UK Symposium on Neuromodulation and Neurotechnology 2025

Tuesday 25th and Wednesday 26th November 2025

County Hotel, Newcastle Upon Tyne

Programme

All talks take place in the Mozart Suite

Day 1: Tuesday 25th November		
From 12.00	*Registration and lunch*	*County Suite*
13.00-13.10	Introduction and welcome	**Andrew Sharott,** University of Oxford
Review of the EPSRC/MRC Network+ in Neurotechnology		
13.10-13.25	Review of the Neuromod+ Network	**Simon Schultz**, Imperial College London
Neuromodulation for cognition and mental health – *chaired by Tamar Makin*		
13.25-13.45	Noninvasive brain stimulation for mental health – from the lab to the clinic, and back again	**Camilla Nord**, University of Cambridge
13.45-14.05	Rhythms and Circuits: neuromodulation strategies for memory and cognitive function	**Ines Violante**, King's College London
14.05-14.25	From Flickering movies and single-cell recordings to novel neurotechnology to restore human memory	**Simon Hanslmayr**, University of Glasgow
14.25-14.45	Panel discussion	
14.45-15.05	*Coffee break*	*County Suite*
Review of EPSRC/MRC Network+ in Neurotechnology		
15.05-15.20	Review of the CloseNIT Network	**Andrew Jackson**, Newcastle University
Implementation of Neurotechnology in Neurology and Psychiatry – *chaired by Tiago Costa*		
15.20-15.40	Adaptive DBS for Movement Disorders	**Huiling Tan**, University of Oxford
15.40-16.00	Neurotechnology treatments in clinical neuropsychiatry	**Paul Shotbolt**, Kings College London/Maudsley Hospital
16.00-16.20	Developing wearable median nerve stimulation for movement disorders	**Stephen Jackson**, University of Nottingham
16.20-16.40	MRI guided focused ultrasound for movement disorders: state of art and future directions	**Antonella Macerollo,** Walton Centre NHS Foundation Trust, University of Liverpool
16.40-17.00	Panel discussion	
Poster session		
17.00-18.00	Posters and networking	*County Suite*
18.00	*Close*	

19.00	***Symposium dinner***	***The Vermont Hotel*, Gold Room, Castle Garth, Newcastle upon Tyne NE1 1RQ***

*The Vermont Hotel is a 7-minute walk from the County Hotel.

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Day 2: Wednesday 26th November		
08.30-09.00	*Coffee*	*Strauss Suite*
Review of the EPSRC/MRC Network+ in Neurotechnology		
09.00-09.15	Chronic Pain Neurotechnology Network	**Shuangyi Tong** University of Oxford
Recent Advances in Materials, Devices and Interfaces – *chaired by Andrew Jackson*		
09.15-09.35	An optoelectronic retinal prosthesis for sight restoration in blind patients	**Keith Mathieson**, University of Strathclyde
09.35-09.55	Thin film neurotechnology	**George Malliaras**, University of Cambridge
09.55-10.15	Devices to study the mechanism of ultrasound neuromodulation	**Sophie Morse**, Imperial College London
10.15-10.35	Transcranial Direct Current Stimulation (tDCS) using 'Flow' for treating depression and for treating insomnia in the NHS. Opportunities, challenges and overcoming challenges	**Chris Griffiths**, Northamptonshire Healthcare NHS Foundation Trust
10.35-10.55	Panel discussion	
10.55-11.10	*Coffee break*	*Strauss Suite*
Commercialization and Regulation of Neurotechnology – *chaired by*		
11.10-11.30	Neurotechnology, LifeTech, and Innovate UK Business Connect	**Kelly Botham**, Innovate UK
11.30-11.50	Commercializing Wearable Medical BCIs: Paving the Way for All BCIs	**Damien Coyle,** University of Bath
11.50-12.10	The National Consortium for Neurotechnology: Establishing Device Studies in the UK	**Luke Bashford**, Newcastle University
12.10-12.30	Non-invasive neurotech applications for women's health and their real-world impact	**Emilė Radytė**, Samphire Neuroscience
12.30-12.50	Panel discussion	
12.50-13.10	**General discussion: Building a cohesive neurotechnology community in the UK**	
13.10-14.00	*Lunch*	*Strauss Suite*
14.00	*End*	

