



Brainbox Initiative Conference 2024 Programme

Thursday 19th September

- 09:00 Registration
- 09:30 Conference Opening Address
- 09:40 **Dr. Kevin Caulfield**, Medical University of South Carolina
Research Challenge Update.
- 10:05 **Dr. Denis Schwartz**, INSERM
Optically Pumped Magnetometers: Lightweight and versatile sensors for MEG
- 10:30 Poster Pitches Cohort I
- 11:30 Poster Session
- 12:00 Lunch
- 12:45 **Dr. Mareike Gann**, University Medical Center Hamburg-Eppendorf
Dual-Site Beta Transcranial Alternating Current Stimulation During a Bimanual Coordination Task Modulates Functional Connectivity in Motor Areas.
- 13:10 **Dr. Ioana Grigoras**, University of Oxford
Professor Bradley Treeby, University College London
Ultrasound System for Precise Neuromodulation of Human Deep Brain Circuits.
- 14:10 Poster Pitches Cohort II
- 15:05 Coffee Break
- 15:35 **Dr. Catriona Scrivener**, University of Edinburgh
The Role of the Right Intraparietal Sulcus in Driving Brain-Wide Focus on Task-Relevant Information.
- 16:00 **Dr. Hannah Filmer**, The University of Queensland
Neurochemical Predictors of Generalised Learning Induced by Brain Stimulation and Training.
- 16:25 **Dr. Daniel Corp**, University of Turku
Translation of Network Mapping Findings to Effective Targets for Non-Invasive Brain Stimulation.
- 16:50 **Professor Kim Butts Pauly**, Stanford University
Transcranial Ultrasound Stimulation: Timely Tools for Translation.
- 17:40 Day I Closing Remarks
- 17:45 Extended Poster Session
- 18:30 Social Event
- 19:30 Day I End

Friday 20th September

- 09:00 Registration Opens
- 09:30 Welcome
- 09:35 **Dr. Paolo Di Luzio**, University of Essex
Targeted Neuromodulation of Perceptual Decision-Making Networks Causally Dissociates Sensory and Metacognitive Performance.
- 10:00 **Dr. Miriam Klein-Flügge**, University of Oxford
Transcranial Ultrasound Stimulation to the Human Amygdala in Emotion and Decision Making.
- 10:25 **Soha Farboud**, Donders Institute for Brain, Cognition and Behaviour
A Nudge in the 'Right' Direction: Biasing Eye Movements with Ultrasonic Stimulation.
- 10:50 Break
- 11:05 Young Investigator Award Winner 2024.
- 11:35 John Rothwell Award
- 12:05 Lunch
- 13:00 **Professor Marcus Kaiser**, University of Nottingham
Human Cognitive Function Improvements After Focused Ultrasound Stimulation are Linked to Functional Connectivity Changes.
- 13:25 **Dr. Benjamin Griffiths**, University of Birmingham
Distinguishing Entrainment, Resonance and SSVEPs Using Subharmonic Stimulation.
- 13:50 **Dr. Daniel Whitcomb**, University of Bristol
The Effects of Ultrasound Neuromodulation at the Cellular and Molecular Level.
- 14:15 **Dr. Catharina Zich**, University of Oxford
Boosting Sensorimotor Activity and Motor Control Through Kinematically-Informed tACS.
- 14:40 Break
- 15:10 **Dr. Christina Merrick**, University of California, Berkeley | Magnetic Tides
Kilohertz Transcranial Magnetic Perturbation (kTMP): A New Subthreshold Method of Non-Invasive Brain Stimulation.
- 15:35 **Nomiki Koutsoumpari**, University of Plymouth
Differential Roles of the Anterior Insula and Dorsal Anterior Cingulate Cortex.
- 16:00 **Dr. Derrick Buchanan**, Stanford School of Medicine
25 Million Pulses: Lessons Learned From 15,000 rTMS Treatments at Stanford Brain Stimulation Lab between 2022-2024 – A Roadmap for Implementing Best Practices and Procedures.
- 16:40 Poster Prize Presentation, Research Challenge Presentation
- 17:20 Closing Remarks
- 17:35 Conference End