



8 January 2019

Hon Alison Xamon
Chair
Select Committee into Alternate Approaches to Reducing Illicit Drug Use and its Effects on the Community
Legislative Council Committee Office
Parliament House
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Via email: ridu@parliament.wa.gov.au

Dear Chair

Inquiry into Alternate Approaches to Reducing Illicit Drug Use and its Effects on the Community

Thank you for inviting the National Health and Medical Research Council (NHMRC) to provide a submission to the *Inquiry into Alternate Approaches to Reducing Illicit Drug Use and its Effects on the Community*.

NHMRC is Australia's peak body for supporting health and medical research, and for developing health advice for the Australian community, health professionals and governments. Our remit is quite broad and one that does not solely focus on issues as described in the terms of reference of this inquiry, but I provide the following relevant information given our statutory responsibilities.

NHMRC distributes grants through a range of schemes that aim to create knowledge, build capacity, accelerate translation of research findings into policy and practice, and foster international research partnerships. Grants are provided in the broad research areas of basic science, clinical medicine and science, health services and public health.

From 2010 to 2017 NHMRC committed over \$52 million for grants relating to the prevention and the reduction in harm from illicit drug use including amphetamines, cannabis, cocaine, GBH and heroin. This also includes grants which aim to increase the understanding of the use of illicit drugs to inform treatment. A summary of these grants is provided at **Attachment A**.

NHMRC also has a legislated role to provide high quality evidence based health advice. In 2011, we released two relevant but now outdated publications. The *Naltrexone implants treatment for opioid dependence – literature review* included studies relating to the effectiveness of naltrexone implants for the treatment of opioid dependence. Whilst NHMRC does not play a role in the regulation of the clinical use of naltrexone, the review determined at time of publication that the implants remained an experimental product that was only for use in a research setting.

The second publication was the *2011 Consensus-based clinical practice guideline for the management of volatile substance use in Australia*. This provided guidance on treating those who inhale vaporous substances for the purposes of becoming intoxicated, for use by health professionals including Aboriginal Health Workers.

I trust this information is of assistance to your inquiry into reducing illicit drug use and the effects on the community.

Yours sincerely

Professor Anne Kelso AO FAA FAHMS
Chief Executive Officer

Annual commitments for preventing the use of illicit drugs by Broad Research Area from 2010 to 2017

| Broad Research Area | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|---|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| Basic Science | \$655,489 | \$408,689 | \$821,048 | | \$816,366 | \$788,823 | \$1,369,154 | \$1,643,828 | \$6,503,397 |
| Clinical Medicine and Science | \$1,619,789 | | | \$858,486 | \$788,133 | \$1,344,597 | \$972,310 | \$3,256,337 | \$8,839,653 |
| Health Services Research | | \$320,581 | \$2,557,002 | \$174,108 | \$320,891 | | \$180,254 | | \$3,552,836 |
| Public Health | \$1,728,806 | | \$2,085,348 | \$335,652 | \$1,943,898 | \$3,714,318 | \$5,673,214 | \$17,758,050 | \$33,239,286 |
| Total commitments for reducing illicit drugs | \$4,004,084 | \$729,269 | \$5,463,398 | \$1,368,247 | \$3,869,289 | \$5,847,737 | \$8,194,933 | \$22,658,215 | \$52,135,173 |

Criteria: grants related to *amphetamine, cannabis, cocaine, GHB and heroin* with the keywords *prevent/ed/ing, reduce/ed/ing, decrease/ed/ing, minimise/ed/ing, intervent/ion and cessation*

Grant funding 2010-2017 re reducing illicit drugs use
 Criteria: grants related to amphetamine, cannabis, cocaine, GHB and heroin with the keywords prevent/ed/ing, reduce/ed/ing, decrease/ed/ing, minimise/ed/ing, intervent/ion and cessation