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Speakers

Day 1	
	**Andrew Sharott** completed his PhD in Neurological Studies at University College in 2005, with a focus on oscillations in the basal ganglia network, under the supervision of Professor Peter Brown. He moved to the University Medical Centre, Hamburg-Eppendorf (Germany), to undertake postdoctoral work with Professor Andreas Engel. As a Marie Curie Experienced Researcher in Hamburg, he continued to study oscillations in the basal ganglia, including recordings from patients undergoing the implantation of deep brain stimulation electrodes for the treatment of Parkinson's disease. Dr. Sharott then moved to Oxford as an MRC Investigator Scientist to work with Prof. Peter Magill, where his research examined the role of striatal neurons in the dopamine-intact and Parkinsonian brain. In 2015, he was promoted to MRC Programme Leader and started his own research team at the newly formed MRC Brain Network Dynamics Unit. In 2023, he was conferred the title of Professor of Neuroscience and was awarded an Einstein BUA/Oxford Visiting Fellowship at the Charité University in Berlin. In 2025 he was appointed Associate Director of the newly formed MRC Centre for Research Excellence in Restorative Neural Dynamics The aim of his research program is to uncover the circuit-level deficits underlying brain disorders and use this knowledge to develop closed-loop stimulation approaches to treatment.
	**Simon Schultz** is Professor of Neurotechnology in the Department of Bioengineering at Imperial College London, and Director of the Imperial Centre of Excellence in Neurotechnology. He studied Physics, Applied Mathematics and Electrical & Computer Engineering at Monash University, followed by a Masters degree in Electrical Engineering at Sydney University, and received a doctorate in neuroscience from Oxford University in 1998. He has made substantial contributions to our understanding of neural coding, and to the development of optical neurotechnology for probing nervous system function. His current research focuses on the development and use of large-scale cellular resolution neuroimaging technology for studying cognition and memory. He is a Fellow of the Institute of Engineering and Technology (FIET) and of the Royal Society of Biology (FRSB).
	**Camilla Nord** is Professor of Cognitive Neuroscience at the University of Cambridge, where she directs the Mental Health Neuroscience Lab at the MRC Cognition and Brain Sciences Unit and the Department of Psychiatry. Professor Nord is a world expert in the neuroscience of mental health disorders and the development of novel neurostimulation interventions for mental health. Camilla studied Physiology and Psychology at Magdalen College, Oxford as an undergraduate before completing her doctorate in neuroscience with Jonathan Roiser at University College London, and postdoctoral training at the University of Cambridge with Valerie Voon and Tim Dalgleish. Camilla's work has been recognised by various awards, including the European Society of Cognitive and Affective Science Young Investigator Award, and the Association for Psychological Science's Rising Star. Camilla holds an eight-year Wellcome Career Development Award fellowship, and a seven-year Wellcome Mental Health Award, both exploring body-brain interactions in mental health disorders, using neuroimaging, neurostimulation, and computational modelling. Camilla also has a particular interest in science communication for the public, including her recent book The Balanced Brain: The Science of Mental Health, a Sunday Times and Financial Times Book of the Year.
	**Ines Violante** is a Senior Lecturer in Healthcare Engineering at the School of Biomedical Engineering & Imaging Sciences, King's College London. Dr. Violante has a multidisciplinary background, spanning from cellular to human studies. She earned her BSc in Biochemistry and PhD in Biomedical Sciences from the University of Coimbra, Portugal. Following her PhD, she was awarded a Sir Henry Wellcome Fellowship, during which she conducted postdoctoral research at both Imperial College London and University College London. Dr. Violante leads the Neural Systems and Neuromodulation Lab, where her team employs a multidisciplinary

