The Clinical Neuroscience Translation Group

Advancing understanding and developing innovative, personalised interventions for mental and neurological disorders.
WHAT IS THE CLINICAL NEUROSCIENCE TRANSLATION GROUP?

The Clinical Neuroscience Translation (CNT) group builds on the school’s research excellence to examine cognitive, neurobiological, genetic and psychological mechanisms underlying clinical psychological, neuropsychological, psychiatric and neurological disorders. The team’s emphasis is on using this knowledge to develop innovative, personalized and more effective interventions.

The CNT group conducts translational research that has the ability to assess trans-diagnostic factors, making their research highly applicable and pivotal to improving health care initiatives and providing best-practice.

RESEARCH STRENGTHS

Research strengths include the fields of:

- Body image and eating disorders
- Mood and anxiety disorders
- Symptom tracking
- Sleep mechanisms, quality and disturbance
- Perceptual and attentional processes
- Posttraumatic Stress Disorder (PTSD)
- Psychosis
- Mental health and wellbeing in later life
- Dementia
- Stroke
- Epilepsy
- Traumatic brain injury
- Responses to these disorders, such as mental illness stigma

‘Applicable, translational research that develops innovative, personalised interventions.’
Professor Kim Felmingham is the Chair of Clinical Psychology at the Melbourne School of Psychological Sciences and the Director of the Clinical Neuroscience Translation group.

Professor Felmingham conducts research examining neurobiological and psychophysiological mechanisms underlying Posttraumatic Stress Disorder, and examines the role of sex and stress hormones in fear extinction, memory consolidation and attentional processes. Specific research questions include examining the impact of stress and sex hormones, sleep and cognitive processes on emotional memory consolidation (intrusive memories), fear extinction, and treatment response in individuals with anxiety disorders and PTSD. The aim of this research is to lead to the development of more targeted and effective treatments for PTSD and anxiety disorders.

Dr Van Dam is a clinical psychologist and neuroscientist, a Senior Lecturer in the MSPS. His research interests centre on the use of cognitive neuroscience methods, decision science, and computational psychology/psychiatry to better understand and delineate high-prevalence symptoms (e.g., anxiety, depression, substance misuse) across the spectrum from normal to pathological with a focus on value-based decision-making processes, introspection, and assessment. His primary translational research objective is to advance the understanding of the clinical phenomenology and neurobiology of depression and anxiety disorders. He is also interested in optimizing treatment and intervention approaches via identification of response likelihoods during the natural course of treatment. Dr Van Dam has expertise in the areas of mindfulness and meditation and considers contemplative practices to be a potential treatment for high-prevalence disorders, a means to improve measurement and examination of subjective experience, and worthwhile set of practices towards personal growth. He is particularly interested in how these practices can be implemented in authentic ways that are consistent with their traditional context.
ASSOCIATE PROFESSOR
KATHERINE JOHNSON
Attention Dynamics Laboratory

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Dr Johnson is a Developmental Cognitive Neuroscientist with an interest in attention and concentration.

She and her lab members use a variety of methods to measure focus and attention control in infants, children, and adults. Her clinical research interests include measuring the cognitive and physiological differences associated with children and adults with Attention Deficit Hyperactivity Disorder (ADHD) and autism spectrum disorder (ASD) compared with typically developing children and adults. She and her lab members are interested in examining the effects of exposure to nature on mental well-being and concentration, and the development of memory and attention in infants.

DR JACQUELINE ANDERSON
Subcortical Disorders Laboratory

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Dr Anderson is a researcher in the area of clinical neuropsychology who specialises in abnormal cognitive functioning.

She and her lab members use a combination of clinical and laboratory-based tools to investigate adult patient populations with neuropsychological disorders. Her research interests primarily relate to outcome after mild traumatic brain injury and stroke. In particular, she is focused on investigating the neuropsychological (cognitive, behavioural, psychological) and neuropathological aetiologies of individual patient variation in outcome after these events. She has a further specific interest in abnormalities of attention, executive function and subcortical cognitive networks in the context of neuropsychological disorders.
Dr Christian Nicholas is a Research Fellow with a primary research focus of sleep and the mechanisms and consequences of sleep disruption.

