



ABSS 2025 CONFERENCE

23-24th November
The Florey Institute Melbourne
www.abssociety.com



Day 1: Sunday 23rd November

9:00-9:30am	Registration, tea and coffee.
9:30-9:45am	Welcome and opening remarks. Associate Professor John Semmler
9:45-10:45am	Keynote: Prof Paul Fitzgerald Advancing Non-invasive Brain Stimulation for Depression with Personalised Treatment Approaches <i>Sponsored by Aerobe and Symbiotic Devices</i>
10:45-11:15	Morning tea
11:15-11:30am	Gold Sponsor presentation: Symbiotic devices
11:30-12:45pm	Symposium: Brain stimulation Research and Clinical Applications Session chair: Dr Donel Martin Prof Andrew Zalesky: Harnessing Connectomics to Advance Therapeutic Brain Stimulation Dr Oscar Murphy: SMART Neuronavigation: A Software-based Model to Individualise Transcranial Stimulation Targets Dr Michael Barham: The 'Big NIBS data' project: An open-source repository and standardised pipeline for sharing and analysing non-invasive brain stimulation data Mr Nathan Higgins: Recommendations for Post-trial Responsibility in Neurosurgical Device Research: An Australian Consensus Study (<i>Student presentation</i>) Dr Yihang Jiao: Resistor–Capacitor Circuit Model Predicts Brain-Stimulation propagation (<i>Student presentation</i>)
12:45-1:00pm	Conference photo
1:00-2:00pm	Lunch <i>Sponsored by Symbiotic Devices, Aerobe, AI Medical International and Sonoray.</i>
2:00-2:15pm	Gold sponsor presentation: Aerobe



ABSS 2025 CONFERENCE

23-24th November
The Florey Institute Melbourne
www.abssociety.com



Day 1: Sunday 23rd November

2:15-3:00pm	Symposium: Brain Stimulation Parameters and Motor Function Session chair: Dr Jacob Thorstensen Prof Shapour Jaberzadeh: Montage polarity in 400 Hz cortico-cerebellar stimulation affects brain excitability and hand dexterity Mrs Mona Malekahmad: Anodal Transcranial Pulsed Current Stimulation at Different Frequencies: Effects on Cortical Excitability and Side-effects (<i>Student presentation</i>) A/Prof Maryam Zoghi: Effects of 400 Hz anodal and cathodal transcranial pulsed current stimulation on corticospinal excitability and hand dexterity in young adults: A Double-Blind RCT
3:00-3:40pm	Data blitz Session chair: A/Prof John Semmler Dr Elizabeth Thomas: Theta Burst Transcranial Magnetic Stimulation to Treat Premenstrual Dysphoric Disorder: An Open Label Pilot Study Dr Marilena DeMayo: Clinical Outcomes of Adjunctive D-Cycloserine to intermittent Theta-Burst Stimulation in Fibromyalgia Miss Afifa Safda: Brief disruption of the contralesional primary motor cortex using online rTMS degrades paretic hand performance in MEP-chronic phase stroke patients Dr Jacob Thorstensen: Evidence for a noradrenergic contribution to human corticospinal excitability Miss Zakia Haque: Investigating the interaction of transcranial stimulation of prefrontal cortex with contextual factors in modulating response execution and action inhibition. Miss Miriam Cerman & Dr Andris Cerins: Recording the TMS-evoked corticospinal volley from peripheral nerve Dr Wei-Yeh Liao: Transcranial alternating current stimulation improves ballistic motor performance in trained and untrained limbs of healthy older adults
3:40-4:45pm	Afternoon tea, poster session
4:45-5:15pm	AGM
5:30-8:00pm	Social event: Naughtons Hotel. <i>Sponsored by ANZ Medical and Medilink.</i>