	approach to characterise and understand brain dynamics and shape the activity of brain networks. Utilising computational models, EEG, MRI, and neuromodulatory techniques such as sensory and electrical stimulation, her lab explores how the brain coordinates interactions between regions. Their work aims to understand and manipulate these interactions to influence behaviour and develop novel treatments for neurological and psychiatric conditions.
	**Simon Hanslmayr** is the director of the Centre for Neurotechnology at the University of Glasgow, and a Professor at the School of Psychology and Neuroscience. He directs the Neurotechnology, Cognition and Oscillations Lab (NoT CoOOL) where he uses a computationally motivated multi-modal and inter-disciplinary approach to study the neural basis of memory and attention in humans and translates these findings where appropriate to develop novel neurotechnology to treat patients or augment cognition in healthy adults. Simon studied Psychology at the University of Salzburg (Austria) where he obtained his PhD in 2005 under the supervision of Prof. Wolfgang Klimesch. He held a postdoc position (2006-2010) at the University of Regensburg (Germany, supervisor Prof. K.H. Bäuml), before joining the Zukunftskolleg in 2010 at the University of Konstanz (Germany) as an independent PI funded by an Emmy Noether programme grant from the DFG. In 2013 Simon moved to the UK where he joined the School of Psychology at the University of Birmingham as a Senior Lecturer, where he was promoted to Reader in 2016. In 2020 Simon joined the University of Glasgow as a full Professor. He has published over 115 peer reviewed papers and several book chapters in the field. Simon has received funding by the European Research Council (Consolidator Grant in 2015, Advanced Grant in 2025), the Economic and Social Research Council (ESRC), Leverhulme Trust, the Bial foundation, and Wellcome Trust. Simon is scientific advisor to Clarity Technologies Inc., is on the editorial board for PLoS Biology, and sits on the Wellcome Trust shortlisting panel for Brain and Behavioural Discovery Science.
	**Andrew Jackson** is Professor of Neural Interfaces and Co-Director of the Centre for Translational Neuroscience at Newcastle University. His research interests focus on bidirectional, closed-loop neural interfaces for the restoration and augmentation of brain circuitry. He has co-founded two early-stage neurotechnology companies, MintNeuro and Neudio, and helps lead the EPSRC/MRC-funded Closed-loop Neural Interfaces Technologies (CloseNIT) Network+.
	**Huiling Tan** is the Professor of Human Electrophysiology and Neuromodulation at the University of Oxford, UK. She is a Medical Research Council (MRC) Investigator and a Programme Leader committee of the MRC Brain Network Dynamics Unit at the University of Oxford. Prof Tan is also an elected Turing Fellow of the prestigious Turing Institute UK. She is a member of the MRC Neuroscience and Mental Health Board and the Royal Society's Research Grants Committee for Biological Sciences—two of the UK's primary research and innovation funding bodies. Her research is at the forefront of a therapeutic revolution in brain-machine interfaces, pioneering real-time brain signal recording, interpretation, and targeted electrical stimulation to restore or enhance neural function. Her work is driven by the hypothesis that neuromodulation strategies tailored to underlying brain circuit pathophysiology are more effective and carry fewer side effects than conventional continuous stimulation. Professor Tan and her group have made significant contributions to understanding how abnormal brain activity leads to the debilitating symptoms of movement disorders such as Parkinson's disease. Leveraging this knowledge, her research group designs and tests cutting-edge closed-loop neuromodulation approaches. Beyond her research, Professor Tan is dedicated to fostering an open, supportive, and motivating environment for her team. She is widely recognised for mentoring and empowering early-career scientists, helping to shape the next generation of leaders in neuroscience and neuromodulation.

Paul Shotbolt: I studied medicine at Cambridge University and Guy's and St.Thomas's Hospitals, qualifying in 1996. I completed all of my psychiatric training at the Maudsley Hospital, obtaining my certificate of completion of training in 2007. I took an academic route through my higher training, working as a research fellow in the Department of Cognitive Neuropsychiatry.

I was awarded a Wellcome Translational Training Fellowship in 2007, and between 2007-2010 I was the principal investigator on several neurochemical imaging studies at the PET centre at Imperial College, Hammersmith.

In 2010 I took up my current position of Consultant Neuropsychiatrist at the Maudsley Hospital. In 2016 I was appointed to the post of Clinical Senior Lecturer at the Institute of Psychiatry, Psychology and Neuroscience and am Programme Leader for the Clinical Neuropsychiatry MSc.

Clinically I am interested in the neuropsychiatric aspects of Parkinson's disease and other movement disorders, including functional neurological disorders (FND). I was a member of the latest NICE Guideline Development Group for Parkinson's disease. I am the lead for the King's Health Partners (KHP) FND workstream, which aims to optimise care pathways, training and research for FND. I also have a longstanding medicolegal practice focused on neuropsychiatric aspects of traumatic brain injury.

