF
- 2010-pres** UCB Pharma (main investigator); 320'000 CHF
- 2011-2012** Grant from the National Centre of Competence in Research "SYNAPSY – Synaptic Bases of Mental Diseases" (Swiss National Science Foundation); project no. 31: "Fast antidepressant response"; 30'000 CHF
- 2011-2013** Grant from the National Centre of Competence in Research "Affective Sciences" (Swiss National Science Foundation) (main investigator). "How the brain changes its mind: Roles of emotional relevance and sleep in learning and decision making"; 240'000 CHF
- 2011-2013** AXA grant; 120'000 EUR
- 2011-2014** FP7 Marie Curie Actions – People : COFUND Program (co-investigator, Grant no.: 267171); "BRIDGE: Brain & Behaviour Interdisciplinary Research"; 2'263'580 EUR
- 2011-2014** Grant from the Swiss National Science Foundation (co-investigator – CR3313\_135554). "Ketamine and fast antidepressant response: A translational neurobiological, imaging, and clinical approach"; 500'000 CHF
- 2011-2014** Grant from the Swiss National Science Foundation (main investigator - 31003B\_135653). "Emotional relevance and sleep shape neural plasticity: A multimodal neuroimaging investigation in humans"; 331'000 CHF
- 2012-2014** Grant from the Boninchi Foundation (main investigator); 100'000 CHF

**10. Main Lines of Research (see Research Program)**

- Neural plasticity in the adult human and the role of sleep. Investigation of perceptual and motor learning at the behavioral and macroscopic systems levels using functional MRI (fMRI) and high-density EEG.
- Emotional processing in narcolepsy, restless legs syndrome, Parkinson's disease using fMRI and high-density EEG.
- Emotion, reward processing, and sleep: a pharmaco-MRI approach looking at the effects of pharmacologically-induced changes in REM vs SWS on emotion brain functions.
- Replay of neuronal activity during human sleep. This project assess neural reactivation during wakefulness and sleep by using long-term intracranial and scalp EEG.
- Attention, visual learning, and early visual processing. Modulation of responses in visual cortex as a function of spatial attention, visual grouping, and orientation adaptation using fMRI and combined EEG/fMRI.
- Resting states of the brain: A wavelet approach to functional brain connectivity.
- Psychophysics and functional neuroimaging in brain-damaged patients.
- Impact of psychiatric disorders (depression, obsessive-compulsive disorder) on attentional and perceptual processing as assessed by fMRI.
- Fast antidepressant response in treatment-resistant major depression: a pharmaco-MRI approach using ketamine administration and sleep-deprivation.
- Dreaming and cognition during sleep; role of the dopaminergic reward system in the regulation of sleep, dreaming and creativity.

