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Motor Rehabilitation

FMRIB
Oxford Centre for Functional MRI of the Brain

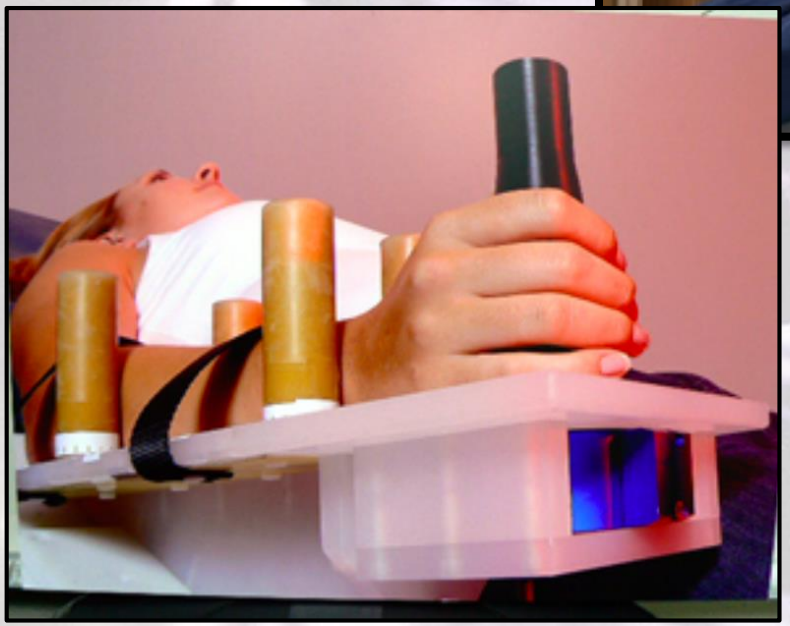
OHBA

Dr Charlotte Stagg

Associate Professor
Wellcome Trust / Royal Society Sir Henry Dale Fellow
Physiological Neuroimaging Group
University of Oxford

charlotte.stagg@ndcn.ox.ac.uk

Functional MRI – non-invasive human imaging



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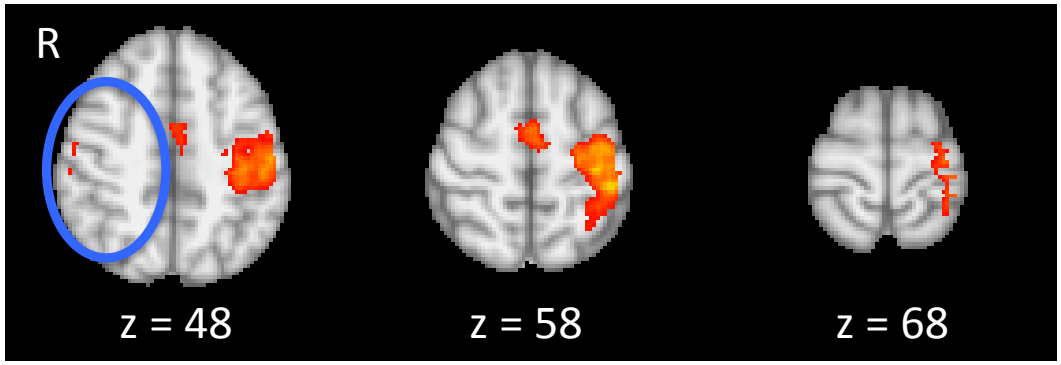
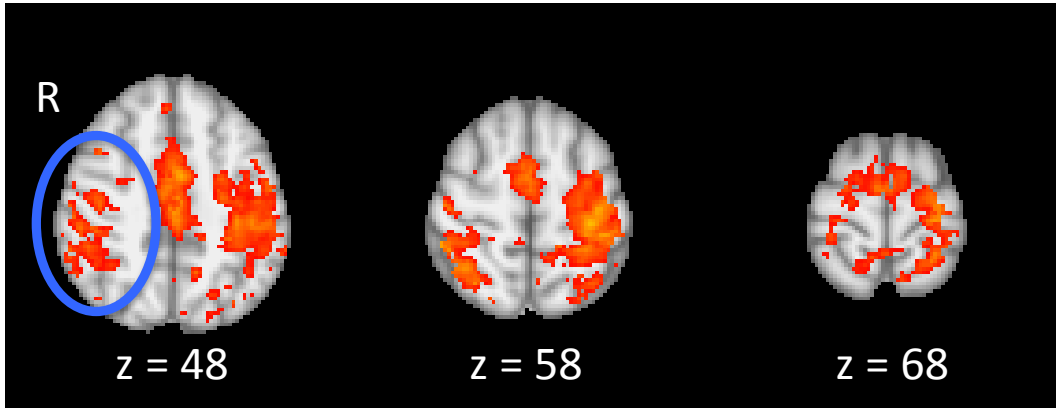
Stroke survivors use more of their brain when they move their hands than controls



