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CLAIRE VALERIE WARREN



Department of Systems Neuroscience
University Medical Center Hamburg-Eppendorf
Martinistr. 52, W34
20246 Hamburg



c.warren@uke.de

About Me

I am currently working as a Postdoctoral researcher in the Treatment Expectations research group at the University Clinic Eppendorf (UKE). This project will assess the various neurobiological and psychological mechanisms influencing treatment outcome in patients with depression.

I recently defended my doctoral thesis at the Hannover Medical School (MHH), with a focus on the effects of catecholaminergic neurotransmitters on specific cognitive event-related potentials.

Claire Valerie Warren

Curriculum Vitae

Personal Information

Date / Place of Birth: 14.02.1992 / Sligo, Ireland
Nationality: Irish - EU Citizen
Marital status: Single

Academic Background

1.04.2021 – Postdoctoral Researcher, SFB 289 “Treatment Expectations”
Universitätsklinikum Hamburg-Eppendorf (UKE) – Hamburg, Germany

1.10.17 – 31.03.21 PhD in Cognitive Neuroscience
Medizinische Hochschule Hannover – Hannover, Germany

2014 - 2015 Master of Research (MRes) in Integrative Neuroscience (2:1)
University of Edinburgh – Edinburgh, United Kingdom

2010 - 2014 Bachelor of Science (BSc) in Psychology (through science) (2:1)
Maynooth University – Maynooth, Ireland

2004 - 2010 High School Diploma
Sligo Grammar School – Sligo, Ireland

Doctoral Dissertation

Submission: 8.01.2021

Title: “Altered neurotransmitter states and their effects of Electrophysiological Correlates of Executive Attention”

Summary: Our primary interest is how ERPs related to cognition are altered by clinical dopaminergic dysfunction, dopaminergic medication, or suspected norepinephrinergic stimulation (see Publications as first author).

Research Experience

Hannover Medical School (*Medizinische Hochschule Hannover*)

1.10.17-31.03.21

Title: “The effect of cannabis-based medication on neural correlates of attention in patients with Gilles de la Tourette Syndrome”

Supervisor: Prof. Dr. Bruno Kopp

My most recent study compared attention-related ERPs between two groups of patients with Gilles de la Tourette Syndrome. Using an oddball task, flanker task, and novel oddball task, we are comparing patients receiving cannabis-based medication for the treatment of their tics to patients who receive traditional (or no) medication. Furthermore, we record data from a group of control subjects, with no neurological or psychiatric diagnoses. In this manner, we wish to examine ERP differences in Gilles de la Tourette Syndrome, and how these differences are further influenced by cannabis-based medication.

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Curriculum Vitae

This was facilitated by the EEG facilities in the Department of Neurology (provided by my supervisor Prof. Dr. Bruno Kopp), as well as the role of my co-supervisor, Prof. Dr. Kirsten Müller-Vahl, as a specialist of Tourette Syndrome in the Clinic for Psychiatry, Social Psychiatry, and Psychotherapy.

- Recruitment of patients from the Clinic for Psychiatry, Social Psychiatry, and Psychotherapy
- Conducting cognitive screenings using the Wortschatztest (WST) and Montreal Cognitive Assessment (MoCA) to assess patient suitability for participation
- Administration of a battery of clinical questionnaires. This included a brief assessment of clinical symptoms. Tics were assessed using the Yale Global Tic Severity Scale (YGTSS), while obsessions and compulsions are assessed using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS).
- Acquisition and analysis of EEG data
- All proceedings conducted in German.