**PUBLICATION LIST**

*10 most significant papers are marked by (\*)*

**Original publications**

- In press** Oudiette, D., Uggucioni, G., Golmard, J.-L., Merino\_Andreu, M., Tafti, M., Garma, L., **Schwartz, S.**, & Arnulf, I. Dreaming without REM sleep. *Conscious Cogn.* (IF=2.839)
- In press** Vienne, J., Lecciso, G., Constantinescu, I., **Schwartz, S.**, Franken, P., Heinzer, R., and Tafti, M. Differential effects of sodium oxybate and 1 baclofen on EEG, sleep, neurobehavioral performance, and memory. *Sleep.* (IP=5.49)
- In press** Schaer, M., Poryazova, R., **Schwartz, S.**, Bassetti, C. L., & Baumann, C. R. Cortical morphometry in narcolepsy with cataplexy. *J Sleep Res* (IF=3.36)
- In press** Gschwind, M., Pourtois, G., **Schwartz, S.**, Van De Ville, D., and Vuilleumier, P. White-Matter Connectivity between Face-Responsive Regions in the Human Brain. *Cereb Cortex* (IF=6.84)
- In press** Brosch, T., Coppin, G., Scherer, K. R., **Schwartz, S.**, & Sander, D. The importance of actions and the worth of an object: Dissociable neural systems representing core value and economic value. *Social Cognitive and Affective Neuroscience* (IF=4.20)
- 2012** Rauss, K., and **Schwartz, S.** Dissociating learning-induced changes in fMRI signal from structural modifications: a comment on Dorjee and Bowers. *Cortex*, 48, 515-516 (IF=7.25)
- \*2012** Rauss, K. S., Pourtois, G., Vuilleumier, P., & **Schwartz, S.** Effects of attentional load on early visual processing depend on stimulus timing. *Hum Brain Mapp*, 33(1), 63-74. (IF=6.26)
- \*2011** Bayer, L., Constantinescu, I., Perrig, S., Vienne-Buerki, J., Vidal, P.-P., Muhlethaler, M., & **Schwartz, S.** Rocking synchronizes brain waves during a short nap. *Curr Biol*, 21(12), R461-2. (IF=10.99)
- 2011** De Lucia, M., Constantinescu, I., Sterpenich, V., Pourtois, G., Seeck, M., & **Schwartz, S.** Decoding sequence learning from single-trial intracranial EEG in humans. *PLoS One*, 6(12), e28630. (IF=4.41)
- 2011** Rauss, K. R., **Schwartz, S.** & Pourtois, G. Top-down effects on early visual processing in humans: a predictive coding framework. *Neurosci Biobehav Rev.* 2011 Apr;35(5):1237-53 (IF=7.79)
- 2011** Vandewalle, G., Hebert, M., Beaulieu, C., Richard, L., Daneault, V., Garon, M.L., Leblanc, J., Grandjean, D., Maquet, P., **Schwartz, S.**, Dumont, M., Doyon, J., & Carrier, J. Abnormal hypothalamic response to light in seasonal affective disorder. *Biol Psychiatry.* 2011;70(10):954-61. (IF=8.67)
- 2011** Richiardi, J., Eryilmaz, H., **Schwartz, S.**, Vuilleumier, P., & Van De Ville, D. Decoding brain states from fMRI connectivity graphs. *Neuroimage*, 56(2), 616-26. (IF=5.74)
- 2011** Oudiette, D., Constantinescu, I., Leclair-Visonneau, L., Vidailhet, M., **Schwartz, S.**, & Arnulf, I. Evidence for the Re-Enactment of a Recently Learned Behavior during Sleepwalking. *PLoS One*, 6(3), e18056. (IF=4.41)
- 2011** Eryilmaz, H., Van De Ville, D., **Schwartz, S.**, & Vuilleumier, P. Impact of transient emotions on functional connectivity during subsequent resting state: a wavelet correlation approach. *Neuroimage*, 54(3), 2481-2491 (IF=5.74)
- 2011** Prilipko, O., Huynh, N., **Schwartz, S.**, Tantrakul, V., Kim, J. H., Peralta, A. R., Kushida, C., Paiva, T., & Guillemainault, C. Task positive and default mode networks during a parametric