ABSS 2025 CONFERENCE

23-24th November
The Florey Institute Melbourne
www.abssociety.com



Day 2: Monday 24th November

9:30-10:30am	Keynote: Prof Jennifer Rodger Translational rTMS research: finding more questions than answers. <i>Sponsored by Aerobe and Symbiotic Devices</i>
10:30-11:00am	Morning tea
11:00-12:15pm	<u>Symposium: Brain Stimulation Treatments and Therapies</u> Session chair: Dr Saurab Sonkusare Prof Kate Hoy: Stimulating connections: Personalised Theta Burst Stimulation in Alzheimer's Dr Hugh Simpson: Thalamic ictal and interictal physiology for personalising epilepsy deep brain stimulation Dr Donel Martin: Modulating effects of synchronised sensory stimulation and transcranial magnetic stimulation on memory-related brain activity Dr Grace Lai: TPS Beyond Dementia: Can TPS-Mediated Neuromodulation Benefit Cognitive Impairment? Dr Yohan Wards: White Matter Microstructure Governs Individual Response to tDCS-Enhanced Cognitive Transfer (<i>ECR presentation</i>)
12:15-1:00pm	Lunch <i>Sponsored by Symbiotic Devices, Aerobe, AI Medical International and Sonoray.</i>
1:00-2:00pm	<u>Symposium: Motor System Function in Health and Disease</u> Session chair: Dr Chris Latella Prof Winston Byblow: A compositional neurophysiology biomarker for predicting stroke recovery and outcome. Miss Emma Savelon: Does corticomotor excitability within two weeks of stroke predict upper limb recovery and outcome? (<i>Student presentation</i>) Dr Aidan Lewis: Optimising tDCS to Enhance Exercise Performance: Evidence, Pitfalls, and the Next Experiments (<i>ECR presentation</i>) Dr John Cirillo: Modulation of primary motor cortex after experimentally induced and use-dependent plasticity in young and older adults
2:00-2:30pm	Prizes. <i>Sponsored by Symbiotic Devices, Aerobe, AI Medical International and Sonoray.</i> Conference close.



ABSS 2025 CONFERENCE

23-24th November

The Florey Institute Melbourne

www.abssociety.com



Posters

1. **Miriam Ceraman**, Donggyu Rim, Brendan McCarthy, Gianni Sesa-Ashton, Leo Chen, Vaughan Macefield, Andris Cerins: Recording the TMS-evoked corticospinal volley from peripheral nerve (*Student presentation*)
2. **Samuel R. Armstrong**, Martin V. Sale, Ross Cunnington: Phase-Specific Effects of Slow-Oscillatory Currents on Motor Cortical Excitability (*ECR presentation*)
3. **Marilena M DeMayo**, Vandad Sharifi Senejani, Tuan Trang, Ashley D. Harris, Alexander McGirr: Clinical Outcomes of Adjunctive D-Cycloserine to intermittent Theta-Burst Stimulation in Fibromyalgia (*ECR presentation*)
4. **Zakia Haque**, Farshard Mansouri: Investigating the interaction of transcranial stimulation of prefrontal cortex with contextual factors in modulating response execution and action inhibition (*Student presentation*)
5. **Elizabeth Thomas**, Caroline Gurvich, Mimi Truong, Chitra Vinnakota, Violet Francis, Andris Cerins, Lisanne M. Jenkins, Jacqueline Noonan, David Elliot, Leo Chen: Theta Burst Transcranial Magnetic Stimulation to Treat Premenstrual Dysphoric Disorder: An Open Label Pilot Study (*ECR presentation*)
6. **Jacob Thorstensen**, Shannon McManus, Ragina Rai, Daniel McKeown, Douglas Angus: Evidence for a noradrenergic contribution to human corticospinal excitability
7. **Renming Liu**, Zhen Zheng, Aung Aung Kywe Moe, Maryam Zoghi, Shapour Jaberzadeh: Laser acupuncture improves cortical excitability and sensorimotor function in healthy individuals: A randomized controlled trial (*Student presentation*)
8. **Afifa Safdar**, Winston Byblow, Cathy Stinear: Brief disruption of the contralesional primary motor cortex using online rTMS degrades paretic hand performance in MEP-chronic phase stroke patients (*Student presentation*)
9. **Hamed Alanazi**, Prue Morgan, Shapour Jaberzadeh: Concurrent effects of EMG-tES and anodal tDCS on cortical and behavioral outcome measures: The role of ipsilateral versus contralateral stimulation (*Student presentation*)
10. **Nathan Difford**, Paul J. Stapley, Cassandra Russell, Jonathan Shemmell: Temporal Contributions of the Vestibulospinal and Corticospinal Tracts to Postural Responses Following Support-Surface Perturbations (*Student presentation*)
11. **Anis Gadapi**, Wei-Yeh Liao, Mitchell Goldsworthy, Scott R. Clark, George M. Opie, Ulf Ziemann, John G. Semmler, Tristan Bampton, Michael J. Weightman, Nigel C. Rogasch: Characterising excitation and inhibition with TMS-evoked EEG potentials from prefrontal and parietal cortex: a pharmacological study with carbamazepine and diazepam (*Student presentation*)
12. **Marissa Holden**, Wei-Yeh Liao, Scott Clark, Mitchell Goldsworthy, Nigel C. Rogasch: Influence of Amplifier Settings and Pulse Shape on Artefacts in TMS-EEG Recordings (*Student presentation*)