Academically I have a strong interest in development of neurotechnology applications in neuropsychiatric disorders. I am the principal investigator on a study examining impulse control disorders pre- and post-Deep Brain Stimulation (DBS) for PD. Our group is developing personalised biomarker closed-loop DBS applications for neuropsychiatric conditions. I am also developing clinical applications of non-invasive techniques such as transcranial magnetic stimulation (TMS) and transcranial temporal interference stimulation (tTIS).

I am founding director of the new Maudsley Neurotechnology (MNT) centre. MNT aims to deliver evidence-based neurotechnology treatments for psychiatric disorders.

Stephen Jackson is Professor of Cognitive Neuroscience and Director of the University of Nottingham's Centre for Neuromodulation, Neurotechnology and Neurotherapeutics.

His research focuses on using multimodal brain imaging and brain stimulation techniques to investigate human sensorimotor function in health and disorder. He uses utilises MR imaging/spectroscopy, magnetoencephalography, and non-invasive brain stimulation techniques to investigate the pathophysiology of common brain health conditions, with a particular focus on movement disorders. His recent research interests have centred on understanding the neural basis for tic disorders, and in developing novel therapeutic approaches for movement disorders such as Tourette syndrome and Parkinson's disease, based on the use of wearable technology for delivering non-invasive brain stimulation.

Stephen is a Founder and Chief Scientific Officer of Neurotherapeutics Ltd, a University of Nottingham spin out, Neurotherapeutics Ltd, to develop and translate a wearable Neupulse medical device for treatment of movement disorders which was recommended by NICE in 2024 for use by NHS patients in the UK. The research underpinning Neupulse was awarded the Times Higher Education's STEM project of the year in 2023.

Stephen's research is funded by the following: the UK Medical Research Council (MRC); the UK Engineering & Physical Science Research Council (EPSRC); the UK National Institute for Health Research (NIHR); Tourettes Action UK, and Parkinson's UK.

	**Antonella Macerollo** is a Consultant Neurologist at the Walton Centre and Honorary Associate Professor at University of Liverpool with expertise in movement disorders and related neuromodulation therapies (deep brain stimulation and MRI guided focused ultrasound). She was awarded a PhD in Neuroscience at the University College of London in 2018. Her current research is focused on the development of neuroimaging and neurophysiological biomarkers for early diagnosis and predictive outcome of neurofunctional surgeries for Parkinson's disease, dystonia syndromes and tremor disorders. She is also developing a clinical and neuroimaging pathway to improve the selection of tremor patients for MRI guided focus ultrasound. She is the Regional Clinical Lead (North West) of the Excellence Network of the Parkinson's UK and North West Specialty Lead for Neurological Disorders to the NIHR North West Research Delivery Network.
Day 2	
	**Shuangyi Tong** obtained his Bachelor of Mathematics degree at the University of Waterloo in Canada. He studied pure mathematics, combinatorics and optimization as majors in Waterloo. During his 5-year undergraduate program, he had experience working in multiple industry software positions and computer system research. He also has a great interest in neuroscience research. After finishing his research internship in the brain-inspired AI lab at KAIST, he decided to pursue further training in computational neuroscience and make contributions to this exciting research field. He started his DPhil course in 2020 under the supervision of Prof Ben Seymour and Prof Timothy Denison. His current research focuses on modelling pain mechanisms that serve as one of the foundations for closed-loop neuromodulation treatment for pain. He utilises new technology like virtual reality to develop immersive tasks. This VR experiment infrastructure with extensive sensors and stimulation methods is transferrable to various neurophysiological research.
	**Keith Mathieson** holds a Chair in Emerging Technologies from the Royal Academy of Engineering and was Director of the Institute of Photonics, from 2012 to 2022, at the University of Strathclyde. He has been a Professor in Neurophotonics within the Dept. of Physics, since July 2017, where he leads a research team in the development of optoelectronic neurotechnologies to interface with neural systems in an effort to understand aspects of brain activity. He established the Strathclyde Neurotechnology Centre in May 2025, to bring together expertise from across campus in the development of next-generation neurotechnology. His research focusses on the development of optoelectronic devices to restore sight to patients with degenerative retinal conditions and on pre-clinical devices that them employ optogenetics to study the brain in animal models. This research is being translated to the pre-clinical neuroscience community through projects with neurotechnology companies, such as Blackrock Neurotech, Atlas Neuro, Neuronexus and NeuroVLC.
	**George Malliaras** leads a group of scientists, engineers and clinicians who study the fundamental processes at the abiotic/biotic interface and develop better tools for healthcare. He is interested in the development and translation of implantable and wearable devices that interface with electrically active tissues, with applications in neurological disorders and brain cancer. George's research has been recognised with awards from the European Academy of Sciences (Blaise Pascal Medal), the Materials Research Society (Mid-Career Researcher Award), the New York Academy of Sciences (Blavatnik Award for Young Scientists), the US National Science Foundation (Faculty Early Career Development Award), and DuPont (Young Professor Award). He was awarded an Honorary Doctorate from the University of Linköping (Sweden), elected