- working memory task in obstructive sleep apnea patients and healthy controls. *Sleep*, 34(3), 293-301A (IF=5.40)
- 2011** Desseilles, M., **Schwartz, S.**, Dang-Vu, T. T., Sterpenich, V., Anseau, M., Maquet, P., & Phillips, C. Depression alters "top-down" visual attention: A dynamic causal modeling comparison between depressed and healthy subjects. *Neuroimage*, 54(2), 1662-1668. (IF=5.74)
- 2011** Sagaspe, P., **Schwartz, S.**, & Vuilleumier, P. Fear and stop: A role for the amygdala in motor inhibition by emotional signals. *Neuroimage*, 55(4), 1825-1835 (IF=5.74)
- 2011** Brosch, T., Coppin, G., Scherer, K. R., **Schwartz, S.**, & Sander, D. Generating value(s): Psychological value hierarchies reflect context-dependent sensitivity of the reward system. *Social Neuroscience*, 6(2), 198-208 (IF=3.17)
- 2010** Vandewalle, G., **Schwartz, S.**, Grandjean, D., Vuilleumier, C., Baeteau, E., Degueldre, C., Schabus, M., Phillips, C., Luxen, A., Dijk, D. J., & Maquet, P. Spectral quality of light modulates emotional brain responses in humans. *Proceedings of the National Academy of Sciences of the United States of America*, 107(45), 19549-19554 (IF=9.43)
- 2010** Baldo, J. V., **Schwartz, S.**, Wilkins, D. P., & Dronkers, N. F. (2010). Double dissociation of letter and category fluency following left frontal and temporal lobe lesions. *Aphasiology*, 24(12), 1593-1604. (IF=1.42)
- \*2010** Ponz, A., Khatami, R., Poryazova, R., Werth, E., Boesiger, P., Bassetti, C. L., & **Schwartz, S.** Abnormal Activity in Reward Brain Circuits in Human Narcolepsy with Cataplexy. *Ann Neurol*. 67(2), 190-200 (IF=9.32)
- 2010** Ponz, A., Khatami, R., Poryazova, R., Werth, E., Boesiger, P., **Schwartz, S.** & Bassetti, C. L. Reduced Amygdala Activity during Aversive Conditioning in Human Narcolepsy. *Ann Neurol*. 67(3), 394-8 (IF=9.32)
- 2010** **Schwartz, S.** Life Goes on in Dreams. *Sleep*, 33, 59-68. (IF=5.40)
- 2010** Verdon, V., **Schwartz, S.**, Lovblad, K.-O., Hauert, C.-A., and Vuilleumier, P. Neuroanatomy of hemispatial neglect and its functional components: A study using voxel-based lesion-symptom mapping. *Brain*. 18(19), 1525-9 (IF=9.49)
- 2010** Righart, R., Andersson, F., **Schwartz, S.**, Mayer, E., & Vuilleumier, P. Top-Down Activation of Fusiform Cortex without Seeing Faces in Prosopagnosia. *Cereb Cortex*, 20(8), 1878-1890. (IF= 6.98)
- \*2009** Desseilles, M., Baeteau, E., Sterpenich, V., Dang-Vu, T. T., Darsaud, A., Vandewalle, G., Albouy, G., Salmon, E., Peters, F., Schmidt, C., Schabus, M., Gais, S., Degueldre, C., Phillips, C., Luxen, A., Anseau, M., Maquet, P., & **Schwartz, S.** Abnormal neural filtering of irrelevant visual information in depression. *J Neurosci*, 29(5), 1395-1403. (IF=7.18)
- This article was awarded the "Psychiatry 2010 Award" from the Lundbeck Institute (Switzerland, June 2010)***
- 2009** Cojan Y, Waber L, **Schwartz S**, Rossier L, Forster A, & Vuilleumier P. The brain under self-control: modulation of inhibitory and monitoring cortical networks during hypnotic paralysis. *Neuron*, 62(6), 862-75. (IF=14.67)
- 2009** Pourtois G, **Schwartz S**, Spiridon M, Martuzzi R, & Vuilleumier P. Object representations for multiple visual categories overlap in lateral occipital and medial fusiform cortex. *Cereb Cortex*, 19(8),1806-19. (IF= 6.98)
- 2009** Mercier, M., **Schwartz, S.**, Michel, C. M., & Blanke, O. Motion direction tuning in human visual cortex. *Eur J Neurosci*, 29(2), 424-434. (IF=3.42)