ABSS 2025 CONFERENCE

23-24th November

The Florey Institute Melbourne

www.abssociety.com



Posters

13. **Sophia Xue Fei**, Koh, Shun-Xin, Koong, Shi Qing Steffi, Kong, Jack S. Fogarty, Alicia M. Goodwill, Wei-Peng Teo: The effects of a single session anodal transcranial pulsed current stimulation on working memory in healthy young adults
14. **Shun-Xin, Koong**, Sophia Xue Fei, Koh; Shi Qing Steffi, Kong; Jack S. Fogarty, Alicia M. Goodwill, Wei-Peng, Teo: The effects of repeated transcranial pulsed current stimulation on working memory in healthy younger adults (*Student presentation*)
15. Nishadi Gamage, **Wei-Yeh Liao**, Philip J. Atherton, Mathew Piasecki, George M. Opie, John G. Semmler: Transcranial alternating current stimulation improves ballistic motor performance in trained and untrained limbs of healthy older adults (*ECR presentation*)
16. **Amy C. Meadows**, Wei-Yeh Liao, John Cirillo, George M. Opie, John G. Semmler: Influence of theta-gamma tACS on motor cortex plasticity induced by repetitive paired-pulse TMS (*Student presentation*)
17. **Lakshini Piyasiri**, Fiona Gearon, Jamie Beros, Tim Rosenow, Aleksandra Miljevic, Jennifer Rodger: Investigating the Long-term Effects of Neuromodulation in the Developing Brain with Depression using Neuroimaging and Plasticity Biomarkers – A Translational Approach (*Student presentation*)
18. **Wei Qin**, Andre Peterson, Anthony Burkitt, Paul B Fitzgerald, Philippa J Karoly, Jodie Naim-Feil: Using the Response to Perturbation to Evaluate Changes of Cortical Excitability in Healthy Subjects (*ECR presentation*)
19. Wei-Yeh Liao, Brodie Hand, **Giuseppe Rinaldi**, John Semmler, George Opie: Neuromodulation by repetitive paired-pulse TMS at late I-wave intervals in older adults (*Student presentation*)
20. **Briella Rodriguez**, Aron T Hill, Paul B Fitzgerald, Karen Barlow, Adam Guastella, Melissa K Licari, Nigel C. Rogasch, Scott R Clark, Ann-Maree Vallence, Kelsie Boulton, Peter G. Enticott: The therapeutic application of repetitive transcranial magnetic stimulation in autism: Findings from a randomised controlled trial (*Student presentation*)
21. **Cassandra Russell**, Jonathan Shemmell: The interaction of non-invasive neural stimuli and its effect on feedforward motor control commands (*Student presentation*)
22. **Noah Tilley**, John Cirillo, George M. Opie, John G. Semmler: Theta-gamma transcranial alternating current stimulation and complex visuomotor training in healthy young adults (*Student presentation*)