

Linden Parkes, Ph.D.

Postdoctoral Research Fellow

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Academic Positions

- July 2019–present **Postdoctoral Research Fellow**, *Department of Bioengineering*.
The University of Pennsylvania, Pennsylvania, USA
Advisors *Prof. Danielle S. Bassett, Associate Prof. Theodore Satterthwaite*
- Sept. 2018–Oct. 2018 **Visiting Scholar**, *Donders Institute for Brain, Cognition and Behaviour*.
Radboud University, Nijmegen, The Netherlands
Advisors *Prof. Christian Beckmann, Dr. Andre Marquand*

Education

- 2014–June 2019 **Doctor of Philosophy**, *Brain & Mental Health Research Hub*.
Monash University, Melbourne, Australia
Thesis *Mapping brain networks in health and mental disorder with structural and functional Magnetic Resonance Imaging*.
Supervisors *Prof. Murat Yucel, Prof. Alex Fornito, Dr. Ben Fulcher*
- 2009–2013 **Bachelor of Science (Honors)**, *First Class. Dux*.
Swinburne University of Technology, Melbourne, Australia
Thesis *Mapping language processes using Magnetoencephalography*.
Supervisor *A/Prof. Conrad Perry*

Teaching

- 2020 **Teacher's Assistant**, *Network Neuroscience (course evaluation score: 3.57/4)*.
Department of Bioengineering, The University of Pennsylvania
- 2019 **Guest Lecturer**, *Network Neuroscience*.
Department of Bioengineering, The University of Pennsylvania
- 2017–2018 **Guest Lecturer**, *Neuroscience Methods*.
Monash University, Melbourne, Australia
- 2014–2015 **Recitation Tutor**, *Undergraduate Psychology*.
Swinburne University, Melbourne, Australia
- 2013 **Recitation Tutor**, *Undergraduate Physiology*.
Swinburne University, Melbourne, Australia

Research Employment

- 2018 **Research Assistant**, *Monash Biomedical Imaging*.
Monash University, Melbourne, Australia
- 2016–2017 **Industry-based Researcher**, *Developing gamified cognitive tests for neuroscience*.
Torus Games & Cogstate, Melbourne, Australia
- 2013 **Magnetoencephalography Technician**.
Swinburne University, Melbourne, Australia

Funding (pending)

Career Transition Awards

- 2021 **K99/R00 Pathway to Independence Award**, \$969,546 USD (*sole recipient*), received competitive impact score and program official has endorsed application for funding.
National Institute of Mental Health (NIMH)

Funding (awarded)

Fellowships & Scholarships

- 2020 **Young Investigator Award**, \$70,000 USD (*sole recipient*).
Brain & Behavior Research Foundation
- 2018 **Monash University Postgraduate Publication Award**, \$6,300 AUD (*sole recipient*).
Monash University, Melbourne, Australia
- 2014–2018 **Monash University Graduate Research Scholarship**, \$20,000 AUD (*sole recipient*).
Monash University, Melbourne, Australia
- 2014–2018 **Australian Postgraduate Award Research Scholarship**, \$91,000 AUD (*sole recipient*).
Australian Government

Grants

- 2016 **Innovations Connections Grant**, \$50,000 AUD (*associate investigator*).
Department of Industry, Innovation and Science, Australia

Awards

- 2021 **Abstract Merit Award**, \$0 USD (*virtual*).
The Organization of Human Brain Mapping
- 2020 **Abstract Merit Award**, \$3,000 USD.
The Organization of Human Brain Mapping
- 2018 **Donders-Monash Erasmus Travel Award**, \$3,200 AUD.
Donders Institute for Brain, Cognition and Behaviour, Radboud University, The Netherlands
- 2015 **Future Leaders Travel Award**, \$5,000 AUD.
Monash Institute of Cognitive and Clinical Neurosciences, Monash University, Australia

Conference oral presentations

- 2021 **Network controllability in transmodal cortex predicts positive psychosis spectrum symptoms**, *The Organization of Human Brain Mapping*, 3-minute summary available on [YouTube](#).
- 2020 **Average controllability better predicts cognition when compared to strength**, *The Organization of Human Brain Mapping*.
- 2020 **Psychopathology Phenotypes Explain Individual's Unique Deviations from Normative Neurodevelopment**, *The Organization of Human Brain Mapping*.

Invited talks

- 2021 **Network Neuroscience**, *DataPhilly*, available on [YouTube](#).
- 2018 **Dimensional psychiatry in corticostriatal circuits: lessons learnt from resting-state fMRI data**, *The University of Pennsylvania*.
- 2018 **Transdiagnostic biomarkers in psychiatry**, *Centre of Excellence for Integrative Brain Function*, Melbourne, Australia.
- 2016 **Confounds in rs-fMRI processing**, *Swinburne University*, Melbourne, Australia.