Controls



Stroke survivors

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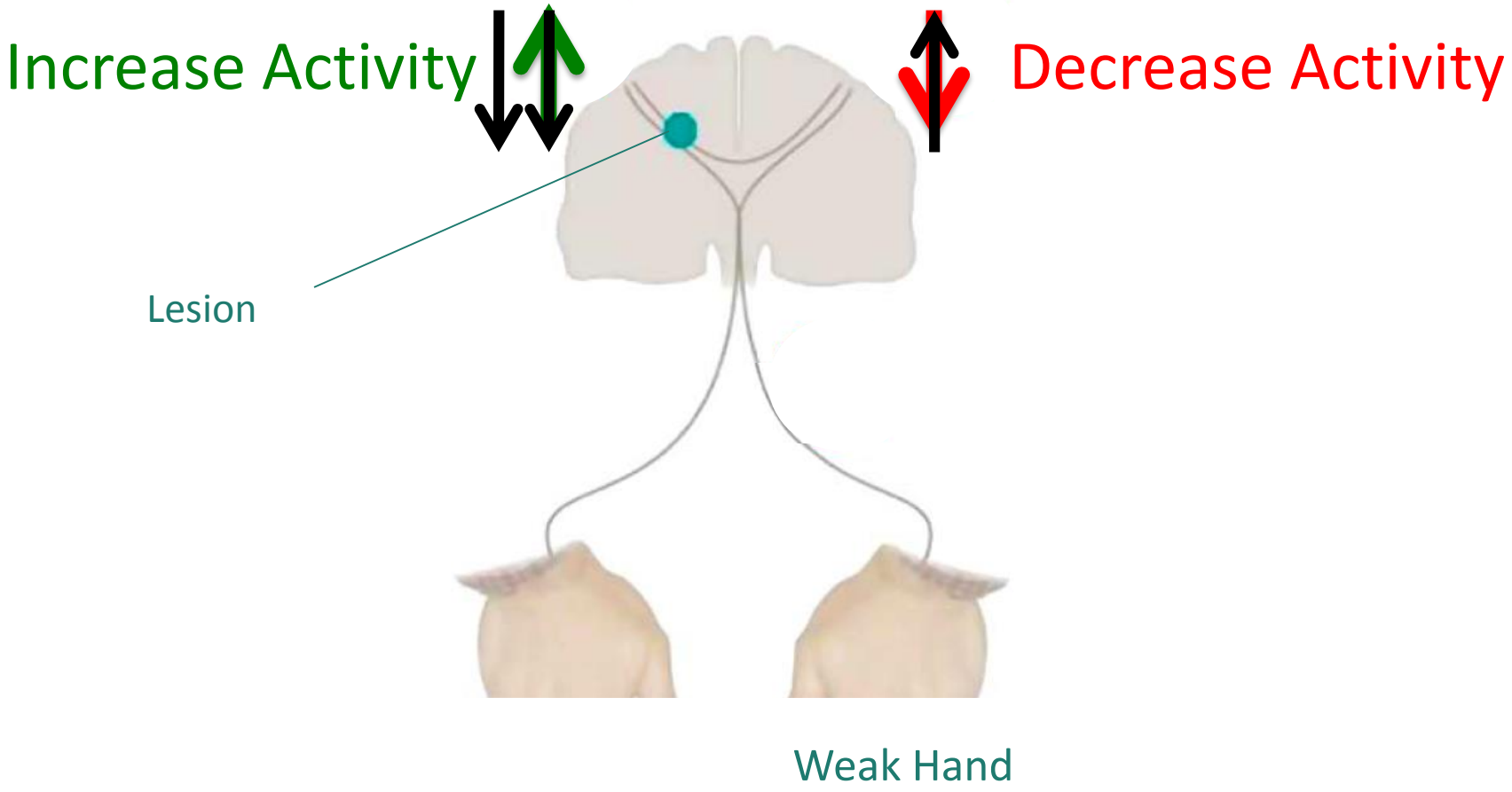
Targets in stroke neurorehabilitation - “rebalancing” the hemispheres



