

Academic Staff 2019

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We acknowledge the Traditional Custodians of the lands on which the University of Wollongong is situated.

> We pay our respects to Aboriginal Elders past and present, who are the knowledge holders and teachers.

We acknowledge their continued spiritual and cultural connection to Country. As we share knowledge, teaching, learning and research within this University we also pay respect to the knowledge embedded forever within the Aboriginal Custodianship of Country.

Introduction

Welcome to the School of Psychology Research Report. This report presents a snapshot of academic staff and Higher Degree Research (HDR) students within the School, as well as showcasing the School's research achievements. Our staff and HDR students continue to engage in basic, translational and applied research that is recognised nationally and internationally. The School is committed to producing quality research in partnership with colleagues, industry and community organisations.

Our achievements are the result of a strong commitment by our academics to producing quality and impactful research. Further information about individual researchers can be found at scholars.uow.edu.au

Professor Peter Caputi Head of the School of Psychology University of Wollongong



It is with great pleasure that we present the School of Psychology Research Report for 2018/2019.

Research within the School is internationally recognised for its quality, scope and impact. As profiled throughout this publication, our School is underpinned by world-class researchers who are conducting dynamic programs of research. This includes basic scientific research such as experimental and laboratory studies, through to applied and community-focused research.

Our researchers work across a range of populations, rapidly adding to the knowledge-base of a diverse group of psychological processes, behaviour and behaviour change, as well as psychological and health conditions. In particular, we have strengths in translational research, where our research groups work in close partnership with a range of community-based organisations and services to drive meaningful societal benefits.

Our School includes a number of innovative research groups and centres. These include two world-renowned National Health and Medical Research Centres of Research Excellence -- the Australian Centre for Electromagnetic Bioeffects Research (ACEBR) and The Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE).

We also have leading research groups who are focused on the interaction between sport and mental health, cognitive psychology, family learning and interaction, health behaviour promotion, mental health and well-being, multimodal brain imaging and function, personality disorders, and self-regulation and development in children.

As highlighted in the report, our research is funded by a range of nationally competitive funding schemes and our researchers have been the recipients of numerous awards. We are proud of all the projects being undertaken by our researchers, as well as the wideranging benefits that are driven by this research.

We hope that you enjoy this research report.

Associate Professor
Peter Kelly
Deputy Head of School (Research)
School of Psychology
University of Wollongong



Research Stories

Multi-disciplinary research centre devising safe implementation of medicinal cannabis

The <u>Australian Centre for Cannabinoid Clinical and Research Excellence</u> (ACRE) is working to develop a national research and policy framework that ensures quality and safety in the implementation of medicinal cannabis use in the community.

The multi-disciplinary research team is gathering the information necessary to inform best clinical practice and to guide government around the use of medicinal cannabinoids in Australia.

The ACRE collaborators share combined experience that includes public health care, pharmacovigilance, clinical pharmacology and drug development, clinical and basic human/animal research skills, and environmental and translational research.

The overall team comprises Professor Jennifer Martin, Director, University of Newcastle; Professor Nadia Solowij, Co-Director, University of Wollongong; with investigators across 12 institutions throughout Australia, and major research hubs at the Universities of Newcastle and Wollongong, including UOW investigators Professor XuFeng Huang, Professor Kathy Eagar and Dr Katrina Green.

The research is funded as a National Health and Medical Research Council (NHMRC) Centre of Research Excellence with \$2.5 million from the NHMRC and significant contributions from institutions involved, including about \$480,000 from



UOW and the Illawarra Health and Medical Research Institute (IHMRI) for scholarships and direct research costs.

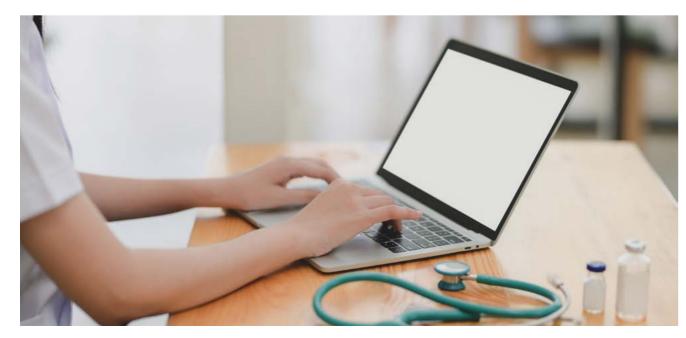
The team expects that over five years, ACRE will generate evidence-based knowledge through research undertaken in three research clusters which overarch seven distinct research themes, each underpinned by knowledge synthesis and health economics.

ACRE's themes are designed to provide a broad, clinically-relevant and scientifically-valid framework around the therapeutic use of medicinal cannabinoids ranging from mechanistic human and animal studies and plant science through to translation into policy, prescribing and clinical practices.

At UOW, researchers will focus on preclinical and clinical studies of medicinal cannabinoids, knowledge about safety, efficacy and mechanisms of action for specific products and conditions, knowledge dissemination and translation, development of policy, guidelines and information into the health and lay community.

A key project to be implemented by Professor Solowij's group will be a trial of cannabidiol in early stage dementia.

www.australiancannabinoidresearch.com.au





Infant learning group presents on the world stage

Research on parent-infant shared book reading, and on infant communication and exploration, being undertaken by the Wollongong Infant Learning Lab (WILL), is regarded so highly that is has been accepted for presentation at the International Congress for Infancy Studies.

The research team comprises developmental researchers who conduct research on infant cognition, parent-child interactions, and well-being in pregnancy and early parenting. They are a part of the <u>Family, Learning and Interaction</u> (FLINT) Research Theme based at Early Start.

Since WILL's opening in late 2018, 80 families from across the Illawarra have taken part in the team's studies on infant development.

The International Congress for Infancy Studies is the largest gathering of infancy researchers in the world and will be held in Glasgow in July 2020.

The team's November 2018 article in <u>The Conversation</u> on why young children like to be read the same book repeatedly had a readership of more than 300,000 people and was featured as a top story of the week on the World Economic Forum.

Researchers were invited to provide a professional development session for the Wollongong City Library Network on the development of language and literacy during early childhood. This was attended by about 40 children's librarians from across the region.

Their research on maternal well-being has followed the experiences of 120 women during pregnancy and resulted in widespread media coverage. This research identified the diverse range of positive and negative experiences women associate with their pregnancy, trends in their well-being and distress, and the ways in which attachment to the baby develops throughout pregnancy and in the first months after birth.

Collaborative members of the team are Associate Professor Jane Herbert who is the Director of WILL and the leader of the FLINT Research Theme at Early Start, Associate Professor Jenny Richmond (UNSW), Professor Sabine Seehagen (Ruhr University, Bochum, Germany), Dr Elisabeth Duursma (UOW), PhD students (UOW): Meagan Baltoski, Cheryl Ho, Josie McNamara, Alixandra Risi, Sophie Russell, and Lab coordinator: Annaleise Gray (UOW).

Funding for their project has been made through an Australian Research Council Discovery Project and Social Sciences' Faculty Research grant.

Recently, the team has been talking with groups of grandparent-carers, so as to better understand how WILL and FLINT can support their early literacy and numeracy interactions with their grandchildren.

They are also planning to extend research on what makes a highquality early book reading interaction with a baby into the early education and care sector so that they can provide professional development in this area for early educators.

www.infantlearninglab.com/about-us

Project Air Strategy spreads its hopeful messages

The multi-award winning <u>Project Air Strategy for Personality Disorders</u> broadened its global outreach in 2019 featuring innovative new research.

Senior Professor Brin Grenyer who is Director of Project Air Strategy for Personality Disorders is an internationally recognised leader in research, education and treatment, partnering with health, justice, communities, schools, families and individuals.

"We bring new scientific discoveries to promote recovery," he said

Project Air Strategy for Personality Disorders is a partnership between UOW, the Illawarra Health and Medical Research Institute, and the NSW Ministry of Health.

Dr Michelle Townsend, a Senior Research Fellow with the School of Psychology, is one researcher who is actively involved with the Project Air Strategy.

She and Professor Grenyer manage a large collaborative research project which aims to support teachers, school counsellors and health staff to better recognise and respond to young people with complex mental health problems, including self-harm, suicide, trauma and emerging personality disorder.

To serve the collaborative research project, a range of resources has been developed including; accredited training for teachers, clinical tools, factsheets, a training film, as well as skills-based training workshops for more than 700 NSW Education and Health staff. [See separate article on Dr Townsend in this issue].

Overall, it was a significant year on the international stage when Project Air's Stepped Care Model Randomised Controlled Trial won an international award from the American Psychological Association - Division 29 Society for the Advancement of Psychotherapy. Held in Lisbon, Portugal, in June 2019, it was for the inaugural Jeremy Safran Memorial outstanding poster award and presented to Brin Grenyer, Kate Lewis, Mahnaz Fanaian, Beth Kotze and the Project Air Team and featured an "Integrative psychotherapy for personality disorder: a stepped care randomised controlled trial".

During 2019 the Project Air Strategy team presented at events to spread the hopeful messages about early intervention, treatability and recovery of personality disorders. Presentations included the 2019 European Network for Mental Health Service Evaluation Conference; the Society for the Exploration of Psychotherapy Integration 35th Annual Conference, Lisbon University; the International Society for the Study of Personality Disorders Conference, Vancouver, Canada; International Conference for Conversation Analysis and Psychotherapy, Berlin, Germany; Harvard University, McLean Hospital Visiting Scholar Series and the International Youth Mental Health Conference, Brisbane.

Australian data from the national survey of mental health and well-being show that personality disorders affect about 6.5 per cent of the population, with one in six hospital admissions to NSW mental health units each year involving personality disorders.

The Project Air Strategy seeks to improve the capacity of mainstream mental health services to manage and treat those with a personality disorder, and to expand specialist treatment options, including improved referral pathways between generic and specialist services. This unique model uses a 'whole of service' approach, with six key components: redesigning and enhancing the quality of services, upgrading skills of mental health staff, connecting with families, carers and consumers, improving awareness and information, and evaluating outcomes

This model is operationalised through clinical guidelines which describe the pathway of a person through the health service, including assessment, diagnosis, formulation, and care planning, brief and longer-term therapies, the role of inpatient and community care, interaction with general practitioners, involvement of families and carers, and systemic issues for services.

The implementation of the strategy requires a combination of leadership from senior management, training and support, clinical development within services by experienced staff, and the design of service models to enhance clinical pathways, using guidelines-based treatment to match patient need. Core to the strategy is the role of senior clinicians who coordinate the flow of people into both brief and more intensive treatments.

The strategy relies on collaborative care planning to assist in the coordination and integration of services, including a core leadership role for mental health clinicians assisting physicians, public and private psychiatrists, community services, emergency departments, non-government agencies, community housing and other relevant services based on a collaborative assessment of needs.

The approach uses clinical staging, including a stepped model of care. Brief interventions, and family and carer sessions and workshops, complement more traditional individual and extended group therapies. The needs of the children of persons with a personality disorder are one example of how the model focuses on the broader social context of care through enhanced parenting interventions and a schools and adolescent early intervention program. Services for families and carers, peer support and early intervention through child, youth and school counselling programs are also part of the Project Air model and the suite of manualised treatments.

All local health districts across NSW implement the Project Air Strategy model, with more than 25 stepped care clinics. Other States and Territories of Australia are also implementing the Project Air model.

The outcomes from the model have been evaluated through a combination of randomised controlled trials, service development data and cost-benefit analyses. Findings demonstrate significant cost benefits from implementing the model, significant patient clinical improvements, improvements to family functioning and parenting skills, and a developing body of evidence about broader impacts.

In November, Project Air Strategy hosted the 13th International Conference on the Treatment of Personality Disorders: 'Personalising Effective Treatment' which was opened by Mrs Lucy Brogden, AM, Chair of the National Mental Health Commission. One of the speakers at the conference was Professor Ueli Kramer from the University of Lausanne, Switzerland, who presented on his research on mechanisms of change in treatments of personality disorders. Another key speaker at the conference was Professor Per Hoglend (Oslo, Norway) who discussed transference and countertransference in effective treatment of personality disorder. Samples of new research findings from the Project Air Strategy team were also presented at the conference.

The NSW Department of Education and NSW Ministry of Health have sponsored Project Air to deliver programs to support school and community health clinicians in their work with young people with complex mental health issues. This includes understanding and responding to emerging personality disorder, trauma history, self-harm and suicidal behaviour and difficulties with identity, emotions and relationships.

The Project Air Schools Training
Program is continuing to roll out
across secondary schools in NSW, and in
consultation with the School of Education
at the University of Wollongong, Project Air
Strategy for Schools has been included in the
curriculum for masters students.

www.projectairstrategy.org



Researcher's vital role in helping to tackle soaring opioid dependence

For Dr Briony Larance, acknowledged as UOW's Emerging Researcher of the Year for 2019, people's opioid use, dependence and treatment continues to be a major focus of her research.

"Addiction" is a complex cultural, social, psychological and biological phenomenon, according to Dr Larance, who is the Vice-Chancellor's Postdoctoral Senior Research Fellow (2018-2021).

"We need a range of approaches that minimise harm, and these approaches need to be effective, attractive, accessible and person-centred. But the reality is that there is no single solution."

Opioid dependence and injecting drug use account for the greatest burden attributable to illicit drug use in the world. In Australia, opioid deaths have increased by 50 per cent in the past decade with overdoses now accounting for more deaths than traffic accidents.

Methadone and buprenorphine are established as effective opioid agonist treatments (OAT) for opioid dependence, and classed as essential medicines for this indication by the World Health Organisation

Systematic reviews have demonstrated they are highly effective in reducing illicit opioid use, HIV and HCV incidence, criminal activity, overdose, and mortality. Despite this, global OAT coverage is low (16 per cent in 2017).

Dr Larance said Australia's emphasis on supervised daily dosing means many clients must travel significant distances each day, affecting capacity to engage in other activities including employment, increasing stigma, and deterring some from entering treatment.

"Access to methadone or buprenorphine in rural and regional areas is difficult, given low prescriber numbers and lengthy distances. Many pay out-of-pocket dosing fees to pharmacies and private clinics, presenting yet another barrier to seeking treatment. Daily dosing is an expensive way of delivering methadone and buprenorphine, and it is a burden on both staff and clients," she said.

Recently developed extended-release (depot) buprenorphine formulations could transform opioid agonist* treatment internationally. [An agonist is a chemical that binds to a receptor and activates the receptor to produce a biological response.]

They are administered by subcutaneous injection, slowly releasing buprenorphine over the dosing interval, which can last a month

Dr Larance recently conducted a national survey examining the perceptions of once-monthly (depot) buprenorphine injections for opioid dependence among people who use opioids regularly in Australia, and she is an investigator on a national multi-



site implementation trial called the CoLAB study (currently underway).

"Our pilot work indicates that patient willingness to try treatment with depot buprenorphine is high. Our survey of 402 opioid dependent people found that two thirds believed depot buprenorphine was a good treatment option for them."

She said overall the multicomponent CoLAB study will provide important data on effectiveness and safety outcomes collected in a context as close to routine clinical care as possible, while also providing important data on costs, client and provider perspectives, and implementation facilitators and barriers.

"These data will further inform models of care, clinical guidelines and training programs for healthcare providers."

She is involved on this project with a large team of investigators including the lead investigator Professor Michael Farrell (UNSW); Scientia Professor Louisa Degenhardt (UNSW); and the broader CoLAB study team (made up of investigators from across Australia). The CoLAB study is funded via a collaborative research grant from Indivior (the company which markets Sublocade™ in Australia).

Note: Meanwhile, Dr Larance is also leading a research project into reducing methamphetamine-related (ice) harm in the Illawarra. The project has been awarded a \$66,190 seed-funding grant from the National Centre for Clinical Research on Emerging Drugs. The study will examine the use of health services and outcomes of Illawarra/Shoalhaven residents who use methamphetamine and potential points of intervention like hospital emergency departments. It will use complex data analytics, and clinician and consumer consultation to determine priorities for intervention.

scholars.uow.edu.au/display/briony_larance

EXAMPLE PUBLICATION

Larance, B., Degenhardt, L., Grebely, J., Nielsen, S., Bruno, R., Dietze, P., Lancaster, K., Larney, S., Santo, T. Jnr., Shanahan, M., Memedovic, S., Ali, R., Farrell, M. (2019). Perceptions of Extended-Release Buprenorphine Injections for Opioid Use Disorder Among People Who Regularly Use Opioids in Australia. Addiction. https://doi.org/10.1111/add.14941

Higher Degree Research Stories



JACK FOGARTY

PhD student explores electrophysiological markers of cognition

Developing objective and cost-effective measures of cognitive functioning is the primary aim for PhD candidate, Jack Fogarty, who is involved in psychophysiology research in UOW's School of Psychology.

Jack's PhD research involves using novel EEG (electroencephalographic) methods to investigate electrophysiological markers of cognitive control, the mental functions that enable individuals to process information and regulate behaviour.

"I use a range of behavioural and neuroimaging techniques to investigate the neural mechanisms involved in cognitive control processing, not only to increase our understanding of the brain's function and structure, but also to develop potential tools to assess cognitive functioning and evaluate the efficacy of clinical methods addressing psychological deficits," Jack said.

Jack is actively involved in a range of research projects as a Senior Research Assistant in the Brain & Behavioural Research Institute at UOW and in the NICM Health Research Institute at Western Sydney University. He is also the Higher Degree Research Student Representative in the UOW School of Psychology.

"I really enjoy exploring novel ideas and theories about how the brain works. Research in our field is such a creative and challenging process, and it's exciting to work with a variety of teams to discover new ways to study and measure cognition."

Jack's recent first author papers investigating the EEG eventrelated potentials related to auditory information processing and cognitive control are available online: See <u>Fogarty et al.</u>, 2020, <u>Fogarty et al. 2018a</u>, <u>Fogarty et al.2018b</u>

He has also collaborated with researchers in Singapore, America, and the Netherlands, on several studies exploring the neural correlates of inhibitory control, chronic pain, and mind wandering. See Inhibition (See He et al., 2019); Chronic Pain (See Furman et al., 2019) and Mind wandering (See van Son et al., 2019).

Note: Research Jack has been involved with exploring the way that caffeine affects cognition (and using caffeine as a tool to explore cognitive processing) was recently mentioned in a media release by *Neuroscience News*.

EXAMPLE PUBLICATION

Fogarty, J.S., Barry, R.J., & Steiner, G.Z. (2019). Sequential processing in the classic oddball task: ERP components, probability, and behaviour. Psychophysiology, 56, e13300. https://doi.org/10.1111/psyp.13300

School of Psychology Research Report 2018/2019



Her recent work has shown that auditory illusions of self-motion can be induced by the Shepard-Risset glissando, in the absence of physically accurate spatial cues.

The Shepard-Risset glissando is a variant of the Shepard tone - the sonic equivalent to the barberpole illusion – an infinitely rising or falling sound that never actually gets any higher or lower. A range of symptoms and sensations have been reported in response to these stimuli, such as: feelings of falling, disrupted equilibrium and disorientation, dizziness, emotional disturbances, changes in heart rate and respiration and tingling sensations.