His broad interests include, sleep measurement, cardio-respiratory physiology during sleep & wakefulness; sleep and ageing; sleep, alcohol and substance use and the cause and effects of sleep disruption on mental health. Dr Nicholas and his team conduct research into respiratory and cardiovascular aspects of sleep in the context of Obstructive Sleep Apnoea (including role of upper airway muscle physiology, arousal from sleep and lung volume). They also research the effects of alcohol on sleep and memory in adolescence, fatigue/sleepiness in airline cabin crew, sleep and mental health, sleep and addiction, and sleep disruption and negative memory bias.

Dr Angie Jackman is a Clinical Neuropsychologist and Academic Specialist in the Melbourne School of Psychological Sciences.

Dr Jackman is motivated to investigate questions arising directly from clinical neuropsychological practice, and has specific interests in sleep disorders and in the early detection and management of neurodegenerative conditions. Previous publications have focused on sleep disordered breathing in young (pre-school) children and how this relates to cognitive, behavioural, and psychosocial outcomes for the child and family.
ASSOCIATE PROFESSOR AMY JORDAN
Sleep Laboratory

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Associate Professor Jordan is a sleep researcher whose primary interest relates to improving mental and physical health via ensuring individuals and groups get adequate quality and quantity of sleep. Thus, her research involves assessing the impact of poor quality or low amounts of sleep on memory, mood, cardiovascular and metabolic variables. She also has an ongoing interest in the condition Obstructive Sleep Apnea and has held numerous grants to investigate both the causes, consequences and new treatments for this condition. More recently she has begun work investigating the relationship between sleep and post-traumatic stress disorder, with the aim of improving PTSD treatment, or even preventing the development of the condition after trauma exposure.

DR SCOTT GRIFFITHS
Physical Appearance Research Team (PART)

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Scott co-leads the Physical Appearance Research Team (PART) with Dr Isabel Krug. Research by PART is uncovering the myriad ways that physical appearance manifests in our everyday lives, including the experience and perpetration of appearance-related discrimination (e.g., weight stigma and colourism), the use of appearance-enhancing substances and procedures (e.g., anabolic steroids and cosmetic surgeries), and the prevention and treatment of appearance-focused psychological disorders (e.g., eating disorders and body dysmorphic disorders). PART is currently running Gay Bodies Worldwide, a 5-year prospective study of body image phenomena among gay and bisexual men living in Australia, Canada, the United Kingdom, and the United States. Research by PART has attracted various awards and recognitions, including from the Australian Academy of Science, the Australian and New Zealand and North American Academies for Eating Disorders, the Australian Institute of Policy and Science, the Australian Psychological Society, the Association for Psychological Science, the Bauer Media Group, the Society for Mental Health Research, and the Universities of Melbourne and Sydney.
Dr Patrick Goodbourn is a cognitive neuroscientist and geneticist. His research aims to understand how genes affect the structure and function of the brain, and how this in turn affects behaviour. His primary interest is in normal and disordered perceptual and psychomotor processes. Dr Goodbourn and the members of his Genes, Brain and Behaviour laboratory investigate the genetic basis of inter-individual variation in human visual and motor processing, incorporating both behavioural and electrophysiological assessments. He is also using CRISPR-Cas9 gene editing in zebrafish to characterise the behavioural, physiological, and anatomical consequences of human genetic associates of visual variation, particularly those also implicated in psychological disorder.

Dr Isabel Krug co-leads the Physical Appearance Research Team (PART) alongside Dr Scott Griffiths.

