2018/2019 ANNUAL REPORT

THE UNIVERSITY OF NEWCASTLE AUSTRALIA

GLADYS M BRAWN MEMORIAL BEQUEST AND FELLOWSHIP

Preface

The Gladys M Brawn Memorial Bequest was established to provide a permanent memory of Mr Harold Brawn's late wife Gladys. The Deeds purpose is to grant fellowships to scholars who have demonstrated the potential to become world recognised academics or clinicians in medicine or in disciplines related to medicine in order to promote research and study in that particular field or discipline.

In 2019 our Fellows have achieved significant results both with grant success, HDR student supervision and publications in high ranking journals. They have achieved international awards and recognition and continued their appointments on boards and societies of international ranking and relevance. Professor Geoff Isbister was also awarded an OAM for his "significant service to medical research in the field of toxicology".

A number of fellows also completed their Brawn Fellowship over the past period;
Professor Dirk van Helden – retired, but is maintaining a Conjoint Appointment with UON.
Professor Xu Dong Zhang – commenced a full-time academic role within the School of Biomedical Sciences and Pharmacy, UON.
Professor Phil Hansbro – accepted an opportunity at University of Technology, Sydney.
Professor Billie Bonevski – was appointed to the role of Women in Science Chair, UON.

The 2018 interest allocation to The Gladys M Brawn Bequest was $329,628 (for use in 2019). The final closing balance of the Brawn Bequest was $10,768,006 as at 31 December 2019.

The 2019 interest has been confirmed at $245,457 (for use in 2020). The bequest earnings will support current commitments coupled with funding from the Faculty of Health and Medicine.

The gravesite of Gladys M Brawn was last visited on the 31st October 2019 and was in good condition and upkeep.

Contents

Gladys M Brawn Bequest Rule 3

1. Introduction 5

2. Rule Intent 5

3. Rules 5

4. Relevant Definitions 12

Summary of Gladys M Brawn Fellowships Awarded 1998 - 2019 13

Gladys M Brawn Memorial Fellow Reports 21

Professor Amanda Baker 22

Professor Kypros Kypri 27

Professor Geoff Isbister 31

Professor Clare Collins 34

Professor Murray Cairns 43

Dr Chenchen Jiang 46

Dr Vanessa Murphy 48

Dr Christopher Williams 51

Gladys M Brawn Bequest Financial Report 54

Gladys M Brawn Gravesite 56

Glossary of Terms 58

Gladys M Brawn Bequest Rule

(Note: Endorsed by Executive Committee 4 August 2014 and pending Council approval)

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GLADYS M BRAWN BEQUEST RULE – 000136 – TO BE APPROVED

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Audience:					
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Important Notes:	This Rule replaces the Rules Governing Gladys M Brawn Memorial Gift Committee - Rule				

1. Introduction

The Gladys M Brawn Memorial Fellowship Scheme (Scheme) was established in 1995. It provides fellowships to scholars who demonstrate the potential to become world recognised academics or clinicians in medicine or in disciplines related to medicine, in order to promote research and study in that particular discipline. The Scheme is a result of the generous donations to The University of Newcastle, through the Faculty of Health and Medicine, from the late Leslie Harold Brawn in memory of his wife Gladys M Brawn. The terms of the Gladys M Brawn Memorial Bequest (Brawn Bequest) are determined by a Deed (attachment 1) established in 1993 and the conditions of the Deed make it essential that the Brawn Bequest be established in perpetuity.

2. Rule Intent

This Rule is created in accordance with the terms of the Deed of the Brawn Bequest which state that the Council must constitute the Gladys M Brawn Memorial Gift Committee (Gift Committee) (clause 6.2) who has the responsibility to administer the income received from the fund, and must adopt a set of rules for the conduct of its business (clause 6.4) which must be approved by the Council.

3. Rules

3.1 The Committees

3.1.1 The Gift Committee

3.1.1.1 Establishment

The Gift Committee was established by the Council at its June 1995 meeting held on 8 December 1995, to administer the income received from the Capital Fund. The composition of the Gift Committee, and its responsibilities are specified in section 6 of the Deed.