The investigation of some of these concepts are challenging the way we think about how multisensory experiences are processed and influenced. For instance, vection, the illusion of self-motion has traditionally been assumed to be a bottom-up process, and is thought to be a primarily visual illusion. That is, the percept of oneself being in motion is constructed from 'the bottom-up' - from the smallest pieces of sensory input in the visual scene. However, the demonstration from recent research of compelling auditory illlusions of self motion as evoked by 'metaphorical' acoustic stimuli (sound stimuli that are not strictly based on physics), has shown us that our perception of self-motion is not only affected by sound, but is also more heavily influenced by topdown cognitive processes than once thought.

The individual differences that affect the strength of this illusion

is definitely something that continues to keep me intrigued and curious," she said.

Rebecca, who graduated with a Bachelor of Psychological Science (Honours) from UOW, has as her research interests perception and cognition, auditory/musical illusions and psychophysiology.

She believes her published work from her honours thesis has had the most public impact to date (Mursic et al., 2017).

Following the publication of this work she received interest from media including an interview with a popular science magazine.

Further, her contribution to the work with Associate Professor Stephen Palmisano and Dr Juno Kim on the paper (Palmisano et al., 2017) was the most cited article in the journal, Displays, in

Rebecca currently has a paper in preparation describing the interactions between vection and auditorily evoked postural activity and is also working on assessing the autonomic arousal of the nervous system through electrodermal activity while listening to the Shepard-Risset glissando.

Mursic, R.A., Riecke, B.E., Apthorp, D., & Palmisano, S. (2017). The Shepard-Risset glissando: music that moves you. Experimental Brain Research, 235, 2111-3127. https://doi.org/10.1007/s00221-017-5033-1



Well-being and bonding during pregnancy under PhD study spotlight

Josie McNamara, who is a clinical psychology PhD candidate, pinpoints the favourite part of her research as hearing directly from pregnant women and new mothers about their experiences - the good and the bad.

She is currently in her final year of a joint Clinical Masters and PhD degree at UOW. Josie also works as a Clinical Psychology Registrar in a private practice in Wollongong, working with children, adolescents and families with a range of anxiety, mood, neurodevelopmental and behavioural difficulties. She has recently joined Grand Pacific Health's team in the newly-opened Eating Disorder Service.

Josie's research focuses on perinatal mental health, specifically around well-being and bonding during pregnancy and the early postpartum period. Across her studies, Josie is looking at patterns of quality of life and distress over the trimesters of pregnancy, women's accounts of their experience of pregnancy, the construct of antenatal mind-mindedness and its relationship to maternal-fetal attachment (MFA), and the relationship between domains of mental health with bonding during pregnancy and postpartum.

To date, Josie has had one of her articles published – a systematic review examining the relationship between maternal mental health, MFA and postpartum bonding - with PLOS One in July of last year. The paper itself has had over 3,300 views on PLOS One and three citations so far and attracted some media attention including The Illawarra Mercury, WIN-TV news and ABC Radio Illawarra.

Following the media coverage, Josie was contacted by the Australian College of Midwives and asked to submit a paper in their quarterly issue of Australian Midwifery News with

the purpose of providing a summary of the paper and its implications for midwives. She has two more papers being considered for publication and one being prepared for submission shortly.

Josie is currently working on a paper about antenatal mindmindedness and its relationship to the emerging bond between mother and baby during pregnancy. Some promising results have been found which have the potential to influence future parenting interventions targeting women during pregnancy.

Josie said the women who have been involved in her research have been warm, open, honest and generous with their time. The initial part of her research involved spending time in the Wollongong Hospital Antenatal Clinic and inviting women to participate in the research.

Over the next 18 months, she was able to keep in touch with women by doing phone interviews and mother-and-baby play sessions in the University's Wollongong Infant Learning Lab

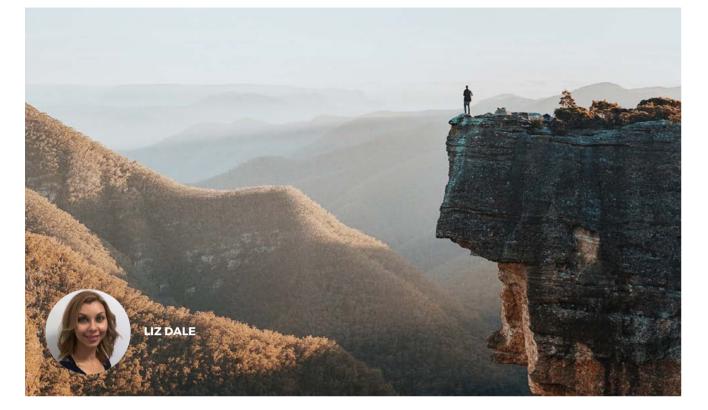
"Another thing I love about my research is being part of the Family, Learning and Interaction (FLINT) team. FLINT is run by Associate Professor Jane Herbert and her team of mostly female researchers. The focus of FLINT's research is on families, infant development and infant/child-parent relationships. There are always opportunities for collaboration and mentorship within FLINT, and it's a great team to be in."

"We spend time engaging with other researchers, the media and the community in order to share research that will interest and benefit children and families of the Illawarra and beyond. Families tell us they love coming into the lab and participating in research, and we love it too."

EXAMPLE PUBLICATION

McNamara, J., Townsend, M.L., & Herbert, J.S. (2019). A systemic review of maternal wellbeing and its relationship with maternal fetal attachment and early postpartum bonding. PLOS ONE. https://doi.org/10.1371/journal.pone.0220032





Unique Aboriginal and Western synthesis a feature of PhD research

A descendant from the Worimi Nation, PhD candidate in Clinical Psychology Liz Dale's main area of research is in Aboriginal and Torres Strait Islander social and emotional health and wellbeing.

She is particularly focused on eating disorders and harmful behaviours such as risky alcohol and substance use and gambling,

Liz has more than 12 years of clinical practice experience working in a range of government and non-government organisations including youth and adult homelessness, family and relationship counselling, mental health disorders, drug and alcohol, gambling addiction, eating disorders and intergenerational trauma.

Currently she is a casual Academic/Lecturer in UOW's School of Psychology, its Graduate School of Medicine and as an Indigenous Tailored Academic Program (ITAP) tutor with the Woolyungah Indigenous Centre. Liz is a research assistant for the NHMRC Centre of Research Excellence: Indigenous Health and Alcohol Research and a steering committee member for the Ngarruwan Ngadju First Peoples Health and Wellbeing Research Centre.

Her current doctoral work focuses on understanding the cultural utility of SMART Recovery for Aboriginal and Torres Strait Islander peoples. This is to ensure that the model is culturally appropriate, accessible and promotes wellness and recovery that is compatible with Indigenous culture.

Liz's PhD features a unique synthesis of Aboriginal and Western research methods to ensure both cultural and scientific credibility and research outcomes that can bridge two cultural knowledge bases.

On the international scene, Liz is currently one of 10 Australian members involved in the international tripartite agreement between the National Health and Medical Research Council (NHMRC) of Australia, the Canadian Institutes of Health Research (CIHR) and the Health Research Council of New Zealand (HRC).

"As an Aboriginal qualitative health researcher, I have the privilege of listening to stories of resilience and recovery and then translating this into a format that can be used to improve service delivery and practice for Aboriginal peoples.

"And, as an upcoming Aboriginal scholar, I am also enjoying the opportunity to embed Indigenous knowledges within the academy and follow the footsteps of Aboriginal academics and researchers who have set this path before me."

EXAMPLE PUBLICATION

Dale, E., Kelly, P. J., Lee, K. K., Conigrave, J. H., Ivers, R., & Clapham, K. (2019). Systematic review of addiction recovery mutual support groups and Indigenous people of Australia, New Zealand, Canada, the United States of America and Hawaii. Addictive behaviors. https://doi.org/10.1016/j.addbeh.2019.106038

Research Profiles



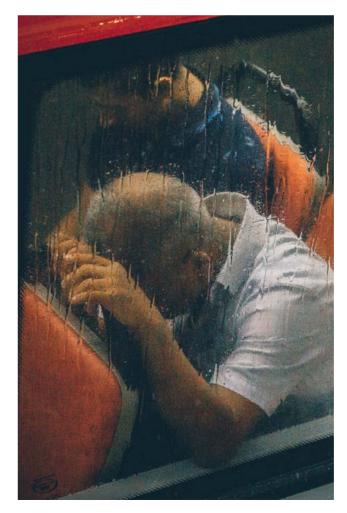
ASSOCIATE PROFESSOR EMMA BARKUS

Factors at play for psychosis risk

Associate Professor Emma Barkus' work encompasses psychological, biological and genetic markers for risk for psychosis and centres on the utility of using schizotypy as a marker for psychosis risk.

Professor Barkus was awarded her PhD from Manchester Metropolitan University in 2005 under the supervision of Dr John Stirling, Manchester Metropolitan University, and Professor Shôn Lewis, University of Manchester.

Her PhD focussed on understanding the factors which predicted auditory hallucinations in otherwise healthy people. She obtained a NARSAD (National Association for Research on Schizophrenia and Depression) Young Investigator Award before joining UOW in 2010.



Professor Barkus and her team have demonstrated that nonclinical auditory hallucinations activate the same brain areas as those experienced by patients with schizophrenia, and that people who are prone to psychosis report more psychotic-like experiences after using cannabis.

Her research has turned to focus on the effects of stress on mental health and how stress might exacerbate vulnerability to mental health disorders. Her team in Wollongong has demonstrated that high schizotypes display a blunted cortisol response to stress and that lack of cortisol reactivity accounts for the reduced learning observed in high schizotypes following stress

She said everyday slips and errors in thinking are related to schizotypy and it appears that negative effect contributes to errors in thinking in high schizotypes.

"In addition, developmental difficulties such as dyslexia and neurological soft signs appear to be associated with the presence of schizotypy."

More recently, Professor Barkus' team has begun to investigate the importance of social connection and the detrimental effects of loneliness on mental well-being for young adults.

scholars.uow.edu.au/display/emma_barkus

EXAMPLE PUBLICATION

Barkus E, Badcock JC. (2019) A Transdiagnostic Perspective on Social Anhedonia. Frontiers in Psychiatry. https://doi.org/10.3389/fpsyt.2019.00216



PROFESSOR ROBERT BARRY

Delving into the differences of people's brain activity

Professor Robert (Bob) Barry's specialisation in brain activity and behaviour has involved him in a wide research spectrum from helping agencies identify deception to the advantages of 'white noise'* in the environment.

He has also investigated differences in the brain activity of people with conditions such as Asperger's Syndrome and Attention Deficit Hyperactivity Disorder (ADHD), indicating the broad range of research carried out in the area of psychophysiology.

For example, Professor Barry, who is Director of the Brain & Behaviour Research Institute at UOW, has been involved in studies of EEG (electroencephalogram) differences between children with different subtypes of ADHD. Findings showed different neuroanatomical systems involved in the different subtypes of ADHD.

Professor Barry's research continues to span three interconnected areas of psychophysiology.

The first and most basic area, brain dynamics, explores how the ongoing EEG reflecting brain activity generates the ERP (or event related potential) marking detection and processing of an environmental event. In particular, this research explores timing effects for stimulus events relative to both amplitude and phase of the current EEG activity. Aspects of this work on 'preferred brain states' highlight, according to Professor Barry, the marvellous efficiency of the brain.

The second area is the Orienting Reflex, Pavlov's automatic mechanism that grabs people's attention to novel events in their environment. This research stream aims to integrate autonomic and central measures of the Orienting Reflex to novel stimuli, and to understand different response profiles over stimulus parameters and stimulus repetition.

Professor Barry's third area of research is in individual differences, covering both normal and atypical development. This research also includes aspects of personality, sex differences, and changes over the lifespan, and uses autonomic measures, EEG and ERPs.

Professor Barry has active international projects with universities in Japan (detection of deception), and with colleagues in Russia (sex differences and menstrual cycle effects in EEG) and Turkey (brain oscillation dynamics and new applications).

He is currently a Chief Investigator on an ARC-funded Discovery Project (2016-2019) with colleagues at the University of Queensland investigating 'the flipside of noise' – the surprising improvements in listening and learning that can occur in some individuals with low attentional capacity (such as in ADHD) when additional white noise* is present in the environment. This project is in the final wrap-up stage.

Professor Barry was the Founding President of the Australasian Society for Psychophysiology, and this year jointly hosted the Society's 29th Annual Conference in Wollongong. He has been a Fellow of the International Organisation of Psychophysiology (IOP) for about 40 years, on the Board of Directors of IOP for more than 20 years, and Treasurer for a recent six-year period; and in 2016 he was elected Vice-President for 2017-2022. He reviews grants for the Australian Research Council (ARC), the National Health and Medical Research Council (NHMRC), and agencies in Canada, Israel, UK, Singapore, Hong Kong, Netherlands, Jordan and Qatar. He also serves on the Editorial Boards of leading journals in psychophysiology, clinical neurophysiology, and caffeine research, as well as being a regular peer reviewer for many other journals.

[*White noise is a type of noise produced by combining sounds of all different frequencies together. It produces an even distribution of all sound frequencies within the range of normal hearing.]

scholars.uow.edu.au/display/robert_barry

EXAMPLE PUBLICATION

Barry RJ, De Blasio FM, Fogarty JS. (2019). Caffeine affects children's ERPs and performance in an equiprobable Go/NoGo task: Testing a processing schema. Psychophysiology, 56, e13330. https://doi.org/10.1111/psyp.13330



DR MARKO BIBERDZIC

Scholarship success for assessment and treatment of personality disorders

As an academic as well as a practising clinician, Dr Marko Biberdzic specialises in the assessment and treatment of personality disorders in adolescents and adults.

Research interests for the Lecturer in Clinical Psychology are in the areas of personality functioning and personality disorder, identity development, trauma, and psychotherapeutic processes.

Dr Biberdzic is currently working on developing and validating clinically useful and developmentally sensitive measures of personality functioning in youth.

He is setting up research at UOW's Northfields Clinic which aims to investigate the clinical utility of a framework for conceptualising psychological dysfunction that is more comprehensive than extant symptom-focused categorical diagnostic manuals.

In late 2018, Dr Biberdzic was awarded a scholarship by the International Society for Transference-Focused Psychotherapy (ISTFP) for outstanding early career researchers working in the field of personality pathology within an object relations framework.

Dr Biberdzic in 2019 was successful in obtaining one of the four international Psychodynamic Diagnostic Manual, Second Edition (PDM-2) Research Grants for his programmatic research project titled 'A scientific comparison of the theoretical, categorical, and dimensional approaches to assessing adolescent personality: construct validity and clinical utility of the Adolescent Psychodiagnostic Chart (PDC-A) and the Inventory of Personality Organisation in Adolescents (IPO-A)'.

He actively collaborates with international colleagues and researchers from the Personality Disorders Institute of the Well Cornell Medical College in New York (USA) and researchers from Laval University, Quebec City (Canada). Dr Biberdzic also collaborates with other members of the International Society for Transference-Focused Psychotherapy (ISTFP), with whom he continues to further establish empirical support for psychodynamically informed psychotherapies and frameworks.

Dr Biberdzic supervises and teaches in the postgraduate professional programs within the School of Psychology.

 $scholars.uow.edu.au/display/marko_biberdzic$

EXAMPLE PUBLICATION

Biberdzic, M., Ensink, K., Normandin, L., & Clarkin, J. F. (2018). Empirical typology of adolescence personality organization. Journal of adolescence, 66, 31-48. https://doi.org/10.1016/j.adolescence.2018.04.004



ASSOCIATE PROFESSOR VIDA BLIOKAS

President of the Australian Clinical Psychology Association involved in diverse research studies

Associate Professor Vida Bliokas has a diverse range of research interests which include interventions for the prevention of suicide, working with people with neurodegenerative disorders and investigating people's health behaviours.

Professor Bliokas entered full-time academic work following a long career as a practising Principal Clinical Psychologist and leader in the profession. She is the current President of the Australian Clinical Psychology Association, and is the Deputy Director of Professional and Clinical Psychology Programs at the University of Wollongong.

Her interests in training standards, trainee competencies and professional regulatory mechanisms has led to research associated with the measurement of competencies in trainee therapists, and invitations to speak internationally to clinical psychology professional associations.

Professor Bliokas is a founding member and an Executive Member of the Illawarra Shoalhaven Suicide Prevention Collaborative. The Collaborative has grown to include more than 40 organisations in the region, such as the departments of education, health, police, railways, local councils, lived experience groups and the university, all working together with the aim of reducing rates of suicide. The Collaborative has been successful in receiving funds to the region to implement the LifeSpan systems approach to suicide prevention which is a multi-pronged approach.

Professor Bliokas leads a large evaluation of a suicide prevention aftercare service with a team that includes non-government organisations, the local health district and the Centre for Health Research Illawarra Shoalhaven Population. The aftercare service is novel in its joint clinician and peer-worker leadership.

With a history working with people with neurodegenerative disorders, Professor Bliokas has also maintained a strong research interest in determining effective interventions for those experiencing cognitive impairment. She is currently part of a multidisciplinary research group conducting a double-blind randomised controlled trial of a dietary intervention delivering a compound called anthocyanin to people with diagnosed Mild Cognitive Impairment.

Anthocyanin is particularly found in high levels in purple, red and blue plant-based foods, such as cherries and plums, and early studies show some promise that it may play a role in improving memory and executive functioning.

This research will also attempt to understand the mechanisms of action associated with any changes in cognition following a high anthocyanin diet, with the research focusing on the relatively new field of the gut microbiome, as well as measuring changes in



neuronal growth factors, blood flow and inflammatory markers.

Professor Bliokas' other area of research interest, health behaviours, has led to a collaboration with academics from information technology, nutrition and exercise science, as well as hospital anaesthetists. The aim is to develop and trial a mobile phone application targeted at increasing the health behaviours of people classified as obese prior to them undergoing elective surgery.

Professor Bliokas said improved physical health and a lower body mass index is associated with fewer complications both within and post-surgery.

scholars.uow.edu.au/display/vida_bliokas

EXAMPLE PUBLICATION

Bliokas, V.V., Hains, A.R., Allan, J.A. Lago, L. & Sng, R. (2019). Community-based aftercare following an emergency department presentation for attempted suicide or high risk for suicide: study protocol for a non-randomised controlled trial. BMC Public Health, 19, 1380. https://doi.org/10.1186/s12889-019-7751-8



DR EMANUELA BRUSADELLI

Search for catching the complexity of human beings

In the history of art, painters tried to develop their technical abilities in order to create realistic and perfect portraits.

However, despite their efforts, their precision in reproducing faces was not enough to catch the complexity of human beings.

Some people don't know that Picasso's attempts to realise portraits were based, among other things, on his interest, (together with other artists) in showing through them the evolution of personality and fluctuations of mental states.

Dr Emanuela Brusadelli is a Lecturer of Clinical Psychology and the goal of her research is to investigate patients' personality and mental functioning -- and how these elements determine how people live and perceive themselves and others.

