

Nathan Weisz

Curriculum Vitae

Contact information

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Personal Data

Born in Bangkok (Thailand), 14.11.1975
Citizenship: Austrian, British

Education

2004

Graduation (PhD) in the Field of Clinical Psychology at the University of Konstanz (Germany)
Advisor: Prof. Thomas Elbert
Thesis: "Electromagnetic Correlates of Injury-Induced Auditory Cortical Plasticity: Implications for the Development and Maintenance of Subjective Tinnitus" (summa cum laude).

2002-2004

Research Associate at the University of Konstanz (Germany)
Advisor: Prof. Thomas Elbert
DFG Project: "Use-Induced Reorganization of the Auditory Cortex in Tinnitus"

2001-2002

Research Assistant at the University of Konstanz (Germany)

1996-2001

Diplom (equivalent to Master) in Psychology at the Catholic University of Eichstätt-Ingolstadt (Germany)

Advisors: Prof. Arthur Jacobs (now FU Berlin) & Prof. Rainer Schandry (LMU)

Thesis: "Cognitive and psychophysiological aspects of hypotension"

Professional experience

Since Oct. 2015

Full professor for Physiological Psychology at PLUS, Dept. of Psychology and Centre for Cognitive Neuroscience; Head of MEG Unit (University of Salzburg, Austria)

Mar. 2013 - Sept. 2015

Promotion to Associate Professor at CIMEC (University of Trento, Italy)

Feb. 2012 – Sept 2015

Coordinator of MEG lab at CIMEC (University of Trento, Italy)

2008-2012

Independent Research Group leader at the University of Konstanz (Emmy-Noether Programm).

2006-2008

Post-Doctoral Fellow at the Institut National de la Santé et de la Recherche Médicale (INSERM), Unité 280, Mental Processes and Brain Activation Lab (Lyon, France, Research Fellowship by the DFG, host: Dr. Olivier Bertrand).

2006

Post-Doctoral Fellow at the Department of Functional Neurosurgery at the University Hospital Zürich (Switzerland).

2004-2006

Post-Doctoral Fellow at the University of Konstanz, management of the Konstanz Tinnitus Project.

Publications

>100 peer-reviewed publications (h-index: 52; retrieved via Google scholar September 2023)

Three recent publications

Demarchi, G., Sanchez, G., & Weisz, N. (2019). Automatic and feature-specific (anticipatory) prediction-related neural activity in the human auditory system. *Nature Communications*, *10*(1), 3440. doi: <https://doi.org/10.1038/s41467-019-11440-1>

Rassi, E., Wutz, A., Müller-Voggel, N., & Weisz, N. (2019). Prestimulus feedback connectivity biases the content of visual experiences. *Proceedings of the National Academy of Sciences*, *116*(32), 16056-16061. doi: <https://doi.org/10.1073/pnas.1817317116>

Sanchez, G., Hartmann, T., Fuscà, M., Demarchi, G., & Weisz, N. (in press). Decoding across sensory modalities reveals common supramodal signatures of conscious perception. *Proceedings of the National Academy of Sciences*.

Funding

Overall acquired funding 2004-present: ~ 5.046.318 € (4.439.875 € as PI)

Amt der Salzburger Landesregierung: "Hidden Hearing Loss"; Status: PI; 01.06.2021 → 31.12.2023; 163.500 €

FWF Project: "Impact of face masks on speech comprehension"; Status: PI; 01.11.2020 – 30.04.2024; 252.452 €

FFG BRIDGE 1 Project in cooperation with MED-EL Medical Electronics: "Development of "smart CIs" to improve postoperative rehabilitation of cochlear implant users"; Status: PI; 01.07.2019 – 30.06.2023; 456.320 €

Sivantos Project: "Monitoring hearing-nerve activity as information source for fitting hearing-aids"; Status: PI; 01.02.2019 – 31.01.2023; 180.000 €

FWF Project: "Audiovisual speech entrainment in deafness"; Status: PI; 01.07.2018 – 30.06.2023; 384.542 €

EU Horizon 2020 & Marie Skłodowska-Curie action: "European School for Interdisciplinary Tinnitus Research (ESIT)"; Status: Co-PI; 01.04.2017 – 31.03.2021; 255.934 €

ERC Starting Grant "Brain-State Dependent Perception: Finding the Windows to Consciousness"; Status: PI; 01.05.2012-31.10.2017; 1.500.000€.

MWK Baden-Württemberg Research Seed Capital: "Echtzeit-Darstellung elektrophysiologischer Korrelate der bewussten Wahrnehmung"; Status: PI; 01.10.2009-30.09.2011; 100.000 €.

DFG Emmy-Noether Program: "Macroscopic Oscillatory Neuronal Correlates of Phantom Perception"; Status: PI; 01.08.2008-01.08.2013; 1.378.977 €.

Tinnitus Research Initiative (TRI): "TMS Induced Modifications of the Neural Network Coding Tinnitus Sensation"; Status: PI; 01.01.2007-31.12.2009; 120.000 €.

DFG Research Fellowship: "Monitoring Top-Down and Bottom-Up Modulation of Auditory Steady-State Responses and its Relationship with Behaviour"; Status: PI; 01.08.2006-01.08.2008; 67.584 €.

Tinnitus Research Initiative (TRI): "Neurofeedback-Induced Modification of the Neural Network Representing Tinnitus Distress"; Status: Co-PI; 01.07.2006-31.12.2009; 100.000 €.