	Fellow of the Materials Research Society, and member of the Academia Europaea and the European Academy of Sciences.
	**Sophie Morse** is a UKRI Future Leaders Fellow and Assistant Professor in Bioengineering at Imperial College London, developing non-invasive ultrasound technologies to treat brain disorders. While also being an Emerging Leader within the UK Dementia Research Institute, she leads an interdisciplinary group at Imperial focused on modulating the activity of neuronal and glial cells in the brain to delay and treat brain diseases.
	**Chris Grifiths** is a chief and collaborative investigator on over thirty research and innovation projects, funded by, for example, National Institute for Health and Care Research (NIHR), UK Research and Innovation (UKRI), Health Innovation Network (HIN), charities, universities, and commercial companies. Specific interests include resilience, mental health recovery, interaction between physical and mental health, and application of technology in mental healthcare. Works with clinicians, academics, patients, carers, and commercial companies to add value to lives of NHS patients and staff, to improve mental and physical health and wellbeing through innovation and research. Patient and public involvement (PPI) is a key part of his work. Has undertaken eight projects in the NHS and published ten journal articles in the areas of transcranial magnetic stimulation (TMS) for 1) depression, 2) anxiety and 3) cocaine addiction; transcranial direct current stimulation (TDCS) for 1) depression and 2) insomnia; and cranial electrotherapy stimulation (CES) for anxiety.
	**Kelly Botham** is a Knowledge Transfer Manager at Innovate UK Business Connect, where she leads strategic engagement across the Emerging and Enabling Technologies portfolio, with a particular focus on neurotechnology and its intersection with health, data, and advanced systems. She plays a central role in supporting the UK's neurotech ecosystem, facilitating collaboration between academic researchers, industry innovators, and policy stakeholders. Kelly's approach is grounded in systems thinking and inclusive innovation. She works closely with SMEs, government bodies and research institutions to accelerate the development and adoption of transformative neurotechnology. Based in Derbyshire, Kelly is recognised for her thoughtful leadership, cross-sector insight, and commitment to building communities around innovative technologies. She brings a compassionate and strategic lens to her work, informed by a broader interest in sustainability, wellbeing, and the societal impact of innovation.
	**Damien Coyle** is Professor of Neurotechnology, UKRI Turing AI Acceleration Fellow, and Director of the Bath Institute for the Augmented Human at the University of Bath. His research develops advanced AI methods to translate electrophysiological signals into reliable control signals for brain–computer interface (BCI) neurotechnologies, and to evaluate these technologies at scale with patients and end-users, including those with spinal cord injury, stroke, disorders of consciousness, and post-traumatic stress disorder. He is also Founder and CEO of NeuroCONCISE Ltd (www.neuroconcise.co.uk), an award-winning company focused on AI-enabled, wearable neurotechnology.

	**Luke Bashford** is a Lecturer in Neuroscience and Neurotechnology, Biosciences Institute, Newcastle University, UK and Assistant Adjunct Professor, Department of Neurosurgery, University of Colorado, USA. In his research Luke uses implanted Brain-Computer Interfaces to investigate the neural mechanisms underlying human sensorimotor and cognitive function for basic science and clinical translation.
	**Emilė Radytė** is the co-founder and CEO of Samphire Neuroscience, building medical-grade non-invasive neurotechnology for women's health. Their first product, Nettle, is a CE-marked wearable tDCS device for PMS and menstrual pain treatment, available in select NHS trusts and D2C across the EU and UK.