Dr Brusadelli is an Individual and Group Psychodynamic Psychotherapist, a supervisor of psychologists in training and an expert in psychodiagnostic instruments. She has worked for several years in Milan, Italy, in the Clinical Psychology Unit and in the Occupational Health Unit of a public hospital. Dr Brusadelli has had many collaborations with various public and private centres as a clinical and research consultant.

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She strongly supports the combination between research and clinical activity in order to provide essential information for clinicians in terms of treatment indications and outcomes of efficacy and effectiveness.

Dr Brusadelli has been a consultant for the 2nd edition of the *Psychodynamic Diagnostic Manual* (PDM-2) edited by Vittorio Lingiardi and Nancy McWilliams. She is a member of the Society for Personality Assessment; the Society for Psychoanalysis and Psychoanalytic Psychology (APA Div. 39); the Italian Group for the Advancement of Psychodynamic Diagnosis (IGAPSYD); and of the Society for Psychotherapy Research SPR.

Her research interests are testing and assessment, personality, dimensional models, severity, treatment planning and effectiveness, obesity and eating disorders, malingering and groups.

scholars.uow.edu.au/display/emanuela_brusadelli

EXAMPLE PUBLICATION

Patriarca, E., Brusadelli, E. & Grenyer, B.F.S. (2020). A Bridge Between Person-Based vs. Symptom-Based Nosology: a Clinical Case Study using Psychodiagnostic Chart-2. Journal of Psychoanalytic Psychology. https://doi.org/10.1037/pap0000308



ASSOCIATE PROFESSOR MITCH BYRNE

Developing Strategies to Defeat Superbugs

With a focus on the application of psychological knowledge to real-world problems, Associate Professor Mitch Byrne co-leads the UOW based Wollongong Antimicrobial Resistance Research Alliance (WARRA). Founded in 2017 with Distinguished Professor Antoine van Oijen through a \$300,000 Global Challenges grant, Byrne and van Oijen have brought together a transdisciplinary research group comprising clinicians, academics and community members from universities, local health authorities, and industry and community partners. WARRA seeks to develop interventions to slow down the rate of antimicrobial resistance and Byrne leads research into an aspect of the problem: community use and misuse of antibiotics. This aspect of the research has generated additional funding, including a \$9,000 Faculty of Social Sciences seed grant in 2018 supporting the development and evaluation of a theory-informed consumer questionnaire to elicit the drivers of inappropriate antibiotic use. This 'first of its kind' instrument was published in

Professor Byrne has also contributed to the broader research agenda of WARRA. Byrne supported an ISLHD (Illawarra Shoalhaven Local Health District) collaboration to assess the impact of Anti-Microbial Resistance (AMR) on service utilisation in local hospitals, funded by a \$25,000 grant from Illawarra Health and Medical Research Institute – Clinical Translation Grant Scheme. He also is part of a consortium of researchers across NSW universities and government in the

development of an intelligence driven decision support system taking a 'One Health' approach (One-health Understanding Through Bacterial REsisiance to Antibiotics Knowledge - OUTBREAK), funded through a \$1,000,000 Medical Research FutureFund grant, where his focus is on community acceptance of data generation. Byrne attended the "University Global Partnership Network consortium to Tackle the Global Burden of Antimicrobial Resistance" in Sao Paulo (Brazil) in 2019 funded by a \$USD 9,000 grant and is the co-lead investigator on a 2019 \$350,000 Global Challenges Keystone Grant, "Influences and barriers to responsible use of antibiotics: The 21st century health challenge". In this latter grant, Byrne continues his investigation of community drivers of AMR.

Byrne maintains a broad research agenda, winning a 2019 NSW Health tender (\$310,000) to develop gatekeeper interventions to reduce suicide in Aboriginal communities: "One size does not fit all": A proposal for Gatekeeper training in Aboriginal communities". In this research, co-led by Professor Frank Deane, he continues his long-standing collaboration with the MIND the GaP facility in Nowra. Byrne also maintains his research into inclusion for children with Autism in mainstream educational facilities, working with international collaborators in the Republic of Ireland to incorporate his "Understanding Our Peers" research in Irish early childhood educational settings. Byrne has also maintained his long-standing research into medication adherence, diversifying into the role of carer attitudes in patient adherence decisions, again in collaboration with Professor Deane. Finally, Byrne, who is endorsed by the Psychology Board of Australia as both a Clinical and a Forensic Psychologist, worked with 3 post graduate students to author a chapter in Expert Evidence, a national legal resource directory, on Psychological Assessment.

https://scholars.uow.edu.au/display/mitchell_byrne

EXAMPLE PUBLICATION

Byrne, M.K., Meillet, S., McGlinn, A., Fish, J., Meedya, S., Reynolds, N., & van Oijen, A.M. (2019). Antibiotic use and misuse: The development and investigation of a theory driven community measure. BMC Public Health, 19(1), 1425. https://doi.10.1186/s12889-019-7796-8



DR TIM BYRON

Thanks for the memories – or should we say 'earworms'

Former music journalist and current Lecturer in the School of Psychology, Dr Tim Byron, is often asked to talk about 'earworms' – songs that get stuck in our heads.

For Dr Byron, music psychology is his main area of research with the phenomenon of 'earworms' drawing most media interest in his work. His research has a particular focus on the way music interacts with memory, including how this results in songs stuck in our heads. He is also pursuing research into the replication crisis in psychology and on taking a music psychology-influenced approach to the study of popular music.

"I look at the way that our expectations about music influence the way that music interacts with our memories."

Music is memory and memory is music with the experience of having a song stuck in your head called involuntary musical imagery. Having a song stuck in your head is simply a part of life and it happens to all of us often on a daily basis.

"So yes, I am often asked to talk about 'earworms' – on a variety of radio stations across Australia (and on radio stations in Dubai and New Zealand). A paper I wrote on earworms with an Honours student at the University of Queensland, Lucy Fowles, can be found here: Byron & Fowles 2015.

Dr Byron is currently working on a paper about the role of theory and metatheory in providing a coherent response to the replication crisis (the concern among psychologists motivated by recent findings that much typical psychological research is difficult to replicate and thus likely to be false), and a paper about the role of hooks within popular music.

He is a member of the Australian Music Psychology Society, the Australasian Society for Psychophysiology, and the International Association for the Study of Popular Music, Australia New Zealand (IASPM-ANZ).

"I'm pretty obsessed with music, and so the ability to make and play music as part of my research is great," Dr Byron said.

His focus on music comes from his other life working in music, as he has been a music journalist writing about pop music for *The Sydney Morning Herald, The Guardian*, and *Junkee* (among others). Dr Byron has also been a musician playing music in bands such as *Lazy Susan*, *Fallon Cush* and the *Aerial Maps*.

scholars.uow.edu.au/display/timothy_byron

stand.uow.edu.au/why-do-songs-get-stuck-in-our-heads/



PROFESSOR PETER CAPUTI

Highly cited psychologist collaborates across various disciplines

Trained originally as a quantitative psychologist, the impact of Professor Peter Caputi's research is clearly evident through excellent citation rates and the translation of his work into several languages.

Currently Head of the School of Psychology, much of his research work is interdisciplinary, working with colleagues in public health, medicine and business.

Professor Caputi has a particular interest in measurement issues and model development in applied and clinical settings. His work on psychological recovery from serious mental illness illustrates this point. In conjunction with Dr Retta Andresen and Associate Professor Lindsay Oades, Professor Caputi has developed a number of measures of stages of recovery, including the STORI (Stages of Recovery Inventory).



These measures are underpinned by an innovative <u>stage model</u> <u>of psychological recovery</u>.

Along with impressive citation rates for this work, Wiley-Blackwell also commissioned a book titled *Psychological Recovery from Mental Illness* that was published in 2011. The STORI has been translated into several languages including French, Spanish, Greek, Persian and Italian. It has been used as a clinical tool as well as a research inventory.

Professor Caputi's collaborations with Dr Chris Magee and the late Professor Don Iverson and Professor Xu-Feng Huang has led to a body of work that has significant impact on people's understanding of the relationship between sleep and obesity.

In particular, this body of research (highlighted by the award of an ARC Discovery grant) highlights Professor Caputi's contribution in applying complex data modelling to the health discipline.

More recently, Professor Caputi has focused his research attention to occupational health psychology, especially understanding the concept of presenteeism.

Internationally, Professor Caputi is recognised as a leading researcher in Constructivist Psychology. While he has published numerous influential papers on methodological and measurement issues in this domain, Professor Caputi has also contributed to theoretical and conceptual development.

Professor Caputi has edited two books on *Personal Construct Psychology*, chaired two International Congresses on Constructivist Psychology, and he is on the editorial board of the *Journal of Constructivist Psychology*.

scholars.uow.edu.au/display/peter_caputi

EXAMPLE PUBLICATION

Haque, A., Fernando, M., Caputi, P (2019). The relationship between responsible leadership and organisational commitment and the mediating effect of employee turnover intentions: An empirical study with Australian employees. Journal of Business Ethics, 156(3), pp-759-774.

University of Wollongong



DR AMY CHAN

Developing skills and evaluating experiences through counterfactual thinking

It's a term we may not use in our everyday conversations but it's something which regularly crosses people's thought processes. Many of us wish something had, or had not, happened leading to 'if only...' and 'what if...' situations. One of Dr Amy Chan's ongoing research interests is in the area of counterfactual

She is investigating how different forms of hypothetical thinking may affect subsequent task performance and people's subjective evaluation of their experiences.

She is also exploring how culturally-fair assessments of cognitive flexibility may contribute towards a better understanding of children's developing competence in anticipating regret in themselves and inferring regret in

Counterfactual thoughts are mental representations of alternatives to past events, actions, or states. Dr Chan's research has demonstrated that counterfactual thinking influences subsequent performance and the development of new skills.



When we try to perform a task or develop a new skill, it can be helpful to reflect on our learning experience and any mistakes made. Through such reflections, we get to imagine how we may act differently and perhaps more adaptively in future similar

Dr Chan's research has also demonstrated age related differences in children's experience of counterfactual emotions (such as regret and relief) providing insight into when these cognitive processes develop in childhood.

Dr Chan is a senior lecturer, a member of the UOW Human Research Ethics Committee, and a UOW accredited peer reviewer of teaching. She was the coordinator of the 4th year honours program from 2010 to 2019. Her PhD thesis focused on inductive and deductive reasoning.

scholars.uow.edu.au/display/amy_chan

EXAMPLE PUBLICATION

Chan, A.Y.C., & Morgan, S-J. (2018). Assessing children's cognitive flexibility with the Shape Trail Test. PLoS ONE 13(5): e0198254. https://doi.org/10.1371/journal.pone.0198254



ASSOCIATE PROFESSOR **ADAM CLARKE**

Providing insights into children with behavioural difficulties

Associate Professor Adam Clarke's main area of research interest has been the electrophysiology of children with behavioural difficulties.

Through his research, Professor Clarke and his team from the School of Psychology have demonstrated maturational changes in the electroencephalogram (EEG) of children with attention deficit hyperactivity disorder (ADHD), sex differences in children with ADHD, and effects of comorbid learning and behavioural disorders.

Professor Clarke's research has also explored the effects of medications in children with behavioural difficulties providing insight into how such medications work.

Before joining the UOW teaching team, Professor Clarke was employed as a psychologist in a paediatric practice in Sydney where he worked with children living with a broad range of behavioural disorders and learning disabilities.

Following this appointment, he worked in South East Health, on a project to improve services for people who presented to the Emergency Department after self-harming, and then on a longitudinal project in the School of Psychiatry (University of NSW) looking at genetic mental retardation.

During this time, he also completed a PhD at UOW that explored EEG patterns in children with ADHD.

Professor Clarke is a recipient of the Presidential Award of Merit and the Career Achievement Award from the International

Society for Neuronal Regulation, and the Early Career Researcher Award from the Australian Psychological Society.

He continues to research electrophysiological abnormalities in children with behavioural disorders and has an emerging interest in understanding the mechanisms underlying the therapeutic effects of mindfulness meditation.

scholars.uow.edu.au/display/adam_clarke

EXAMPLE PUBLICATION

Clarke, A.R. (2018). Surviving the Stress of Family Law Conflict: Tips and Tactics. University of Wollongong: Wollongong.



PROFESSOR RODNEY CROFT

Spotlight on health concerns and use of mobile telecommunications

With millions of people worldwide relying heavily on their use of mobile phones Senior Professor Rodney Croft is often called upon to discuss possible adverse health concerns associated with such use.

To date his findings reveal that they are safe. According to Professor Croft: "As exposures from these technologies are not permitted to exceed international safety guidelines, the exposures are not sufficient to cause any harm at all. Heating is the main consequence of this exposure, but at these low levels someone in the community would not even be able to detect a temperature rise."

The Professor of Health Psychology is a specialist in the effect of non-ionising radiation (especially radiofrequency fields associated with mobile telecommunications), on health.

Professor Croft has been researching the radiofrequency health domain for 20 years and has led successive National Health & Medical Research Council of Australia (NHMRC) Centres of Research Excellence into radiofrequency health since 2005.

He has published extensively on the issue of radiofrequency fields and health across domains ranging from basic science to cancer epidemiology and risk communication.

Professor Croft regularly provides guidance for a range of national (e.g. Australian Defence Force, Comcare, Australian Radiation Protection and Nuclear Safety Agency, Australian Communications and Media Authority, and local councils) and international organisations (e.g. Health Canada, French Parliament, Peru Government, Malaysia Government, US Academy of Science, World Health Organisation).

He is the Chairman of the International Commission on Non-Ionizing Radiation Protection (ICNIRP, Munich, Germany, since 2012), and led the ICNIRP revision of its radiofrequency

ICNIRP is formally recognised by the World Health Organisation



and the International Labour Organisation, and its Radio Frequency Electromagnetic Field/s (RF EMF) guidelines are adopted by most countries, including Australia.

"These specify the limits allowed for a range of technologies, including 5G mobile phones and base stations, Wi-Fi, Bluetooth and radio. The guidelines were last updated in 1998, making this a substantial contribution to health and safety internationally," Professor Croft said.

Professor Croft is currently working on four areas involving RF EMF. He is determining the mechanisms for effects of RF EMF on human neural function; the mechanisms responsible for the perception of 'phosphenes' (experience of seeing light without light actually entering the eye) caused by low frequency EMFs; whether RF EMF can improve cognition and pathology in Alzheimer's disease; and whether RF EMF affects neurodevelopment in rats.

"What is most exciting about the research is its tangible link with health - you must get the science right in order to protect people. This forces me to drill below the accepted positions and expectations of our day, and engage more philosophically with crucial questions like 'how can we know if an agent is harmful'.

"For me science is thus necessarily multi-disciplinary in the sense that rational thought is at least as important as in-depth knowledge of particular fields, and that a blend of hard and soft science is needed in order to truly answer the questions most relevant to the community," Professor Croft said.

Professor Croft appeared as an invited witness for a Parliamentary Inquiry (Department of Communications and the Arts), on the 'Deployment, adoption and application of 5G in Australia' (December 6, 2019).

scholars.uow.edu.au/display/rodney_croft

EXAMPLE PUBLICATION

Karipidis K, Elwood M, Benke G, Sanagou M, Tjong L, Croft RJ. (2018) Mobile phone use has not increased the incidence of brain tumour histological types, grading or anatomical location: A population-based ecological study. British Medical Journal 2018, 8(12): e024489. https://pubmed.ncbi.nlm.nih.gov/30530588/

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University of Wollongong



PROFESSOR FRANK DEANE

Role of therapeutic homework in mental health care

Professor Frank Deane's research broadly involves research into psycho-social treatments for severe mental disorders and/ or alcohol and other drug problems. A major focus has been on the assessment and implementation of recovery-oriented mental

"I am interested in the role that values, acceptance and therapeutic homework (action plans) play in treatment. This work has extended to applications in physical illnesses and health settings (e.g., palliative care)."

Action planning in treatment has been integrated into a wide range of psychosocial interventions.

Professor Deane said the combination of values clarification, goal planning and action planning has been made much more explicit for mental health providers and is delivered through the Collaborative Recovery Training Program. This is currently the primary support model for several mental health service organisations in Australia. Professor Deane said research programs are now focused on how to make these service improvements more sustained in organisations, so that the quality and fidelity of these processes are maintained over years and not just during the initial implementation phase as has been commonly found in prior programs (Jones et al., 2019; Wolstencroft et al., 2019).

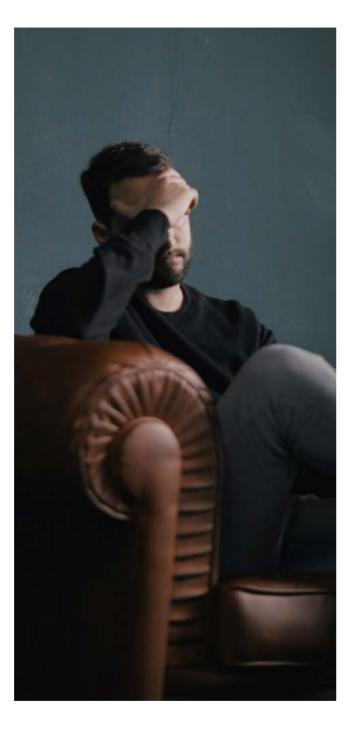
A second research area aims to identify factors that improve help seeking for mental health problems particularly in young people who may be experiencing suicidal thoughts. This interest has seen him participating in the Illawarra Shoalhaven Suicide Prevention Collaborative which involves about 20 local organisations who are all committed to suicide prevention.

Professor Deane is also acknowledged for the widespread adoption of new competency assessments of clinical psychology trainees. Research on the assessment of competencies in professional psychology has led to the development and refinement of two measures. These measures are now being used routinely by more than 10 Australian universities and two international universities to assess the practice competencies of professional psychologists in training. There have been several additional enquiries with the likely expansion of these methods to other international universities (Gonsalvez et al. 2019, Deane

Professor Deane said overall one of the favourite parts of his research was the supervision of students and collaboration with

"Another aspect is a sense that some of our findings are having a positive impact on the quality of mental health and drug and alcohol treatment for individuals."

Professor Deane received the following awards during 2018-2019: The Distinguished Career Award, Australian Association of Cognitive and Behaviour Therapy; the Australian Psychological



Society Outstanding Academic Mentor Award (the Excellence in Research and Evaluation Award at the NSW Non-Government Alcohol and Other Drug Awards (SMART Recovery Research Advisory Committee).

scholars.uow.edu.au/display/frank_deane

EXAMPLE PUBLICATION

Maiuolo, M., Deane, F. P., & Ciarrochi, J. (2019). Parental Authoritativeness, Social Support and Help-Seeking for Mental Health Problems in Adolescents. Journal of Youth and Adolescence, 48(6), 1056-1067. https://doi.org/10.1007/s10964-019-00994-4



PROFESSOR MARC DE ROSNAY

Research shows how young children understand the world

Understanding and assessing children's social and emotional development in early childhood is a key focal point for Professor Marc de Rosnay.