Title: *“The effect of transcutaneous auricular vagal nerve stimulation (taVNS) on P3 event-related potentials during a bayesian oddball task”* (see Publications as first author)

Supervisor: Prof. Dr. Lorenza Colzato - *Leiden University, Netherlands*

I was invited to Leiden University for 2 months as a guest researcher, where I was trained to administer taVNS and record pupil dilation and heart-rate variability data. I then utilized this training to independently run an experiment using their facilities,

- Recruitment of participants through the online student portal
- Application of active and sham (control) taVNS
- Application of electrodes, acquisition and monitoring of EEG data
- Performing HRV and pupil dilation measurements before and after each recording session, to assess baseline physiological measures versus those post active/sham taVNS
- Analysis of raw EEG data using BrainVision Analyzer, with further analysis of epoched ERP data in RIDE (to control for latency variation within subjects)
- Statistical analysis of data using SPSS

University of Edinburgh

September 2014- October 2015

Title: *“The relationship between white matter hyperintensities, brain atrophy and motor signs in patients, using data from the Edinburgh Motor Assessment (EMAS)”*

Supervisor: Dr. Thomas Bak - *Anne Rowling clinic, Royal Infirmary Edinburgh*

This project examined the links between EMAS scores and atrophy/white matter patterns in patients with various cognitive impairments. We devised a novel visual rating scale for MRI grading of atrophy and used an established scale for white matter.

- Reviewing the literature for current practices of atrophy classification and using this to decide upon new criteria for a visual rating scale
- Handling confidential patient information
- Arranging neurologists’ grading sessions and assisting with grading decisions
- Conducting linear multiple regressions using SPSS to examine associations between these traits and EMAS subscales
- Presenting the analysed data to the Edinburgh Neuroscience department for my final MRes exam

Claire Valerie Warren

Curriculum Vitae

Title: “Developing retinal analysis for biomarker discovery in neurodegenerative disease”

Supervisor: Dr. Tom MacGillivray - *Clinical Research Imaging Centre, Royal Infirmary Edinburgh*

I was trained to use Vampire retinal-analysis software to examine geometric features of the arterioles and venules of patients with various forms of dementia. This required manual identification of each vessel and selection of those most appropriate for analysis. A subsequent systematic review of the literature in this relatively new field, resulted in my contribution to two publications and a conference presentation (see Additional Publications).

- Completed image analysis using Vampire
- Recorded and interpreted the final data in SPSS
- Regular presentation of my findings to colleagues in the Imaging Centre
- Additional experience with the Vampire software (troubleshooting, manual inspection process etc.)

Maynooth University

2010 - 2014

Title: “The effect of Vestibular rotation on blindfolded spatial navigation over various distances”

Supervisor: Dr. Sean Commins - *Department of Psychology, National University of Ireland Maynooth*

This project examined how disruption of the body’s vestibular system impacts spatial orientation and distance estimation.

- Independently organized sessions (in which participants were asked to complete blindfolded navigational trials) and recorded the relevant behavioural variables
- Used SPSS to observe associations between the experimental conditions and these variables, which were later presented as a poster at the National Psychology Congress.
- My primary roles in the project were to complete image analysis

Publications

First author or co-first author:

Bertram, M., Warren, C. V., Lange, F., Seer, C., Steinke, A., Wegner, F., ... & Kopp, B. (2020). Dopaminergic modulation of novelty repetition in Parkinson’s disease: A study of P3 event-related brain potentials. *Clinical Neurophysiology*.

Warren, C. V., Maraver, M. J., de Luca, A., & Kopp, B. (2020). The effect of transcutaneous auricular vagal nerve stimulation (taVNS) on P3 event-related potentials during a bayesian oddball task. *Brain Sciences*, 10(6), 404. Warren, C., Seer, C., Lange, F., Kopp, B., & Müller-Vahl, K. (2020). Neural correlates of performance monitoring in adult patients with Gilles de la Tourette syndrome: A study of event-related potentials. *Clinical Neurophysiology*, 131(3), 597-608.

Warren, C., Seer, C., Lange, F., Kopp, B., & Müller-Vahl, K. (2020). Neural correlates of performance monitoring in adult patients with Gilles de la Tourette syndrome: A study of event-related potentials. *Clinical Neurophysiology*, 131(3), 597-608.

