

SPEAKER PROFILES AND PRESENTATION ABSTRACTS

JUSTIN SINCLAIR CHAIR

Research Fellow

NICM Health Research Institute, Western Sydney University



Justin Sinclair is a Research Fellow who has been researching and studying cannabis in Australia and the United States for the last 15 years. Key areas of his medicinal cannabis experience and interest span several scientific disciplines, including cultivation, botany, genetics, ethnopharmacology, therapeutic applications and phytochemistry.

Mr Sinclair leads the medicinal cannabis research stream at NICM Health Research Institute. He also heads up the Scientific Advisory Board for United in Compassion, Australia's leading medicinal cannabis advocacy group, which was instrumental in lobbying for government legislation around medicinal cannabis. Mr Sinclair is also a board member of the Australian Medicinal Cannabis Association.

He is an associate member of both the Society of Cannabis Clinicians in the United States and the International Cannabinoid Research Society, and has been heavily involved in educating medical professionals, scientists and politicians about cannabis based therapeutics and the endocannabinoid system since 2015.

DR JANET SCHLOSS

Clinical Research Fellow, NCNM, Southern Cross University; and Adjunct Fellow ARCCIM, University Technology Sydney



Dr Schloss has been in private practice as a naturopath and nutritionist for over 20 years and has completed her doctorate at the School of Medicine in the University of Queensland. She has also lectured at the Endeavour College for over 14 years and was the Clinical Trials Manager with the Office of Research at Endeavour College of Natural Health for over six years. Dr Schloss is now working at the National Centre for Naturopathic Medicine (NCNM) at Southern Cross University as the Clinical Research Fellow conducting clinical trials. She has over 40 publications and has a particular interest in research on complementary medicines to assist side effects from chemotherapy and radiation. Dr Schloss has spoken extensively throughout Australia and overseas and has a strong passion for her profession.

A Phase 2 double-blind, randomised clinical trial assessing the tolerability of two different ratios of cannabis in patients with glioblastoma multiforme (GBM)

The results of our randomised double-blinded clinical trial assessing the tolerability of two preparations of cannabis in 88 people with rGBM will be presented. The two preparations used different CBD to THC ratios; 1:1 (5.8mg/ml:5.6mg/ml) and 1:4 (3.8mg/ml:15mg/ml). Outcomes included disease response by FACT-Br, MRI imaging 12 weekly, blood pathology, NCI-CTC and clinical monitoring. Symptom assessments were performed 4 weekly for 12 weeks. A single nightly dose of THC-containing cannabis was well tolerated in patients in both groups with rGBM.

PROFESSOR JENNIFER MARTIN

Chair of Clinical Pharmacology and Head of Medicine, School of Medicine and Public Health, The University of Newcastle; and Director, Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE)



Professor Jennifer Martin (FRACP, PhD) is a dual-accredited clinical pharmacologist and physician. She is Chair of Clinical Pharmacology at the University of Newcastle and a general physician for Hunter New England Local Health District. Professor Martin is the Director of the NHMRC Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE), and the UON Centre for Drug Repurposing and Medicines Research. Her research spans all of the pharmacology disciplines from basic to translational, including clinical pharmacology, personalised medicine, pharmaceutical regulation, targeted therapies and therapeutic drug monitoring

Update on ACRE research activities and projects

Funded in 2017 by the National Health and Medical Research Council (NHMRC) through the Centres for Research Excellence scheme, the Australia Centre for Cannabinoid Clinical and Research Excellence (ACRE) is Australia's first federally-funded research centre in medicinal cannabinoids. ACRE is pursuing a national program of research and translation that ensures quality and safety in the implementation of medicinal cannabis use in the community. This includes generating world-class research in medicinal cannabis, particularly where specific gaps in the clinical evidence around the therapeutic use of medicinal cannabinoids in clinical settings has been identified. Now at the mid-point of the Centre's funding, Professor Martin will provide an update on current ACRE research and capacity building activities, including the NSW CARE Trial for Advanced Cancer, Prescribing Guidance, and various ACRE capacity building, clinical research and collaborative initiatives.