Conference poster presentations

- 2021 **Network controllability in transmodal cortex predicts positive psychosis spectrum symptoms**, *Society of Biological Psychiatry*.

- 2019 **Impulsivity and compulsivity correlate with effective connectivity in corticostriatal circuits**, *Organization of Human Brain Mapping*.
- 2018 **Impulsivity and compulsivity correlate with effective connectivity in corticostriatal circuits**, *Australasian Cognitive Neuroscience Conference*.
- 2018 **Evaluating the efficacy and sensitivity of motion correction strategies for rs-fMRI**, *Organization of Human Brain Mapping*.
- 2017 **An evaluation of the efficacy, reliability, and sensitivity of motion correction strategies for resting-state functional MRI**, *IEEE International Symposium on Biomedical Imaging*.

Academic Service

Peer Review

Biological Psychiatry | Psychological Medicine | Neuropsychologia | NeuroImage: Clinical | Psychiatry Research: Neuroimaging | Harvard Review of Psychiatry | International Gambling Studies.

NeuroImage | Human Brain Mapping | Network Neuroscience | Scientific Reports.

Committees

- 2019-2021 **Organization of Human Brain Mapping**, *Student and Postdoc Special Interest Group*, Treasurer.
- 2017 **Australasian Cognitive Neuroscience Society**, *Early Career Researchers Committee*.
- 2017 **Australasian Cognitive Neuroscience Society**, *Executive Committee*.
- 2016 **Students of Brain Research**, *Committee*, Treasurer.

Supervision & Mentorship

- 2018–current **Ashlea Segal**, *PhD Student*, Monash University.
- 2018 **Tayla Currie**, *Honours Student*, Monash University.
- 2017 **John Fallon**, *Honours Student*, Monash University.
- 2016 **Luisa Prochazkova**, *International Intern*, Monash University.
- 2016 **Kristina Sabaroedin**, *Honours Student*, Monash University.
- 2016 **Lauren Den Ouden**, *Honours Student*, Monash University.
- 2016 **Stuart Oldham**, *Honours Student*, Monash University.
- 2016 **Danielle Amiet**, *Honours Student*, Monash University.

Outreach and community engagement

- 2018 **NeuroDay**, *Co-organiser*, Methodist Ladies' College, Melbourne, Australia.
- 2018 **BMH Mentor Forum**, *Co-organiser*, Brain & Mental Health Research Hub, Monash University.
- 2014–2015 **MBI Student Forum**, *Co-organiser*, Monash Biomedical Imaging, Monash University.

Select Publications

For a complete list of my publications see [here](#)

Parkes L, Moore TM, Calkins ME, Cieslak M, Roalf DR, Wolf DH, Gur RC, Gur RE, Satterthwaite TD & Bassett DS (2021). Network controllability in transmodal cortex predicts positive psychosis spectrum symptoms. *Biological Psychiatry*.

Parkes L, Moore TM, Calkins ME, Cook PA, Cieslak M, Roalf DR, Wolf DH, Gur RC, Gur RE, Satterthwaite TD & Bassett DS (2021). Transdiagnostic dimensions of psychopathology explain individuals' unique deviations from normative neurodevelopment in brain structure. *Translational Psychiatry*.

Parkes L, Satterthwaite TD & Bassett DS (2020). Towards precise resting-state fMRI biomarkers in psychiatry: synthesizing developments in transdiagnostic research, dimensional models of psychopathology, and normative neurodevelopment. *Current Opinion in Neurobiology*.

Parkes L, Tiego J, Aquino K, Braganza L, Chamberlain SR, Fontenelle L, Harrison BJ, Lorenzetti V, Paton B, Razi A, Fornito A, & Yucel M (2019). Transdiagnostic variations in impulsivity and compulsivity in obsessive-compulsive disorder and gambling disorder correlate with effective connectivity in cortical-striatal-thalamic-cortical circuits. *NeuroImage*.

Parkes L, Fulcher B, Yucel M, & Fornito A (2018). An evaluation of the efficacy, reliability, and sensitivity of motion correction strategies for resting-state functional MRI. *NeuroImage*.

Amongst the top 20 downloaded from the journal in 2018.

In the top 0.01% most cited publications relative to other publications in 2018 in the field of Neuroscience.

Parkes L, Fulcher B, Yucel M, & Fornito A (2017). Transcriptional signatures of connectomic subregions of the human striatum. *Genes, Brain and Behavior*.

Amongst the top 20 downloaded from the journal in 2017.

Includes the application of supervised machine learning to the intersection of human neuroimaging and genetics.

[Book chapters](#)

Segrave RA, Hendrikse J, & **Parkes L**, (2019). DBS, TMS and tDCS for obsessive compulsive disorder. In *A Transdiagnostic Approach to Obsessions, Compulsions and Related Phenomena*. Cambridge University Press