Ward & Cohen 2004

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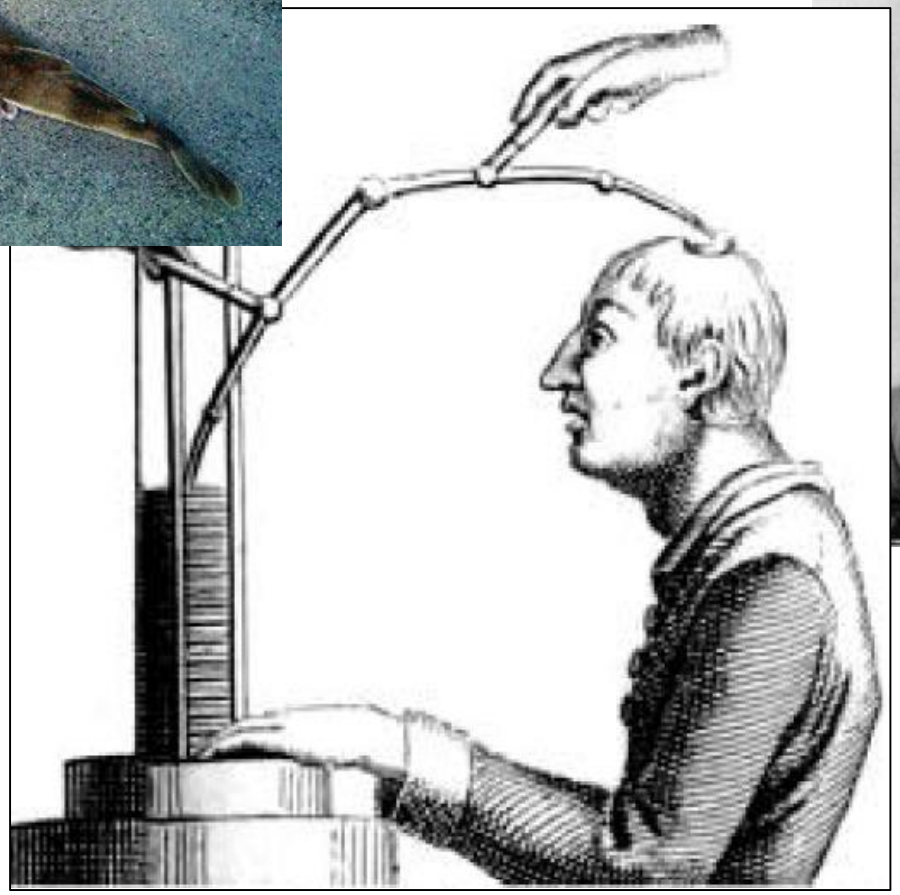
Brain stimulation is an old idea…



