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University Research Priority Program
Dynamics of Healthy Aging
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Academic Employment

10/2016 - pres	**Senior Research Fellow.** University of Zurich, University Research Priority Program Dynamics of Healthy Aging
03/2015 - 06/2016	**Postdoctoral Visiting Fellow.** Max Planck Institute for Human Cognitive and Brain Sciences (Leipzig), Neuroanatomy and Connectivity Group
11/2012 - 12/2014	**Postdoctoral Assistant.** University of Zurich, Division Neuropsychology
02/2010 - 10/2012	**Assistant.** University of Zurich, Division Neuropsychology

Education

02/2010 - 10/2012	**Ph.D.** (Dr. phil.) Neuropsychology, University of Zurich Thesis: *Combined brain imaging methods to study structural and functional signatures of auditory and speech processing*
10/2004 - 01/2010	**M.Sc.** (Mag. rer. nat.) Psychology, University of Graz Thesis: *Cortical Reconstruction of Rapidly Changing Acoustic Cues in Speech. An fMRI Study.*

Peer-Reviewed Publications

2016

Liem, F., Varoquaux, G., Kynast, J., Beyer, F., Kharabian Masouleh, S., Huntenburg, J. M., Lampe, L., Rahim, M., Abraham, A., Craddock, R. C., Riedel-Heller, S., Luck, T., Loeffler, M., Schroeter, M. L., Witte, A. V., Villringer, A., and Margulies, D. S. (2016). Predicting brain-age from multimodal imaging data captures cognitive impairment. *Neuroimage*, 148:179–188

Golchert, J., Smallwood, J., Jefferies, E., Seli, P., Huntenburg, J., **Liem, F.**, Lauckner, M. E., Oligschläger, S., Bernhardt, B. C., Villringer, A., and Margulies, D. S. (2016). Individual variation in intentionality in the mind-wandering state is reflected in the integration of the default-mode, fronto-parietal, and limbic networks. *Neuroimage*, 146:226–235

Golchert, J., Smallwood, J., Jefferies, E., **Liem, F.**, Huntenburg, J., Falkiewicz, M., Lauckner, M. E., Oligschläger, S., Villringer, A., and Margulies, D. S. (2016). In need of constraint: understanding the neurocognitive basis of the impulsive mind. *Neuroimage*

Jakobsen, E. N., **Liem, F.**, Klados, M., Bayrak, S., Petrides, M., and Margulies, D. S. (2016). Automated individual-level parcellation of Broca's region based on functional connectivity. *Neuroimage*

Meyer, M., Neff, P., **Liem, F.**, Kleinjung, T., Weidt, S., Langguth, B., and Schecklmann, M. (2016). Differential tinnitus-related neuroplastic alterations of cortical thickness and surface area. *Hearing Research*, 342:1–12

Hirsiger, S., Koppelmans, V., Merillat, S., **Liem, F.**, Erdeniz, B., Seidler, R. D., and Jäncke, L. (2016). Structural and functional connectivity in healthy aging: associations for cognition and motor behavior. *Hum Brain Mapp*, 37(3):855–867

Klein, C., **Liem, F.**, Hänggi, J., Elmer, S., and Jäncke, L. (2016). The "silent" imprint of musical training. *Hum Brain Mapp*, 37(2):536–546

2015 Joel, D., Berman, Z., Tavor, I., Wexler, N., Gaber, O., Stein, Y., Shefi, N., Pool, J., Urchs, S., Margulies, D., **Liem, F.**, Hänggi, J., Jäncke, L., and Assaf, Y. (2015). Sex beyond the genitalia: The human brain mosaic. *PNAS*, 112(50):15468–15473

Hurschler, M. A., **Liem, F.**, Oechslin, M., Stämpfli, P., and Meyer, M. (2015). fMRI reveals lateralized pattern of brain activity modulated by the metrics of stimuli during auditory rhyme processing. *Brain and Language*, 147:41–50

Liem, F., Mérillat, S., Bezzola, L., Hirsiger, S., Madhyastha, T., and Jäncke, L. (2015). Reliability and statistical power analysis of cortical and subcortical FreeSurfer metrics in a large sample of healthy elderly. *Neuroimage*, 108:95–109

Jäncke, L., Mérillat, S., **Liem, F.**, and Hänggi, J. (2015). Brain size, sex, and the aging brain. *Hum Brain Mapp*, 36(1):150–169

2014 Hänggi, J., Fövenyi, L., **Liem, F.**, Meyer, M., and Jäncke, L. (2014). The hypothesis of neuronal interconnectivity as a function of brain size – A general organization principle of the human connectome. *Frontiers in Human Neuroscience*, 11:915

Elmer, S., Klein, C., Kühnis, J., **Liem, F.**, Meyer, M., and Jäncke, L. (2014). Music and language expertise influence the categorization of speech and musical sounds: Behavioural and electrophysiological measurements. *J Cognitive Neurosci*, 26(10):2356–2369

Madhyastha, T., Mérillat, S., Hirsiger, S., Bezzola, L., **Liem, F.**, Grabowski, T., and Jäncke, L. (2014). Longitudinal reliability of Tract-Based Spatial Statistics in Diffusion Tensor Imaging. *Hum Brain Mapp*, 35(9):4544–4555

Meyer, M., **Liem, F.**, Hirsiger, S., Jäncke, L., and Hänggi, J. (2014). Cortical surface area and cortical thickness demonstrate differential structural asymmetry in auditory-related areas of the human cortex. *Cereb Cortex*, 24(10):2541–52

Rufener, K., **Liem, F.**, and Meyer, M. (2014). Age-related differences in auditory evoked potentials as a function of task modulation during speech and non-speech processing. *Brain and Behaviour*, 4(1):21–28

Liem, F., Hurschler, M. A., Jäncke, L., and Meyer, M. (2014). On the planum temporale lateralization in suprasegmental speech perception: Evidence from a study investigating behavior, structure, and function. *Hum Brain Mapp*, 35(4):1779–89

2013 Hurschler, M. A., **Liem, F.**, Jäncke, L., and Meyer, M. (2013). Right and left perisylvian cortex and left inferior frontal cortex mediate sentence-level rhyme detection in spoken language as revealed by sparse fMRI. *Hum Brain Mapp*, 34:3182–3192

2012 **Liem, F.**, Zaehle, T., Burkhard, A., Jäncke, L., and Meyer, M. (2012). Cortical thickness of supratemporal plane predicts auditory N1 amplitude. *NeuroReport*, 23(17):1026–1030

Liem, F., Lutz, K., Luechinger, R., Jäncke, L., and Meyer, M. (2012). Reducing the interval between volume acquisitions improves "sparse" scanning protocols in event-related auditory fMRI. *Brain Topogr*, 25(2):182–93

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