| Application Year | CIA Name | Title | Administering Institution | Media Summary | Grant Budget |
|------------------|-------------------------|--|-------------------------------|---|--------------|
| 2010 | Prof Jacob George | Endocannabinoids in chronic hepatitis C | University of Sydney | Hormones related to cannabis help to regulate fat stores in the human body. CB1 antagonists are a new class of drugs that block these hormones and are being tested for the treatment of obesity and fatty liver. We discovered that Hepatitis C makes the liver more sensitive to these hormones, helping the hepatitis C virus to replicate. This project will determine the mechanisms by which CB1 antagonists prevent hepatitis C virus replication and their potential as a novel therapy for this disease. | \$563,002.11 |
| 2010 | Prof Paul Dietze | Reducing the burden of alcohol and other drug use in Australia | Burnet Institute | Innovative research undertaken during the Fellowship program will provide new evidence of how best to respond to alcohol and other drug use. Partnerships with policymakers will ensure this evidence underpins Australian alcohol and other drug policy. | \$250,805.41 |
| 2010 | Prof Stuart Kinner | Monitoring and improving the health of ex-prisoners | University of Melbourne | More than 50,000 people are released from prison in Australia each year. Ex-prisoners experience high rates of chronic disease, social disadvantage, mental illness, drug dependence and premature death, yet we know almost nothing about how to improve their health outcomes. This program of research will identify key health issues for ex-prisoners and generate evidence-based responses, simultaneously improving health and reducing reoffending among this highly marginalised group. | \$398,275.22 |
| 2010 | Prof Louisa Degenhardt | The impact of treatment for heroin dependence upon mortality and recidivism among prisoners | University of New South Wales | This study will quantify the impact of opioid substitution therapy (OST; methadone or buprenorphine) on two important outcomes for opioid dependent prisoners: mortality, particularly in the post-release period; and subsequent criminal activity. The study will have almost 600,000 person-years of follow-up over 22 years, allowing fine grained analyses of disadvantaged subpopulations. The study has clear implications for the health of this population, crime reductions, and cost savings. | \$209,878.53 |
| 2010 | Prof Jan Copeland | Sativex in the management of cannabis withdrawal | University of New South Wales | Cannabis is the most commonly used illicit drug in Australia with an estimated 300,000 individuals with cannabis use disorder in Australia. Treatment presentations for cannabis have more than doubled over the last 10 years, yet there is still no medication to help with withdrawal. This proposal will test pure active ingredients in cannabis in a preparation sprayed in the mouth, to wean individuals from cannabis. This will assist them to complete cannabis withdrawal. | \$245,626.09 |
| 2010 | Prof Daniel Lubman | The role of anhedonia in opiate addiction | Monash University | There is growing evidence that changes occur within the addicted brain reducing a drug user's ability to experience everyday pleasures. In this study, we will examine how a drug user's ability to experience pleasure relates to relapse and recovery. We will conduct a series of tests on a large sample of recently abstinent heroin-addicts and follow them for 12 months. This project will provide unique insights that will be of direct relevance to clinical treatment. | \$541,022.44 |
| 2010 | Prof Nadia Solowij | Cannabis use and vulnerability to schizophrenia | University of Wollongong | Understanding the conditions that confer vulnerability to the triggering of schizophrenia by cannabis use is key to preventing transition to psychosis in up to 14% of cases. This project will examine the long- and short-term effects of different cannabis compounds on specific vulnerability markers of brain chemical abnormalities in cannabis users from the general community. | \$515,764.65 |
| 2010 | Prof Richard Mattick | Cannabis use and life-course outcomes: Integrative analyses of cohort data | University of New South Wales | The current study will be the first of its kind to use integrative data analyses – a highly innovative approach – to pool data from four large and long-running Australasian cohort studies to better understand the link between cannabis use and later-life outcomes. Dramatically improved knowledge of these relationships will create a clearer picture of the interventions required to reduce the harms associated with cannabis use. | \$292,097.30 |
| 2010 | Prof MacDonald Christie | Development of opioid analgesics that reduce or reverse morphine tolerance | University of Sydney | Strong pain relieving opioid drugs like morphine lose their effectiveness when used for long periods because the single protein target for them in the body loses its' normal signalling functions. This research will determine the mechanisms responsible for this loss of function in brain nerve cells using novel methods to identify the molecular adaptations involved. This will provide a rational framework for development of pain relieving opioid drugs that can maintain long term efficacy. | \$562,815.75 |
| 2010 | A/Pr Jacqueline Bovie | Improving health in Indigenous adolescents - Training (Postdoctoral) Fellowships for Aboriginal and Torres Strait Islander Health Research | Monash University | This research plan aims to reduce the continuing adverse reproductive health outcomes of Indigenous adolescents who currently have limited engagement with comprehensive and appropriate health education and health care. Current health knowledge, health care sought and identified barriers/enablers will be assessed in adolescents. Findings will inform development of a reproductive health education program that will be piloted and evaluated. | \$332,123.09 |

