ELIZABETH YORK

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EMPLOYMENT

Postdoctoral Research Fellow Jan '22 - present

Centre for Clinical Brain Sciences, University of Edinburgh

- develop/apply quantitative microstructural MRI analysis methods in multiple sclerosis cohorts
- application of ultra-high field MRI in multiple sclerosis
- multivariate statistical analyses inc. MRI, blood biomarkers, cognitive and clinical indices of disability
- report and disseminate results at conferences and as published literature

EDUCATION

Doctor of Philosophy (PhD) in Clinical Brain Sciences Sept '17 – Dec '21 (awarded March '22)

Centre for Clinical Brain Sciences, University of Edinburgh

Thesis: Magnetisation transfer imaging biomarkers of demyelination in multiple sclerosis (primary supervisor: Professor Adam Waldman; secondary supervisor: Professor David Hunt)

Dual Master of Science (MSc) in Brain and Mind Sciences Sept '15 – Aug '17

Year 1: University College London

Dissertation with merit: Brain Abnormalities in Congenital Hypothyroidism: a Resting-State fMRI & Voxel-Based Morphometry Study' (supervisors: Professor Chris Clark and Dr Hannah Cooper)

- Introductory Science and Methods
- Foundational Neuroanatomy, Systems and Disease
- Pathology and Diagnostic Neuroimaging
- Imaging Modalities
- Disease of the Nervous System: Epilepsy, Tumours, Pain and Infection
- Cellular and Molecular Mechanisms of Disease

Year 2: Sorbonne University (UPMC) & École Normale Supérieure, Paris, France

Dissertation with 'mention assez bien': Cerebral Bases of Visual Processing and Spatial Cognition in Normal Ageing: a Resting-State fMRI Study (supervisors: Dr Angelo Arleo and Dr Stephen Ramanoël)

- Physiology of the Neuron
- Neuroscience of Consciousness
- Systems Neuroscience
- Neurobiology of Psychiatric Disorders

Bachelor of Arts (MA) in Psychology and French (with ERASMUS year abroad) with upper second class honours Sept '10 – Sept '15

University of Glasgow

Dissertation: 'Click and it's gone! The questionable existence of an impairment effect on memory from taking photographs and the influence of expectation' (supervisor: Professor Frank E Pollick)

Key modules include:

- Physiological Psychology
- Cognitive Psychology
- Statistics
- Social Psychology
- Human Development
- Individual Differences
- Professional Skills.

LAB PLACEMENTS AND EXCHANGES

Microstructural MRI SINAPSE exchange visit (Prof Derek Jones) Nov, Dec '22 (2 weeks)
Cardiff University Brain Research Imaging Centre (CUBRIC)

Placement in Aging in Vision and Action Lab (Dr Angelo Arleo) Jan – Apr '17
Institut de la Vision, CNRS–INSERM–UPMC, Paris

Placement in Developmental Imaging & Biophysics Lab (Prof Chris Clark) Jan – May '16
UCL Great Ormond Street Institute of Child Health

GRANTS AND AWARDS

RS MacDonald Seedcorn Fund (£10,000) with matched funding from the Imaging Centre of Excellence (ICE) QEUH and Anne Rowling Regenerative Neurology Clinic	July '23
SINAPSE Early Career Researcher Exchange Fund (£2450)	Oct '22
CSO Scottish PhD Research & Innovation Network Traineeships in MND/MS	Sept '17 – Dec '21
ISMRM Education Stipend (travel grant)	2019, 2020, 2022
Guarantors of Brain Travel Grant	2020
BICISMRM Student Stipend	2020

SUPERVISION AND TEACHING

◦ Co-supervision of Wellcome Trust PhD student rotation project	2024
◦ Supervision of final-year BSc student project	2023
◦ Co-supervision of Wellcome Trust PhD student rotation project	2023
◦ Co-supervision of intercalating medical student project	2021
◦ Training of BSc and PhD students and research assistants	*Ad hoc*
◦ Contributing teaching lectures to online MSc course	*Ad hoc*

PUBLICATIONS (in date order, *joint first author)

Meijboom, R, Foley, P, MacDougall, N, Mina, Y, **York, EN** et al. (2024) Fatigue in early multiple sclerosis ; MRI metrics of neuroinflammation, relapse and neurodegeneration. Brain Communications, fcae278. https://doi.org/10.1093/braincomms/fcae278

Kampaite, A, Gustafsson, R, **York, EN** et al. (2024) Brain connectivity changes underlying depression and fatigue in relapsing-remitting multiple sclerosis: a systematic review. Plos one, 19(3), e0299634. https://doi.org/10.1101/2022.12.07.22283104

Harper, J,* **York, EN*** et al. (2023) Quantitative T1 brain mapping in early relapsing-remitting multiple sclerosis: longitudinal changes, lesion heterogeneity and disability. European Radiology, 1-14. https://doi.org/10.1007/s00330-023-10351-6

Blesa Cábez, M, Vaher, K, **York, EN** et al. (2023) Characterisation of the neonatal brain using myelin-sensitive magnetisation transfer imaging. Imaging Neuroscience, 1: 1-17. https://doi.org/10.1101/2023.02.01.23285326