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Curriculum Vitae

Additional Publications:

- Cameron J.R., Ballerini L., Langan C., Warren C., Denholm N., Smart K., & MacGillivray T.J. (2016). Modulation of retinal image vasculature analysis to extend utility and provide secondary value from optical coherence tomography imaging. *Journal of Medical Imaging*; 3(2):020501. doi:10.1117/1.JMI.3.2.020501
- McGrory, S., Cameron, J., Pellegrini, E., Warren, C., Doubal, F., Deary, I., Dhillon, B., Wardlaw, J., Trucco, E. & MacGillivray, T.J. (2016). The application of retinal fundus camera imaging in dementia: a systematic review. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 1(17). doi:10.1016/j.dadm.2016.11.001
- Cameron J.R., Ballerini L., Langan C., Warren C., Denholm N., Smart K., & MacGillivray T.J. (2016). Modulation of VAMPIRE retinal vasculature analysis software to extend utility and provide secondary value from optical coherence tomography imaging. Poster presented at the ARVO annual meeting in Seattle, USA, May 2016.

Conference Participation

Poster presentation - *Dublin 2014, National Psychology Congress*

- Bachelor's Thesis: *The effect of Vestibular rotation on blindfolded spatial navigation over various distances*

Workshop - *University of Trier 2017, Psychologie und Gehirn Conference*

- *An Introduction to Spectral Analysis and Evaluation of Event-Dependent Potentials in the EEG*

Poster Presentation - *Hannover 2018, European Society for the Study of Tourette Syndrome*

- Warren C, Seer C, Lange F et al. (2018). *Neural correlates of performance monitoring in adult patients with Gilles de la Tourette syndrome: A study of event-related potentials [version 1; not peer reviewed]. F1000Research 2019, 8:799 (poster).*

Workshop - *University of Birmingham 2018*

- *The ERP Boot Camp by Steve Luck*

Software Skills

<i>Recording & Analysis of Imaging Data</i>	—	Biosemi, BrainVisionRecorder, BrainVisionAnalyzer, RIDE, Vampire
<i>Experimental Design</i>	—	Neurobehavioural Systems Presentation
<i>Statistical Analysis</i>	—	SPSS, JASP,
<i>Programming</i>	—	Completed courses <i>Data Analysis with R</i> and <i>introduction to Python</i>

Languages

English	—	Native Speaker
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Claire Valerie Warren

Curriculum Vitae

German

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B1.2 - Course Completed

B2 - Currently enrolled in course

Additional Work Experience and Volunteering

May 2018

Student project

- Gave secondary school students at the annual IdeenExpo a brief workshop on the methods used to assess cognitive functioning. Administered a brief version of the computerized Wisconsin Card Sorting Test (WCST).

2016

Level 1 guide for the blind/visually impaired – Official training

- Visionary Congress for Sight Loss Charities in Edinburgh

2015-2016

Restaurant Supervisor - Mercat Bar & Restaurant - Edinburgh, UK

2015-2016

Volunteer at Edinburgh Rotaract Club

- International organization; provides support to local services and communities

October 2015

Reception & guide for the blind - Visionary Conference, Edinburgh, UK

2013-2014

Waiting Staff - Piattini Italiani Restaurant, Sligo, Ireland:

2007-2014

Supervisor, Drumcliffe Tea House and Craft Shop, Sligo, Ireland:

Academic References

Prof. Dr. Bruno Kopp

Tel: 0511-532-2439 E-mail: kopp.bruno@mh-hannover.de

Primary supervisor of my PhD in the Department of Neurology, Medizinische Hochschule Hannover

Prof. Dr. Kirsten Müller-Vahl

Tel: 0511532-3551/-5258 E-mail: mueller-vahl.kirsten@mh-hannover.de

Secondary supervisor of my PhD, Klinik für Psychiatrie, Sozialpsychiatrie und Psychotherapie, Medizinische Hochschule Hannover