3.1.1.2 Purpose and responsibilities

a. In accordance with section 6.5 of the Deed, the purpose and responsibility of the Gift Committee are to:

   i. establish and administer the Fellowship to attract researchers in Medicine or disciplines related to Medicine; and
   ii. nominate recipients for the Fellowship to the Council.

b. The Gift Committee will:

   i. determine the manner in which the availability of the Brawn Fellowship will be advertised, including the vehicles for its announcement, and the country or countries in which such availability will be advertised;
   ii. determine the criteria to be applied in the selection of the successful candidate for the Brawn Fellowship, having regard to the provision in section 3 of the Deed, that those selected must demonstrate "the potential to become world recognised academics or clinicians in medicine or in disciplines related to medicine in order to promote research and study in that particular field of discipline";
   iii. determine the duration of the Brawn Fellowship in respect of each candidate recommended to the Council;

iv. determine the manner in which the availability of the Brawn Fellowship will be advertised, including the vehicles for its announcement, and the country or countries in which such availability will be advertised;
v. determine the criteria to be applied in the selection of the successful candidate for the Brawn Fellowship, having regard to the provision in section 3 of the Deed, that those selected must demonstrate "the potential to become world recognised academics or clinicians in medicine or in disciplines related to medicine in order to promote research and study in that particular field of discipline";
vi. determine the duration of the Brawn Fellowship in respect of each candidate recommended to the Council;
vii. determine the conditions under which a Brawn Fellowship may be held and, if the Brawn Fellowship is to be available to any particular candidate over a specified period subject to the satisfaction of certain criteria, what those criteria are to be.
viii. In making nominations for award of the Brawn Fellowship, the Gift Committee will take such expert advice as it can reasonably obtain (including consultation by the Pro Vice-Chancellor (Health and Medicine) with the Professors of the Faculty of Health and Medicine, as to the relative merits of the applicants and of the research projects which each applicant proposes.

3.1.1.3 Membership

a. As provided under section 6.3 of the Deed, the Gift Committee shall comprise the persons for the time being holding the positions of:

i. the Vice-Chancellor, the University of Newcastle;
ii. the Pro Vice-Chancellor (Health and Medicine), the University of Newcastle;
iii. the Mayor of the City of Newcastle;
iv. the Member of Parliament for the State Seat of Newcastle (or such electorate that includes the Central Business District of the City of Newcastle);
v. the Editor of the leading Newcastle daily newspaper;
vi. the Manager of the leading Newcastle commercial television station;
vii. the Regional Director or the Deputy Regional Director of the Hunter Region of the New South Wales Department of Health.

b. The Gift Committee will:

ix. decide who the persons are, from time to time, who occupy the positions defined in section 3.1.1.3a. above;
x. select a substitute person of near description, near interest or near background in respect of each vacancy arising from time to time caused by any of the office-holders described in section 3.1.1.3a. above being unable or unwilling to accept appointment to the Gift Committee; and
xi. decide any dispute as to the membership of the Gift Committee.

3.1.2 The Investment Committee

3.1.2.1 Establishment

The Investment Committee is established by the Deed.

3.1.2.2 Purpose and Responsibilities

The Committee recommends the University to:

a. Invest and administer the Bequest fund in accordance with the UON Investment Policy, as updated from time to time, and

b. All investment and administration actions be carried out in accordance with the UON Delegation of Authority Policy, as updated from time to time.

3.1.2.3 Membership

As provided under section 9 of the Deed, the Investment Committee shall comprise the persons for the time being holding the positions of:

1. Vice Chancellor of the University of Newcastle;
2. University Secretary of the University of Newcastle;
3. Chief Financial Officer of the University of Newcastle;
4. Dean of the Faculty of Health and Medicine of the University of Newcastle.

