ALISTAIR PERRY

Curriculum Vitae

November 2021

Postdoctoral Fellow
Department of Clinical Neurosciences, University of Cambridge
Cambridge, United Kingdom

Email: alistairgperry@gmail.com
Website: alistairgperry.com
Publications: https://tinyurl.com/aperrygscholar

Executive Summary

I am a postdoctoral fellow supervised by Professor James Rowe at the University of Cambridge (UK). I am interested in the neurobiological mechanisms that underlie psychiatric and neurodegenerative disorders. To this end, I use structural (dMRI), neurophysiological (fMRI/MEG), and spectroscopy neuroimaging data (MRS) which are analysed with network-based, multivariate and bayesian modelling techniques. Since 2015, I have published 21 peer-reviewed articles (including six first and four senior author manuscripts) and have been cited over 700 times. These first and senior-author works have featured in prestigious journals such as *American Journal of Psychiatry*, *Molecular Psychiatry* and *Neuroimage*. I have also contributed to the scientific community through the peer-review of 52 manuscripts, notably for journals such as *JAMA Psychiatry*, *Nature Human Behavior* and *Neuroimage*. In 2017, I completed my PhD at the University of New South Wales under the supervision of Professor Michael Breakspear, Associate Professor Wei Wen, and Professor Perminder Sachdev.

Employment History

Current Position

April 2020- : Postdoctoral Fellow, University of Cambridge

- Cambridge, United Kingdom
- Supervised by James B. Rowe (Team Leader, Cambridge Centre for Frontotemporal Dementia and Related Disorders)

Previous Positions

January 2018- March 2020: Postdoctoral Fellow, Max Planck UCL Centre for Computational Psychiatry and Ageing Research

- Berlin, Germany
- Supervised by Douglas D. Garrett (Team Leader, Lifespan Neural Dynamics Group)

June 2017-Dec 2017: Postdoctoral Fellow, QIMR Berghofer Medical Research Institute

- Brisbane, Australia
- Supervised by Michael Breakspear (Team Leader, Systems Neuroscience Group)

Feb 2017-May 2017: Visiting Scientist, Max Planck Institute for Metabolism Research

- Koln, Germany
- Supervised by Marc Tittgemeyer (Team Leader, Translational Neurocircuitry Group)

March 2013-June 2017: Doctoral Researcher, University of New South Wales

- Sydney, Australia
- Supervised by Michael Breakspear (Systems Neuroscience Group), Wei Wen and Perminder Sachdev (Centre for Healthy Brain Ageing)

Academic Qualifications

2017: PhD in Psychiatry, The University of New South Wales

- Thesis: *Brain networks in healthy ageing and psychiatric conditions*

2011: Hons in Psychology, University of Wollongong

2010: BSc (Major in Psychology), University of Wollongong

Referees

1. Professor James B. Rowe
    - Director, Cambridge Center for Frontotemporal Dementias and Related Disorders
    - Department of Clinical Neurosciences, University of Cambridge
    - Relationship: Postdoctoral Supervisor
    - Email: James.Rowe@mrc-cbu.cam.ac.uk

2. Professor Michael Breakspear
    - Professor of Systems Neuroscience, University of Newcastle
    - Relationship: Postdoctoral and PhD (co-supervision) supervisor
    - Email: mjbreaks@gmail.com

3. Dr. Douglas G. Garrett
    - Group Leader, Lifespan Neural Dynamics Group
    - Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Berlin
    - Relationship: Postdoctoral supervisor
    - Email: garrett@mpib-berlin.mpg.de

Top Five Peer Reviewed Publications

These papers were selected to highlight the impact of my work that combines neuroimaging and connectomic techniques to address key research topics in cognitive and clinical neuroscience. More specifically, these have included empirical investigations and reviews of the neural basis of inter-individual differences in behavior and cognition, particularly in the context of normal ageing and psychiatric disorders.

1. **Perry, A.**, Wen, W., Lord, A., Thalamuthu, A., Roberts, G., Mitchell, P.B., Sachdev, P.S., Breakspear, M. (2015). The organisation of the elderly connectome. *NeuroImage* 114, 414–426. **Impact Factor (IF) 6.56**, 55 citations[#]

2. **Perry, A**., Roberts, G., Mitchell, P.B, Breakspear, M. (2018). Connectomics of bipolar disorder: a critical review, and evidence for dynamic instabilities within interoceptive networks. *Molecular Psychiatry*, *23*, 413-421. **IF 12.38**, 47 citations

3. **Perry, A**., Wen, W., Kochan, N.A., Sachdev, P.S., Breakspear, M. (2017). The independent influences of age and education on functional brain networks and cognition in healthy older adults. *Human Brain Mapping*, *10*, 5094-5114. **IF 5.03**, 37 citations