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| 2010 | Dr Rose Chesworth | Methamphetamine addiction - new therapeutic targets | Florey Institute of Neuroscience and Mental Health | Methamphetamine (METH) is a highly addictive drug for which there are currently no effective drug therapies. This project will examine two receptors, the metabotropic glutamate 5 and adenosine 2A receptors in METH addiction. It is expected that these receptors, or their combination, may decrease the desire to self administer METH or find the drug rewarding. This study will be conducted using rodents, however, the results could identify more effective drug targets for METH addiction in humans. | \$92,673.48 |
| 2011 | A/Pr Pascal Carrive | Reduction of the cardiovascular response of psychological stress through blockade of orexin's action on one of its receptors. | University of New South Wales | Anxiety, fear of challenges, frustration are part of modern life stressors. Our body reacts to these stressors by increasing blood pressure and heart rate, which in turn can harm our cardiovascular system and precipitate cardiovascular accidents. In this project we test a new class of drugs that act on a neurochemical system implicated in these particular responses. If our hypothesis is correct, one of these drugs could be used to relax the cardiovascular system and protect it in times of stress. | \$408,688.50 |
| 2011 | Dr Sarah Larney | Treating heroin users released from prison | University of New South Wales | People who use heroin commonly spend time in prison. Contact with treatment services after release from prison is important for reducing the risk that released heroin users will return to regular drug use. However, we know that few heroin users enter or are retained in treatment after release from prison. This project aims to examine how opioid pharmacotherapy in prison affects the probability that someone will enter, and stay in, treatment after they are released from prison. | \$320,580.94 |
| 2012 | Prof Harvey Whiteford | Evidence-based Mental Health Planning: Translating Evidence into Policy and Services | University of Queensland | The CRE will design a better mental health system for Australia. This service system will include the full range of prevention and treatment interventions using the best available scientific evidence. It will also describe how to ensure that the service system is implemented, by incorporating it into government policy. The work will be carried out across 5 of the best research centres in Australia with expertise in clinical medicine, epidemiology, service planning and implementation science. | \$2,557,002.14 |
| 2012 | Prof Louisa Degenhardt | Assessing the population health impact of illicit drug use: prevalence, trajectories, and contributions to disease burden | University of New South Wales | This Fellowship comprises three programmes of work: 1. epidemiology of illicit drug use (including the natural history of use: incidence, prevalence, persistence, desistance and relapse), contribution to the burden of disease; 2. risk and resilience in young people: drug use, drug trajectories, and adult outcomes of drug use; 3. The use and misuse of pharmaceutical opioids: drivers, trajectories, and outcomes. This work will inform prevention, early intervention and treatment initiatives. | \$751,854.96 |
| 2012 | Prof Alison Ritter | Modelling the benefits of heroin treatment | University of New South Wales | Heroin use and associated harms can be reduced through effective treatment. Past research has shown that treatment for heroin dependence can be relatively cost-effective, but not whether heroin treatment overall is a good investment. This unique study will estimate the net social benefit of heroin treatment, taking into account health, crime and family consequences. The results will help Australia respond better to this devastating health problem. | \$599,585.38 |
| 2012 | Prof Maree Teesson | Treatment of depression among individuals with opioid dependence | University of New South Wales | Heroin dependence is a chronic relapsing condition, associated with high levels of psychopathology. On entry to treatment at least one quarter of heroin users meet criteria for Major Depression. The co-occurrence of heroin dependence and depression is associated with a range of harms and has been linked to poorer treatment outcomes. Despite this, practical and effective treatment options are scarce. The proposed international collaboration will contribute significantly to understanding of the treatment of this comorbidity. | \$733,908.14 |
| 2012 | Prof Gavan McNally | How the brain promotes abstinence from drug seeking | University of New South Wales | Drug addiction is a major health and medical problem in Australia. It is a chronically relapsing condition for which there are few effective treatments. This project identifies novel circuits within the brain which are responsible for inhibiting drug taking. It will provide new knowledge on how we may be able to prevent relapse to drug taking and so promote and maintain long-term abstinence. | \$477,031.79 |
| 2012 | A/Pr Luke Downey | Assessing the health effects of acute use and cumulative use of Ecstasy in illicit drug users | Swinburne University of Technology | Use of Ecstasy is increasing in both Australia and the United Kingdom, and is related to poorer psychological and mental functioning in the long-term, suggesting Ecstasy use negatively impacts human physiology producing deficits in aspects of mental functioning. This project aims to assess the effect of weekend use and lifetime use of ecstasy upon measures of physiology and psychology. Findings from these studies may contribute to strategies to reduce the harm associated with Ecstasy use. | \$344,015.89 |
| 2013 | Dr Monica Barratt | New psychoactive substances and internet technologies | University of New South Wales | New psychoactive drugs that mimic the effects of prohibited drugs are increasingly available in Australia, and there is mounting evidence of their harmful health effects. This research examines the challenges and opportunities of internet technologies for understanding trends in new and emerging drug use and harms. Findings will inform the development of more effective public health responses to reduce morbidity and mortality from new psychoactive drugs and other illicit drug use. | \$335,652.18 |
| 2013 | Prof Nicholas Lintzeris | Randomised control trial of exercise for the management of cannabis withdrawal in adult humans | University of Sydney | This project will evaluate a novel approach to cannabis detoxification. It is hypothesized that undertaking an exercise intervention will reduce cannabis withdrawal symptoms by stimulating the release of cannabis-like compounds produced by the body and/or through promoting the release of THC (the main psychoactive component of cannabis) from fat stores. The potential public health, research and clinical implications are considerable, particularly given the high accessibility of the intervention. | \$542,036.82 |