Having undertaken a Doctor of Philosophy degree in Experimental Psychology from the University of Oxford, Professor de Rosnay is now the Academic Director and Professor of Child Development with Early Start at UOW.

Early Start has four main pillars:

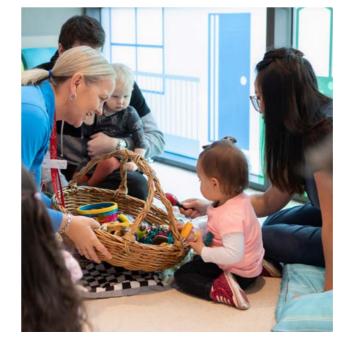
Discovery Space: An interactive children's play space that stimulates curiosity, nurtures creativity, builds confidence and provides families with opportunities for discovery and play.

Research and Advocacy: Interdisciplinary researchers investigate areas of children's learning, health and development. They develop and advocate for evidence-based policies and programs.

Engagement Centres: Early Start supports a network of early childhood education and care centres in regional and remote areas to enrich quality and support services.

Translation: Early Start aims to make a difference in the real world by turning its research into action. Researchers do this at scale and in partnership with industry, government and the community.

Professor de Rosnay's main areas of research centre on child development; social and emotional development; theory of mind and emotion understanding; and assessment in early childhood.



He is currently working on understanding and assessing children's social and emotional development in early childhood contexts; developing assessment tools for early childhood educators; an early years toolbox; and developing a practice model for isolated early childhood education and care settings to support service integration for children and families.

"Those aspects of my work which have had the greatest impact concern the translation of young children's understanding of the world into meaningful information for parents, practitioners and researchers." (de Rosnay & Hughes, 2010).

Professor de Rosnay said a favourite aspect of his research was helping people understand that infants and young children have very sophisticated social and emotional understanding, and providing research to show how young children understand the

Internationally, Professor de Rosnay is working with the National Institute for Early Education Research (Professor Barnett and Professor Frede), University of Oslo (Professor Francisco Pons) and University of Oxford (Professor Edward

scholars.uow.edu.au/display/marc_de_rosnay Early Years Toolbox: http://www.eytoolbox.com.au/

EXAMPLE PUBLICATION

Kingsford, J., Hawes, D, & de Rosnay, M. (2018). The moral self and moral identity: Developmental questions and conceptual challenges. British Journal of Developmental Psychology. https://doi.org/10.1111/bjdp.12260



DR SIMONE FAVELLE

Simone likes to put a face to her research

Faces convey a wealth of information that is important for social interaction. Faces can tell us who someone is and how they are feeling. Most of us think that recognising people from their faces must be easy, but there is plenty of evidence that this is not the case. Dr Simone Favelle says there is much to be learned by understanding face recognition.

The Senior Lecturer investigates how the human visual system processes information about faces.

Her research aims to understand the perceptual and cognitive mechanisms underlying how we extract useful information such as identity, sex, race and emotion. In particular, she asks how do we do this when the images coming to our eyes are constantly changing with viewing angle and lighting?

"Presenting my research on viewpoint effects in face recognition and learning at the Unfamiliar Face Identification Group (UFIG) Meeting, held annually at UNSW, has the potential for real world impact," she said.

This meeting brings academics together with people working for government (e.g., police, Defence Science and Technology Organisation and Department of Foreign Affairs and Trade/passport control) and industry (e.g., software companies).

Dr Favelle's research shows that viewing angle is an important determinant of face recognition performance which is something that needs to be considered in all of these areas.

"When it comes to helping people to get better at learning faces, one potential method is to provide people with different examples of a face in a variety of contexts, a bit like a photo album," Dr Favelle said.

To this effect, she has a current project with a PhD student and another UOW academic investigating whether this variability advantage can help people to improve recognition of faces that they typically find more difficult to remember. For example, this would involve faces seen from different viewpoints or faces of people from races other than the own.

Another area of interest in her research is in the cognitive processes underlying emotion and social functioning. In particular, she is looking at how our ability to recognise facial expressions of emotion affects social functioning.

Dr Favelle said the favourite aspect of her research was simply collaborating with other academics and students.

She is a member of the <u>Cognitive Basis of Atypical Behaviour</u> Initiative.

scholars.uow.edu.au/display/simone_favelle

EXAMPLE PUBLICATION

Favelle, S., & Palmisano, S. (2018). View specific generalisation effects in face recognition: Front and yaw comparison views are better than pitch. https://doi.org/10.1371/journal.pone.0209927



PROFESSOR BRIN GRENYER

Global postings for agenda setting clinical psychologist

Key international postings in recent times for practising clinical psychologist Senior Professor Brin Grenyer highlight his high level of recognition in the field of personality disorders.

In 2019 he was Visiting Scholar, McLean Hospital - Harvard Medical School where he consulted widely across the personality disorder services and presented the grand rounds on world mental health day.

He is currently a Director on the Board of the International Society for the Study of Personality Disorders, representing the Asia-Australasian region.

Professor Grenyer is a senior clinical researcher and supervisor at UOW's Northfields Psychology Clinic and provides consulting and research services across the government and nongovernment sectors.

He is Director of Professional and Clinical Psychology Training in UOW's School of Psychology. His research program focuses on the treatment of people with chronic and complex psychological problems, such as personality disorders, self-harm and suicidal behaviours, and early life traumas and attachment difficulties.

Professor Grenyer is Director of the Project Air Strategy for Personality Disorders, an initiative of the NSW Ministry of Health to improve pathways of care and researching new approaches to treatment. The Strategy is now being implemented across many States and Territories in Australia. Project Air has worked with more than 6,000 mental health clinical staff engaging in consultation, training and research on personality disorder treatment.

He was a member of the National Health and Medical Research Council (NHMRC) Borderline Personality Disorder Guideline Development Committee, the Royal Australian and New Zealand College of Psychiatrists (RANZCP) Advisory Group for a Consumer Guide on Borderline Personality Disorder, and the SANE Australia Advisory Committee for the National Mental Health Commission on the needs of Australians living with personality disorders.

His team developed the national e-learning training on effective treatment for borderline personality disorder for the Australian BPD Foundation. He was a content author on Royal Australian College of General Practitioners RACGP GP learning package "Borderline personality disorder: diagnosis and management in general practice," and a Consultant for the Psychodynamic Diagnostic Manual (PDM-2).

For 15 years he regulated the profession of psychology, first as a member and President of the NSW Psychologists Registration Board (2002-2009) including Chair of the Council of Psychologists Registration Boards in Australia and New Zealand, then from 2009 was Foundation Chair of the Psychology Board of Australia setting the standard for the profession and overseeing the regulation and registration of all 35,000 psychologists practising in Australia.

Professor Grenyer is deeply involved in communicating evidence-based research receiving many invitations to present as a keynote speaker both locally and internationally.

Reflecting on his research, Professor Grenyer noted: "Mental health issues occur in the context of families, communities, schools and workplaces, and sophisticated research in the future will need to develop broader models in which interventions can be targeted at multiple levels."

 $scholars.uow.edu.au/display/brin_grenyer$

EXAMPLE PUBLICATION

Grenyer BFS, Lewis KL, Fanaian M, & Kotze B (2018). Treatment of personality disorder using a whole of service stepped care approach: a cluster randomized controlled trial. PLoS ONE November, 13(11): e0206472 https://doi.org/10.1371/journal.pone.0206472





ASSOCIATE PROFESSOR JANE HERBERT

Impacts on a child's developing brain

Associate Professor Jane Herbert's research investigates how maturation and environmental experiences affect a child's developing brain and the way in which the child acquires and uses knowledge.

Professor Herbert specialises in understanding and facilitating young children's learning and memory abilities. With the support of funding from an Australian Research Council Discovery Project, she established the Wollongong Infant Learning Lab within UOW's Early Start.

Her research program is providing new knowledge on the interaction between motor development, communication and memory development during the first year of life. In this work, her team is showing that early motor skills are not simply the building blocks for later movement skills, but that they also provide new challenges and opportunities for the developing cognitive system.

In collaboration with researchers in Germany, she also has a research program examining how sleep affects infants' memory and emotion processing. Their previous research in this area received worldwide media attention because they showed that sleep after learning helps infants consolidate their memories and retain new behaviours.

Professor Herbert's research also examines how the infant's early environment shape their outcomes, and the extent to which early adverse circumstances can be overcome.

In collaboration with colleagues in the UK, Professor Herbert has recently completed a randomised controlled trial to test the effect of promoting caregiver contingent talk on language

 $\ development\ in\ infants\ from\ diverse\ socio\ economic\ status\ backgrounds.$

Professor Herbert is also a consultant for a multidisciplinary research team in the USA and South Africa examining how prenatal exposure to alcohol has an impact on early associative learning abilities. Their recent publication has provided evidence that the adverse effects of heavy prenatal alcohol exposure on growth and cognition in human infants can be mitigated by supplementation in pregnancy. This study has already been cited in the Lancet Global Health, and Lancet Neurology.

At UOW, Professor Herbert leads a longitudinal study of 120 mothers examining well-being during pregnancy. This research has identified the diverse range of positive and negative experiences women associate with their pregnancy, trends in well-being and distress, and the ways in which attachment to the baby develops throughout pregnancy and in the first months after birth.

Professor Herbert is also conducting research examining how the conversations caregivers have with their young children during reading and play supports vocabulary development, early literacy and numeracy skills, and emotion understanding. Ultimately, she is looking to create a resource for carers and educators on the opportunities that can be created from birth onwards for rich conversations, academic skills, and emotional connections.

 $scholars.uow.edu.au/display/jane_herbert$

EXAMPLE PUBLICATION

Jacobson, S.W., Carter, R.C., Molteno, C.D., Stanton, M.E., Herbert, J.S., Lindinger, N.M., Lewis, C.E., Dodge, N.C., Hoyme, H. E., Zeisel, S.H., Meintjes, E.M., Duggan, C.P., & Jacobson, J.L. (2018). Efficacy of maternal choline supplementation during pregnancy in mitigating adverse effects of prenatal alcohol exposure on growth and cognitive function: A randomized, double-blind, placebo-controlled clinical trial. Alcoholism: Clinical and Experimental Research, 42(7), 1327–1341 https://doi.org/10.1111/acer.13769

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University of Wollongong



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DR HARRY HILL

3D research puts spotlight on human perception

Human perception is at the core of research being undertaken by Lecturer Dr Harold Hill – none more so than in threedimensional (3D) face perception.

The 3-D geometry of the human face is now used by iPhones to verify identity but is it used by humans and, if so, how is shape encoded? Three-dimension shape is a relatively stable property of the face that, as its use by the iPhone shows, could be used to determine identity. However, when humans are presented with sculpture like scans of familiar faces lacking skin pigmentation, recognition rates are low.



Recovering the third dimension is a classic problem in perception and humans remain ahead of computers and artificial intelligence in our ability to interpret three-dimension shape from two-dimensional visual images. While 3D shape and colouration are properties of the face itself, any particular image is also determined by lighting and viewpoint. This has huge practical implications when seeking to establish identity and Dr Hill has been researching in the field for many years as evidenced by 'The role of three-dimensional face shape in recognizing people across changes in viewpoint and lighting' (Hill & Bruce, 1996) and 'Information and viewpoint dependence in face recognition' (Hill, Schyns, & Akamatsu, 1997).

Dr Hill also works on visual illusions of depth reversal, particularly the hollow face illusion, which may appear to have less immediate applied impact but help understand how the human system recovers depth (Hill & Johnston, 2007; Koessler & Hill, 2019; Matthews, Hill, & Palmisano, 2012).

Dr Hill is currently working on the role of movement in recovering three-dimensional face shape (<u>Parish</u>, <u>Hill & Rogers</u>, 2019 ECVP abstract).

On the international scene, Dr Hill has collaborators in the UK and Japan.

And what drives his research? "Exploring the possibilities of new 'toys' (technology) for asking questions about human perception."

scholars.uow.edu.au/display/harold_hill

EXAMPLE PUBLICATION

Koessler, T. & Hill, H. (2019). Focusing on an illusion: Accommodation to perceived depth? Vision Research, 154, 131-141. https://doi.org/10.1016/j.visres.2018.11.001



PROFESSOR STUART JOHNSTONE

Further advances in improving life of children with AD/HD

Professor Stuart Johnstone's research program has two main foci. The first is a drug-free treatment alternative for children with AD/HD that has a strong evidence base and is under investigation jointly between UOW and China. The second involves the development of a technology-enabled assessment tool that can be used to improve the life of children, especially children with AD/HD.

Professor Johnstone is a Visiting Professor at the Hangzhou Preschool Teacher's College, Zhejiang Normal University, China.

His main areas of research are:

(1) Using brain electrical activity measures to understand processes and disorders, with projects looking at (a) EEG (electroencephalography) correlates of executive functions in pre-school children (led by Associate Professor Steven Howard, UOW); (b) the development of inhibition and attention in children 7-12 years; (c) measuring inhibition and attention via performance and EEG/ERPs (event related brain potentials) in children; (d) executive functioning and ERPs in children with AD/HD; and (e) EEG predictors of recovery from stroke in adults (led by Dr Jeff Rogers, University of Sydney).

(2) Cognitive and neurocognitive training to improve functioning, with projects looking at (a) neurocognitive training for improving behaviour in children with AD/HD; (b) clinician-assisted neurocognitive training for improving behaviour in children with AD/HD; (c) neurocognitive training for adults with traumatic brain injury; and (d) brain electrical and performance markers of inhibitory control training in adults.



(3) Assessment of neurocognitive and other key factors in children using the neurocognitive assessment tool (NCAT), with a focus on (a) development of a normative and clinical database for NCAT; and (b) objective or subjective NCAT measures as predictors of group membership for children with, and without, AD/HD.

Professor Johnstone said the neurocognitive training research has resulted in the development of a drug-free treatment alternative for children with AD/HD that has a strong evidence base and is under further investigation locally and in China -- see UOW Scholars impact story ($\underline{\text{Jiang et al. 2018}}$).

"The neurocognitive assessment research will have an impact in day-to-day clinical practice in the future. The software will make it easier for clinicians to assess areas such as brain activity, executive functions, and sleep patterns and use this information to inform treatment choice, and monitor treatment outcomes."

Professor Johnstone has international research linkages with Dr Han Jiang, Zhejiang Normal University, China, and also with Professor Li Sun, Peking University, China.

scholars.uow.edu.au/display/stuart_johnstone

EXAMPLE PUBLICATION

Jiang, H., Johnstone, S. J., Sun, L., Zhang, D. (2018). Effect of neurocognitive training for children with AD/HD at improving academic engagement in two learning settings. Journal of Attention Disorders, 1087054718799931. https://doi.org/10.1186/s12888-019-2308-z



ASSOCIATE PROFESSOR PETER KELLY

Award-winning researcher recognised for work within mental health and substance abuse

Associate Professor Peter Kelly has won numerous awards in recognition of his research which is focused on the development, implementation and evaluation of evidence-based approaches within mental health and substance abuse treatment settings.

The Deputy Head of the School of Psychology (Research) has held registration as a psychologist since 2002 and is a Member of the Australian College of Clinical Psychologists.

In recognition of his clinically focused program of research, Professor Kelly has been the recipient of various awards including the Excellence in Research and Evaluation Award (ATCA, 2016 and 2017), the Excellence in Research and Evaluation Award (NADA, 2016 and 2018), the Excellence in Research Award (National Drug and Alcohol Awards, 2012) and the Vice-Chancellor's Award for Research Excellence in Research Partnerships (University of Wollongong, 2010).

His total income from competitive research funding is more than \$5 million.

Professor Kelly has published more than 90 peer reviewed research articles and book chapters. He is on the editorial board for *Addiction Research and Theory, Drug and Alcohol Review*, and *Journal of Dual Diagnosis*.

Professor Kelly has provided invited departmental presentations at Kings College London (London), Southbank University (London), Northwestern University (Chicago), University of Auckland (New Zealand) and the Treatment Research Institute (Philadelphia).

He teaches into the postgraduate professional programs within UOW's School of Psychology.

scholars.uow.edu.au/display/peter_kelly

EXAMPLE PUBLICATION

Kelly, P.J., Baker, A., Townsend, C., Deane, F., Callister, R., Collins, C., Ingram, I., Keane, C., & Beck, A. (2019). Healthy Recovery: A pilot study of a smoking and other healthy behaviour change intervention for people attending residential alcohol and other substance dependence treatment. Journal of Dual Diagnosis, 15, 1-10. https://doi.org/10.1080/15504263.2019.1612537



DR BRIONY LARANCE

Research focused on improving alcohol and other drug treatment

Dr Briony Larance is a Vice-Chancellor's Postdoctoral Senior Research Fellow (2018-2021), and is an Illawarra Health and Medical Research Institute affiliate.

Dr Larance is also a member of the UOW Faculty of Social Sciences' Health Psychology Group, and is an advocate for developing a strong, collaborative and inclusive research culture.

She was the 2019 recipient of UOW's Vice-Chancellor's Research Excellence Award for Emerging Researcher.

Her work broadly aims to promote a better understanding of the trajectories and health consequences of substance use disorders, and treatment pathways. Her research examines individual and system-level factors associated with treatment engagement and treatment outcomes. Dr Larance's work is interdisciplinary, intersecting psychology, psychiatry and public health. She conducts epidemiological and clinical studies using a range of methods, including cross-sectional surveys, randomised-controlled trials, post-marketing surveillance studies, analyses of linked administrative data and cohort studies.

Before joining UOW, Dr Larance completed a National Health and Medical Research Council (NHMRC) Australian Early Career Fellowship (2014-2018; UNSW) examining the unintended consequences of pharmaceutical opioid use and impacts of abuse-deterrent formulations. She was awarded the 2017 Australasian Professional Society of Alcohol and Other Drugs Early Career Researcher Award for her work in this area.

Opioid use, dependence and treatment continue to be a major focus of Briony's research at UOW. Recently developed extended-release (depot) buprenorphine formulations could transform opioid agonist treatment internationally. [See accompanying article on page 6].

 $\label{lem:problem} \mbox{Dr\,Larance's other main program of work examines treatment} \\ \mbox{pathways among people who use methamphetamine.}$

She is working with linked health service data, data from non-government organisations and surveys of people who use methamphetamine to better understand barriers and facilitators of help-seeking, and inform innovative models of care.

scholars.uow.edu.au/display/briony_larance





DR PETER LEESON

Elucidating mechanisms that underlie certain beliefs

With many of the biggest challenges confronting humanity, such as global warming, relying on the work of scientific experts is important to understand how people consume this information.

This is especially so given that many people see experts as less credible, 'out-of-touch elites', by virtue of their expertise. This paradox is the focus of an ongoing project being undertaken by Dr Peter Leeson as to the nature of expertise.

Dr Leeson's research is focused broadly in three areas -- the psychological foundations of ideology, the paradox of expertise and the impact of social media on interpersonal communication.



He said debates about ideology continue to drive social policy and debate itself.

However, Dr Leeson said little was known of the psychological mechanisms that underlie these beliefs.