Her main research focus is eating disorders, body image and eating pathology. Isabel’s research focuses on a range of genetic, environmental, and psychological risk factors for eating pathology. Isabel is also interested in the effectiveness of new treatment modalities for individuals with eating pathology, including mindfulness, oxytocin, TMS, virtual reality and telemedicine. More recently Isabel and her team are using Ecological Momentary Assessment (EMA) to assess risk factors for eating pathology, including the effects of social media, fitbits and fasting during Ramadan on body image and eating behaviours.
Dr Groot directs the Melbourne School of Psychological Sciences’ Mental Illness Stigma Lab. He and his lab members conduct research focusing on the determinants and lived experience of stigma about severe and complex mental illness in particular. He also has a background in large scale mental health service delivery and has governed the clinical and research aspects of national services including the Suicide Call Back Service, SuicideLine Victoria, ATAPS All Hours Suicide Support Service, Beyond Blue Infoline, MensLine Australia, the Australian Defence Force All-Hours Triage Service, Vietnam Veterans After-Hours Counselling Service, and more.

Dr Groot is currently working on a range of projects, including the National Stigma Report Card (in collaboration with SANE Australia and its Anne Deveson Research Centre), The Hearing Voices Project: a teaching, learning, and research initiative aiming to embed the voice of lived experience of mental illness in the undergraduate psychology curriculum at The University of Melbourne. The Stigma about Symptoms Project: a program of research mapping stigmatised cognitive, emotional, and behavioural responses to symptoms of psychosis. The Does ‘Schizophrenia’ Matter program of research examines the utility of diagnostic label change in reducing public stigma about schizophrenia. Media Reporting and Stigma About Schizophrenia: a program of research investigating the role of media reporting as a determinant of public stigma about schizophrenia. And the Working with Challenging Crisis Presentations project.
ASSOCIATE PROFESSOR
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Associate Professor Christina Bryant is the Convenor for the Clinical Psychology program at Melbourne School of Psychological Sciences. Christina is an experienced clinician and educator, and has worked with the Royal Melbourne Hospital and the Royal Women’s Hospital at the Centre for Women’s Mental Health. Her laboratory, Melbourne Psychology and Ageing (MPA), is a new collaboration between psychologists in Melbourne School of Psychological Sciences and in the Academic Unit for the Psychiatry of Old Age (AUPOA). Her research interests include aging, mental health for older adults and health psychology. The principal theme of her research is the promotion of health and well-being in later life. Her publications have focused on topics such as attitudes to aging, mental health during the menopausal transition, the impact of a variety of physical disorders on mental health, and heart rate variability alterations in late life depression.

PROFESSOR LISA PHILLIPS
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Professor Lisa Phillips is the Director of Professional Programs at the Melbourne School of Psychological Sciences.

Her research interests include treatment of youth mental health and psychosis, specifically the development of interventions for young people who are at ‘ultra’ high risk of the development of a psychotic disorder. She has also conducted research into topics as diverse as stigma, university student mental health and well-being, meaning of life and more.
PROFESSOR MICHAEL SALING
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Professor Michael Saling is the Chair of Professional Programs and Convenor of Clinical Neuropsychology at the University of Melbourne. He is also the Director of Neuropsychology at Austin Health.

Professor Saling has authored over 180 papers, most notably research on neuropsychological and neuroimaging investigations of the breakdown of human memory systems in temporal lobe epilepsy and early detection of AD dementia. His research interests also include cerebrovascular neuropsychology, clinical neuropsychology (language and memory), diagnostic models in clinical neuropsychology, focal epilepsy, history and systematics of clinical neuropsychology, and neurocognitive function in brain disease (temporal lobe epilepsy, dementia, stroke, functional neuroimaging, language, and memory).

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Dr Kiropoulos is a Senior Clinical Psychologist and the Director of the University of Melbourne Psychology Clinic.

She and her lab members are interested in mood and anxiety disorders. Dr Kiropoulos and her lab members investigate the biological, psychological, social and cognitive mechanisms and processes involved in the development of affective and anxiety disorders. The research involves the investigation of these processes in both healthy adults and a range of clinical and medically ill groups. This knowledge is applied to develop and evaluate novel and innovative psychological interventions for mood and anxiety disorders and related issues in randomised controlled trials (including targeting various populations such as the medically ill, different cultural groups).