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| 2013 | Dr Rowan O'Neil | Improving sleep outcomes in addicted populations to promote recovery | Monash University | Sleep problems are one of the most common side-effects of people going through drug withdrawal and may play a role in predicting future relapse. This project will comprehensively examine the components of sleep that are disturbed in drug-using populations, identify biological markers that impact upon functional outcomes related to sleep behaviour, and pilot an intervention targeting improved sleep outcomes that could be incorporated into routine clinical practice. | \$316,449.66 |
| 2013 | Dr Juanita Westbury | Reducing the use of sedative medication in aged care facilities | University of Tasmania | Sedative medications are often used in aged care facilities (ACFs), despite limited benefit and significant harm, including increased risk of falls, stroke and death. The RedUse program, through a multi-strategic, interdisciplinary approach, has been shown to successfully promote the quality use of sedative medications in residential aged care. This project will widely implement RedUse. A decline in sedative use will produce multiple benefits for older people, including increased mobility, decreased fall and mortality rates. | \$174,107.95 |
| 2014 | Prof Gavin McNally | A memory retrieval - extinction procedure to prevent relapse to drug seeking | University of New South Wales | This project shows how relapse to drug seeking can be modulated, and possibly prevented, by novel approaches that manipulate the stability of drug related memories. | \$387,929.31 |
| 2014 | Prof Maree Teesson | Innovative responses to prevention and treatment of mental disorders and substance use. | University of New South Wales | My vision is to build the world's leading dedicated translational research program for the prevention and treatment of comorbid mental health and substance abuse. While it is widely recognised that there is significant comorbidity in these two areas they have traditionally been approached in isolation, making it virtually impossible to make significant inroads. I seek to increase our understanding, prevent these where possible and improve treatment responses. | \$772,490.34 |
| 2014 | A/Pr Jee Hyun Kim | Extinguishing fearful and addictive brain during adolescence | University of Melbourne | Exposure therapies rely on the decrease in emotions to previous triggers due to the exposure to those triggers without an emotional event in a safe environment. Adolescence marks a period of maturation that is particularly resistant to such therapies, due to the imbalance of different receptors in their prefrontal cortex. We will redress such chemical imbalance by using existing clinically-approved drugs, and facilitate behavioural therapies to treat adolescent anxiety and substance abuse. | \$428,437.01 |
| 2014 | A/Pr Philip Batterham | Improving online mental health programs: Tailored assessment meets tailored therapy | Australian National University | The proposed research will develop a personalised mental health program designed to address multiple mental health problems: major depression, anxiety disorders and substance use disorders, and suicidality. The program will increase efficiency and user engagement by tailoring content based on individual needs, context and preferences. Ongoing monitoring using new methods of assessment will allow a responsive and flexible approach to care. | \$478,065.07 |
| 2014 | Prof Nicholas Lintzeris | An RCT of cannabinoid replacement therapy (Sativex®) for the management of treatment-resistant cannabis dependent patients | University of Sydney | This project is the first-ever outpatient RCT to test if the pharmaceutical cannabinoid Sativex can safely and cost-effectively deliver better treatment outcomes for patients seeking treatment for chronic cannabis dependence. Sativex is a mouth spray with equal parts THC and cannabidiol, and appears to have a safer pharmacological profile than illicit cannabis or synthetic THC alone. Thus Sativex may lead to lower rates of psychiatric adverse events and increased cannabis abstinence rates. | \$788,133.38 |
| 2014 | Dr Jason Ferris | Methamphetamine clandestine laboratories: An analysis of the geo-spatial dynamics between ecological factors, pharmacists, pseudo-runners and related health harms. | University of Queensland | Methamphetamine (MA) manufacture in clandestine laboratories (clan labs) presents serious health and environmental risks beyond the impact on MA users. My fellowship seeks to better understand the interplay between the geography and population features of clan lab locations, the role of pharmacists and pseudo-runners in MA manufacture and MA-related harm. This evidence provides critical information for policy and program development aimed at reducing the MA manufacture and MA-related harm. | \$320,891.36 |
| 2014 | Dr Natasa Glsev | Determining the impact of pharmaceutical opioid use in Australia: a focus on burden, risks and harms | University of New South Wales | Despite a dramatic increase in opioid use in Australia and increasing concern about this issue, there are few detailed and robust data on the magnitude of opioid use in the community, and the characteristics of those at risk of adverse outcomes. This program of work will produce unique population-level evidence about the burden, risks and health consequences of opioid use in Australia, to better inform future policies and interventions regarding opioid prescribing to improve clinical outcomes. | \$320,891.36 |
| 2014 | Dr Danielle Horyniak | The epidemiology of substance use among forced migrant populations | Burnet Institute | People who are forcibly displaced from their homes due to conflict, disaster or state-sanctioned deportation are vulnerable to substance use. My fellowship focuses on deportees on the US-Mexico border and refugees in Australia. I will address key knowledge and evidence gaps regarding the complex relationships between forced migration and substance use, informing the development of targeted public health responses to reduce the prevalence and consequences of substance use among these populations | \$372,451.57 |
| 2015 | A/Pr James Ward | Novel interventions to address methamphetamines in Aboriginal communities, including a randomised trial of a web based therapeutic tool used to treat dependence in clinical settings. | South Australian Health and Medical Research Ins | Methamphetamine use in Aboriginal communities has gained much media attention, despite limited research studies to ascertain the full extent of its use and its impact. We propose a randomised trial of a web based therapeutic tool for use in Aboriginal Medical Services to treat clients using methamphetamines. In addition we will characterise the health and well-being of Aboriginal people who use methamphetamines and trial unique Aboriginal community led interventions to address methamphetamines. | \$2,252,100.04 |