4. Roberts, G.*, **Perry, A**.*, Ridgway, K., Leung, V., Campbell, M., Lenroot, R., Mitchell, P.B., Breakspear, M. (in press). Longitudinal changes in structural connectivity in young people at high genetic risk for bipolar disorder. *American Journal of Psychiatry*

5. Mosley, P. E.*, Paliwal, S.*, Coyne, T., Silburn, P., Tittgemeyer, M., Stephan, K. E., Breakspear, M.†, & **Perry, A**†. (2019). The Structural Connectivity of Discrete Networks Underlies Impulsivity and Gambling in Parkinson's. *Brain*, in press. **IF 13.50**, 20 citations

Source, Google Scholar
* The authors contributed equally to this work
† Co-senior authors

Peer Review

Ad hoc reviewer for Neuroimage (x13), JAMA Psychiatry, Nature Human Behavior, Journal of Neuroscience, Biological Psychiatry, Neuroimage:Clinical (x4), Human Brain Mapping, Psychological Medicine, Neurobiology of Ageing, Journal of Cognitive Neuroscience, amongst others.

I have reviewed 52 manuscripts in total (see Publons Review profile - https://publons.com/researcher/1206611/alistair-perry/peer-review/). I have also volunteered to review abstracts for the Organization of Human Brain Mapping (OHBM) conference across multiple years (2017-2021).

Committees and Working Groups

- MRC Cognitive and Brain Sciences Unit (CBU) Environmental Committee
- Organisation for Human Brain Mapping (OHBM) Special Interest Group – Sustainability and Environment Action
- (Previous member) Annual Meeting Group, Max Planck Society Postdoctoral Network
- UK Research and Innovation (UKRI) Early Career Researcher Forum

Current Professional Memberships

- British Neuroscience Association (BNA)
- Flux: The Society for Developmental Cognitive Neuroscience

Peer Reviewed Publications (full list)

- Garrett, D.D., Epp, S.M., **Perry, A**., Lindenberger, U. (2018). Local temporal variability reflects functional integration in the human brain. *NeuroImage*

- Hyett, M.P., **Perry, A**., Breakspear, M., Wen, W., Parker, G.B. (2018). White matter alterations in the internal capsule and psychomotor impairment in melancholic depression. *PloS one*

- Irmen, F., Horn, A., Mosley, P., **Perry, A**., Petry-Schmelzer, J.N., Dafsari, H.S., Barbe, M., Visser-Vandewalle, V., Schneider, G-H., Li, N., Kübler, D., Wenzel, G. Andrea A Kühn (2020). Left prefrontal connectivity links subthalamic stimulation with depressive symptoms. *Annals of neurology*

- Jeganathan, J.*, **Perry, A.*,** Bassett, D.S., Roberts, G., Mitchell, P.B., Breakspear, M. (2018). Fronto-limbic dysconnectivity leads to impaired brain network controllability in young people with bipolar disorder and those at high genetic risk. *NeuroImage:Clinical*

- Li, Q., Dong, C., Liu, T., Chen, X., **Perry, A.**, Jiang, J., Cheng, J., Niu, H., Kochan, N.A., Brodaty, H., Sachdev, P.S., Wei Wen. (2020). Longitudinal Changes in Whole-Brain Functional Connectivity Strength Patterns and the Relationship With the Global Cognitive Decline in Older Adults. *Frontiers in Aging Neuroscience*

- Lin, H.-Y., Cocchi, L., Zalesky, A., Lv, J., **Perry, A**., Tseng, W.-Y.I., Kundu, P., Breakspear, M., Gau, S.S.-F. (2018). Brain–behavior patterns define a dimensional biotype in medication-naïve adults with attention-deficit hyperactivity disorder. *Psychological medicine*

- Lin, H.-Y., **Perry, A**., Cocchi, L., Roberts, J., Tseng, W.-Y., Breakspear, M., & Gau, S. S.-F. (2019). Development of frontoparietal connectivity predicts longitudinal symptom changes in young people with autism spectrum disorder. *Translational Psychiatry*

- Mosley, P., Marsh, R., **Perry, A**., Coyne, T., Silburn, P. (2018). Persistence of mania after cessation of stimulation following subthalamic deep brain stimulation. *The Journal of Neuropsychiatry and Clinical Neurosciences.*

- Mosley, P. E.*, Paliwal, S.*, Coyne, T., Silburn, P., Tittgemeyer, M., Stephan, K. E., Breakspear, M.†, & **Perry, A**†. (2019). The Structrual Connectivity of Discrete Networks Underlies Impulsivity and Gambling in Parkinson's. *Brain*

- Mosley, P.E., Smith, D., Coyne, T., Silburn, P., Breakspear, M., **Perry, A**. (2018). The site of stimulation moderates neuropsychiatric symptoms after subthalamic deep brain stimulation for Parkinson's disease. *NeuroImage: Clinical*

