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During my master studies 2014-2016, I laid the base for the further research direction of my PhD. From the very beginning, I worked as a research assistant and conducted several studies focusing on quantifying fatigability by analyzing gait (inertial measurement units (IMUs) based Attractor Method) in people with Multiple Sclerosis (pwMS). The projects were supervised by Prof. Vieten (University Konstanz) and by Prof. Dettmers (Medical Director Neurorehabilitation) due to the cooperation with the Kliniken Schmieder. From October 2016 until May 2017, I continued the projects at the clinic as a PhD student. In July 2017, I decided to change to the Otto-von-Guericke-University Magdeburg due to private reasons and lack of funding. Here, I sustained in the area of MS and gait analysis restarting my PhD. The first studies will be still focused on quantifying fatigability in pwMS. The level of gait automaticity will be assessed by applying IMUs to determine gait characteristics (such as step length or minimum toe clearance) but also by using near infrared spectroscopy (fNIRS). Both in combination, the classical gait parameters and the prefrontal activation while walking under normal and dual-task condition, may result in a better understanding of the underlying mechanisms of fatigability.

Link to publications

Publications Dettmers, C., Broscheid, K. C., Sehle, A., Sagoe, E. & Vieten, M. (2017) Objektivierung motorischer Fatigability. Zeitschrift für Neuropsychologie (2017), 28 (2), 149–186

<https://doi.org/10.1024/1016-264X/a000119>.

Broscheid, K. C. & Zech, A. (2016)

Influence of Barefoot, Minimalist and Standard Footwear Conditions on Gait and Balance in Healthy Older Adults. J Am Geriatr Soc, 64(2), 435-437.

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