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| 2015 | Dr Robyn Brown | A novel approach for the treatment of obesity; examining the potential of addiction therapeutics | University of Melbourne | Difficulty in managing food intake, especially highly palatable food, can result in obesity and the health liabilities associated with being overweight. In its extreme, the difficulty reducing food intake resembles an addictive disorder. We have compelling preliminary data which show deficits in the brain associated with addiction are also found in diet-induced obesity. Therefore strategies used to treat addiction can potentially be used to treat obesity. | \$788,822.92 |
| 2015 | Prof Tony Butler | Aboriginal and non-Aboriginal women perpetrators of violence: a trial of a prison-based intervention (Beyond Violence) | University of New South Wales | The proposed study will be the first of its kind in Australia to test a violence prevention program (Beyond Violence) targeting mental health, substance use and violence among incarcerated female offenders with a history of violence. This research responds to the rapidly escalating imprisonment rates among Aboriginal and non-Aboriginal women (particularly for violent offences), and focuses intervention efforts on improving well-being and decreasing reoffending among this vulnerable group. | \$1,462,217.50 |
| 2015 | A/Pr Nadine Ezard | Randomised double-blind placebo-controlled study of lisdexamfetamine for the treatment of methamphetamine dependence | University of New South Wales | Addiction to methamphetamines ('ice') is a growing community problem linked to serious disease and death. Current counselling approaches have limited success on their own, and more effective treatments linked to medications are needed. Lisdexamfetamine is a newly licenced stimulant medication with great promise in treating these patients. This trial will examine whether lisdexamfetamine (with counselling) safely reduces methamphetamine use and improves health and wellbeing among heavy users. | \$1,344,596.85 |
| 2016 | Prof Murat Yucel | Enhancing and integrating addiction neuroscience knowledge with clinical practice, by transforming the approach to assessment and classification protocols, and improving outcomes by using neurocognitive phenotypes for tailored treatments | Monash University | Brain research has reshaped the way we understand addiction, but has not yet led to more effective treatments. This Fellowship will facilitate the creation of a neuroscience- and technology-inspired research clinic that will conduct world-leading research into the fundamental underpinnings of how lifestyle and psychological interventions affect brain and mental health, as well as translate this knowledge into effective, safe and accessible treatments tailored to those affected by addiction. | \$858,213.69 |
| 2016 | Prof Leanne Hides | Early interventions for Primary and Comorbid Substance Use in Young People: Engagement, Innovation | University of Queensland | Many young people with substance use problems do not seek, receive or respond to treatment. Innovative approaches to treatment are required. Leanne Hides leads a dynamic team of clinical researchers developing cutting-edge treatments to enhance young people's wellbeing and resilience, and reduce risk factors for substance use. This positive approach will encourage help seeking, reduce substance use and improve the mental health and wellbeing of young substance users. | \$722,379.56 |
| 2016 | Dr Gabrielle Campbell | The extent and impact of pharmaceutical opioids for chronic non-cancer pain | University of New South Wales | There have been dramatic increases in the use of pharmaceutical opioids (PO) for chronic non-cancer pain (CNCP), despite limited data on their long-term effectiveness and an increase in associated harm. This Fellowship provides critical new data to inform both clinicians and policymakers on the global extent of PO for CNCP, trajectories of problematic use and associated morbidity and a unique evaluation of the impact of real-time prescription monitoring program to reduce these harms. | \$326,343.82 |
| 2016 | Prof George Patton | The Pubertal Onset of Mental Disorders and Early Substance Abuse | Murdoch Childrens Research Institute | Mental disorders and early substance abuse are the most important health problems affecting adolescents and young adults in Australia, yet we have no preventive interventions for mental disorders with strong and sustained effects. Around one half of all mental disorders begin at puberty. This proposal outlines plans for the first study to comprehensively study the onset of mental disorder at this time. It will lay a foundation for the next generation of prevention studies. | \$1,146,241.18 |
| 2016 | Dr Monica Barratt | Drugs on the darknet: Assessing the global health risks of a rapidly expanding market | University of New South Wales | Cryptomarkets facilitate the trade of illicit drugs in online environments using anonymising networks and virtual currencies. This project will identify and characterise the net health outcomes of drug cryptomarkets, using anonymous self-report data, archival monitoring and forensic profiling. Without this kind of research, health services and policy makers will be ill-equipped to respond effectively to the expansion of drug cryptomarkets. | \$408,336.34 |
| 2016 | Dr Adrian Carter | Translating neuroscience into treatments and public health policies for addictive behaviours | Monash University | Advances from neuroscience promise to revolutionise our ability to treat and prevent addictive disorders such as gambling, overeating and drug addiction. These developments may also have unexpected clinical consequences, undermine individuals' belief in their control over their behaviour or increase stigma and discrimination. This project will develop clinical guidelines and public health policy recommendations to ensure that we realise the benefits of neuroscience while minimising social harms. | \$436,027.01 |
| 2016 | Prof Carla Treloar | Crystal methamphetamine use, sex and risk practice among gay and bisexual men | University of New South Wales | The use of the drug "crystal" (also known as "ice") during sex has become far more common among gay and bisexual men (GBM) in Australia in recent years. Diseases such as HIV and hepatitis C are easily transmitted between GBM who inject crystal during sex. This innovative study will interview GBM who combine crystal use with sex, and health promotion professionals, in order to develop effective ways of reducing harms and preventing the transmission of diseases in sexual contexts. | \$611,317.00 |
| 2016 | A/Pr Nicola Newton | Pathways to prevention: The effectiveness of universal and selective prevention in altering developmental pathways to alcohol and cannabis related harms in young adults | University of New South Wales | This project will assess the potential long-term benefits for young Australians of two school-based drug prevention programs (Climate Schools and Prevention) compared to drug education as usual. This world-first study will inform national and international policy by evaluating whether prevention programs delivered in Year 8 are effective in reducing alcohol and cannabis related harms, including risk of aggression and violence, over the high risk period during young adulthood (ages 18-20). | \$476,781.64 |