Tinnitus Research Initiative (TRI): "Measuring, Modifying and Modeling Oscillatory Brain Activity in Tinnitus"; Status: Co-PI; 01.05.2006-01.05.2008; 12.000 €.

DFG Research Grant: "Use-Induced Reorganization of the Auditory Cortex in Tinnitus"; Status: Co-PI; 01.04.2004-31.03.2009; 238.509 €.

Honours and keynote lectures

“Predictive listening in normal and phantom perception”. Keynote speaker at the MEG NORD 2020 conference. Moscow, Russian Federation, May 26th-27th 2020.

“Kognitive Neurowissenschaft trifft auf die HNO-Heilkunde”. Invited speaker at the 63rd Annual Meeting of the Austrian Society of Oto-Rhino-Laryngology – Head and Neck Surgery. Salzburg, Austria, September 11th- 15th 2019.

“Enhanced anticipatory predictions in the auditory system of individuals with tinnitus”. Keynote speaker at the 12th Conference of Tinnitus Research Initiatives (TRI 2019). Taipei, Taiwan, May 17th- 19th 2019.

“Interaktionen zwischen Hörnerv und Gehirn – ein Zugang zur Untersuchung neuroplastischer Prozesse nach CI”. Invited speaker at the 61. Wissenschaftliche Jahrestagung der Deutschen Gesellschaft für Klinische Neurophysiologie und Funktionelle Bildgebung (DGKN). Leipzig, Germany, April 27th- 29th 2017.

“Neuronale Anpassungen des Gehirns nach Schwerhörigkeit/Taubheit: Implikationen für die Anwendung von Hörprothesen”. Chair at the 61. Wissenschaftliche Jahrestagung der Deutschen Gesellschaft für Klinische Neurophysiologie und Funktionelle Bildgebung (DGKN). Leipzig, Germany, April 27th- 29th 2017.

“Macroscopic neural dynamics in support of auditory perception”. Invited speaker at the CBBM lecture series - Center of Brain, Behavior and Metabolism, University of Lübeck. Lübeck, Germany, February 14th 2017.

“Was hat Tinnitus mit Hans Berger zu tun? An-/Einsichten eines kognitiven Neurowissenschaftlers”. Invited speaker at the Continuing Education Course „Tinnitus Respectively Tinnitus Therapy” - Schön Klinik Roseneck. Prien am Chiemsee, Germany, November 16th 2016.

“Auf den Spuren der Prädispositionen bewusster Wahrnehmung - der Windows to Consciousness Ansatz”. Keynote presentation at the 12. Tagung der Österreichischen Gesellschaft für Psychologie. Innsbruck, Austria, March 31st – April 2nd 2016.

“Welche Bedeutung haben neuronale Oszillationen für Hören und Tinnitus?”. Invited speaker at the 60. Wissenschaftliche Jahrestagung der Deutschen Gesellschaft für Klinische Neurophysiologie und Funktionelle Bildgebung (DGKN). Düsseldorf, Germany, March 16th – 19th 2016.

Invited speaker at the “2014 Tübingen MEG Symposium”, 27th-28th Oct. 2014. Title: TBA

Keynote lecture given at the Journée Scientifique of NeuroQam (Montreal), 29th Nov. 2013
Title: “Abandoning nothingness from understanding cognition: How oscillatory brain states shape perception?”

Keynote lecture given at TRI conference (Bruges), 14th Jun. 2012
Title: “Auditory alpha: from clinical to cognitive neuroscience and back”

Biomag 2012 (Dubrovnik, Croatia)

Winning contribution to data analysis competition on “Decoding word and category specific

representations" (Emanuele Olivetti, Yuan Tao & Nathan Weisz)

Award of ERC Starting Grant, 2011

Member of the Zukunftskolleg between 2008-2012

Grant awarded in Emmy-Noether program of the DFG

Service

Associate Editor for BMC Neuroscience (2010-present)

Associate Editor for Psychophysiology (2018-present)

Ad-hoc reviewer for:

Annals of Neurology, Audiology and Neuro-Otology, Biological Psychology, BMC Neuroscience, Brain, Brain Connectivity, Brain Research, Brain Topography, Cerebral Cortex, Current Biology, eLife, European Journal of Neuroscience (EJN), Experimental Brain Research, Frontiers in Human Neuroscience, Frontiers in Neuroscience, Frontiers Psychology, Hearing Research, Human Brain Mapping, IEEE Transactions on Biomedical Engineering, JARO, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: HPP, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Neurotherapy, Nature Communications, Neuron, Network Neuroscience, NeuroImage, Neuroscience, Neuroscience & Biobehavioral Reviews, Neuroscience Letters, PLOS Biology, PLOS One, PNAS, Psychophysiology, Restorative Neurology and Neuroscience, Scientific Reports, Trends in Cognitive Sciences

Reviews for Funding Institutions:

Actions on Hearing Loss, Deutsche Forschungsgemeinschaft, Medical Research Council, Netherlands Organization for Scientific Research, Tinnitus Research Initiative, Research Grants Council of Hong Kong, Royal National Institute of Deafness, University of Antwerpen, Research Foundation Flanders (FWO); Neurological Foundation of New Zealand; ERC

Member of Scientific Committee for the evaluation of past scientific activities and future directions of the Lyon neuroimaging platform (CERMEP), 14.10.2013

Italian representative on management committee of the COST Action BM1306 - Better Understanding the Heterogeneity of Tinnitus to Improve and Develop New Treatments (TINNET)