Using the approach of social causation, developed by his research team, they are seeking to elucidate these mechanisms.

In addition, as part of a project funded via a Global Challenges grant he and his fellow researchers are looking at the way attitudes towards terrorism are conveyed using social media.

"The broader aim of the project is to use such media in order to gain an insight into social attitudes and beliefs that may not be apparent using traditional paradigms," he said.

 $scholars.uow.edu.au/display/peter_lees on$

EXAMPLE PUBLICATION

Allan, J., Leeson, P., De Fruit, F., & Martin, S. (2018). Application of a 10 week coaching program designed to facilitate volitional personality change: Overall effects on personality and the impact of targeting. International Journal of Evidence Based Coaching and Mentoring, 16, 80–94. https://doi.org/10.24384/000470



ASSOCIATE PROFESSOR SARAH LOUGHRAN

World first study into sleep and brain activity

Associate Professor Sarah Loughran is currently leading a world-first investigation into possible effects of RF EMF (Radio Frequency Electromagnetic Field(s) exposure on sleep and brain activity in children.

Additionally, she has established the first sleep research laboratory at UOW, with many sleep and neurophysiology studies currently underway or near completion.

Her current research focuses on a wide range of bioelectromagnetic health issues including the effects of mobile phone radiation and screen time on sleep, human brain function, and the mechanisms associated with these effects, as well as sleep and cognitive neuroscience research more generally.

Professor Loughran's research has been recognised at the highest level, recently receiving two prestigious international awards (Alessandro Chiabrera Award and ICNIRP Young Scientist Award) for academic excellence and outstanding contributions to her fields of research. She also recently led the sleep component in the Australian Government's 24-Hour Movement Guidelines for the Early Years, Children, and Youth. Professor Loughran is also regularly invited to contribute her expertise at the community level, including numerous media interviews and contributions to publications such as *The Conversation*.

Professor Sarah Loughran received her BSc in physiology and psychology from Deakin University before completing a PhD in cognitive neuroscience/psychophysiology at Swinburne University of Technology, investigating the effects of electromagnetic fields (EMF) on human sleep, the electroencephalogram (EEG), and melatonin.

She joined the School of Psychology in 2013, and is currently the director of an NHMRC Centre of Research Excellence: the "Australian Centre for Electromagnetic Bioeffects Research" (ACEBR). She is also an invited member of the World Health Organisation's RF Environmental Health Criterion committee (2012-), has an invited appointment to the scientific expert group at the International Commission for Non-Ionizing Radiation Protection (2013-), and recently served as secretary on the Board of Directors of The Bioelectromagnetics Society (2015-2018).

 $scholars.uow.edu.au/display/sarah_loughran$

EXAMPLE PUBLICATION

Loughran SP, Verrender A, Dalecki A, Burdon CA, Tagami K, Park J, Taylor NAS, and Croft RJ (2019). Radiofrequency Electromagnetic Field Exposure and the Resting EEG: Exploring the Thermal Mechanism Hypothesis. International Journal of Environmental Research and Public Health, 16(9), 1505. https://doi.org/10.3390/ijerph16091505

of Wollongong



DR ELY MARCEAU

Early career researcher paves the way in personality disorder treatment

Dr Ely Marceau's work is focused on improving evidencebased treatment for personality disorder, substance abuse and other complex mental health conditions, through integrating perspectives from neuroscience, neuropsychology, and psychotherapy research.

Her work uses scientific understanding to develop novel mechanisms informing prevention, early intervention, and treatment

For the Lecturer, a major milestone in the development of her research program was the publication of the first systematic review to investigate neurobiological correlates of psychotherapy in the treatment of borderline personality disorder in a high impact journal in the field (Marceau et al., 2018).

Following on from this, Dr Marceau won the 2018 Faculty of Social Sciences Early Career Researcher Prize and the 2018 School of Psychology High Impact Early Career Researcher Publication Prize.

She is currently in the planning stages of a pilot study investigating the neural correlates of a group psychotherapy program for borderline personality disorder. This will include a range of outcomes to look at changes in symptoms, functioning, and brain activation using functional magnetic resonance imaging (fMRI).

As an early career researcher, Dr Marceau is cultivating international research collaborations. In October 2019 she made a presentation during her accepted symposium on 'Neuroscience of borderline personality disorder treatment' at the 2019 International Society for the Study of Personality Disorders (ISSPD) Congress.

She undertook this alongside two of her colleagues and leaders in the field – Associate Professor Anthony C. Ruocco (University of Toronto Scarborough, Canada), and Associate Professor Eric A. Fertuck (City University of New York, United States).

Dr Marceau is a member of the Asia Australasian Research Treatment and Translation for Personality Disorders Group (AART-PD), representing her regional ISSPD branch.

In planning her current neuroimaging-psychotherapy pilot study, she is collaborating and consulting with a number of international colleagues including Dr Ueli Kramer (University of Lausanne, Switzerland).

Dr Marceau recently returned from a one-week intensive fellowship on fMRI at the Athinoula A. Martinos Center for Biomedical Imaging at Massachusetts General Hospital, Boston, Massachusetts. This is the place where fMRI was first discovered in 1991 and she was able to learn this methodology from leaders in the field.

"The favourite aspect of my research is making scientific



discoveries to benefit people who experience borderline personality disorder and reduce the significant suffering associated with this disorder." Dr Marceau said.

She said that about 30 per cent of people with the disorder do not respond to existing forms of treatment so it was important to make sure treatments were being offered that could help all people based on the latest scientific developments.

Dr Marceau said she loved the opportunity to meet international colleagues and form opportunities to collaborate, share expertise, and simply learn from each other.

Dr Marceau is a practising clinical psychologist at the Northfields Psychology Clinic, a lecturer of professional and clinical psychology practice in the School of Psychology; and a research fellow in the Project Air Strategy for Personality Disorders at the Illawarra Health and Medical Research Institute, based on the UOW campus.

https://scholars.uow.edu.au/display/ely_marceau

EXAMPLE PUBLICATION

Marceau, E.M., Meuldijk, D., Townsend, M.L., Solowij, N., Grenyer, B.F.S., 2018. Biomarker correlates of psychotherapy outcomes in borderline personality disorder: A systematic review. Neuroscience and Biobehavioral Reviews, 94, 166–178. https://doi:10.1016/j.neubiorev.2018.09.001



DR SEBASTIEN MIELLET

Innovative focus from face processing to pedestrian safety

Dr Sebastien Miellet's research approach provides a fine-grained characterisation of the dynamics of active vision abilities underlying critical tasks for human beings.

The Senior Lecturer from the School of Psychology has a research focus which includes: active vision; visual attention; eye movements; face processing; scene processing; and pedestrian safety.

"Characterising oculomotor strategies and the factors modulating them is a crucial step to specify the information available to the brain and, in turn, what type of representations or processing can occur and how decisions and actions are made," Dr Miellet said.

His research is characterised by the creation of many new techniques and analysis methods.

He developed and uses innovative gaze-contingent techniques to precisely isolate visual diagnostic information during a wide range of tasks from the laboratory to more realistic situations.

Dr Miellet also developed novel analysis techniques and reconstruction methods for a precise delineation of perceptionaction co-ordination.

He is credited with creating an iMap which is the most popular method for statistical mapping of eye-tracking data (<u>Caldara & Miellet, 2011; Lao, Miellet, Pernet, Sokhn & Caldara, 2017; Miellet, Lao & Caldara, 2014</u>). The various versions of iMap have been cited 181 times to date.



Dr Miellet also created numerous novel methods (de Lissa, Caldara, Nicholls & Miellet, 2019; Miellet, Zhou, He, Rodger, & Caldara, 2010), gaze-contingent techniques (e.g. Miellet, Caldara, & Schyns, 2011; Miellet, O'Donnell, & Sereno, 2009; Miellet, Vizioli, He, Zhou & Caldara, 2013) and information reconstruction approaches (Miellet et al., 2011; Miellet et al., 2013; Papinutto, Lao, Ramon, Caldara & Miellet, 2017). These new approaches allowed researchers to shed a new light on fundamental long-running debates in the field of visual perception and particularly face processing and scene perception.

Currently, Dr Miellet is interested in modulations in the visual sampling strategies depending on individual and task factors. This line of research has special emphases on dynamic scene perception (pedestrian safety) and face processing.

One of these research programs is currently funded by the Australian Research Council (ARC). In collaboration with Dr David White at the University of New South Wales, Dr Miellet is investigating how people with superior face recognition abilities (super-recognisers, forensic examiners) gather and process visual information. Findings will be used to develop data-driven training and recruitment methods. These outcomes can improve performance of professional face identification experts and the social functioning of people with impaired face identification ability.

The other research program has international links and is funded by the Faculty of Social Sciences at UOW, the Swiss National Science Foundation (SNSF) and Bournemouth University (UK). This program looks at visual attention in the context of pedestrian safety. About 270,000 pedestrians are killed worldwide every year and millions are injured. Children and older people are over-represented in casualties.

The researchers, using state-of-the-art and novel approaches in eye-tracking, EEG, Virtual Reality and computer vision, aim to push the boundaries of people's understanding of pedestrian vulnerabilities by mapping, across the lifespan, the links between executive functions and visual information sampling and use during road-crossing.

"The favourite aspect of my research is developing new approaches offering new perspectives to old questions," Dr Miellet said.

Overall on the international scene, Dr Miellet has been lead investigator of grants from the British Research Council (RCUK) and from the Swiss National Science Foundation (SNSF). These research programs have led to long-term collaborations with the UK (The University of Glasgow, Bournemouth University) and Switzerland (University of Fribourg).

At UOW, Dr Miellet is Acting Head of Postgraduate Studies and Deputy Head of Research in the School of Psychology.

 $scholars.uow.edu.au/display/sebastien_miellet$

EXAMPLE PUBLICATION

Nicholls, V.I., Jean-Charles, G., Lao, J., de Lissa, P., Caldara, R., & Miellet, S. (2019). Developing attentional control in naturalistic dynamic road crossing situations. Scientific Reports. 9, 4176 (2019). https://doi.org/10.1038/s41598-019-39737-7



DR LEONIE MILLER

Interdisciplinary collaborator involved in range of current social problems

Since completing her PhD in cognitive psychology at UOW in 2010, Dr Leonie Miller has continued to be interested in understanding how the properties of words affect what we can remember over brief periods of time (up to 20-30 seconds).

Her research has shown that one such property produces an effect that is more complicated than first considered in the literature with the size and appearance of the effect altered by what words make up the study list and the order in which they appear.

She is a member of the Cognitive Bases of Atypical Behaviour research group which is investigating how variations in mental processing are associated with both personality characteristics and social functioning.

Her research has also tapped into personality and organisational psychology, and she is currently writing and presenting about

teaching Aboriginal perspectives and ways of thinking, doing and being to undergraduate psychology students.

Dr Miller has been involved with a number of interdisciplinary investigations that examine current social problems.

In one collaboration, aimed at identifying psychosocial factors associated with good foster care and developing effective marketing strategies for fostering agencies she has worked with marketing academics. With the same collaboration she is currently on an Australian Research Council (ARC) funded project examining the experience of NDIS clients as this program is rolled out.

More recently, Dr Miller has collaborated with Associate Professor Nick Gill (Human Geography & Sustainable Communities) to investigate ways to encourage footwear cleaning behaviour among walkers in Kosciuszko National Park. This is in response to the threat of the spread of an invasive weed (Faculty Partnership Grant with OEH/National Parks).

scholars.uow.edu.au/display/leonie_miller

EXAMPLE PUBLICATION

Miller, L., Randle, M., & Dolnicar, S. (2019.) Carer factors associated with foster placement success and breakdown. British Journal of Social Work, 49, 503-522. https://doi. org/10.1093/bjsw/bcy059







ASSOCIATE PROFESSOR **STEPHEN PALMISANO**

From vection to virtual reality...

Research being undertaken by Associate Professor Stephen Palmisano is helping to pave the way for the most effective method of virtual reality (VR).

His research examines how people perceive their own selfmotions, and how having two eyes can improve their perceptions

This work has involved a mix of carefully controlled laboratory environments and real-world field studies.

Professor Palmisano is internationally recognised as an expert on self-motion perception (especially vection). One real-world example of vection is the 'train illusion', where passengers on a stationary train experience illusory self-motion when viewing another train moving on an adjacent track.

Much of his research now uses head-mounted display-based virtual reality (VR). In addition to vection, he is also interested in the feelings of 'being there' (presence) and cybersickness produced by VR (Arcioni et al., 2019; Clifton & Palmisano, 2019; Risi & Palmisano, 2019).

He is currently focussed on identifying the most effective method of virtual navigation.

"Identifying such a method, which ideally maximises presence and minimises sickness is clearly important for the future of

Professor Palmisano has long been interested in the compelling 3D impressions generated by differences in people's left and right eye views (known as stereopsis).

In 2010, he showed that this binocular cue is effective as far away as 300 metres (it was previously thought to work only as far away as six metres). This means that it should be useful in a variety of challenging real world tasks (such as in-flight aircraft refuelling).

In his experiments, Professor Palmisano often puts stereoscopic information into direct conflict with available monocular depth

This 'pseudoscopic' manipulation has uncovered a number of surprising individual differences. Many observers see impossible surfaces which they know cannot exist. Interestingly, they often continue to experience these illusions even when the manipulation is performed in real world settings.

scholars.uow.edu.au/display/stephen_palmisano

EXAMPLE PUBLICATION

Palmisano, S., Davies, R., & Brooks, K. (2019). The stereoscopic advantage for vection increases with simulated eye-separation. Attention, Perception, & Psychophysics, 81(1), 281-295. https:// doi.org/10.3758/s13414-018-1609-5



University of Wollongong



DR JUDY PICKARD

Parent-child interaction a current key research focus

Dr Judy Pickard has extensive experience working with adolescents and adults with complex mental health disorders.

Her research interests include mindfulness and compassion, parent-child interaction, attachment relationships and working with complex mental health presentations.

Dr Pickard is currently involved in a longitudinal study exploring the transmission of attachment styles across generations. This research is informing the development of a parent-child intervention study for high risk families. Together the studies seek to provide important understanding and future direction to reduce the impact of cross-generational mental health and attachment difficulties.



Dr Pickard is also investigating the effectiveness of providing mindfulness training in clinical programs aimed at fostering curiosity, compassion and resilience in future clinicians.

On the international front, Dr Pickard has been working collaboratively with Dr Amy Bird from the University of Waikato in New Zealand.

"I am really passionate about learning and exploring new ideas," Dr Pickard said.

The Senior Lecturer completed her training in clinical psychology in 2000 at UOW. She won the Vice-Chancellor's Award in 2018 for 'Outstanding Achievement in Research Partnership and Impact'.

Dr Pickard is an Honorary Research Fellow of the Illawarra and Shoalhaven Local Health District and an Affiliate of the Illawarra Health and Medical Research Institute (IHMRI).

scholars.uow.edu.au/display/judy_pickard

EXAMPLE PUBLICATION

Pickard, J. A., Townsend, M. L., Caputi, P., & Grenyer, B. F. S. (2018). Top-Down and Bottom-Up: The role of social information processing and mindfulness as predictors in maternal-infant interaction. Infant Mental Health Journal, 39(1), 44-54. https://doi:10.1002/imhj.21687



DR SAMANTHA REIS

Trialling new online treatment for personality disorder in adolescence

Dr Samantha Reis is currently trialling the feasibility and acceptability of an online therapist-assisted treatment for adolescents with signs and symptoms of borderline personality disorder.

It is one of the main areas of research for Dr Reis, an Associate Lecturer, who is also involved with the Project Air Strategy for Personality Disorders at UOW.

"Early intervention for adolescents with symptoms of personality disorder, like suicidal ideation and self-harm is critical," Dr Reis said.

Hence, she is piloting a novel therapist-assisted internetdelivered treatment in this area.

Dr Reis holds a special interest in the relationship between attachment and mental health (personality disorders, major depression and eating disorders), and how this might influence outcome from psychotherapy. She is currently undertaking multiple projects under this broad umbrella, including studies around pathological narcissism, emotional responses to rejection, and indirect self-harm in borderline personality disorder.

Dr Reis has undertaken past research into adult attachment styles, working alliance and psychotherapy outcome for people with major depression. [Reis, S., & Grenyer, B. F., (2004).]

Dr Reis has publications across many areas of research including psychology, social marketing, nursing and education. Since 2009 she has been commissioned to undertake systematic and rapid reviews across various disciplines for organisations such as Beyond Blue, Department of Family and Community Services (FACS), NSW Ministry of Health, Asthma Australia and the National Breast Cancer Centre.

Dr Reis said she was driven to explore topics that were directly relevant to clinical practice and treatment of mental illness.

 $\underline{https://scholars.uow.edu.au/display/samantha_reis}$

EXAMPLE PUBLICATION

Robinson, L.D., Kelly, P.J., Deane, F.P., & Reis, S. (2019). Exploring the relationships between eating disorders and mental health in women attending residential substance use treatment. Journal of Dual Diagnosis, 15, 270-280. https://doi.org/10.1080/15504263.2019.1660019



DR LAURA ROBINSON

Practical contributions to concurrent mental health and substance use issues



In her research career to date, Dr Laura Robinson has made practical contributions to the literature on young people, health behaviours and vulnerable populations.

Her contributions frequently stem from research with large, longitudinal datasets, and using advanced statistical analysis techniques.

A strong focus of her research has been on finding ways to reduce the health inequalities facing vulnerable populations, along with expertise on individuals with mental health issues, including psychological distress, burnout and substance use.

Presently, her focus is on concurrent mental health and substance use issues in particular comorbid eating disorders and substance use disorders. [Comorbid refers to a medical condition that co-occurs with another].

"My research has had most impact in raising awareness of the prevalence, complexities and deleterious effects of comorbid mental health and substance use issues.

"Comorbidity remains an area that is not clearly understood. Although dual diagnosis and treatment is optimal it presents challenges for treatment approaches and settings," Dr Robinson said.

Dr Robinson is currently working on a pilot study using ecological momentary assessment to understand psychological factors contributing to comorbid eating disorders and substance use in young people.

"Using real-time data this pilot study will make an important contribution to developing our understanding of the chronology of concurrent disorders," she said.

On the international scene, Dr Robinson undertook a recent publication with colleagues from Northwestern University, Chicago, which studied college students' health behaviours.

Dr Robinson said a favourite aspect of her research was exploring potential reasons and risk factors for human behaviour and then testing ideas, statistical analysis and large datasets.

"The benefits lay in working with people in the drug and alcohol sector with the aim of providing evidence-based practices to facilitate treatment."

Dr Robinson is a Career Development Fellow which involves teaching, research and governance roles at UOW.