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| 2015 | A/Pr Christopher Dayas | Hypothalamic Control Of Motivated Behavior | University of Newcastle | Motivational drive and reward are survival processes that underpin the maintenance of homeostasis. In humans, dysregulation of these brain circuits manifests in disorders such as depression and addictions. Our projects is focused on a key subgroup of neurons in the hypothalamus that modulates reward and motivation. We aim to understand how potent reward experience (e.g. drugs) or stress modifies these circuits and to identify potential entry points for therapeutic interventions | \$510,940.63 |
| 2016 | A/Pr James Ward | Interventions to improve outcomes for young Aboriginal and Torres Strait Islander people in sexually transmissible infections blood borne viruses and for people using methamphetamines | South Australian Health and Medical Research Ins | This ECF will enable research to be carried out in the domains of sexually transmissible infections (STI) and blood borne viruses (BBV) and specifically methamphetamine (MA) use in Aboriginal communities nationally. Specific research outcomes will be the establishment of an Aboriginal primary health care and behavioural surveillance network for STIs/BBVs in nationally dispersed clinical hubs (CRE), and an improved understanding of interventions to address MA in Aboriginal communities. | \$326,131.75 |
| 2016 | Prof Paul Dietze | Determining patterns of cessation and relapse in a cohort of people who inject drugs | Burnet Institute | Harms related to injecting drug use represent the bulk of the burden attributable to illicit drugs in Australia. In this study we will determine rates of long term cessation of injecting drug use, and relapse, and key drivers of these outcomes such as drug treatment or housing provision. Findings will inform policy and practice around injecting drug use in Australia over the coming decade. | \$1,219,655.85 |
| 2016 | A/Pr Katherine Mills | Randomised controlled trial of an integrated cognitive-behavioural therapy for the treatment of co-occurring post traumatic stress disorder and substance use disorder in adolescents | University of New South Wales | There is an urgent need to address the hidden epidemic of child and adolescent trauma and prevent the associated psychological and physical health problems that can persist into adulthood. This study, conducted across three States in Australia, will address a significant gap by evaluating a world-first treatment for post traumatic stress disorder (PTSD) and substance use among adolescents. By intervening early, the enduring disability and public health expenditure associated with these condition | \$972,310.23 |
| 2016 | A/Pr Suzanne Nielsen | Increasing the capacity of community pharmacy for screening, brief intervention and referral for treatment of pharmaceutical opioid use disorders | Monash University | Pharmaceutical opioid dependence is a growing problem. There are effective treatments available, yet few people who need treatment receive it. Currently, pharmacists receive little training on substance use disorders, yet are in contact with almost every person likely to develop problems with pharmaceutical opioids. This project will take an innovative approach to involve pharmacists in identifying those developing problems with pharmaceutical opioids and referring them to treatment. | \$180,253.88 |
| 2017 | Prof Maree Teesson | Prevention & Early intervention in Mental Illness and Substance use (PREMISE CRE) | University of New South Wales | Substance use and mental disorders are among the leading causes of burden of disease in young people globally. Effective prevention and early intervention can reduce disease burden by halting, interrupting or delaying the onset and development of disorder. The PREMISE CRE will build the science to move the field from crisis, acute care and containment to prevention and early intervention, achieving a critical aim of the Australian Government's program of reform in mental health and addiction. | \$2,530,912.05 |
