

CURRICULUM VITAE

PERSONAL DETAILS

Dr Ilvana Dzafic

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EDUCATIONAL QUALIFICATIONS

Ph.D. in Neuroscience

Queensland Brain Institute, The University of Queensland, St Lucia, 2017.

Bachelor of Psychological Science with Honours

The University of Queensland, St Lucia, 2010.

EMPLOYMENT HISTORY

Postdoctoral Research Fellow 2017- present
Cognitive Neuroscience and Computational Psychiatry Lab

Queensland Brain Institute, The University of Queensland
Melbourne School of Psychological Sciences, The University of Melbourne

- Conducting randomized controlled trials with psychiatric patient populations.
- Conducting electroencephalography (EEG) and Magnetic Resonance Imaging (MRI) experiments, with neurotypical and psychiatric patient populations.
- Administering various neuropsychological assessments and structured interviews.
- Collecting and maintaining large databases for ongoing research.
- Working closely and collaboratively with principal investigators and clinicians (psychiatrists and psychologists) involved in the projects. Contributing to development of research questions, design and methodology.
- Providing direct supervision and training of new clinical and research staff, as well as students.
- Analysing large clinical and neuroimaging datasets using basic and advanced statistical analyses, as well as computational modelling

techniques.

- Translating quantitative results into accessible presentations for scientific conferences, as well as non-technical audiences.
- Preparing and publishing research articles in prominent journals.
- Managing multiple projects. Experience working with large budgets and aggressive timelines.
- Obtaining research grants for new projects.
- Preparing and writing research protocols to be reviewed by a Human Research Ethics Committee. Implementing and enforcing the approved procedures.

Projects:

- Randomized controlled trial of Cogsmart and CIRCuiTS.
- Structural and functional brain networks in psychosis and psychosis prodrome.
- Do the distinct nuclei of the amygdala contribute to detection of emotional deception?
- Brain pathways of salient information processing in schizophrenia and psychosis.
- Brain pathways of salient information processing.

Visiting Academic

2016

Institute of Psychiatry, Psychology and Neuroscience, King's College London

- Experience in conducting a randomized controlled trial with a psychiatric patient population.
- Providing analysis support to Master of Psychology students.
- Analysing clinical datasets using basic statistical analyses.
- Preparing and publishing a research article.

Project:

- Randomized controlled trial - Cognitive Bias Modification for paranoia.

Neuroimaging Research Assistant

2011- 2016

Centre for Advanced Imaging, The University of Queensland
Asia-Pacific Centre for Neuromodulation, The University of Queensland

- Conducting Magnetic Resonance Imaging (MRI) experiments, with large cohorts of neurotypical and patient populations (Parkinson's and epilepsy).

- Administering various neuropsychological and neurological assessments.
- Planning and managing research activities and providing ongoing updates of research project status.
- Training new research staff.
- Analysing behavioural datasets using basic statistical analyses.
- Preparing and publishing research articles.

Projects:

- Accelerated long-term forgetting in epilepsy.
- Environmental sound norming.
- Imaging of memory in epilepsy
- Functional and structural imaging of non-motor disturbance in Parkinson's disease.

Critical Care Administration Officer

2012-2013

School of Medicine, The University of Queensland

- Arranging and negotiating a schedule of appointments, meetings and other commitments for the specialist physicians working in critical care across Queensland.
- Preparation of agendas and supporting documentation. Recording and distributing minutes of the meeting. Following-up on agreed actions as required.
- Assisting with construction of new 8-week critical care curriculum for medical students.
- Creating eLearning teaching materials for the extended program.
- Assisting with Student Coordinator tasks.

Group Therapy Assistant

2009- 2010

Pathways Health and Research Centre

- Training in Cognitive Behavioural Therapy, in the areas of: recognising feelings and understanding the power of thoughts; changing thinking processes; relaxation techniques; coping strategies; problem solving and goal setting; improving self-esteem and confidence; communication and social skills development; mindfulness and attention training; conflict resolution.
- Assisting the psychologist with the group therapy sessions: the fun friends (ages 4-6yrs), early primary (ages 7-9yrs) and junior youth (ages 10-12yrs) groups.
- Helping set up behaviour management rules.