3.1.3 Common Committee Rules

3.1.3.1 Frequency of Meetings

a. The Gift Committee shall meet as frequently as is necessary for it to fulfil its purpose and responsibilities, but not less than once in each calendar year.

b. The Investment Committee shall meet annually and at least one week prior to the Gift Committee.

3.1.3.2 Quorum

The quorum for meetings of the Gift Committee and Investment Committee shall be three.

3.1.3.3 Reporting

The Committees shall report to the Council after each meeting.

3.2 The Fellowship

3.2.1 General

3.2.1.1 It is a requirement of the Deed that Brawn Fellowships be advertised nationally and internationally each year.

3.2.1.2 Although it is expected that most Senior Fellow candidates will be attracted by personal contact, advertising will raise the profile of the Brawn Bequest and Brawn Fellowship Scheme and reflect the status of the University of Newcastle as a place for high quality research.

3.2.1.3 In making recommendations for a Brawn Fellowship, the Gift Committee takes into account expert advice from the Pro Vice-Chancellor Faculty of Health and Medicine concerning the relative merits of the applicant and the projects proposed. The level of funding provided for each type of Brawn Fellowship (See Section 3.2.2) will be reviewed annually by the Gift Committee and adjusted accordingly.

3.2.2 Fellowship Funding

3.2.2.1 Yearly expenditure is budgeted based on the annual projected interest earnings from the Capital Fund provided by the Accountant. The annual projected interest is the amount that can be expended in the current year to create and support Brawn Fellowships. The net funds available each year are determined after the deduction of annual grant-in-aid support for eligible Research Fellows and other relevant commitments (for example, gravesite upkeep, advertising).

3.2.2.2 The Gift Committee has the discretion to allocate up to 15% of the interest earned for Capital Fund preservation therefore maintaining the Capital Fund.

3.2.2.3 Fixed Term Fellowship

When an award is made for a fixed term Fellowship (Post-Doctoral or Strategic) the total expenditure for the entire duration of the award (e.g. 2 or 3 years) is committed from the interest earned on the Capital Fund in the year that the Brawn Fellowship is awarded, so that no further financial obligation is required from the Brawn Bequest in subsequent years.

3.2.2.4 Continuing Fellowships

a. When an award is made for a continuing Fellowship (Senior Research Fellowship) the grant-in-aid and salary gap top-up allocation is budgeted as an annual commitment from the available funds each year for as long as the Brawn Fellow remains eligible for the grant-in-aid.

b. When surplus Faculty funding is available, the Gift Committee approved that the Faculty of Health and Medicine will co-support existing Senior Research Fellows in order to free up the interest earned for the recruitment of new Senior Fellows. In this instance, the Faculty of Health and Medicine will fund the grant-in-aid and salary gap top-up for all existing Senior Research Fellows and the automatic recruitment of University of Newcastle staff who achieve a renewable externally funded fellowship (in line with the intent of the Deed). The Brawn Bequest will continue to underwrite the salary Reserve Fund for all Senior Research Fellows.

3.2.2.5 Reserve Fund

a. The Senior Research Fellow's salary Reserve Fund (up to $300,000) is retained within the Capital Fund in order to maximise interest earnings. The commitment of funds to comprise the Reserve Fund can be made at any time as long as the Senior Research Fellow is assured of being able to access the Reserve Fund should circumstances require it.

b. Senior Research Fellow's requesting access to their Reserve Fund are to make any such requests in writing to the Gift Committee.

c. The Reserve Fund is in place for a time determined by the Gift Committee to offset the need to fund the Senior Research Fellow in the event that external funding is no longer made available.

d. If a Senior Research Fellow requires the use of the Reserve Fund, the grant-in-aid allocation is suspended until external funding is secured. Full Reserve Fund provisions are to be set aside prior to a Senior Research Fellow needing to access the funds (at end of first renewable period). The committed amounts are held in a separate Brawn 'non-active' account for reporting purposes and/or until required by the Senior Research Fellow.