| 2017 | Prof Jennifer Martin | Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE): Quality and safety in the implementation of medicinal cannabis use in the community | University of Newcastle | Australia has a world-first opportunity to develop rigorous medical cannabis research based on quality clinical and environmental science that tests and selects cannabis constituents affecting health and sickness. It will be able to design and coordinate dose and formulation-finding studies to assess safety and efficacy of different cannabinoids. This information will enable registration of products for health that have been thoroughly researched and tested to levels acceptable for public use. | \$2,532,164.30 |
| 2017 | Prof Amanda Baker | 'Equally Well': Addressing Comorbid Physical, Mental, and Substance Use Disorders with Psychological Interventions | University of Newcastle | Mental ill-health, substance use and chronic physical illness go hand in hand, yet treatment for all three health issues is rarely delivered. Amanda Baker is leading a team trialling psychological interventions for these co-existing health issues suitable for delivery in mental health, substance use and medical settings. Telephone and online interventions are also being developed. Addressing these three co-existing health concerns is expected to improve treatment outcomes and quality of life. | \$724,172.95 |
| 2017 | Prof Louisa Degenhardt | Increasing knowledge about substance use, mental health and harms, and interventions to prevent a | University of New South Wales | This Fellowship comprises three programmes of work: 1. epidemiology of illicit drug use (including the natural history of use: incidence, prevalence, persistence, desistance and relapse), contribution to the burden of disease; 2. Pharmaceutical opioids, the impact of opioid dependence, and treatments to reduce harm; 3. Risk and resilience in young people. This work will inform prevention, early intervention and treatment initiatives. | \$963,269.05 |
| 2017 | Prof Paul Dietze | Reducing the key alcohol and other drug related harms in Australia | Burnet Institute | I am a leading alcohol and other drug researcher with an established national and international reputation for high quality research and translation. Over the next five years I will tackle the three key issues in the alcohol and other drug field: injecting drug use, methamphetamine use and harms and high risk drinking by young people, by developing, implementing and testing new interventions. | \$792,273.20 |
| 2017 | Dr Jenny Gunnensen | Repurposing an Alzheimer's trial drug to block relapse in cocaine addiction models | University of Melbourne | Repeated exposure to drugs of abuse, such as cocaine, alters the reward circuitry of the brain. Enduring changes in the connections between neurons underlie addiction-related behavioural patterns, drug craving and the propensity for relapse after drug withdrawal. The pre-clinical research in this proposal aims to test whether blocking the function of a particular brain protein in mice can prevent relapse in two different paradigms that model cocaine addiction in humans. | \$1,065,309.20 |
| 2017 | Dr Sarah Larney | Increasing global and national knowledge about illicit drug use, harms and effective interventions | University of New South Wales | This Fellowship aims to increase global and national knowledge about drug use and related harms, and interventions to prevent harm and improve public health. It will create new knowledge that will be used by UN and international agencies, and national governments, to monitor changes in drug use and harms, and guide policy and planning for drug treatment and harm reduction services. | \$437,034.00 |