She is Deputy Head of Students, School of Psychology, a
Member of the Illawarra Medical and Health Research
Institute (IMHRI), UOW Member of the Australasian
Professional Society for Alcohol and Drugs (APSAD) and
Member of the early-mid career research subcommittee
(EMCR). She is also a Member of the Society for Mental Health
Researchers (SMHR) and a Member of the Faculty of Social
Sciences' Health Psychology Research Group, UOW.

scholars.uow.edu.au/display/laura_robinson

EXAMPLE PUBLICATION

Robinson, L. D., Kelly, P. J., Deane, F. P., & Reis, S. L. (2019). Exploring the Relationships Between Eating Disorders and Mental Health in Women Attending Residential Substance Use Treatment. Journal of dual diagnosis, 15(4), 270-280. https://doi.org/10.1080/15504263.2019.1660019



ASSOCIATE PROFESSOR STEVEN ROODENRYS

Studies aim to help cognitive functioning into old age

Cognitive function research being undertaken by Associate Professor Steven Roodenrys aims to assist the young and elderly on how best to deal with a range of developmental disorders.

He has been researching short-term and working memory for more than 25 years examining this cognitive function in diverse populations including adults, normally developing children, and children with developmental disorders of cognition such as dyslexia and Attention Deficit Hyperactivity Disorder (ADHD).

Professor Roodenrys also has ongoing interests in research on improving cognitive function or maintaining cognitive function into old age. He has been engaged in collaborative studies on the effects of dietary supplementation on cognition

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in younger and older adults, and the effects of training cognitive

phytochemical-rich foods to prevent age-related cognitive decline. Promising evidence is emerging, mostly from animal studies, that anthocyanins - the bioactive components that are concentrated in dark red and blue fruits such as berries and stone fruits - have the potential to benefit cognitive performance and physical functioning.

With colleagues in the School, he is also currently developing a research program looking at how differences in basic cognitive processes might contribute to interpersonal relationships.

Professor Roodenrys' ongoing program of research is targeted towards understanding the connection between short-term and long-term memory and its relationship to language.

Professor Roodenrys joined UOW in 1994 and was Head of the School of Psychology from 2010 to 2014.

scholars.uow.edu.au/display/steven_roodenrys

EXAMPLE PUBLICATION

Guitard, D., Miller, L.M., Neath, I. & Roodenrys, S. (2019) Does contextual diversity affect serial recall? Journal of Cognitive Psychology, 31, 379-396. https://doi.org/10.1080/20445911.2019 .1626401



DR MARK SCHIRA

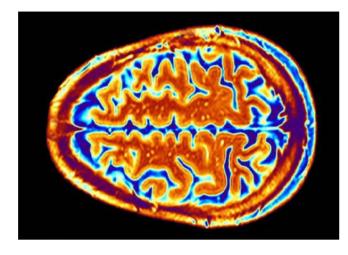
Global recognition for research on the human cortex

Much of the brain is involved in vision in some way. Dr Mark Schira is internationally recognised for his ability in looking at the detail to understand the whole in the brain's cortex.

Dr Schira is a Senior Lecturer at UOW and a Senior Research Officer at Neuroscience Research Australia. He received a Dr. rer, nat. (Doctorate in Natural Sciences) in Human Neurobiology from the University of Bremen and the Charité University Hospital in Berlin, under the supervision of Professor Manfred Fahle and Professor Stephan Brandt.

Dr Schira is an expert of the organisation of human cortex in general and early visual cortex in particular. He has 34 publications in the field of Magnetic Resonance Imagining (MRI), and is globally recognised as an expert on the human foveal confluence and high-resolution functional (f) MRI.

He has made major contributions to the field by introducing novel and stringent modelling concepts to the anatomy and structure of visual cortex in human and primates, and physiologically plausible models of the blood oxygen level dependent (BOLD) response, which is the basis of all fMRI research. At the heart of this research is a team of engaged scientists, students and collaborators across a range of disciplines who combine and share their knowledge, expertise



and skills. For current information on the team and its activities visit www.schiralab.com.

Striving to solve a 40-year-old mystery on how the centre of the visual field is represented in cortex, Dr Schira recognised that this problem needs high-resolution fMRI. The organisation of this area, called the foveal confluence was subject to extensive debate. Interestingly, using high-resolution fMRI in humans provided much clearer and simpler results than the invasive techniques used in monkeys, allowing to reveal clearly the layout of the foveal confluence in humans -- clearer than in any other primate species before, solving this mystery at least for humans.

It demonstrated that in humans the foveal confluence followed the layout proposed for marmosett monkey by Professor Marcello Rosa (Monash University) and colleagues. On the other hand, the organisation found was at odds with the most popular hypothesis, interpreted from macaque monkey data. Hence, they reopened the debate about the layout in macaque monkey, which to date is not resolved.

Being an early proponent of high-resolution fMRI, necessitated methods development, validation and modelling. One outcome of this approach of stringent modelling is the construction of stimBOLD, a modelling toolbox, stimBOLD combines cutting edge anatomical models of the construction of visual cortex, neuronal field models and cutting edge models on the BOLD response. The synthesis of these allows simulating and predicting BOLD measurements for any visual stimulus as specified by a video file.

As well. Dr Schira is collaborating with Professor George Paxinos (UNSW) on at lases of the human brain, including an atlas based on in vivo super resolution structural MRI images. This aims to directly inform the countless in vivo MRI images that are collected every day both in clinical practice and in research.

"The importance of such a resource can hardly be overstated," Dr Schira said.

scholars.uow.edu.au/display/mark_schira

EXAMPLE PUBLICATION

Mancini F, Wang AP, Schira MM, Isherwood ZI, McAuley JH, Iannetti GD, Sereno MI, Moselev GL, Rae CD (2019). Finegrained mapping of cortical somatotopies in chronic Complex Regional Pain Syndrome. J. of Neurosci., https://doi.org/10.1523/ JNEUROSCI.2005-18.2019



PROFESSOR NADIA SOLOWIJ

World leader for published research on cannabis and the brain

Professor Nadia Solowij is recognised as the most published researcher in the world on the topic of cannabis and the brain.

She has provided a wealth of highly cited original research and reviews on the acute and long-term effects of cannabis on cognition and the brain over the past 25 years.

Her main areas of research focus on cannabis, cannabinoids, neuroimaging, cognition and therapeutics. She has used neuropsychological, psychophysiological and brain imaging techniques in her investigations of memory, cognition and brain structure and function in adult and adolescent cannabis users and people with schizophrenia and comorbid cannabis use.

As acknowledgment of her expertise in the field, Professor Solowij is currently the Co-Director of the Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE) which is a National Health and Medical Research Council Centre of Research Excellence. She also has links with the Illawarra Health and Medical Research Institute. Professor Solowij recently completed a four-year term as an Australian Research Council Future Fellow.

In recent times, her research program has broadened to incorporate also the investigation of therapeutic effects of the various cannabinoids, particularly cannabidiol (CBD).

"The focus of our work remains on brain effects and we will be conducting a CBD trial on dementia," she said.

Professor Solowij has multiple collaborators from across the world and she is a member of the ENIGMA Addiction Consortium. She has more than 130 scientific publications including her book, 'Cannabis and Cognitive Functioning' (Cambridge University Press).

Discussing her research, Professor Solowij said she remained intrigued by the multitude of properties, good and bad, of a single plant used medicinally and recreationally for thousands of years.

"It's a plant that holds promise for treating a range of medical conditions but also has a detrimental impact on the lives and well-being of heavy recreational users."

scholars.uow.edu.au/display/nadia_solowij

EXAMPLE PUBLICATION

Solowij N, Broyd S, Greenwood L-m, van Hell H, Martelozzo D, Rueb K, Todd J, Liu Z, Galettis P, Martin J, Murray R, Jones A, Michie PT, Croft R. (2019) A randomised controlled trial of vaporised \triangle 9-tetrahydrocannabinol and cannabidiol alone and in combination in frequent and infrequent cannabis users: acute intoxication effects, European Archives of Psychiatry and Clinical Neuroscience, 269, 17-35. https://doi.org/10.1007/s00406-019-00978-2





Research Report 2018/2019

DR MICHELLE TOWNSEND

Senior Research Fellow teams up with Project Air Strategy to aid young people with complex mental health problems

Dr Michelle Townsend, a Senior Research Fellow, is actively involved with the multi-award winning Project Air Strategy for Personality Disorders.

Dr Townsend's research areas include the long-term outcomes from adverse childhood experiences and child and adolescent well-being particularly, in the areas of mental health, self-harm and education.

Her research aims to respond to significant public health and social problems faced by society. Dr Townsend's work has been focused on working in collaboration with government agencies to improve outcomes for vulnerable children and young people and their families. Overall, her collaborations have involved working with young people, adults, carers, parents, clinicians and government partners in developing research, resources, interventions and achieving research impact.

Dr Townsend and the Director of Project Air Strategy* Senior Professor Brin Grenyer manage a large collaborative research project which aims to support teachers, school counsellors and health staff to better recognise and respond to young people with complex mental health problems, including self-harm, suicide, trauma and emerging personality disorder.

To serve the collaborative research project, a range of resources have been developed including; accredited training for teachers, clinical tools, factsheets, a training film, as well as skills-based training workshops for more than 700 NSW Education and Health staff. An ongoing evaluation of this program has been published (Townsend, M. L., Gray, A. S., Lancaster, T. M., & Grenyer, B. F. (2018).

Dr Townsend is also the principal investigator with a collaborative team from the University of Wollongong and the University of Sydney, analysing the NSW Family and Community Services Pathways of Care Longitudinal Study.

These data, including linked educational performance data, have been used to understand factors related to educational engagement and performance of children and young people who enter the out-of-home care system. The outcome of this work is being published in a research report due to be released in 2020.

Dr Townsend continues to manage the Illawarra Born: cross generation health study, which began in 2014. In this birth cohort study, 41 families are being followed longitudinally with research focusing on early attachment, mindfulness and mental health and well-being. The Illawarra Born collaborative research team has continued to undertake research with the cohort, with numerous papers published and several under development. See example publication below.

scholars.uow.edu.au/display/michelle_townsend



EXAMPLE PUBLICATION

Townsend M.L., Kelly M.A., Pickard J.A., Larkin T.A., Flood V.M., Caputi P., Wright I.M., Jones A. and Grenyer B.F.S. (2019). Illawarra Born cross-generational health study: feasibility of a multi-generational birth cohort study. Pilot and Feasibility Studies 5:32. https://doi.org/10.1186/s40814-019-0418-5



DR STEWART VELLA

Sports-based mental health program is ahead of the game

Senior Lecturer and Head of Students from the School of Psychology, Dr Stewart Vella, can confidently claim that he is ahead of the game.

From 2014-2017, he was involved in designing, developing and testing a sports-based mental health program for adolescent males. The program is called Ahead of the Game. The project is part of UOW's Global Challenges Program.

The Ahead of the Game program has been adapted and scaled up in Canada and the UK, and has been appointed as an official program of the Rugby League World Cup in 2021.

The program is aimed at adolescent males who participate in sports and includes coach training workshops, programs for teenage boys and for their parents.

Dr Vella said the program aims to equip adolescent males with skills, confidence, and support systems to help recognise the warning signs of mental health problems and act on them as early as possible.

"Three-quarters of adolescent males participate in organised sports and we really do believe that sports have a big role to play in the prevention of mental health problems in Australia.

"Sport lends itself to the opportunity to teach important lessons

with participation in sport associated with the development of social and emotional skills."

Dr Vella, whose main areas of research is mental health and sport, is currently working on establishing mental health guidelines for sports clubs and organisations. He is a member of the Global Alliance for Mental Health and Sport which was formed within UOW's School of Psychology in 2019.

"This alliance is a wonderful vehicle for the conduct of high impact research in the area of mental health and sport," Dr Vella said.

Ahead of the Game is now operating in the Greater Toronto Hockey League (Canada), Harlequins Rugby (UK), and will roll out in the Rugby League World Cup in conjunction with the Rugby League Cares Foundation.

Dr Vella is a Global Subject Matter Expert for mental health in sport for the Movember Foundation, and maintains active collaborations with researchers from the US, Canada and the UK.

"I enjoy working with young people around the world within sports to make a meaningful difference in their lives," Dr Vella said.

scholars.uow.edu.au/display/stewart_vella

EXAMPLE PUBLICATION

Vella, S.A., Swann, C., Boydell, K.M., Eckermann, S., Fogarty, A., Hurley, D., Liddle, S.K., Lonsdale, C., Sanders, T., Schweickle, M.J., Telenta, J., & Deane, F.P. (2019). Sports-based mental health promotion in Australia: formative evaluation. *Psychology of Sport & Exercise*, 45, 101560. https://doi.org/10.1016/j. psychsport.2019.101560









DR TRACEY WOOLRYCH

Why understanding empathy is so important

The processes involved with empathy are part of our every day social and interpersonal interactions.

Deficits in any empathy domain can have impacts on social interaction success and is implicated in many conditions such as depression, loneliness and even psychopathy.

It's an area which fascinates Early Career Researcher, Dr Tracey Woolrych, from UOW's School of Psychology. She is now researching the link between loneliness, empathy and empathybased cognitive processes.

Dr Woolrych said investigation into these areas can illuminate the bases of both prosocial and antisocial behaviours. Part of the Cognitive Bases of Atypical Behaviour (CBABi) research group, she is investigating the links between empathy and loneliness.

She is part of a multi-disciplinary team monitoring and evaluating the success of a two-year early intervention domestic and family violence pilot program in the Illawarra.

Dr Woolrych said the pilot project was a collaborative partnership between the Department of Communities and Justice and Mission Australia. This pilot, to date, has offered services to more than 200 families in an effort to reduce the incidence of domestic violence.

She joined UOW in January 2016. After winning a University Medal in 2009, Dr Woolrych was awarded her PhD in late 2015 at Murdoch University in Western Australia where she taught in the areas of Psychology and Criminology.

Currently her school responsibilities are centred on the firstyear learning experience of university students, teaching some of the largest cohorts at UOW.

She is a chief investigator for an internal Educational Strategies Development Fund (ESDF) grant investigating online platforms for the program PASS, which will enable remote students and those unable to attend face-to-face classes to access the program. [PASS (Peer Assisted Study Sessions) aims to provide a learning atmosphere which differs from the traditional tutorial environment.]

Dr Woolrych said research to date suggests that students who engage with PASS obtain higher average final marks compared to students who do not attend.

scholars.uow.edu.au/display/tracey_woolrych

(See commentary by Dr Woolrych at $\underline{\text{https://stand.uow.edu.au/}}$ $\underline{\text{true-crime-captivates/}})$

EXAMPLE PUBLICATION

Woolrych, T., Eady, M. J., & Green, C. A. (2020). Authentic Empathy: A Cultural Basis for the Development of Empathy in Children. Journal of Humanistic Psychology. https://doi.org/10.1177/0022167820934222



DR FRANCES DE BLASIO

Researcher has the measure on exploring various brain states

Early career researcher Dr Frances De Blasio's field of study is centred on brain dynamics including, among a range of topics, current research which explores the impact that listening to music has on the brain.

The Associate Research Fellow from the School of Psychology is focused on brain dynamics, but more specifically, exploring various brain states and their association with cognitive and behavioural outcomes in a simple two-choice auditory task in typically developing children, and in healthy young and older adults. Here, electroencephalographic (EEG) activity is used to measure resting or prestimulus brain states, and subsequent task-related cognitive processing indices (event-related potentials or ERPs; the averaged electrical brain response to a repeated stimulus event), and behavioural performance is assessed via reaction time.

In order to better understand the functionality of ERP processing indices assessed in her brain dynamics work, Dr De Blasio and her colleagues have been developing a schema that maps the sequential processes (sensory and cognitive) to their ERP indices (<u>Barry and Blasio, 2013</u>). They have recently found caffeine to be a useful tool to explore 'active' processing stages in their schema (<u>Barry et al., 2019</u>), which offers great potential for future work

Dr De Blasio also examines ways to optimise the quantification of electrophysiological data, including EEG (<u>Barry et al., 2019a</u>) and ERPs (<u>Barry et al., 2016</u>). "Better measures will give us better insights, and I'm particularly interested in assessing the functional correlates of these measures" she said.

Her quantification-based research has resulted in invitations to present methodology workshops at well-attended national

psychophysiological conferences, and several collaborative research projects. She pointed out that the current collaborative EEG investigations she and fellow collaborators are undertaking will utilise frequency principal components analysis (f-PCA) quantification, and that this data-driven technique promises greater (and finer grained) insight beyond the more traditional analysis of predefined EEG bands.

Dr De Blasio has recently been working on various projects that explore a range of topics including the impact of listening to music on the brain, and brain dynamics in healthy ageing assessing the occurrence of preferential brain states. Upcoming (planned) EEG projects include the exploration of potential EEG biomarkers in major depressive disorder (MDD), as well as gender differences in children and young adults, and developmental changes in typically-developing children.

She is in the process of establishing new international research collaborations following well-received presentations at recent national and international conferences. She is a member of the two major international academic societies in her field, and attends their conferences regularly. She is also a member of the executive committee for the *Australasian Society for Psychophysiology*, a long-standing national academic society in her field of research (asp.org.au), and she was the co-convener of their 2019 annual conference (ASP2019).

"I really enjoy my research – it can be so insightful when chatting to participants during data collection. With my methodology focus, it's exciting to explore and validate new techniques for processing and quantifying data, and it's rewarding when new findings are well received by peers through publication and/or conference presentations and workshops."

scholars.uow.edu.au/display/frances_de_blasio

EXAMPLE PUBLICATION

De Blasio, F.M. & Barry, R.J. (2018). Prestimulus delta and theta contributions to equiprobable Go/NoGo processing in healthy ageing. 130, 40-52. https://doi.org/10.1016/j.ijpsycho.2018.05.005

University of Wollongong



DR ALISON BECK

Goal to improve the availability, delivery and evaluation of psychosocial interventions

Alison Beck is focused on improving the availability, delivery and evaluation of treatment and support options for adults with experience of mental health condition(s) and/or addictive behaviour(s).

The part-time trial co-ordinator has collaborated on a number of projects designed to improve the evidence base for SMART Recovery -- an important peer support program for people with experience of addictive behaviours.

She is supervised in her work at UOW by Associate Professor Peter Kelly.

In her role at UOW, Alison has been working on a NSW Health funded study designed to develop and evaluate a routine outcome monitoring and feedback app for people attending SMART Recovery.

Alison has recently begun work on a NCCRED (National Centre for Clinical Research on Emerging Drugs) funded project designed to improve understanding of how people who use methamphetamine engage with SMART Recovery -- including barriers, facilitators and pathways to care.

Alison is currently undertaking a PhD which explores treatment fidelity within the context of real-world, complex behaviour change research.

She is working on a systematic review and meta-analysis to

evaluate the fidelity methods employed within real-world evaluations of behaviour change counselling and to clarify the relationship between fidelity and primary treatment outcome.

Internationally, Alison has collaborated with Professor Jo Neale (King's College London) and several Australian colleagues on the development of a routine outcome monitoring and feedback app ("Smart Track").

She has also collaborated alongside Australian colleagues on several projects with international members of the SMART Recovery Research Advisory Committee (e.g. Professor John Kelly from Harvard University).

