

LENNART VERHAGEN

DONDERS INSTITUTE | ASSISTANT PROFESSOR
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ABBREVIATED CURRICULUM VITAE

POSITIONS

assistant professor • Donders Institute, Centre for Cognition • Radboud University • 2019 - now
working on ultrasound neuromodulation in humans

senior research associate, member of congregation, fellow Linnean Society • University of Oxford • 2016 - now
working with Prof Matthew Rushworth, developing next generation brain stimulation in humans and monkeys.

PUBLICATIONS

I have an h-index of 19, with a total of 37 accepted publications having received over 1500 citations.

Offline impact of transcranial focused ultrasound on cortical activation in primates • 2019 • eLife

Verhagen L*, Gallea C*, ... Rushworth MFS[†], Pouget P[†], Aubry JF[†], Sallet J[†]

Manipulation of subcortical and deep cortical activity in the primate brain using transcranial focused ultrasound stimulation • 2019 • Neuron

Verhagen L*, Folloni D*, ..., Rushworth MFS[†], Sallet J[†]

Is the extrastriate body area part of the dorsal visuomotor stream? • 2018 • Brain Structure & Function
Zimmermann M, ..., **Verhagen L**

LEADERSHIP

supervisor – three PhD candidates
supervisor – eleven MSc students
line manager – one research assistant

chair – Early Career Researcher group, Oxford

organizer – ultrasound neuromodulation, Oxford, 2019

session chair – ISTU/EUFUS, Barcelona, 2019

session chair – ICA, Aachen, 2019

PROFILE

I'm an **integrative neuroscientist**, studying brain circuits across species, taking a systems level approach to develop **neuromodulation** tools for basic research and clinical treatment.

FUNDING

Wellcome Trust Strategic Initiatives, *main applicant*, 'Interdepartmental consortium for ultrasound neurostimulation' (2018)

Marie Curie Fellowship, European Commission, *main applicant*, 'Wiring Cognition: How the organisation of our brain enables uniquely human abilities' (2013)

PASSION

Dad of two, husband of one. Ultrasound and brain circuit fanatic. Methods geek and a code nerd. I love a challenge. I have a soft-spot for studying concepts and language. I'm passionate about food and beer. I enjoy public speaking.

INVITED TALKS

BrainBox Initiative Conference, London, 2019:
'Transcranial ultrasound stimulation'

ISTU/EUFUS, Barcelona, 2019: 'Modulating deep brain activity and behaviour in primates using focused transcranial ultrasound stimulation'

Radboud Research Rounds, Radboud UMC, Nijmegen, 2019: 'Next generation brain stimulation: non-invasive, deep, focal neuromodulation with ultrasound'

OHBM meeting, Singapore, 2018: 'Offline effects of transcranial focused ultrasound'

TEACHING

'Evolutionary Neuroscience' module, organiser, undergraduate programme, Experimental Psychology, Oxford, 2019

'Neuroanatomy', lectures and practicals, undergraduate programme, Experimental Psychology, Oxford, 2019

'Neuroanatomy', lectures, graduate programme, WIN/FMRIB, Oxford, 2016-2018

'Brain Stimulation', Neuroscience graduate programme, Experimental Psychology, Oxford, 2015-2016

QUOTES ABOUT MY WORK

"Making waves with ultrasound"
[Nature Reviews Neuroscience]

*"focused ultrasound shows promise
as a tool to probe deep brain function"*
[PNAS]

*"[this work] makes ultrasound a much more promising
tool to study the brain, and, potentially, to treat it"*
[prof Jamie Tyler]

SKILLS

Ultrasound, TMS, TCS, MRI, MEG, EEG, kinematics, behaviour.

Lead developer of open-source toolboxes for neuroanatomy (*MrCat*), and brain stimulation and connectivity (*orca*).

Matlab, bash shell, Python, R, Presentation, C++, Java, Spike2, Visual Basic, E-Prime.

MEDIA

radio interview, Radio 1 Belgium (2019) 'Nieuwe Feiten'

newspaper, de Volkskrant, (2019)
'Ultrageluid verandert hersenactiviteit: mogelijke methode om depressie te bestrijden'

REFERENCES

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