- Mosley, P.E., Robinson, K., Coyne, T., Silburn, P., Barker, M.S., Breakspear, B., Robinson, G.A., **Perry, A**. (2020). Subthalamic deep brain stimulation identifies frontal networks supporting initiation, inhibition and strategy use in Parkinson's disease. *NeuroImage*

- **Perry, A.**, Roberts, G., Mitchell, P.B., Breakspear, M. (2018). Connectomics of bipolar disorder: a critical review, and evidence for dynamic instabilities within interoceptive networks. *Molecular psychiatry*

- **Perry, A.**, Wen, W., Kochan, N.A., Thalamuthu, A., Sachdev, P.S., Breakspear, M. (2017). The independent influences of age and education on functional brain networks and cognition in healthy older adults. *Human brain mapping*

- **Perry, A.**, Wen, W., Lord, A., Thalamuthu, A., Roberts, G., Mitchell, P.B., Sachdev, P.S., Breakspear, M. (2015). The organisation of the elderly connectome. *NeuroImage*

- Roberts, G.*, **Perry, A.***, Lord, A., Frankland, A., Leung, V., Holmes-Preston, E., Levy, F., Lenroot, R., Mitchell, P., Breakspear, M. (2016). Structural dysconnectivity of key

cognitive and emotional hubs in young people at high genetic risk for bipolar disorder. *Molecular psychiatry*

- Roberts, G.*, **Perry, A**.*, Ridgway, K., Leung, V., Campbell, M., Lenroot, R., Mitchell, P.B., Breakspear, M. (in press). Longitudinal changes in structural connectivity in young people at high genetic risk for bipolar disorder. *American Journal of Psychiatry*

- Roberts, J.A., **Perry, A**., Lord, A.R., Roberts, G., Mitchell, P.B., Smith, R.E., Calamante, F., Breakspear, M. (2016). The contribution of geometry to the human connectome. *NeuroImage*

- Roberts, J.A., **Perry, A.**, Roberts, G., Mitchell, P.B., Breakspear, M. (2017). Consistency-based thresholding of the human connectome. *NeuroImage*

- Wirsich, J., **Perry, A.**, Ridley, B., Proix, T., Golos, M., Bénar, C., Ranjeva, J.-P., Bartolomei, F., Breakspear, M., Jirsa, V. (2016). Whole-brain analytic measures of network communication reveal increased structure-function correlation in right temporal lobe epilepsy. *NeuroImage: Clinical*

- Zimmermann, J., **Perry, A.**, Breakspear, M., Schirner, M., Sachdev, P., Wen, W., Kochan, N.A., Mapstone, M., Ritter, P., McIntosh, A.R. (2018). Differentiation of Alzheimer's disease based on local and global parameters in personalized Virtual Brain models. *NeuroImage: Clinical*

Conference Presentations (last three years)

- Mosley, P. E.*, Paliwal, S.*, Coyne, T., Silburn, P., Tittgemeyer, M., Stephan, K. E., Breakspear, M.†, & **Perry, A**†. (2019). The Structural Connectivity of Discrete Networks Underlies Impulsivity and Gambling in Parkinson's. Poster presented at 25th Annual Meeting of the *Organization for Human Brain Mapping*, Rome, Italy, 9-13 June, 2019.

- **Perry, A**., Hughes, L., Adams, N., Naessens, M., Murley, A., Jones, S., Cope, T.E., Kocagoncu, E., Rowe, J.B. (2021). The effect of memantine on cortical network function in frontotemporal lobar degeneration is conditional on baseline GABA physiology. Poster/pre-recorded talk at *Alzheimer's Association International* Conference, 26-30 July, 2021

- **Perry, A**., Hughes, L., Adams, N., Naessens, M., Murley, A., Jones, S., Cope, T.E., Kocagoncu, E., Rowe, J.B. (2021). The neurophysiological effects of the NMDA-R antagonist Memantine in frontotemporal lobar degeneration (FTLD) is conditional on baseline GABA. Oral presentation at *MEGUK* Conference, 6-7 September, 2021

- **Perry, A.**, Kosciessa, J., Garrett, D. D. (2019). Aging-related differences in the structural and functional basis of attentional flexibility. Poster presented at 25th Annual Meeting of the *Organization for Human Brain Mapping*, Rome, Italy, 9-13 June, 2019.

- Roberts, G.*, **Perry, A**.*, Ridgway, K., Leung, V., Campbell, M., Lenroot, R., Mitchell, P.B., Breakspear, M. (2021). High genetic risk for bipolar disorder is associated with localised dysconnectivity during normal structural connectome development. Poster/pre-recorded talk at *Flux Virtual Congress*, September 17 – 21, 2021

*The authors contributed equally

† Co senior-author