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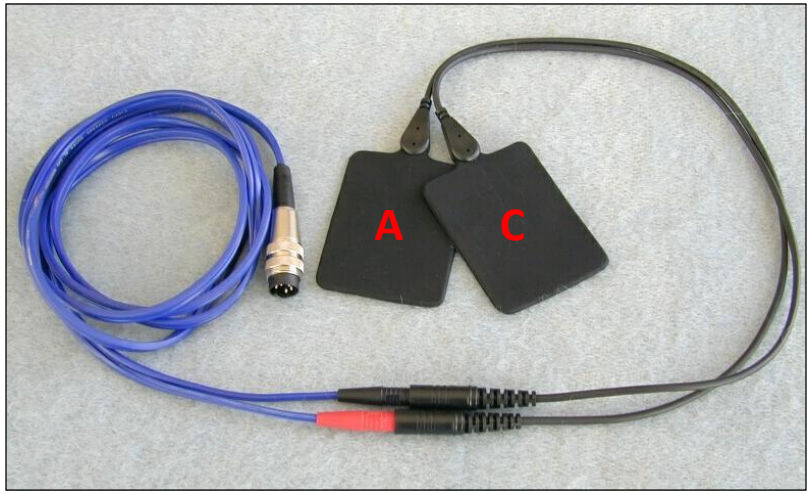
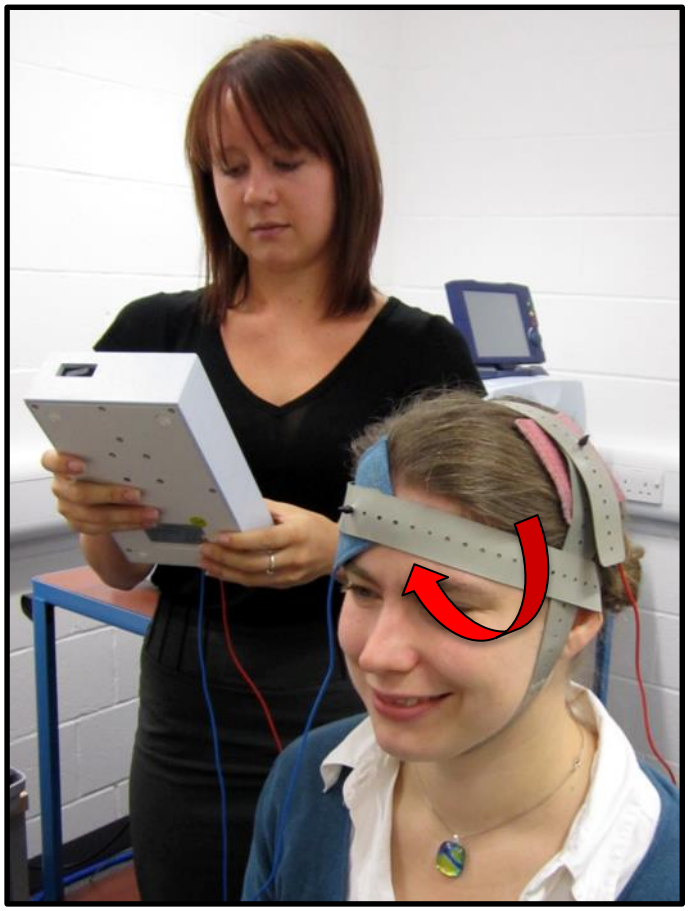
Transcranial Direct Current Stimulation (tDCS)





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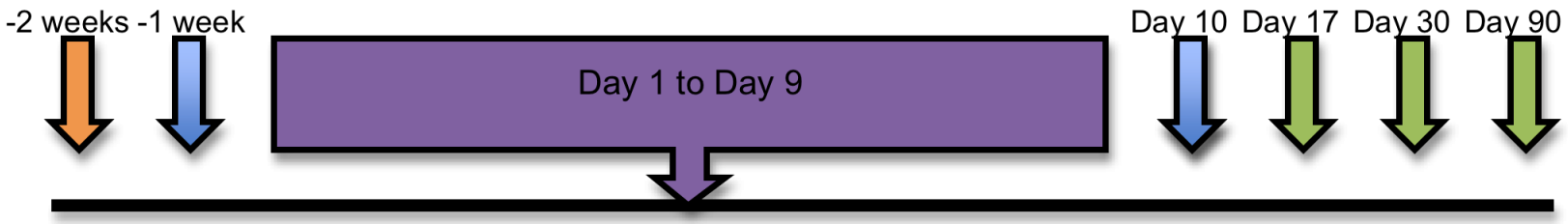
Trial of anodal tDCS to the ipsilesional motor cortex in stroke survivors



- Baseline Session: Including clinical measures and TMS
- MRI session
- Intervention: tDCS (anodal or sham) and motor training
- Follow-up sessions: Repetition of clinical measures

Allman, Amadi*, Wilkins, Winward, Filippini, Kischka, Stagg$ & Johansen-Berg$, submitted*

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Thanks

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