3.2.2.6 To track expenditure for individual Brawn Fellows a separate cost centre is established for each Brawn Fellow with a budget indicated to limit expenditure to the amount awarded. The funds are transferred as at 31 December each year to maximise interest earnings.

3.2.2.7 Annual investment earnings which are not committed in any given year are returned to the Capital Fund for further investment.

3.2.2.8 If commitments are no longer required (e.g. Reserve Fund provision, funds committed for recruitment of Brawn Fellow(s)), the Gift Committee decides whether to roll the excess funds back into the Capital Fund or utilise them for further recruitment opportunities in the following year.

3.2.3 Fellowship Types

3.2.3.1 Senior Research Fellows

a. The principal aim of the Brawn Bequest is to support Senior Research Fellows of the highest possible calibre who will add strategic value to the research profile of The University of Newcastle. Senior Fellows are expected to either bring their own renewable salary support or obtain renewable external salary support within 5 years. Normally Senior Fellows will be appointed full-time.

b. Senior Research Fellows with their own renewable salary support will receive:

   i. a grant-in-aid of $35,000 per year (or other amount to be determined from year to year).
   ii. a Reserve Fund of up to $300,000 to provide salary support for up to 2 years should their external salary support fail to be renewed.
   iii. a contribution (up to a maximum of 50%) towards any salary gap between the remuneration provided by the external salary and the University of Newcastle salary rate for the level of appointment of the Senior Research Fellow.
   iv. and by negotiation may receive a start-up package up to the value of $500,000.

c. Senior Research Fellows who do not initially bring their own salary support but who represent strong potential to do so, and whose appointment would have particular strategic value to the Faculty of Health and Medicine, may be provided with a salary for up to 5 years without the annual grant-in-aid. When external salary support is secured the extra benefits above will apply.

d. The use of the grant-in-aid funds will be at the discretion of the Senior Research fellow; part or all of it can be used as a non-superannuable salary supplement for the Senior Research Fellow or in any way to advance the research program of the Senior Research Fellow (e.g. salaries for staff, scholarships, travel, equipment). Any equipment purchased must remain the property of the University of Newcastle. The grant-in-aid must be spent in the year that it is committed, unless written permission is granted by the Gift Committee to roll over the funds. However a 10% carry forward is allowable without prior written approval. This carry forward figure is not cumulative.

e. In the case of strategic recruitment of exceptional senior researchers to a Senior Research Fellow appointment, the Gift Committee has the ability to make decisions on recruitment to attract and retain such individuals. The appointment must be in line with the Deed's intent and enhance the research capacity of the University of Newcastle and the Faculty of Health and Medicine. Where a Fellowship position is created and the recruitment process is ongoing, the Gift Committee has the authority to commit funds to the Fellowship.

3.2.3.2 Career Development Fellows

a. *Fellowship Category 1*

   a. The Career Development Fellowship scheme supports early and mid-career researchers who hold non-renewable external fellowships by providing the security of a salary Reserve Fund (1st year guaranteed and 2nd year based on performance) and a grant-in-aid of $20,000 for each year of the Career Development Fellowship, to use towards research expenses.
   b. The grant-in-aid is funded from the Faculty of Health and Medicine's annual budget and must be spent in the year in which it is committed to the Career Development Fellow, unless written permission is granted by the Pro Vice-Chancellor (Health and Medicine) prior to year end.

b. *Fellowship Category 2*

   i. To support and foster early- to mid-career researchers (less than 15 years post-doc) to build research trajectory, the Brawn will provide a 'buy-out' scholarship that assists in reducing teaching commitments so recipients can concentrate on research outputs.
   ii. The Fellowship will provide a maximum of $30,000 per annum (actual amount will be dependent on interest earnings from year to year) to assist with this buy-out over a three (3) year period. Any unused funds cannot be rolled over to a future year.
   iii. It is expected that after the three years of support from the Brawn Trust, the Fellow will remain as a UON research academic for at least a further three year period.
   iv. Reporting during the fellowship period will be required and yearly renewal will be contingent on sufficient outputs being achieved.
   v. Subject to performance, this fellowship category can be renewed for one (1) further funding period. Requests must be made in writing to the Brawn Gift Committee.

c. General

   a. Previously appointed Career Development Fellows may apply for a Senior Research Fellowship.

3.2.3.3 Post-Doctoral Fellows

a. Whilst the funding of Senior Research Fellows is a priority, funds may also be used to support high quality Post-Doctoral researchers. Post-Doctoral Fellows will receive up to 3 years salary support (at an Academic Level A or Level B Salary rate) plus a grant-in-aid of $10,000 per annum towards research expenses. Post-Doctoral Fellows must have the potential to obtain external salary support and will be expected to apply for this support in the first and subsequent years of the fellowship and sacrifice the Brawn Fellowship if and when successful.

b. The grant-in-aid must be spent in the year that it is committed, unless permission is granted by the Gift Committee to roll over the funds.

c. A current Post-Doctoral Fellow whose fellowship is less than 3 years can apply, as part of a normal competitive application round, to have the Post-Doctoral Fellowship extended up to a maximum of 3 years. Researchers who have previously held a Post-Doctoral Fellowship cannot apply for a second Post-Doctoral Fellowship.

d. Previously appointed Post-Doctoral Fellows may apply for a Career Development Fellowship and/or a Senior Research Fellowship.

3.2.4 Reporting

3.2.4.1 Each Brawn Fellow must acknowledge support from the Gladys M Brawn Memorial Fellowship Scheme in all publications arising from and during the tenure of the fellowship and be prepared to promote the memory of Gladys M Brawn in relevant media when required.

3.2.4.2 Each Brawn Fellow must submit an annual report through the Faculty of Health and Medicine to the Gift Committee.

3.2.4.3 The Faculty of Health and Medicine will prepare a composite Brawn Fellowship Annual Report every year. This Report will be provided to the Council.

3.2.4.4 In accordance with the Rules Governing Gladys M Brawn Memorial Gift Committee 000136, the Gift Committee will report to the Council following each meeting.

3.3 Fellow Leave Arrangements

3.3.1 Leave Arrangements

3.3.1.1 As a University of Newcastle academic staff member all Brawn Fellows are entitled to leave arrangements in accordance with The University of Newcastle Academic Staff Workplace Agreement found at http://www.newcastle.edu.au/service/leave-management/leave-management-resources.html.

3.3.1.2 Returning to work on a part-time basis is also allowable subject to approval by the Gift Committee following the submission of a written request that:

a. Specifies the proposed period of part-time Brawn Fellowship;
b. Describes how the research program of the Brawn Fellow can still meet its objectives despite the Brawn Fellow being part-time; and
c. Outlines the arrangements made to ensure that research program meets its objectives while the Brawn Fellow is part-time.
d. The Brawn Fellowship and grant-in-aid will be suspended whilst leave is taken and will be reactivated when the Brawn Fellow returns to work. The duration of the Brawn Fellowship will remain as awarded or adjusted on a pro-rata basis if the Fellow returns to work part-time.

4. Relevant Definitions

In the context of this document:

Accountant - the University of Newcastle financial services staff member assigned the responsibility of administering the financial operations of the Gladys M Brawn Trust Account.

Brawn Fellow - individual awarded a Fellowship established in accordance with the provisions of the Deed.

Brawn Fellowship - Gladys M Brawn Memorial Fellowship awarded in accordance with the provisions of the Deed.

Capital Fund - original gift donation from the late Leslie Harold Brawn and accrued amounts held in a trust account by the University of Newcastle.

Commitment/committed - funds allocated by the Gift Committee and awarded to the successful Fellow or Fellowship for the purposes of the Fellowship.

Council - the University of Newcastle Council.

Deed - the Gladys M Brawn Memorial Trust Deed signed and sealed on 12 February 1993.

Reserve Fund - commitment of funding set aside for the salary of Fellows in the event that external funding is no longer made available.