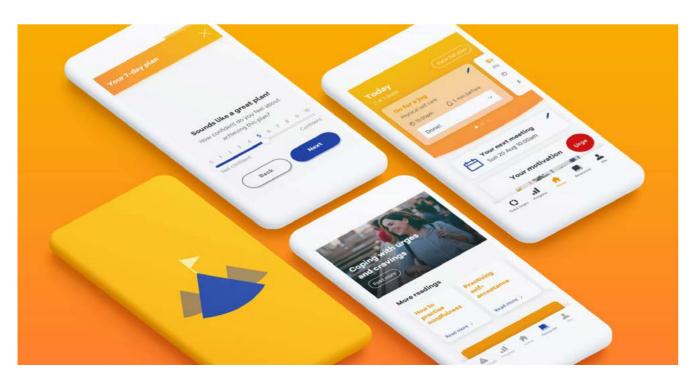
After completing her Professional Doctorate (Clinical Psychology) at the University of Newcastle, Alison secured a postdoctoral role at Lancaster University, UK, and has had subsequent links to the Spectrum Centre for Mental Health Research.

"I really enjoy working alongside participants and colleagues to develop research protocols that are sensitive to the needs of the end user and informed by clinical and research expertise," Alison said.

"I value the ongoing learning and development that comes from these collaborations. I also appreciate the flexibility of a career in research and the capacity to achieve a good work-life balance."

EXAMPLE PUBLICATION

Kelly, P. J., Beck, A.K., Baker, A.L., Deane, F. P., Hides, L., Manning, V., Shakeshaft, A., Larance, B., Neale, J., Kelly, J., Oldmeadow, C., Searles, A., Treloar, C., Gray, R.M., Argent, A. & McGlaughlin, R. (2020). Incorporating routine outcome monitoring and tailored feedback into SMART Recovery Australia mutual support groups using a novel mHealth application ('Smart Track'): Protocol for a pilot study examining feasibility and acceptability, JMIR Res Protoc 2020;9(7):e15113. https://doi.org/10.2196/15113





DR LIZ HUXLEY

Collaborative personality disorders program provides gold card treatment

Clinical psychologist Dr Elizabeth Huxley is playing a pivotal role in a brief intervention program which has had a significant impact on the way health services offer treatment for people with personality disorders and their families. Dr Huxley is a Research Fellow with the Project Air Strategy for Personality Disorders Lab headed by Senior Professor Brin Grenyer.

She works as the program coordinator for the Gold Card Clinic brief intervention program. It is a collaboration between public mental health services and Project Air to establish rapid access to short-term psychological therapy options for people with personality disorders who present in crisis.

Dr Huxley is involved in two main research areas -- models of care for personality disorders and the development and expression of pathological narcissism.

"I'm particularly interested in factors that influence the development of narcissism and how it affects the way people interact with others," she said.

The models of care research projects she is currently a collaborator on include the Gold Card Clinic brief intervention program as well as a NSW Health Translational Research Grant (TRG) examining stepped group therapy for borderline personality disorder, led by Dr Judy Pickard. Both of these projects examine different psychological therapy options, which aim to improve access to high quality psychological treatment for people with personality disorders.

Dr Huxley said it had been a great opportunity to be a collaborator on these projects and work with health services to develop clinics to support people in crisis.

"The brief intervention program has had a significant impact," she said.

To date, evaluation of the clinic program shows promising results with people experiencing a significant reduction in distress and suicidal ideation (<u>Huxley et al., 2019</u>)

Dr Huxley's current research is examining how narcissism affects people's well-being, mental health, and help-seeking behaviour.

"People with higher levels of narcissism can experience a range of challenges and can find it difficult to ask for help or engage in therapy. I hope that by improving our understanding of these issues, we can better support the people struggling with these issues and their families."

Dr Huxley said she enjoyed the collaborative and applied nature of her research.

"I've had the opportunity to collaborate on a range of clinical projects at UOW. It is deeply rewarding to work with collaborators from the university and health services. I feel the



research is much richer as a result, and it's great to see research implemented into practice."

scholars.uow.edu.au/display/elizabeth_huxley projectairstrategy.org

EXAMPLE PUBLICATION

Huxley, E., Lewis, K. L., Coates, A. D., Borg, W. M., Miller, C. E., Townsend, M. L., & Grenyer, B. F. (2019). Evaluation of a brief intervention within a stepped care whole of service model for personality disorder. BMC psychiatry, 19(1), 1-12. https://doi.org/10.1186/s12888-019-2308-z

HDR Students 2018/2019

NAME	THESIS TITLE	NAME	THESIS TITLE
Gamze Abramov	Social cognition deficits associated with interpersonal trust in borderline personality disorder.	Tayla Degan	Continuing Care in Specialist Alcohol and other Drug Services.
Benjamin Arcioni	Reduction of Cybersickness in HMDs: Participant, stimulus and hardware factors.	Elizabeth Dowswell	The creation of a mindfulness-based mobile application for HSC students (and teachers): A feasibility and evaluation study.
Mahshid Baghestani	Managing workplace bullying in multicultural contexts	Suraya Dunsford	Longitudinal Neuroanatomical Alterations in Cannabis Use Disorder and the Role of Lifetime Stress
Lidija Balaz	Implementing the "Understanding Our Peers" program in a preschool environment	Brandon Dyson	Religious Belief Change in the University Population
Meagan Baltoski	Maternal Anxiety, Parent-Child Interactions, and the Development of Early Numeracy Skill.	lan Evans	The Frequency-Dependent Effects of Electromagnetic Fields On Phosphene Perception
Karlen Barr	Evaluation of peer support for borderline personality disorder	Dominic Fernandez	The Effect of Continuum Conceptualisations of Mental Illness of Stigma Reduction in Adolescents
Maryann Barrington	Mind-Wandering: Executive Function or Executive Failure	Sheridan Findlay	Radiofrequency Electromagnetics Fields and Sleep
Camilla Beale	The Effect of Prolonged Cannabidiol Treatment upon Brain Structure and Function in Cannabis Users	Jack Fogarty	ERP Markers of Auditory Go/NoGo Processing
Sheree Blanch	Loneliness, social adaptation and engagement	Heather Gan	Early childhood social and emotional foundations of self-regulation in two cultures
Tanya Buchanan	Engaging the disengaged in health behaviour change: Tobacco use and physical activity	Melvin Goh	The effect of Type 2 diabetes risk communication and risk perception on health behaviour intentions in a substance dependence population
Mary Cassar Carter	Identifying and Differentiating Language Production features of father-mother early literacy engagement during storybook reading	Talia Hashmani	The Role of Personal Agency in Recovery from Borderline Personality Disorder
Elle Coleman	Unusual Beliefs: The Clinically Relevant and Benign	Melinda Hickey	Neurocognitive training for adults with traumatic brain injury.
Jane Cutts	Who are we leaving behind? An investigation of non-response among consumers of Borderline Personality Disorder Treatment.	Cheryl Jialing Ho	The development of cognitive abilities and interaction during infancy.
Elizabeth Dale	Improving Indigenous Health	Phillip Horton	Self Structure and the Mechanisms of Change in Psychodynamic Psychotherapy
Perceiv	The Influence of Attitudes, Stigma, and Perceived Function on Students' Help- Seeking Intentions for Others' Deliberate Self	Isabella Ingram	Loneliness amongst people with substance use disorders
		Atanas Janackovski	Suicide Prevention in Young People
Nicholas Day	Testing Interpersonal Model of Narcissism, a Study of Patients and their Family	Natasha Josifovski	Serial Recognition Task and its Role in Explicating Short-Term Memory

NAME	THESISTITLE	NAME	THESIS TITLE
Cecilia Kennedy	Acceptance and Emotional Regulation Amongst People Who Have Had a Loved One Go Missing	Dayle Raftery	Exploring Insight in Active Methamphetamine Users
Emily Keough	Recognition of compound facial expressions of emotion	Alixandra Risi	The impact of parental mental health, trauma experience, and separation on the development of early parent-infant attachment
Douglas Kerr	The Reconstruction of Narrative Identity in Mental Health Recovery: A Complex Adaptive System Approach	Sophie Russell	`Remember the Time': Parent-child Reminiscing and Associations with Psychopathology
Wei Shi Koo	Interaction of Anatomy and Function in Early Visual Cortex	Karin Sandquist	Understanding Complex & Chronic Self Critical Depression.
Bao Xia Mabel Lau	the Role of Semantic Features in Immediate Serial Recall	Matthew Schweickle	The Experience and Occurrence of Optimal Performance States in Sport
Tinashe Lawson	Practicing Psychologists' Constructions of non-White people: Implications for Cultural Competence and the Therapeutic Alliance	Anitta Serrano	Attention restoration effects on Autobiographical memory specificity for individuals with depression.
Sarah Liddle	A Trial of a Sports-Based Mental Health Literacy Program to Promote Help Seeking in Young Males	Anna Sidis	Introducing Open Dialogue to the Adolescent Inpatient and Community Teams in the Illawarra Shoalhaven Local Health
Jesse Martin-Allan	Assessing the Impact of a Self-Compassion Intervention on Emotional Stability		District: Acceptability and Feasibility for Staff, Consumers, and their Families
Josephine McNamara	Maternal wellbeing and bonding during pregnancy and the early postpartum period	Saniya Singh	Psychosocial Factors that Affect Antimicrobial Prescribing and Stewardship in Aged-Cares
Caitlin Miller	Measuring the shadows: Chronic emptiness in borderline personality disorder	Kayla Steele	Stemming the Tide of Personality Disorders Across Families: Evaluation of a
Erin Mison	Social Factors and Schizotypy		Parenting Intervention to Modify the Risk for the Transgenerational Transmission of Attachment Trauma
Simone Mohi	Values Amongst Individuals Being Treated for Borderline Personality Disorder	Karel Strooband	Fine motor skill acquisition in the early years: Understanding children's progression and supporting development
Rebecca Mursic	Auditory Vection: The Roles of Low and High-Level Psychoacoustic Properties in Auditory Illusions of Self-Motion.	Jordan Sutcliffe	Evaluating the Effectiveness of Implementation Variations of the Ahead of
Jason Nunes	The Resilient Principal: A Study of Psychological Resilience, Job Crafting and the Job-Demands Resource Model in School Principals	Melody Tan	the Game program Schizotypy: Social and Emotional Functioning
Briony Osborne	Physical health comorbidity among people in treatment for substance use disorders	Harriet Taylor	Distorted images of HV4: Disturbing the order in human visual cortex
Bradley Parkinson	Psychological barriers to participation in higher education	Coen Teunissen	Psychopathic Personality Traits Amongst Paramedics

NAME

Kelly Tow

Brie Turner

Stephanie Va

Elena Vassele

Emma Walte

Jing Wang

Maryann We

Tiffany Westo

Brent Wilsm

Keren Wolste

Jessica Zam

HDR Completions 2018-2019

	THESISTITLE	NAME	THESIS TITLE
	Help for the helpers: The impact of role identity and educational training on mental health help-seeking in Australian paramedics.	Arina Baharin	Treatment of Young Adult Prisoners who Engage in Self-Harm: Understanding and Improving Individual Outcomes and Institutional Responses
	Cognitive Factors Involved in Help Negation Following Suicidal Ideation	Fiona Calvert	Reflexive dialogue within the supervisory relationship to enhance supervisee learning outcomes
arcoe	Early Cognitive Control in the Context of Atypical Development	Haider Catan	The effects of Arabic Linguistic features on verbal short-term memory
leu	An Early Start to Self-Regulation: Investigating and Improving Educators' Competency and Practices for Supporting Early Self-Regulation	Frances De Blasio	Prestimulus brain state affects event-related potential indices of cognitive processing
er	Schizotypy Stress and Cognition	Lisa-Marie Greenwood	Electrophysiological investigation of auditory mismatch negativity: A brain- based biomarker of N-Methyl-D-Aspartate
	Criteria and Assessment of Outcomes of Drug and Alcohol Withdrawal Management Services.	Diarmuid Hurley	The Development.Implementation, and Evaluation of a Mental Health Literacy
ei	Complexities in the Association Between Attentional Biases for Threat and Anxiety		Intervention for Parents in Community Spor Clubs.
ton	Parents and Adolescents: Exploring the Environmental Transmission of Suicidal	Diana Karamacoska	Electrophysiological underpinnings of performance in two-choice tasks
	Behaviour in the Interpersonal-Psychological Theory of Suicide	Carol Keane	A person-centred examination of complex trauma and homelessness in Australia
nore	Influence of Coach Feedback on the Motivation and Development of Primary School Sport Participants	Brett MacDonald	ERPs in the context of the orienting reflex
encroft	What is the Potential of Coaching as a form of Mental Health Support?	Johanna Meyer	Beliefs about Safety Behaviours: An Examination across Three Relevant Populations
nmit	'An Investigation of the Underlying Cognitive Processes Associated with Computer Programming.'	Fiona Ng	Recovery in Borderline Personality Disorder: A Mixed-Methods Exploration of Lived Experience
		Adam Verrender	The determinants of electromagnetic hypersensitivity

Funding 2018/2019

EXTERNAL FUNDING

Project Title: Information use in superior face identification

Investigators: David White, Sebastien Miellet

Funding body: Australian Research Council (ARC), Discovery Projects

Year: 2019 **Amount:** \$356,000

Project Title: Methamphetamine and mutual support: A mixed methods exploration of SMART Recovery participants' characteristics and opportunities for enhanced referral pathways

Investigators: Peter Kelly, Briony Larance, Frank Deane, Alison Beck

Funding body: National Centre for Clinical Research on Emerging Drugs (NCCRED),

Seed Funding

Year: 2019

Amount: \$77.489

Project Title: Increasing the capacity of a local health district to respond to methamphetamine-related harm: developing an integrated model of care informed by linked data and consumer and clinician views

Investigators: Briony Larance, Peter Kelly, Laura Robinson, Luise Lago, Julia Lappin

Funding body: National Centre for Clinical Research on Emerging Drugs (NCCRED), Seed Funding

Year: 2019 Amount: \$66.190 **Project Title:** BeSMART: feasibility and preliminary efficacy of an intervention for family members impacted by methamphetamine

Investigators: Peter Kelly, Briony Larance, Frank Deane, Alison Beck

Funding body: National Centre for Clinical Research on Emerging Drugs (NCCRED), Seed Funding

Year: 2019 **Amount:** \$61,342

Project Title: Delivering rehabilitation through immersive technology for remote mineworkers.

Investigators: Shiva Pedram, Stephen Palmisano, Pascal Perez

Funding body: Coal Mines Insurance, Coal Services Ltd and Advantage SME Tech Voucher Program (NSW Boosting Business Innovation Program)

Year: 2019 **Amount:** \$43,878

Project Title: A scientific comparison of the theoretical, categorical, and dimensional approaches to assessing adolescent personality: construct validity and clinical utility of the Adolescent Psychodiagnostic Chart (PDC-A) of the PDM-2 and the Inventory of Personality Organization for Adolescents (IPO-A).

Investigators: Marko Biberdzic, Brin Grenyer

Funding body: The Psychodynamic
Diagnostic Manual, Second Edition (PDM2). Research Grants Scheme

Year: 2019

Amount: USD\$15,000 (\$21,796)

Project Title: Lived experience perspectives of personality disorder services in NSW

Investigators: Brin Grenyer, Kate Lewis,M Jewell Michelle Townsend, Karlen Barr

Funding body: NSW Mental Health Commission Lived Experience Framework Implementation Grant

Year: 2019 **Amount:** \$9,988

Project Title: Project Air Strategy for Personality Disorders

Project lead: Brin Grenyer

Funding body: NSW Ministry of Health

Year: 2018

Amount: \$5,488,360

Project Title: Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE): Quality and safety in the implementation of medicinal cannabis use in the community

Investigators: Martin J, Solowij N, Gunn J, Lintzeris N, Huang X-F, Eagar K, Bolan N, Scuffham P, Bonomo Y, Popat A.

AIs: Bonney A, Copeland J, Dalton C, Fu S, Galettis P, Martin A, Naidu R, Ritter A, Talley N, Weston-Green K.

Funding body: NHMRC Centre of Research Excellence

Year: Commenced 2018 **Amount:** \$2,498,471

Project Title: Efficacy of a 3-month aerobic exercise regime for restoring 'brain health' in heavy cannabis users

Investigators: Nadia Solowij, Murat Yucel, Coxon James, Daniel Lubman

Funding body: National Health and Medical Research Council (NHMRC), Project Grant

Year: 2018

Amount: \$1,209,221

Project Title: Quitlink: Accessible smoking cessation support for people living with severe and enduring mental illness

Investigators: Amanda Baker, Ron Borland, Billie Bonevski, David Castle, Jill Williams, Catherine Segan, Peter Kelly, Alyna Turner, Lisa Brophy, Rohan Sweeney

Funding body: National Health and Medical Research Council (NHMRC), Project Grant

Year: 2018

Amount: \$1,141,189

Project Title: A place-based model for

Investigators: Prof Kathleen Clapham,

Valerie Harwood, Prof Helen Hasan, A/Prof

Peter Kelly and Ms Marlene Longbottom

Aboriginal community-led solutions

Prof Dawn Bessarab, Prof Bronwyn

Fredericks, A/Prof Kate Senior, Prof

Funding body: Australian Research

Project Title: Ready, steady, go: Infant

motor development and cognition

Investigators: Jane Herbert, Jenny

Funding body: Australian Research

Council (ARC), Discovery Projects

Project Title: Caress the Detail: A

Comprehensive MRI Atlas of the in Vivo

Investigators: George Paxinos, Mark

Funding body: National Health and

Medical Research Council (NHMRC),

Project Title: Cannabidiol may protect

the brain against the harmful effects of

Funding body: National Health and

Medical Research Council (NHMRC),

Investigators: Nadia Solowij, Murat Yucel

Project Title: Towards the development of

an intervention for children of parents with

Borderline Personality Disorder (BPD):

Investigators: Amy Bird, Judith Pickard

Funding body: The Creswick Foundation,

Richmond, Sabine Seehagen

Council

Year: 2018

Year: 2018

Human Brain

Project Grant

Amount: \$230.989

Year: 2018

marijuana

Project Grant

Amount: \$974,586

Year: 2018

Schira

Amount: \$237,961

Amount: \$498,000

Fellowship

Year: 2018

Amount: \$15,445

Project Title: At the heart of positive psychology: heart-rate variability and subjective well-being

Investigators: Mark Allen, Stewart Vella, Sylvain Laborde, Markus Raab

Funding body: Deutscher Akademischer Austausch Dienst (DAAD), Australia Germany Joint Cooperation Scheme

Year: 2018

Amount: \$10.000

INTERNAL FUNDING

Project Title: IncuCyte S3 Live-cell imaging and analysis platform with software packages

Investigators: Xu-Feng Huang, Lezanne Ooi, Chao Deng, David Adams, Heath Ecroyd, Kara Perrow, Justin Yerbury, Katrina Green, Nadia Solowij, Zhilian Yue, Konstantin Konstantinov, Kelly Newell, Mark Wilson, Haibo Yu

Funding body: University of Wollongong, Major Equipment Grant

Year: 2019

Amount: \$224.900

Project Title: Antimicrobial Resistance

Investigators: Christopher Degeling, Mitchell Byrne, Antonius van Oijen, Martina Sanderson-Smith, Spyridon Miyakis, Sebastien Miellet, Shahla Meedya, Faisal Hai, Ping Yu, Nina Reynolds, Judy Mullan, Simeon Crawford, Peter Newton, Bostjan Gomiscek, Janaye Fish

Funding body: University of Wollongong, Global Challenges Keystone Funding

Year: 2019

Amount: \$200,000

Project Title: A Smart Shoe System Enabling Sedentary Older Adults to Walk More Steps and Walk Safely

Investigators: Chiu Chun Winson Lee, Gursel Alici. Rahim Mutlu. Mark Allen. Robyn Coman, Sheikh Solaiman, Giraldo Alexandra, Gilbert Lam, Rezaul Begg

Funding body: University of Wollongong, Global Challenges Project Funding

Year: 2019

Amount: \$50,000

Project Title: Perceptions of nurses about their roles in appropriate antibiotic use

Investigators: Shahla Meedya, Antonius van Oijen, Ritin Fernandez, Mitchell Byrne, Christopher Degeling, Laura Ellwood, Pamela Konecny, Suman Adhikari, Valerie

Funding body: University of Wollongong, SMAH Research Partnership Grant

Year: 2019 Amount: \$23,000

Project Title: Exploratory study: Prevalence and responses to self-harm and suicidal ideation in primary school aged children

Investigators: Michelle Townsend, Caitlin Miller and Peter Kelly

Funding body: University of Wollongong, Social Sciences Mid Career Grant

Year: 2019 **Amount:** \$17,754

Project Title: Acute effect of fruit anthocyanins on postprandial endothelial function, inflammation and cognition

Investigators: Karen Charlton, Monique Francois, Katrina Green, Ian Wright, Yasmine Probst, Steven Roodenrys

Funding body: University of Wollongong, SMAH Small Project Grant - Health & Medical Collaborative

Year: 2019 **Amount:** \$16.000

Project Title: Systemic entrapment: Factors associated with First Nations people and multigenerational contact with systems through a Human Rights perspective.

Investigators: Marlene Thompson, Peter Malouf, Kathleen Clapham, Peter Kelly, Helen Hasan, Kate Senior, Valerie Harwood, Hannah McGlade, Jocelyn Jones, Anna Williamson, Ronald Stephens

Funding body: University of Wollongong, Global Challenges Seed Funding

Year: 2019 **Amount:** \$14,759 **Project Title:** Establishing neurocognitive assessment and training studies in the Hangzhou Region of China

Investigators: Stuart Johnstone, Steven Howard

Funding body: University of Wollongong, Social Sciences Seed Grant International Links Grants

Year: 2019 **Amount:** \$12,840

Project Title: Hashtagging Terror and Hate: Citizen Responses on Social Media

Investigators: Cassandra Sharp, Shoshana Dreyfus, Roba Abbas, Tracey Woolrych, Peter Leeson, Yvonne Apolo, Kate Tubridy

Funding body: University of Wollongong, Global Challenges Seed Funding

Year: 2019 **Amount:** \$12,194

Project Title: Adolescents in crisis: developing better approaches to assessing emerging personality dysfunction and the promise of advances in the evidence-base for treatment

Investigators: Marko Biberdzic

Funding body: University of Wollongong, Social Sciences Seed Grant

Year: 2019 **Amount:** \$11.595

Project Title: Identifying vulnerabilities in child pedestrians

Investigators: Sebastien Miellet

Mid-Career Seed Grant **Year:** 2019

Amount: \$11,511

Project Title: Brain Processing of Expected and Unexpected Musical Patterns

Investigators: Robert Barry, Timothy Byron, & Frances De Blasio

Funding body: University of Wollongong, Social Sciences Seed Grant

Year: 2019 Amount: \$11,064

Project Title: Visual information sampling for successful face recognition across changes in view

Investigators: Simone Favelle

Funding body: University of Wollongong,

Year: 2019 Amount: \$10,829

Project Title: Establishing Australian norms and test-retest reliability for the neurocognitive assessment tool.

Investigators: Stuart Johnstone Funding body: University of Wollongong,

Social Sciences Seed Grant **Year:** 2019

Amount: \$10,474

Project Title: RNA-sequencing: Investigating therapeutic biomarkers of CBD treatment in regular cannabis users

Investigators: Lisa-Marie Greenwood

Funding body: University of Wollongong, Social Sciences Early Career Researcher Start-Up

Year: 2019

Amount: \$10.200

Project Title: Caring for Community -Keystone Development

Investigators: Kathleen Clapham, Paul Chandler, Scott Winch, David Kampers. Samantha Thomas, Valerie Harwood, Peter Kelly

Funding body: University of Wollongong, Funding Body: Faculty of Social Sciences Global Challenges Challenge Funding

> Year: 2019 **Amount:** \$10,000

Project Title: Disentangling the relationship between cannabis and psychosis.

Investigators: Emma Barkus, Oliver Mason

Funding body: University of Wollongong, University Global Partnership Network (UGPN)

Year: 2019 **Amount:** \$9,656 **Project Title:** Development and testing of a literacy and numeracy intervention for the home environment

Investigators: Elizabeth Duursma, Jane Herbert

Funding Body: University of Wollongong, Social Sciences Seed Grant

Year: 2019

Amount: \$9,000

Project Title: Can improving working memory increase subjective social connection?

Investigators: Emma Barkus

Funding body: University of Wollongong, Social Sciences Seed Grant

Year: 2019 **Amount:** \$8,331

Project Title: Intensive parenting supporting for high-risk families: Delivering Parent-Child Interaction Therapy (PCIT) through community partnership

Investigators: Judith Pickard, Amy Bird Funding body: University of Wollongong, Social Sciences Seed Grant

Year: 2019 **Amount: \$7.000**

Project Title: Developing a mindfulness workshop series to enhance the development of curious, compassionate and resilient clinicians.

Investigators: Judy Pickard, Frank Deane, Susan Thomas, Mark Donovan

Funding body: UOW Educational Strategies Development Fund (ESDF) Grant

Year: 2019

Amount: \$5,844

Project Title: A pilot study using ecological momentary assessment to understand psychological factors contributing to comorbid eating disorders and substance use in young people

Investigators: Laura Robinson

Funding body: University of Wollongong, Social Sciences Early Career Researcher Start-Up

Year: 2019 **Amount:** \$5,193

Project Title: Well-being of Young Adult **Students:** China and Australia

Investigators: Emma Barkus

Funding body: University of Wollongong, International Links Grants

Year: 2019 **Amount: \$2,564**

Project Title: Understanding and preventing opiod-related harm

Investigators: Briony Larance

Funding body: University of Wollongong. Vice Chancellor's Postdoctoral Research Fellowship Scheme

Year: 2018 **Amount:** \$430,352

Project Title: Antimicrobial Resistance Global Challenges: the evolving threat and impact to the Illawarra Shoalhaven population – a service utilisation perspective

Investigators: Spiros Miyakis, Antoine van Oijen, Mitchell Byrne, Janave Fish, Sebastien Miellet, Peter Newton, Simeon Crawford, Judy Mullan, Brendan

Funding Body: IHMRI Clinical **Translation Grants**

Year: 2018

Amount: \$29.000

Project Title: PowerEdge R440 Server Investigators: Nadia Solowij, Mark Schira, Rodney Croft

Funding body: University of Wollongong, NHMRC Equipment Grant

Year: 2018

Amount: \$10,722.28

Project Title: Implementing and evaluating weed hygiene practices using community based social marketing of track users in Kosciuszko National Park

Investigators: Nicholas Gill, Leonie Miller, Hillary Cherry

Funding body: University of Wollongong, Faculty of Social Sciences, Partnership Grant

Year: 2018 Amount: \$10,000

Project Title: Measuring Community Attitudes and Barriers to Responsible Use of Antibiotics

Investigators: Mitch Byrne, Sebastien

Funding Body: Faculty of Social Sciences Seed grant

Year: 2018

Amount: \$9,000

Project Title: Tell me all about it: Can training parents to talk about

everyday past events enhance existing interventions for childhood anxiety"

Investigator: Dr Amy Bird

Funding body: University of Wollongong, Faculty of Social Sciences Early Career Researcher Grant

Year: 2018

Amount: \$8,238.43

Project Title: Strength to Strength: People of the Land

Investigators: Michelle Eady; Tracey Woolrvch: Corinne Green

Funding Body: Faculty of Social Sciences Seed Grant

Year: 2018 **Amount:** \$7,154

Project Title: Adolescent Self-Harm: What can parents do?

Investigators: Michelle Townsend

Funding body: University of Wollongong, Social Sciences Seed Grant

Year: 2018 **Amount:** \$6906 **Project Title:** Towards the objective measurement of the association between mindfulness and attachment styles

Investigators: Judy Pickard

Funding body: University of Wollongong, Faculty of Social Sciences Early Career Researcher Grant

Year: 2018

Amount: \$6,200

Project Title: International collaboration on pedestrian safety across the lifespan

Investigators: Sebastien Miellet

Funding body: University of Wollongong, International Links Grants

Year: 2018 **Amount:** \$5,000

COMMERCIAL RESEARCH AND CONSULTANCY

Project Title: Medicinal Cannabis Detectability Study

Project lead: Fu S, Solowij N. Funding body: VIC Roads Tender

Year: 2019

Amount: \$99,890

Project Title: Mental Health, young men, and sports

Project lead: Stewart Vella

Funding body: Movember Foundation

Year: 2019

Amount: \$90,000

Project Title: Project Air Strategy for Personality Disorder Implementation into Mental Health Services within Canberra

Project lead: Brin Grenver.

Funding body: Canberra Health Services

Year: 2019 **Amount:** \$40.071 **Project Title:** Evaluation of the Aboriginal Cultural Support Program

Project lead: Tracy Woolrych Funding body: Department of Family and Community Service

Year: 2019 **Amount:** \$30,000

Project Title: Country Health SA Mental Health Services Project Air Strategy

Project lead: Brin Grenyer Funding body: Barossa Hills Fleurieu

Year: 2019 **Amount:** \$27,090

Local Health

Project Title: Aftercare Research Project

Project lead: Vida Bliokas Funding body: Coordinare Ltd

Year: 2019 **Amount:** \$12.226

Project Title: Provision of advice on potential health effects of exposure to Wi-Fi

Project lead: Rodney Croft

Funding body: McCabe Curwood Pty Ltd

Year: 2019 **Amount:** \$12,000

Project Title: Project Air training for Holy Spirit College staff

Project lead: Brin Grenyer

Funding body: Trustees for the Wollongong Diocese Catholic School System

Year: 2019 **Amount:** \$6050

Project Title: Project Air Strategy for Personality Disorder Implementation into Funding body: Department of Family the Bendigo Health Service

Project lead: Brin Grenyer Funding body: Bendigo Health Care Group

Year: 2019 **Amount:** \$4,180 **Project Title:** Project Air Strategy for Personality Disorder Implementation in the Western Australia Health Service

Project lead: Brin Grenver

Funding body: Western Australia Mental Health Commission

Year: 2018

Amount: \$150,000

Project Title: Toward a National BPD Training and Professional Development Strategy

Project lead: Brin Grenyer **Funding body:** Australian BPD

Foundation Year: 2018

Amount: \$116,000

Project Title: Establishment of a research and evaluation framework to evaluate delivery of St Vincent De Paul AOD programs

Project lead: Peter Kelly **Funding body:** St Vincent De Paul

Year: 2018

Amount: \$60,000

Project Title: Project Air Strategy for Personality Disorder Implementation in the Gold Coast Hospital and Health Service

Project lead: Brin Grenyer

Funding body: Department of Health Oueensland

Year: 2018

Amount: \$48.262

Project Title: Domestic and Family Violence intake- Referral and Assessment

Project lead: Tracey Woolrych

and Community Service

Year: 2018 **Amount:** \$25,262 **Project Title:** Developing a software application for clinician-informed consultation and assessment of ADHD

Project lead: Stuart Johnstone

Funding body: Evolve Psychological and Assessment Services

Year: 2018 **Amount:** \$18,470

Project Title: Provision of data analytical services

Project lead: Rodney Croft

Funding body: Heptares Therapeutics Limited

Year: 2018 **Amount:** \$16,451

Project Title: Project Air Strategy Consultation and Workshop

Project lead: Brin Grenyer Funding body: South Eastern Sydney Local Health District

Year: 2018 **Amount:** \$13,130

Project Title: SMART Recovery Annual Survey 2018

Project lead: Frank Deane

Funding body: Smart Recovery Australia Ltd

Year: 2018 **Amount:** \$9,085

Peter Caputi

2019 25 Years of Service (UOW)

Esther Davis

2019 The Dame Bridget Ogilvie Research/ Clinical Excellence Award, Illawarra Health and Medical Research Institute (2019)

Frank Deane

2019 Distinguished Career Award by the Australian Association of Cognitive and Behaviour Therapy

2018 Excellence in Research and Evaluation, NSW Non-government Alcohol and Drug Awards (in partnership with SMART Recovery Australia)

2018 Australian Psychological Society Outstanding Academic Mentor Award

Frances De Blasio

2018 Rising Star Award, School of Psychology Early Career Researcher Prize, University of Wollongong

Marc de Rosnay

Vice-Chancellor's Award for Outstanding Achievement in Research Partnership and Impact: Fostering Effective Easily Learning (Project FEEL)

Annaliese Gray

2018 Freestone Clinical Psychology Award

Brin Grenyer

2019 25 Years of Service (UOW)

Citation - Recognition of service and contribution as Foundation Chair of the Psychology Board of Australia in the National Registration and Accreditation Scheme 31 August 2009 - 30 August 2018.

Jane Herbert

Vice-Chancellor's Award for Research Supervision (Highly Commended)

Michelle Townsend

Steven Roodenrys

2019 25 Years of Service (UOW)

2018 Vice-Chancellor's Award for

Outstanding Achievement in Research

the Project Air Strategy for Personality

partnership between the University of

Wollongong and NSW Ministry of Health.

2019 American Psychological Association -

Division 29 Society for the Advancement of

Psychotherapy - Inaugural Jeremy Safran

Kotze and Project Air Team "Integrative

psychotherapy for personality disorder: a

stepped care randomised controlled trial"

Institute of Mental Health Nottingham, UK

Research Day May 2019, First poster prize

for "Recovery in Borderline Personality

Disorder: A qualitative study of stages

Townsend, Caitlin Miller, Mahlie Jewell.

journal of Personality and Mental Health

borderline personality disorder most impair

interpersonal and vocational functioning?"

Authors: Miller CE, Lewis KL, Huxley E,

Townsend ML, Grenyer BFS

for "A 1-year follow-up study of capacity

to love and work: What components of

and processes" by Fiona Ng, Michelle

Wiley Top Cited Article 2018-2019 in

Memorial outstanding poster award, to Brin

Disorders (Director: Brin Grenver), a

Partnership and Impact, awarded to

2018 School of Psychology Early Career

Research Prize, University of Wollongong.

Steven Howard

Vice-Chancellor's Award for Outstanding Achievement in Research Partnership and Impact: Fostering Effective Easily Learning Project Air Strategy (Project FEEL)

Elizabeth Huxley

2018 APS Clinical Psychologists Student

Marie Johnson

2019 25 Years of Service (UOW)

Stuart Johnstone

Vice-Chancellor's Award for Global Strategy Grenyer, Kate Lewis, Mahnaz Fanaian, Beth

Carol Keane

2018 APS Clinical Psychologists Student

Peter Kelly

2018 Excellence in Research and Evaluation, NSW Non-government Alcohol and Drug Awards (in partnership with SMART Recovery Australia).

2018 Excellence in Research and Evaluation (Special Commendation), NSW Nongovernment Alcohol and Drug Awards (in partnership with We Help Ourselves).

Briony Larance

2019: VC's Research Excellence Award for **Emerging Researcher**

Ely Marceau

2018 Faculty of Social Sciences Early Career Researcher Prize, University of Wollongong.

2018 School of Psychology High Impact Early Career Researcher Publication Prize, University of Wollongong.

2018: 2017 Student Prize for the Australian Psychological Society College of Clinical Psychologists.

2018: Excellence in Research and Evaluation (Special Commendation), NSW Non-government Alcohol and Drug Awards (in partnership with We Help Ourselves).

Academic Staff 2019

ALLEN, Dr Mark

Senior Lecturer

BARKUS, A/Prof Emma

Associate Professor, Co-Director of Undergraduate Studies

BARRY, Prof Robert

Professor

BIBERDZIC, Dr Marko

Lecturer

BLIOKAS, A/Prof Vida

Dep. Director of Professional and Clinical Psychology Training

BRUSADELLI, Dr Emanuela

Lecturer

BYRNE, A/Prof Mitch

Associate Professor

BYRON, Dr Tim

Lecturer, Co-Deputy Head of Students

CAPUTI, Prof Peter

Professor, Head of School

CHAN, Dr Amy

Senior Lecturer

CLARKE, A/Prof Adam

Associate Professor, 300 Level Year Coordinator

CROFT, Prof Rodney

Professor

DEANE, Prof Frank

Professor

DE BLASIO, Dr Frances

Associate Research Fellow

de ROSNAY, Prof Marc

Professor

FAVELLE, Dr Simone

Senior Lecturer, SIM Program Director

GREENWOOD, Dr Lisa-Marie

Post-Doctoral Research Fellow

GRENYER, Prof Brin

Professor, Director of Professional and Clinical Psychology Training

HERBERT, A/Prof Jane

Associate Professor

HILL, Dr Harry

Lecturer 200 Level Year Coordinator

ISHERWOOD, Dr Zoey

Post-Doctoral Research Fellow

JOHNSTONE, Prof Stuart

Professor, Deputy Head of School (Teaching and Learning)

KELLY, A/Prof Peter

Associate Professor, Dep. Head of School (Research)

LARANCE, Dr Briony

V-C Postdoctoral Senior Research Fellow

LEESON. Dr Peter

Lecturer

LOUGHRAN, Dr Sarah

MIELLET, Dr Sebastien

Lecturer

MARCEAU, Dr Ely Lecturer

Lecturer, Deputy Head of Postgraduate Studies

MILLER, Dr Leonie

Senior Lecturer

MORETON, Dr Sam

Career Development Officer

PALMISANO, A/Prof Stephen

Associate Professor, Head of Postgraduate Studies

PICKARD, Dr Judy

Senior Lecturer

REIS, Dr Samantha

Career Development Fellow, Acting 4th Year Coordinator

ROBINSON, Dr Laura

Career Development Fellow, Co-Deputy Head of Students

ROODENRYS, A/Prof Steven

Associate Professor, Co-Director of Undergraduate Studies

SCHIRA. Dr Mark

Senior Lecturer

SOLOWIJ. Prof Nadia

Professor

VELLA, Dr Stewart

Senior Lecturer, Head of Students

WOOLRYCH, Dr Tracey

Lecturer, 100 Level Year Coordinator

CONTACT INFORMATION

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