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| 2017 | Prof Maree Teesson | Healthy, wealthy and wise: The long-term effectiveness of an online universal program to prevent substance use and mental health problems among Australian youth | University of New South Wales | The proposed study represents a unique opportunity to build on the NHMRC funded Climate Schools Combined (CSC) study, a world-first trial of a combined, internet-delivered school-based approach to preventing substance use, anxiety and depression. Having successfully implemented this trial and followed these students for 3 years, we propose to extend follow-up of this large trial cohort over the critical transition from secondary school into early adulthood. | \$1,493,327.03 |
| 2017 | Prof Selena Bartlett | Tackling obesity by reducing sugar consumption | Queensland University of Technology | The brain plays a major role in the overconsumption of high fat/high sugar foods and this contributes to obesity but it receives little attention when it comes to developing novel treatments. My lab showed that a FDA-approved smoking cessation medication, that is a nicotinic receptor modulator, decreased the overconsumption of sugar. This project aims are to identify which nicotinic receptors and brain circuits are involved in the overconsumption of sucrose to improve treatments for obesity. | \$578,518.44 |
| 2017 | Prof Maree Teesson | Australian Longitudinal Study of Heroin Dependence: An 18-20yr prospective cohort study of mortality, abstinence, and psychiatric and physical health comorbidity | University of New South Wales | The burden associated with heroin dependence is undeniable. But little is known about the natural history and long-term course of heroin dependence; knowledge that is critical for informing the development of new treatment interventions, health care planning and service delivery. We propose to extend our study of 615 Australians with heroin dependence, recruited in 2001-2002, to 18-20 years follow-up to answer critical questions about the long-term impact of this condition. | \$1,210,319.93 |
| 2017 | Prof Paul Dietze | Understanding the methamphetamine epidemic and its implications for service provision and harm reduction: The VicMeth cohort | Burnet Institute | The Victorian methamphetamine epidemic has received extensive media coverage highlighting the devastating impact of the drug and resultant public concern. We will follow up a cohort of 800 methamphetamine smokers from metropolitan and regional Victoria bi-annually for a period of 5 years to determine the natural history of methamphetamine use to inform optimal intervention strategies and arrest the increases in harm observed in Victoria recently. | \$1,270,774.71 |
| 2017 | Prof Gregory Dare | Improving the health of people with problematic drug use: hepatitis C and drug dependence | University of New South Wales | Problematic drug use is the major risk factor to health among Australians aged 15-49 years. The dual harms of drug dependence and hepatitis C virus (HCV) faced by people who use drugs compel improved drug dependence management and HCV prevention and treatment. This Program Grant will improve the lives of people with problematic drug use by investigating health impacts of drug use and evaluating new strategies for managing drug dependence and eliminating HCV among people who use drugs. | \$9,060,140.00 |

\$52,135,172.58