PROFESSOR IAN MCGREGOR

**Academic Director and Director of
Preclinical Research, The Lambert Initiative
for Cannabinoid Therapeutics, Brain and
Mind Centre, The University of Sydney**



Iain McGregor is Professor of Psychopharmacology and Academic Director of the Lambert Initiative for Cannabinoid Therapeutics in the Brain and Mind Centre at the University of Sydney, Australia. The Lambert Initiative aims to fast track research into the therapeutic benefits of cannabinoids in various disease states including epilepsy, pain, cancer, addictions and mental health conditions. The Lambert Initiative is also engaged at a social and political level to improve community and professional education around medicinal cannabis and to bring about evidence-based regulatory change and improved patient access.

Clinical research update from the Lambert Initiative 2020

Professor McGregor will provide an overview of the recently completed clinical trial and survey research from the Lambert Initiative including the CAPS trial of youth anxiety, our on-road driving study with vaporised cannabis, and our CAMS18-19 and IBD patient and clinician surveys. He will also provide an overview of their exciting range of new clinical activities including new clinical trials of CBD in youth psychosis, exercise performance, driving and alleviation of pain in patients with spinal cord injuries.

ASSOCIATE PROFESSOR JONATHON ARNOLD

Deputy Academic Director of Preclinical Research, The Lambert Initiative for Cannabinoid Therapeutics, Brain and Mind Centre, The University of Sydney



Associate Professor Arnold is the Deputy Academic Director of the Lambert Initiative, a research centre that specialises in the discovery and development of cannabis-based medicines. In 2018 he was one of four scientists selected to advise the World Health Organization on their historical review of cannabis. He has been a Chief Investigator on four NHMRC grants involving cannabinoid research. Since 2016 his team has used the *Scn1a*^{+/-} mouse model of childhood epilepsy to discover several phytocannabinoids with novel anticonvulsant properties. Professor Arnold's recent work on CBD received the Epilepsia Basic Science Prize honouring the most significant advance in knowledge in the field of epilepsy in 2020.

Preclinical development of cannabis-derived therapies for Dravet Syndrome

Associate Professor Arnold will provide an overview of the preclinical research being undertaken at the Lambert Initiative. Their research team have recently published an award-winning paper which sheds new light on the mechanism of action of CBD in treating childhood epilepsy. The preclinical program has discovered several phytocannabinoids with novel anticonvulsant properties and deciphered their modes of action at pharmacological targets. Their research team have also recently been examining cannabinoid synergy by testing full-spectrum cannabis extracts in our mouse epilepsy models that has yielded some intriguing results.

PROFESSOR TIM KARL

**Professor of Behavioural Neuroscience,
School of Medicine, Western Sydney
University**



After completion of his PhD in Germany in 2003, Tim Karl moved to Australia and led research teams at the Garvan Institute (2004-2008) and Neuroscience Research Australia (2008-2016). He is now Professor for Behavioural Neuroscience at the School of Medicine, Western Sydney University. His preclinical research focuses on the neuro-behavioural consequences of gene-environment interactions and the discovery of new therapeutic targets for brain disorders including schizophrenia and dementia, thereby also considering cannabis and its constituents. Professor Karl has published over 100 research articles, invited reviews and book chapters and is currently funded by the National Health and Medical Research Council, the ARC, and the Ainsworth Medical Research Innovation Fund.

The therapeutic potential of cannabidiol (CBD) in transgenic mouse models for Alzheimer's disease

Alzheimer's disease (AD) is neurodegenerative cognitive disorder with an inflammatory component. More classically, AD is described by extracellular amyloid deposition and tau hyperphosphorylation and transgenic mouse models are available for both hallmarks. The endocannabinoid system (eCB) plays a role in immunity, neuroprotection (i.e. anti-inflammatory effects) and can affect cognitive domains. Professor Karl will present recent mouse research suggesting that cannabidiol (CBD) has beneficial effects on the pathophysiology of AD and disease-relevant cognitive impairments.