- One-on-one assistance with children that are younger, easily distracted, or have trouble with a particular task.
- Interacting with the children in a positive and fun manner, ensuring they are enjoying themselves whilst learning important skills.

Clinical Research Assistant

2009

Pathways Health and Research Centre

- Administration of the Anxiety Disorder Interview Schedule (ADIS).
- Knowledge of a wide variety of childhood and adolescent disorders and their diagnostic criteria.

EXPERTISE

Clinical Research skills

- Excellent knowledge of regulations and standards that apply to clinical studies and randomized controlled trials.
- Ability to maintain good relationships with other scientists and medical providers. Ability to build rapport with patients.
- Strong negotiating and leadership skills.
- Ability to supervise team members and encourage personal and professional growth.
- Ability to prioritise and manage time efficiently.
- Excellent written and oral communication, conflict resolution, and interpersonal skills.
- Strong computer and programming skills.

Neuroimaging techniques

- Functional Magnetic Resonance Imaging
- Diffusion-weighted Magnetic Resonance Imaging
- Electroencephalography

Software packages and platforms

- MATLAB
- Neuroimaging analyses: Statistical Parametric Mapping (SPM), Partial Least Squares (PLS), FMRIB Software Library (FSL), MRtrix3
- Programming experiments: PsychToolbox, Cogent, E-Prime
- Statistical Package for the Social Sciences (SPSS)
- NeuroMiner
- Proficiency in most Microsoft and Adobe programs

RESEARCH PUBLICATIONS

H-index: 8, Citations: 160 (*Google Scholar*)

Published:

Dzafic, I., Larsen, K. M., Darke, H., Pertile, H., Carter, O., Sundram, S. and Garrido, M. I. (2021). Stronger Top-Down and Weaker Bottom-Up Frontotemporal Connections During Sensory Learning Are Associated With Severity of Psychotic Phenomena. *Schizophrenia Bulletin*. doi: 10.1093/schbul/sbaa188

Dark, F., Newman, E., Gore-Jones, V., De Monte, V., Garrido, M.I. and **Dzafic, I.** (2020). Randomised controlled trial of Compensatory Cognitive Training and a Computerised Cognitive Remediation programme. *Trials*, 21, 810. doi:10.1186/s13063-020-04743-y

Dzafic, I., Randeniya, R., Harris, C.D., Bammel, M., and Garrido, M.I. (2020). Statistical learning and inference is impaired in the non-clinical continuum of psychosis. *Journal of Neuroscience*. doi: 10.1523/JNEUROSCI.0315-20.2020.

Larsen, K. M., **Dzafic, I.**, Darke, H., Pertile, H., Carter O. L., Sundram S. and Garrido, M. I. (2020). Aberrant connectivity in auditory precision encoding in schizophrenia spectrum disorder and across the continuum of psychotic-like experiences. *Schizophrenia Research*. doi: 10.1016/j.schres.2020.05.061

Dzafic, I., Oestreich, L., Martin, A. K., Mowry, B. and Burianová, H. (2019). Stria terminalis, amygdala, and temporoparietal junction networks facilitate efficient emotion processing under expectations. *Human Brain Mapping*. doi: 10.1002/hbm.24779.

Larsen, K. M., **Dzafic, I.**, Siebner, H., and Garrido, M. I. (2018). Alteration of functional brain architecture in 22q11.2 deletion syndrome - insights into susceptibility for psychosis. *NeuroImage*. doi: 10.1016/j.neuroimage.2018.09.001.

Dzafic, I., Burianová, H., Martin, A. K., and Mowry, B. (2018). Neural correlates of dynamic emotion perception in schizophrenia and the influence of prior expectations. *Schizophrenia Research*. doi: 10.1016/j.schres.2018.06.015.

Dzafic, I., Burianová, H., Periyasamy, S. and Mowry, B. (2018). Association between schizophrenia polygenic risk and neural correlates of emotion perception. *Psychiatry Research: Neuroimaging*, 276 33-40. doi: 10.1016/j.pscychresns.2018.04.005.

Yiend, J., Trotta, A., Meek, C., **Dzafic, I.**, Baldu, N., Crane, B., Kabi, T.,

Stahl, D., Heslin, M., Shergill, S., McGuire, P. and Peters, E. (2017). Cognitive Bias Modification for paranoia (CBM-pa): study protocol for a randomised controlled trial. *Trials*, 18 1. doi:10.1186/s13063-017-2037-x.

Martin, A. K., **Dzafic, I.**, Ramdave, S. and Meinzer, M. (2017). Causal evidence for task-specific involvement of the dorsomedial prefrontal cortex in human social cognition. *Social Cognitive and Affective Neuroscience*. doi:10.1093/scan/nsx063.

Martin, A. K., **Dzafic, I.**, Robinson, G., Reutens, D. and Mowry, B. (2016). Mentalizing in schizophrenia: A multivariate functional MRI study. *Neuropsychologia*, 93 158-166. doi:10.1016/j.neuropsychologia.2016.10.013.

Dzafic, I., Martin, A. K., Hocking, J., Mowry, B. and Burianová, H. (2016). Dynamic emotion perception and prior expectancy. *Neuropsychologia*, 86 131-140. doi:10.1016/j.neuropsychologia.2016.04.025

Martin, A. K., Robinson, G., **Dzafic, I.**, Reutens, D. and Mowry, B. (2014). Theory of mind and the social brain: implications for understanding the genetic basis of schizophrenia. *Genes, Brain and Behavior*, 13 1: 104-117. doi:10.1111/gbb.12066.

Hocking, J., **Dzafic, I.**, Kazovsky, M. and Copland, D. (2013). NESSTI: Norms for Environmental Sound Stimuli. *PLoS ONE*, 8 9: e73382.1-e73382.12. doi:10.1371/journal.pone.0073382.

Hocking, J., Thomas, H., **Dzafic, I.**, Williams, R., Reutens, D. and Spooner, D. (2013). Disentangling the cognitive components supporting Austin Maze performance in left versus right temporal lobe epilepsy. *Epilepsy and Behavior*, 29 3: 485-491. doi:10.1016/j.yebeh.2013.08.020.

Pre-print:

Taylor, J. A., Larsen, K. M., **Dzafic, I.** and Garrido, M. I. (2018). Predicting Individual Psychotic Experiences on a Continuum Using Machine Learning. *bioRxiv* 380162; doi: <https://doi.org/10.1101/380162>.

INVITED TALKS AND PRESENTATIONS

Biological Psychiatry Australia 10th Annual Scientific Meeting 2020. *Oral Presentation*.

Biological Psychiatry Australia 9th Annual Scientific Meeting 2019. *Oral Presentation*.

7th European Conference on Schizophrenia Research 2019. *Oral Presentation*.

2019 Congress of the Schizophrenia International Research Society. *Oral Presentation.*

Australasian Neuroscience Society 2018. *Oral Presentation.*

Australasian Cognitive Neuroscience Society Conference 2018. *Oral Presentation.*

Organization for Human Brain Mapping 2018. *Poster Presentation.*

ARC Centre of Excellence for Integrative Brain Function 2017. *Invited speaker.*

Australasian Cognitive Neuroscience Society Conference 2017. *Oral Presentation.*

Science Meeting, ARC Centre of Excellence for Integrative Brain Function 2017. *Oral Presentation.*

2nd International Brain Stimulation Conference, Barcelona, Spain 2017. *Poster Presentation.*

Systems and Computational Neuroscience Down Under (SCiNDU) Conference 2017. *Poster Presentation.*

Organization for Human Brain Mapping 2016. *Poster Presentation.*

Institute of Cognitive Neuroscience, University College London 2016. *Invited speaker.*

Wellcome Trust Centre for Neuroimaging, University College London 2016. *Invited speaker.*

Cognition, Schizophrenia and Imaging, Institute of Psychiatry, King's College 2016. *Invited speaker.*

Schizophrenia International Research Society Conference 2016. *Poster Presentation.*

Society for Neuroscience 2015. *Oral Presentation.*

Centre for Advanced Imaging Seminar Series 2015. *Invited speaker.*

Society for Mental Health Research 2015. *Oral Presentation.*

Ipswich Hospital Research Day 2013. *Poster Presentation.*

SUPERVISION

Master's

Talina Bayeleva, Queensland Brain Institute, The University of Queensland.

Project: The effect of emotion authenticity on subconscious emotion perception. 2018-2020.

Clare Harris, Queensland Brain Institute, The University of Queensland.

Project: Learning Under Conditions of Uncertainty and Threat. 2017-2019.

Honours

Lauren Louise Addamo, Melbourne School of Psychological Science, The University of Melbourne. 2020.

Holly Pertile, Monash Medical Centre, Monash University. 2017-2018.

Visiting Research Student

Moritz Bammel. Queensland Brain Institute, The University of Queensland. 2018.

Research Assistants

Maddison Wheeler, Metro South Health, Woolloongabba Community Health Centre. 2018-2019.

Kirstie Petrie, Queensland Brain Institute, The University of Queensland. 2018.

AWARDS AND FUNDING

Melbourne School of Psychological Science MRI Research Funding Scheme.

Chief Investigator: \$16,000, 2019.

Strategic Initiative Project funding for Associate Investigators of the ARC Centre for Integrative Brain Function.

Associate Investigator: \$12,500, 2017-2018.

Brain Function EMCR Travel Award.

Recipient: \$1,000, 2017.

How does the brain quickly recognize threat and can we improve it?

Experiment.com
Chief Investigator: \$2,100, 2017-2018.

Sunshine Coast Association of Relatives and Friends of the Mentally Ill (ARAFMI) scholarship fund.

Recipient: \$98,612, 2013-2016.

Queensland Brain Institute postgraduate top-up scholarship.

Recipient: \$20,000, 2013-2016.

Rising Star of Queensland Science, National Science Week, 2015.

PUBLIC ENGAGEMENT

Pint of Science Festival: Mental Illness and Hallucinations.

- Invited speaker, 2019 and 2020.

Queensland Brain Institute Tour: Indooroopilly Probus Group.

- Invited speaker, 2018.

The Association of Relatives and Friends of the Mentally Ill (ARAFMI).

- Invited speaker at an Ipswich Hospital Foundation Trivia night, 2015.
- Presenter at yearly ARAFMI luncheons, 2013 - 2017.

ACADEMIC SERVICE

Reviewing

- Biological Psychiatry
- Psychological Medicine
- Clinical Neurophysiology
- Human Brain Mapping
- NeuroImage

Organizational

- Chair of Symposium: “Computational Psychiatry”, Biological Psychiatry Australia 10th Annual Scientific Meeting 2020.
- Chair of Symposium: “Cognition”, Systems and Computational Neuroscience Down Under (SCiNDU) Conference 2017.

Committees

- Gender, Equity, and Diversity Committee, ARC Centre of

Excellence for Integrative Brain Function.

Media coverage

Researchers Discover the Brain Circuits that Rapidly Detect Friend or Foe

- <https://www.futurity.org/brain-emotions-friend-foe-stria-terminalis-2218322-2/>
- <http://getstem.com.au/researchers-discover-the-brain-circuits-that-rapidly-detect-friend-or-foe/>
- <https://neurosciencenews.com/friend-foe-brain-15213/>
- <https://www.njus.me/int/news/health-care/0/13233968/researchers-discover-the-brain-circuits-that-rapidly-detect-friend-or-foe>

Neuroscientists Explore Emotion Perception Deficits in Schizophrenia

- <https://www.technologynetworks.com/neuroscience/news/neuroscientists-explore-emotion-perception-deficits-in-schizophrenia-305258>
- https://www.reddit.com/r/science/comments/8so0vi/new_schizophrenia_research_deepens_understanding/

Neuroimaging gives insight into mental health issues, Healthy Living Ipswich magazine, issue #6, 2014

COLLABORATIONS

Australia:

- University of Melbourne
- Monash University
- University of Queensland Centre for Clinical Research
- Addiction and Mental Health Service, Queensland Health
- Queensland Brain Institute

Europe:

- Institute of Psychiatry, Psychology and Neuroscience, King's College London, United Kingdom
- Durham University, United Kingdom
- University of Kent, United Kingdom
- Copenhagen University Hospital Hvidovre, Denmark
- University of Copenhagen, Denmark