Posters

No.	Poster details
1	***Closed-Loop Integration of Neurofeedback and Music for Real-Time Brain Modulation*** **Michaela McAssey**[1], Ben Allen[1], Andrew Jackson[2], Aleksandra Vučković[1] 1 School of Engineering, University of Glasgow; 2 Biosciences Institute, Newcastle University
2	***Modulating sleep slow wave activity from the centromedian thalamus in a rodent model of deep brain stimulation*** **Joram van Rheede**, Ishani Shah, Brook Perry, Martin Tisdall, Timothy Denison, Andrew Sharott
3	***Large Scale Stimulation Assays for Closed-Loop Optimal Control of Neural Populations*** Kudryashova N, Mueller M, Savage M, Li B, McLeod F, Sernagor E, Hennig M, **Bashford L**
4	***On-Device Machine Learning for Real-Time EEG Artifact Removal*** **Mahdi Saleh**, Alex Casson
5	***Lessons Learned from Out-of-Lab Self-Applied EEG: Reflections on Method and Practice*** **Layla Kouara**[1], Katherine Hiley[2], Stephen J Halpin[3], Joshua Giles[1], Samit Chakrabarty[4], Mahnaz Arvaneh[1] 1 School of Electrical and Electronics Engineering and Neuroscience Institute, University of Sheffield, 2 School of Psychology, University of Leeds, 3 Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, 4 School of Biomedical Sciences, Faculty of Biological Sciences, University of Leeds
6	***On the Stability of Silicone-Encapsulated CMOS ICs for Active Implantable Devices: 4.3 Years of Accelerated Life Testing*** **Ahmad Shah Idil**, Callum Lamont, Kambiz Nanbakhsh, Federico Mazza, Vasiliki Giagka, Tim Constandinou, Anne Vanhoestenberghe, Nick Donaldson
7	***Uncovering physiological signatures of seizures in refractory epilepsy*** Rishyanth Reddy, Jasper Hersov, Antonio Valentin, **Amparo Güemes**
8	***Newcastle Visual Prosthesis – Hybrid electronic and optogenetic visual cortical prosthetics*** **Peimin Yuan**, Domenico Balsamo, Patrick Degenaar