PROFESSOR JEROME SARRIS

**Professor of Integrative Mental Health,
NICM Health Research Institute, Western
Sydney University**



Jerome Sarris is an NHMRC Clinical Research Fellow and Professor of Integrative Mental Health at NICM Health Research Institute at Westmead, Western Sydney University. He also holds an honorary Principal Research Fellow appointment at Melbourne University, Department of Psychiatry. He has a particular interest in mood and anxiety disorder research pertaining to lifestyle medicine and nutraceutical psychopharmacology, and psychotropic plant medicine research (in particular on Kava, medicinal cannabis, and psychedelics). Professor Sarris has over 180 academic publications, including journal articles featured in *The American Journal of Psychiatry*, *Lancet Psychiatry*, *JAMA Psychiatry*, and *World Psychiatry*). He has conducted many RCTs in the field, including three recent multicentre NHMRC Project Grants as CIA. Professor Sarris was a founding Vice Chair of The International Network of Integrative Mental Health and is an Executive Committee Member of the International Society for Nutritional Psychiatric Research. He currently leads the LIFEMend Neuropsychiatry Clinical Trials Network, in addition to chairing the World Federation of Societies of Biological Psychiatry: Integrative- Nutraceuticals/Phytochemicals Clinical Guidelines Taskforce.

Medicinal cannabis for mental health applications

Medicinal cannabis has been reported to have potential efficacy in a range of conditions, including for reducing pain, muscle spasticity, nausea, and intractable childhood epilepsy. Yet its potential application in the field of psychiatry is lesser known. To this end, the current evidence and clinical application regarding whole plant formulations and plant-derived cannabinoid isolates in mood, anxiety, sleep, psychotic disorders and attention deficit/hyperactivity disorder (ADHD) is discussed

DR MIKE ARMOUR

Senior Research Fellow, NICM Health
Research Institute, Western Sydney
University



Dr Mike Armour is a senior research fellow at NICM Health Research Institute at Western Sydney University. His research focuses primarily on clinical trials of non-pharmacological interventions for endometriosis and period pain, including acupuncture, herbal medicine and exercise. Dr Armour has been one of the lead investigators on four randomised controlled trials in the area of endometriosis or period pain and has published over 37 academic articles and book chapters on women's health. He is a member of the clinical advisory board for endometriosis Australia, the endometriosis special interest group for endometriosis New Zealand, the advisory panel on endometriosis for The China-Australia International Research Centre for Chinese Medicine and a member of the Endometriosis Expert Working Group (EEWG) for the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG).

Illicit cannabis usage as a management strategy in New Zealand women with Endometriosis

Endometriosis affects around 10 percent of women worldwide. Many women with endometriosis struggle with finding adequate pain management and data from other countries suggest that women use cannabis, either legal or illicit to help manage their endometriosis symptoms. Dr Armour's presentation will discuss the findings of a cross-sectional online survey of women in New Zealand with endometriosis using cannabis for health-related conditions that was run between May and July 2019.

PROFESSOR DENNIS CHANG CLOSING REMARKS

Acting Director NICM Health Research
Institute, Western Sydney University



Dennis Chang is a Professor of Pharmacology and the Acting Director of NICM Health Research Institute. His research interests include clinical and pharmacological studies of herbal medicine and other complementary medicine interventions.

Professor Chang has led a number of significant clinical trials to evaluate the effect of herbal, yoga and tai chi for the treatment of dementia, mild cognitive impairment, coronary heart disease, metabolic syndrome and type 2 diabetes.

He has also led multiple laboratory-based pharmacological studies to evaluate pharmacokinetic/bioavailability profiles and mechanisms of action underlying the neuro and cardiac-protective effects of these medicines using a range of in vitro and in vivo models.

Professor Chang's research has been published in a broad range of high-quality peer-reviewed journals such as Cochrane Systematic Review, Journal of Translational Medicine, Clinical Pharmacology and Therapeutics, and British Journal of Pharmacology. His research has attracted significant research funding support from various external funding agencies, governments and industry totalling over \$6 million

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