- 2009** Luaute, J., **Schwartz, S.**, Rossetti, Y., Spiridon, M., Rode, G., Boisson, D., & Vuilleumier, P. Dynamic changes in brain activity during prism adaptation. *J Neurosci*, 29(1), 169-178. (IF=7.18)
- \*2009** Rauss, K. S., Pourtois, G., Vuilleumier, P., & **Schwartz, S.** Attentional load modifies early activity in human primary visual cortex. *Hum Brain Mapp*, 30(5), 1723-1733. (IF=6.26)
- 2008** Vuilleumier, P., **Schwartz, S.**, Verdon, V., Maravita, A., Hutton, C., Husain, M., & Driver, J. Attention-dependent functional abnormality in retinotopic visual cortex for patients with parietal lesions and spatial neglect. *Current Biology* 18(20), 1630-1630 (IF=10.99)
- \*2008** **Schwartz, S.**, Ponz, A., Poriazova, R., Werth, E., Boesiger, P., Khatami, R., & Bassetti, C. L. Abnormal activity in hypothalamus and amygdala during humour processing in human narcolepsy with cataplexy. *Brain* 131, 514-22 (IF=9.49)
- \*2008** Pourtois, G., Rauss, K., Vuilleumier, P., & **Schwartz, S.** Effects of Perceptual Learning on Primary Visual Cortex Activity in Humans. *Vision Res* 48, 55-62 (IF=2.29)
- 2008** Achaibou, A., Pourtois, G., **Schwartz, S.**, & Vuilleumier, P. Simultaneous recording of EEG and facial muscle reactions during spontaneous emotional mimicry. *Neuropsychologia*, 46(4), 1104-1113 (IF=4.35)
- 2007** Sagaspe, P., Philip, P., & **Schwartz, S.** Inhibitory Motor Control in Apneic and Insomniac Patients: A Stop Task Study. *Journal of Sleep Research*, 16, 381-387 (IF= 3.50)
- 2007** Vuilleumier, P., Sergent, C., **Schwartz, S.**, Valenza, N., Girardi, M., Husain, M., & Driver, J. Impaired perceptual memory of locations across gaze-shifts in patients with unilateral spatial neglect. *J Cogn Neurosci*, 19(8), 1388-1406. (IF=5.38)
- 2007** Maravita, A., Posteraro, L., Husain, M., Vuilleumier, P., **Schwartz, S.**, & Driver, J. Looking at human eyes affects contralesional stimulus processing after right hemispheric stroke. *Neurology*, 69(16), 1619-1621. (IF=8.17)
- 2007** Assal, F., **Schwartz, S.**, & Vuilleumier, P. Moving with or without will: functional neural correlates of alien hand syndrome. *Ann Neurol*, 62(3), 301-306. (IF=9.32)
- 2006** Baldo, J. V., **Schwartz, S.**, Wilkins, D., & Dronkers, N. F. Role of frontal versus temporal cortex in verbal fluency as revealed by voxel-based lesion symptom mapping. *J Int Neuropsychol Soc*, 12(6), 896-900. (IF= 2.77)
- 2006** Kristjansson, A., Vuilleumier, P., **Schwartz, S.**, Macaluso, E., & Driver, J. Neural Basis for Priming of Pop-Out during Visual Search Revealed with fMRI. *Cereb Cortex*. (IF=6.98)
- 2006** Pourtois, G., **Schwartz, S.**, Seghier, M. L., Lazeyras, F., & Vuilleumier, P. Neural systems for orienting attention to the location of threat signals: An event-related fMRI study. *Neuroimage*, 31(2),920-33. (IF=5.74)
- 2005** **Schwartz, S.**, Assal, F., Valenza, N., Seghier, M. L. & Vuilleumier, P. Illusory persistence of touch after right parietal damage: neural correlates of tactile awareness. *Brain* 128, 277-90. (IF=9.49)
- \*2005** **Schwartz, S.**, Vuilleumier, P., Hutton, C., Maravita, A., Dolan, R. J., & Driver, J. Attentional load and sensory competition in human vision: Modulation of fMRI responses by load at fixation during task-irrelevant stimulation in the peripheral visual field. *Cereb Cortex* 15(6), 770-786. (IF=6.98)
- 2005** Sander, D., Grandjean, D., Pourtois, G., **Schwartz, S.**, Seghier, M. L., Scherer, K. R., & Vuilleumier, P. Emotion and attention interactions in social cognition: Brain regions involved in processing anger prosody. *Neuroimage*, 28(4), 848-858. (IF=5.74)

- 2005 Peyrin, C., **Schwartz, S.**, Seghier, M., Michel, C., Landis, T., & Vuilleumier, P. Hemispheric specialization of human inferior temporal cortex during coarse-to-fine and fine-to-coarse analysis of natural visual scenes." *Neuroimage*, 28, 464-473. (IF=5.74)
- 2005 Vuilleumier, P., **Schwartz, S.**, Duhoux, S., Dolan, R. J., & Driver, J. Selective attention modulates neural substrates of long-term priming and 'implicit' visual memory: Suppressions and enhancements revealed by fMRI. *Journal of Cognitive Neuroscience*, 17, 1245-60. (IF=5.38)
- 2005 Pourtois, G., **Schwartz, S.**, Seghier, M. L., Lazeyras, F., & Vuilleumier, P. Portraits or people? Distinct representations of face identity in the human visual cortex. *Journal of Cognitive Neuroscience*, (7), 1043-1057. IF=5.38)
- 2005 Grandjean, D., Sander, D., Pourtois, G., **Schwartz, S.**, Seghier, M. L., Scherer, K. R., & Vuilleumier, P. The voices of wrath: brain responses to angry prosody in meaningless speech. *Nature Neuroscience*, 8(2), 145-146. (IF=14.35)
- 2005 Pourtois, G., **Schwartz, S.**, Seghier, M. L., Lazeyras, F. & Vuilleumier, P. View-independent coding of face identity in frontal and temporal cortices is modulated by familiarity: an event-related fMRI study. *Neuroimage* 24, 1214-24. (IF=5.74)
- 2004 Valenza, N., Seghier, M. L., **Schwartz, S.**, Lazeyras, F., & Vuilleumier, P. Tactile awareness and limb position in neglect: Functional magnetic resonance imaging. *Ann Neurol*, 55(1), 139-143. (IF=9.32)
- 2004 **Schwartz, S.** What dreaming can reveal about cognitive and brain functions during sleep? A lexico-statistical analysis of dream reports. *Psychologica Belgica*, 44(1), 5-42. (IF=0.42)
- 2003 Maquet, P., **Schwartz, S.**, Passingham, R. E., & Frith, C. Sleep-related consolidation of a visuomotor skill: Brain mechanisms as assessed by functional magnetic resonance imaging. *Journal of Neuroscience*, 23(3), 1432-1440. (IF=7.18)
- 2003 **Schwartz, S.** Are life episodes replayed during dreaming? *Trends in Cognitive Sciences*, 7(8), 325-327. (IF=11.66)
- 2003 **Schwartz, S.**, Baldo, J., Graves, R. E., & Brugger, P. Pervasive influence of semantics in letter and category fluency: A multidimensional approach. *Brain and Language*, 87(3), 400-411. (IF=2.97)
- \*2002 **Schwartz, S.**, & Maquet, P. Sleep imaging and the neuro-psychological assessment of dreams. *Trends in Cognitive Sciences*, 6(1), 23-30. (IF=11.66)
- \*2002 **Schwartz, S.**, Maquet, P., & Frith, C. Neural correlates of perceptual learning: a functional MRI study of visual texture discrimination. *Proceedings of the National Academy of Sciences USA*, 99(26), 17137-17142. (IF=9.43)
- 2002 Vuilleumier, P., **Schwartz, S.**, Hussain, M., & Driver, J. Testing Memory for Unseen Visual Stimuli in Patients with Extinction and Spatial Neglect. *Journal of Cognitive Neuroscience*, 14(6), 875-886. (IF=5.38)
- 2001 Vuilleumier, P., & **Schwartz, S.** "Emotional facial expressions capture attention". *Neurology*, 56(2), 153-8. (IF=8.17)
- 2001 Vuilleumier, P., & **Schwartz, S.** "Beware and be aware: capture of spatial attention by fear-related stimuli in neglect". *Neuroreport*, 12(6), 1119-22. (IF=1.81)
- 2001 Vuilleumier, P., Chicherio, C., Assal, F., **Schwartz, S.**, Slosman, D., & Landis, T. "Functional neuroanatomical correlates of hysterical sensorimotor loss". *Brain*, 124(Pt 6), 1077-90. (IF=9.49)
- 2001 Vuilleumier, P., & **Schwartz, S.** "Modulation of visual perception by eye gaze direction in patients with spatial neglect and extinction". *Neuroreport*, 12(10), 2101-4. (IF=1.81)

- 2001** Vuilleumier, P., **Schwartz, S.**, Husain, M., Clarke, K., & Driver, J. "Implicit processing and learning of visual stimuli in parietal extinction and neglect". *Cortex*, 37(5), 741-744. (IF=4-06)
- 2001** **Schwartz, S.**, & Baldo, J. Distinct patterns of word retrieval in right and left frontal lobe patients: a multidimensional perspective. *Neuropsychologia*, 39(11), 1209-17. (IF=4.35)
- 2000** **Schwartz, S.** A historical loop of one hundred years: Similarities between 19th century and contemporary dream research. *Dreaming*, 10(1), 55-66.

#### **Conference Article (peer-reviewed)**

- 2010** Richiardi, J., Eryilmaz, H., **Schwartz, S.**, Vuilleumier, P., & Van De Ville, D. Brain decoding of fMRI connectivity graphs using decision tree ensembles Proc. IEEE Int. Symposium on Biomedical Imaging.

#### **Reviews or comments published or accepted in peer reviewed journals**

- In press** Rauss, K., & **Schwartz, S.** Dissociating learning-induced changes in fMRI signal from structural modifications: A comment on Dorjee and Bowers (2011). *Cortex* (IF=7.25)
- 2011** Deseilles, M., Dang-Vu, T. T., Sterpenich, V., & **Schwartz, S.** Cognitive and emotional processes during dreaming: A neuroimaging view. *Conscious Cogn*, 20(4), 998-1008. (IF=2.839)
- 2011** Rauss, K., **Schwartz, S.**, & Pourtois, G. Top-down effects on early visual processing in humans: A predictive coding framework. *Neurosci Biobehav Rev*, 35(5), 1237-1253 (IF=7.79)
- 2009** Dang-Vu, T. T., Deseilles, M., **Schwartz, S.**, & Maquet, P. Neuroimaging of narcolepsy. *CNS Neurol Disord Drug Targets* 8, 254-263. (IF=14.75)
- 2009** Deseilles, M., Dang-Vu, T. T., Maquet, P., & **Schwartz, S.** Corrélatés cérébraux du rêve. *Médecine du Sommeil*. 6, 44-51
- 2008** Deseilles, M., Dang Vu, T., Schabus, M., Sterpenich, V., Maquet, P., & **Schwartz, S.** Neuroimaging insights into the pathophysiology of sleep disorders. *Sleep*, 31(6), 777-794 (IF= 5.40)
- 2005** **Schwartz, S.**, Dang-Vu, T. T., Ponz, A., Duhoux, S., & Maquet, P. Dreaming: A neuropsychological view. *Swiss Archives of Neurology and Psychiatry*, 156(8), 426-439.
- 2005** Dang-Vu, T. T., Deseilles, M., Albouy, G., Darsaud, A., Gais, S., Rauchs, G., Schabus, M., Sterpenich, V., Vandewalle, G., **Schwartz, S.**, & Maquet, P. Dreaming: A neuroimaging view. *Swiss Archives of Neurology and Psychiatry*, 156(8), 415-425.

#### **Original articles, reviews, editorials, letters, in revision or submitted in peer reviewed journals**

- In revision** Perogamvros, L., & **Schwartz, S.** The roles of the reward system in sleep and dreaming

#### **Chapters**

- In press** Deseilles, M., Mikolajczak, G., & **Schwartz, S.** Sommeil, rêve et régulation émotionnelle [Sleep, dreaming and emotional regulation]; In M. Mikolajczak & M. Deseilles (Eds.) *Traité de régulation émotionnelle [Handbook of emotional regulation]*. De Boeck, Bruxelles, Belgium.

- 2011** Desseilles, M., Dang-Vu, T.T., Sterpenich, V., & **Schwartz, S.** REM Sleep and Emotion Regulation. In B. N. Mallick, S.R. Pandi-Perumal, R. W. McCarley, A Morrison (Eds), Rapid Eye Movement Sleep: Regulation and Function (pp. 427-436). Cambridge University Press, Cambridge, UK
- 2011** **Schwartz, S.** Emotional Processing in Narcolepsy, In T. Scammell, C. Baumann, & C. Bassetti (Eds), Narcolepsy: Pathophysiology, Diagnosis, and Treatment (pp. 261-270). Springer, NY
- 2009** Desseilles, M., Dang Vu, T., **Schwartz, S.**, Peigneux, P., & Maquet, P. In S. Chokroverty (Ed), Sleep Disorders Medicine: Basic Science, Technical Considerations, and Clinical Aspects (pp. 198-217). Saunders – Elsevier, Philadelphia, PA
- 2009** Ponz, A. & **Schwartz, S.** Humor processing in human narcolepsy with cataplexy. In M. Goswami, P. Perumal, M. Thorpy (Eds), Narcolepsy. Humana/Springer-Verlag, USA
- 2010** Desseilles, M., Dang-Vu, T.T., Schabus, M., Sterpenich, V., Mascetti, L., Foret, A., Maquet, P., & **Schwartz, S.** Neuroimaging insights into the dreaming brain. In Yolanda E. Soriento (Ed), Dreams and Dreaming. Nova Science Publishers, Hauppauge, NY
- 2010** Desseilles, M., Dang-Vu, T.T., Schabus, M., Hoedlmoser, K., Piguet, C., Bonjean, M., **Schwartz, S.**, & Maquet, P. Neuroimaging insights into insomnia. In Yolanda E. Soriento (Ed), Insomnia: Causes, Diagnosis and Treatments. Nova Science Publishers, Hauppauge, NY
- 2007** **Schwartz, S.** Functional MRI evidence for neural plasticity at early stages of visual processing in humans. In N. Osaka & I. Rentschler & I. Biederman (Eds.), Object recognition, attention, and action (pp. 27-40). Tokyo Berlin Heidelberg New York: Springer.
- 2007** Dang Vu, T., Schabus, M., Desseilles, M., **Schwartz, S.**, & Maquet, P. Neuroimaging of REM sleep and dreaming. In D. Barrett & P. McNamara (Eds.), The new science of dreaming (pp. 95-113). Westport, CT: Preager.

### **Books**

- 2010** Sander, D. & Schwartz, S. Au coeur des émotions. Paris: Le Pommier.
- 2009** Schwartz, S. & Constantinescu, I. Le laboratoire du sommeil. Paris: Le Pommier.
- 2006** Schwartz, S. La fabrique des rêves. Paris: Le Pommier.

### **PUBLICATION STATISTICS (as of January 2012)**

**59 articles, 1 conference article, 6 reviews, sum of the times cited (without self-citation): 1463; average citations per item: 27.2; h-index: 20**