9	***Investigating Cortical Spreading Depolarisation and Its Impact on Arousal Systems Using Graphene Neurotechnology and Closed-Loop Stimulation*** **Neela K. Codadu**[1], Martin Esparza-Iaizzo[1,2], Michal Prokop[3], Eduard Masvidal-Codina[3], Randy Gyimah[1], Hasna A. Boumenar[1], Anton Guimera-Brunet[2,4], Jose A. Garrido[2,3,5], Rob C. Wykes[1,6] 1 Research Department of Epilepsy, UCL. 2 INBRAIN Neuroelectronics SL. 3 Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and The Barcelona Institute of Science and Technology (BIST. 4 Institut de Microelectrònica de Barcelona, IMB-CNM (CSIC). 5 Institució Catalana de Recerca i Estudis Avançats (ICREA). 6 Division of Neuroscience & Centre for Nanotechnology applied to Medicine, University of Manchester
10	***Developing Affective Closed-Loop Auditory Stimulation in Anaesthetised Marmosets*** Beshoy Agayby1*, Steven Errington1*, Emma Woolgar1*, Ben Slater1, Fabien Balezeau1, Martin Lombard2, Timothy G Constandinou2, Andrew Jackson1, Yukiko Kikuchi1 (*The authors contributed equally). 1 Biosciences Institute, Newcastle University. 2 Department of Electrical & Electronic Engineering, Imperial College London
11	***Optimising motor cortex excitability using transcranial electrical stimulation*** **Alekhya Mandali**[1,3], Martin Conwill[4], Jia Loomba[1], Phensuda Thaweephong[2], Aquiles Amaya Pena[1], James J P Alix[2,3,4] 1 School of Psychology, University of Sheffield; 2 Sheffield Institute for Translational Neuroscience (SITraN), University of Sheffield; 3 Neuroscience Institute, University of Sheffield; 4 Department of Clinical Neurophysiology, Sheffield Teaching Hospitals NHS Foundation Trust
12	***Using neurophysiology and multimodal MRI to characterise cholinergic potentiation by TUS of mid-brain structures*** **Polytimi Frangou**, William Clarke, Saad Jbabdi, Angelika Zarkali, Elly Martin, Charlotte Stagg
13	***Short-Term Effects of Monophasic Versus Biphasic iTBS in Individuals with Low Mood*** **Daniel Graham**, Verena Sarrazin, Jacinta O'Shea Oxford Centre for Human Brain Activity, Centre for Integrative Neuroimaging, Department of Psychiatry, University of Oxford
14	***Multicenter investigation of sensorimotor interaction as a clinical biomarker in aging*** **Katherine Dyke**[1]; Luigi Tamè[2]; Domenica Veniero[1]; Isabel Farr[1]; Xiaoxia Yuan[3]; Louisa Gwynne[2]; Nicholas P Holmes[3] 1 School of Psychology, University of Nottingham; 2 School of Psychology, University of Kent; 3 School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham
15	***Fostering Inclusive Participation in Non-Invasive Neurotechnology Research among African Ethnic Minority Communities in the UK*** **Mohamed A. A. Mohamed**[1]*, Caitlin Illingworth[2], Mian Kou[1], Layla Kouara[1], Sahra Abdi[3], Muse Jama[3], Hesam Olya[4], Lise Sproson[5], Dan Blackburn[6], and Mahnaz Arvaneh[1]* 1 School of Electrical and Electronics Engineering and Neuroscience Institute, University of Sheffield, 2 Department of Neuroscience, University of Sheffield, 3 Israac Somali Community Association, Sheffield, 4 Management School, University of Sheffield, 5 PPIE Lead, NIHR HealthTech Research Centre Long Term Conditions; Devices for Dignity, Sheffield, 6 School of Medicine and Population Health, Sheffield Institute for Translational Neuroscience (SITraN), University of Sheffield
16	***Dual-site dual-device neuromodulation for anxiety*** **Lucy Webster**[1,2,3]; Jemima Shickle[2,3]; Richard Morriss[1,2,3]; Paul M Briley[1,2,3] 1 Nottinghamshire Healthcare NHS Foundation Trust, 2 NIHR Biomedical Research Centre, University of Nottingham, 3 Institute of Mental Health, Nottingham
17	***Multi-focal ultrasound neuromodulation to the dorsal anterior cingulate cortex disrupts behavioural and neural pain processing***

	Sophie Clarke[1,2,3], Samuel Mugglestone[1,2], Elsa Fouragnan[1,2], Sam Hughes[3] 1 School of Psychology, Faculty of Health, University of Plymouth, 2 Brain Research and Imaging Centre, Faculty of Health, University of Plymouth, 3 Department of Clinical and Biomedical Sciences, Faculty of Health and Life Sciences, University of Exeter
18	***The STIM A-T study: Feasibility of Median Nerve Stimulation for Treatment of Involuntary Movements in Ataxia Telangiectasia and Ataxia with Oculomotor Apraxia Type 1*** **C.C.V. Blanchard[1]**, P. Yavuz[1,2,3], M.S. Houlgreave[4,5], A.P. Turner[6], W.P. Whitehouse[7], S.R. Jackson[4,5], R.A. Dineen[1,5] 1 Mental Health and Clinical Neuroscience, School of Medicine, University of Nottingham, 2 Division of Pediatric Neurology, Department of Pediatrics, Faculty of Medicine, Hacettepe University, Ankara, 3 Division of Pediatric Neurology, Gülhane Training and Research Hospital, Ankara, 4 School of Psychology, University of Nottingham, 5 NIHR Nottingham Biomedical Research Centre, 6 Computer Science, University of Nottingham, 7 Paediatric Neurology, Nottingham Children's Hospital, Nottingham University Hospitals NHS Trust
19	***Closed-loop optogenetic manipulation of hippocampal sharp-wave ripples*** **Ruixuan Nicole Wang[1],** Junhui Hu[1], Nicolas Dundov Muñoz[1], Mirna Merkler[2], Nawal Zabouri$_1$, Shuzo Sakata[2], Simon R. Schultz[1] 1 Centre for Neurotechnology and Dept of Bioengineering, Imperial College London. 2 Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde