

## Curriculum Vitae

**Address** Dr. rer. nat. Daniel S. Kluger  
Westfälische Wilhelms-Universität Münster  
Institute for Biomagnetism and Biosignal Analysis  
Malmedyweg 15, 48149 Münster  
Phone: +49 251 83-52543  
Email: daniel.kluger@wwu.de

### **Education**

- 2009-2014 Psychology studies, University of Münster
- 2014 Master of Science (Psychology), University of Münster
- 2015 Research stay (three weeks, supervised by Dr. Moritz Wurm) at the Center for Mind/Brain Sciences (CIMEC), University of Trento, Italy  
Topic: Multivariate analyses of fMRI and MEEG data
- 2014-2019 PhD at the Institute for Psychology at the University of Münster  
*Informational segmentation in event prediction: Temporal dynamics and predictive efficiency* (summa cum laude)
- 2014-2019 Graduate of the interdisciplinary research programme of the Otto Creutzfeldt Center for Cognitive and Behavioral Neuroscience, University of Münster

### **Academic career**

since 2019 PostDoc in the MEG group of Prof. Joachim Gross, Institute for Biomagnetism and Biosignal Analysis, University Clinic Münster

since 2022 Junior research group leader ('Body, Brain, and Behaviour'), Institute for Biomagnetism and Biosignal Analysis, University Clinic Münster

Research focus: Body-brain interactions, M/EEG, predictive processing

### **Engagement in the Research System**

Ad-hoc reviewer for Trends in Cognitive Sciences, Nature Communications, Journal of Neuroscience, NeuroImage, Biological Psychology, Network Neuroscience, Psychophysiology, Psychological Review, eNeuro, and many others.

### **Supervision of Researchers in Early Career Phases**

I am currently co-supervising two external PhD students, one from the University of Münster (2019 – 2023) and one from Aarhus University (Denmark, 2020 – 2024). Since August 2023, the first PhD student under my supervision has started working on the project „A translational perspective on body-brain coupling and human perception“ (funded by the IMF). I have previously supervised five Bachelor's theses and one Master's thesis at the Department for Psychology, University of Münster.

## Select publications

- Abbasi, O.\*, **Kluger, D. S.\***, Chalas, N., Steingraeber, N., Meyer, L., & Gross, J. (2023). Predictive coordination of breathing during speaking and listening. *iScience*, 107281. DOI: 10.1101/2022.11.23.517631
- Abbasi, O., Steingraeber, N., Chalas, N., **Kluger, D. S.**, & Gross, J. (2023). Spatio-temporal dynamics characterise spectral connectivity profiles of continuous speaking and listening. *PLoS Biology*. DOI: 10.1101/2022.11.17.516860
- Brændholt, M.\*, **Kluger, D. S.\***, Varga, S., Heck, D. H., Gross, J., & Allen, M. (2023). Breathing in Waves: Understanding Respiratory-Brain Coupling as a Gradient of Predictive Oscillations. *Neuroscience & Biobehavioral Reviews*, 105262.
- Gross, J.\*, **Kluger, D. S.\***, Abbasi, O., Chalas, N., Steingräber, N., Daube, C., & Schoffelen, J. M. (2021). Comparison of undirected frequency-domain connectivity measures for cerebro-peripheral analysis. *NeuroImage*, 245, 118660. DOI: 10.1016/j.neuroimage.2021.118660
- Kluger, D. S.**, & Gross, J. (2020). Depth and phase of respiration modulate cortico-muscular communication. *NeuroImage*, 222, 117272. DOI: 10.1016/j.neuroimage.2020.117272
- Kluger, D. S.**, & Gross, J. (2021). Respiration modulates oscillatory neural network activity at rest. *PLoS Biology*, 19(11), e3001457. DOI: 10.1371/journal.pbio.3001457
- Kluger, D. S.**, Balestrieri, E., Busch, N. A., & Gross, J. (2021). Respiration aligns perception with neural excitability. *eLife*, 10, e70907. DOI: 10.7554/eLife.70907
- Kluger, D. S.**, Forster, C., Abbasi, O., Chalas, N., Villringer, A., & Gross, J. (2023). Modulatory dynamics of periodic and aperiodic activity in respiration-brain coupling. *Nature Communications*, 14(1), 4699.
- Pfeffer, T., Keitel, C., **Kluger, D. S.**, Keitel, A., Russmann, A., Thut, G., Donner, T. H. & Gross, J. (2022). Coupling of pupil-and neuronal population dynamics reveals diverse influences of arousal on cortical processing. *eLife*, 11, e71890. DOI: 10.7554/eLife.71890

## Academic Distinctions

2023: Acquisition of 187k € for IMF-funded PhD position („A translational perspective on body-brain coupling and human perception“, three years)

2022: Acquisition of 305k € (own share: 241k €) for DFG-funded PostDoc position („The role of respiration in human perception and cognition“, three years) together with Prof. Joachim Gross

2021: Acquisition of 120k € for a BMBF-funded research project („A VR-based learning environment to support therapy for children on the autism spectrum“) together with Dr. Omid Abbasi