Meijboom, R, **York, EN** et al. (2023) Patterns of brain atrophy in recently-diagnosed relapsing-remitting multiple sclerosis. Plos one, 18(7), e0288967. https://doi.org/10.1371/journal.pone.0288967

York, EN et al. (2022) Longitudinal microstructural MRI markers of demyelination and neurodegeneration in early relapsing-remitting multiple sclerosis: Magnetisation transfer, water diffusion and g-ratio. NeuroImage Clinical. 36:103228. https://doi.org/10.1016/j.nicl.2022.103228

York, EN et al. (2022) Quantitative magnetization transfer imaging in relapsing-remitting multiple sclerosis: a systematic review and meta-analysis. Brain Communications, 4(2), fcac088. https://doi.org/10.1093/braincomms/fcac088

Meijboom, R, Wiseman, SJ, **York, EN** et al. (2022) Rationale and design of the brain magnetic resonance imaging protocol for FutureMS: a longitudinal multi-centre study of newly diagnosed patients with relapsing-remitting multiple sclerosis in Scotland. Wellcome Open Res., 7:94. https://doi.org/10.12688/wellcomeopenres.17731.1

Kearns, PKA, Martin, SJ, Chang, YT, Meijboom, R, **York, EN** et al. (2022) FutureMS cohort profile: a Scottish multicentre inception cohort study of relapsing-remitting multiple sclerosis. BMJ Open, 12:e058506. https://doi.org/10.1136/bmjopen-2021-058506

York, EN*, Martin, SJ* et al. (2021) MRI-derived g-ratio and lesion severity in newly diagnosed multiple sclerosis. Brain Communications, 3(4), fcab249. https://doi.org/10.1093/braincomms/fcab249

Ng Kee Kwong, KC, Mollison, D, Meijboom, R, **York, EN** et al. (2021) Rim lesions are demonstrated in early relapsing–remitting multiple sclerosis using 3 T-based susceptibility-weighted imaging in a multi-institutional setting. Neuroradiology, 64(1):109-117. https://doi.org/10.1007/s00234-021-02768-x

Ng Kee Kwong, KC, Mollison, D, Meijboom, R, **York, EN** et al. (2021). The prevalence of paramagnetic rim lesions in multiple sclerosis: A systematic review and meta-analysis. Plos one, 16(9), e0256845. https://doi.org/10.1371/journal.pone.0256845

Ramanoël, S, **York, E** et al. (2019) Age-related differences in functional and structural connectivity in the spatial navigation brain network. Frontiers in neural circuits, 13, 69. https://doi.org/10.3389/fncir.2019.00069

Ramanoël, S, **York, E** and Habas, C, (2018) Participation of the caudal cerebellar lobule IX to the dorsal attentional network. Cerebellum & ataxias, 5(1), 1-5. https://doi.org/10.1186/s40673-018-0088-8

CONFERENCES, TALKS AND WORKSHOPS

ECTRIMS Conference 2024, Copenhagen, poster 2024

MS Frontiers Conference and Early Career Researcher Afternoon, Liverpool, attended 2024

SINAPSE ASM 2024, Stirling, attended 2024

ISMRM & ISMRT Annual Meeting & Exhibition, Singapore, poster 2024

British Society of Neuroradiologists Annual Meeting, Edinburgh, presentation and poster 2023

Northern Connections in MS Meeting 2023, Edinburgh, attended 2023

Edinburgh-Cambridge MS Society Research Symposium, Edinburgh, presentation 2023

SINAPSE ASM 2022, Glasgow, presentation *(awarded best speaker in category)* 2022

Microstructure Imaging meets Machine Learning, post-ISMRM workshop, London, attended 2022

Joint Annual Meeting ISMRM-ESMRMB & ISMRT, London, three posters 2022

Northern Connections in MS Conference 2021, Edinburgh, attended 2021

ISMRM & SMRT Virtual Conference & Exhibition, Virtual, poster 2020

ESMRMB 36th Annual Meeting, Rotterdam, lightning talk and poster 2019

BICISMRM Annual Meeting, Sheffield, presentation 2019

4th MS Society Edinburgh Centre for MS Research Meeting, Edinburgh, invited talk 2019

Northern Connections in MS Conference 2019, Edinburgh, attended 2019

ISMRM 27th Annual Meeting & Exhibition, Montréal, poster 2019

Edinburgh Imaging Conference, Edinburgh, poster 2017

Neuroscience Workshop Saclay: Neural Circuits and Behavior, Paris, poster 2017

British Psychological Society Undergraduate Conference, Glasgow, presentation 2015

SOFTWARE

York, EN, Thrippleton, MJ, Waldman, A (2020) Magnetisation transfer saturation (MTsat) processing, [software]. University of Edinburgh. Centre for Clinical Brain Sciences. https://doi.org/10.7488/ds/2965.

OTHER RELEVANT SKILLS

Computing R; MATLAB; Linux; LaTeX; FSL, SPM12; MS Office; Mac OSX.

Languages English (native); French (fluent); Spanish (basics); Italian (basics).

Courses	Introduction to Good Clinical Practice (Aug ‘23); Informed Consent in Clinical Practice (Nov ‘23)