Trust - wishes of the late Leslie Harold Brawn relating the amounts donated which are held and managed by the University of Newcastle.

Summary of Gladys M Brawn Fellowships Awarded

1998 - 2019

Summary of Fellowships Awarded 1998 – 2019

Senior Brawn Fellows - Current					
Name	**Year Commenced**	**External Fellowship title**	**Total Research Income for Fellowship Period** (HERDC figures provided from 2007 to 2018)	**Indicative Research Earnings 2011-2019** (Derived from HERDC Income)	**Total Fellowship Payments to date** (Grant in Aid, Salary Contribution, Reserve Fund)
Professor Amanda Baker	2009	NHMRC Senior Research Fellow	$5,676,856	$1,359,516	$550,000
Professor Kypros Kypri	2013	NHMRC Senior Research Fellow	$2,275,165	$504,185	$480,000
Professor Geoff Isbister	2014	NHMRC Senior Research Fellow	$5,858,906	$1,184,586	$300,000
Professor Clare Collins	2016	NHMRC Senior Research Fellow	$3,298,157	$489,385	$200,000
Professor Frances Kay-Lambkin	2016	NHMRC Senior Research Fellow	$2,653,172	$223,639	$175,000
Professor Murray Cairns	2017	NHMRC Senior Research Fellow	$2,374,732	$262,360	$100,000

Previous Senior Brawn Fellows					
Name	**Period**	**External Fellowship title**	**Total Funding Awarded** (to end of Fellowship period)	**Total Publications** (to end of Fellowship period)	**Total Fellowship Payments**
Professor Derek Laver	2001 – 2008	ARC Research Fellow	$3,188,212	160	$268,663
Emeritus Professor Leonie Ashman	2002 – 2011	NHMRC Principal Research Fellow	$11,518,101	231	$302,329
Professor David Pow	2004 – 2007	NHMRC Senior Research Fellow	$2,376,534	*Data not available*	$60,000
Conjoint Professor Wayne Smith	2006 – 2007	NHMRC Senior Research Fellow	$5,866,872	221	$184,630
Professor Michael Nilsson	2012 – 2016	HMRI Director	$6,261,510	220	$1,416,756

Professor Xu Dong Zhang	2011 – 2017	NHRMC Senior Research Fellow	$18,602,572	158	$425,000
Professor Dirk van Helden	1998 - 2019	NHMRC Principal Research Fellow	$10,596,663	110	$713,800
Professor Phil Hansbro	2015 - 2018	NHMRC Senior Research Fellow	$22,418,160	251	$200,000

Career Development Fellows - Category 1

Name	Period	External Fellowship title	Total Research Income for Fellowship Period	Indicative Research Earnings for Fellowship Period	Total Fellowship Payments to date (Grant in Aid, Reserve Fund)
Associate Professor Billie Bonevski	2013 – 2017	NHMRC Career Development Fellow	$3,568,109	$692,232	$187,000
Professor Mark Parsons	2014 – 2016	National Heart Foundation Fellow	$3,457,955	$803,332	$40,000
Associate Professor Luke Wolfenden	2015 – 2017	NHMRC Career Development Fellow	$5,041,535	$832,633	$80,000
Dr Chenchen Jiang	2015 – 2018	NSW Cancer Council Career Development Fellow	$1,311,342	$151,210	$147,000
Dr Vanessa Murphy	2017 – 2019	NHMRC Career Development Fellow	$2,578,477	$246,532	$40,000
Dr Christopher Williams	2018 – 2020	NHMRC Career Development Fellow	$1,538,078	$132,535	$20,000

Career Development Fellows - Category 2

Name	Period	Research Area	Research Outputs for Fellowship Period		
			Grants Submitted	Publications	HDR Supervision
Associate Professor Tracy Burrows	2016 – 2019	Food Addiction	18	68	11
Dr Susan Hua	2016 – 2019	Nanotechnology	15	9	6
Dr Natalie Johnson	2016 – 2019	Health Behaviour	5	20	4

Associate Professor Simon Keely	2016 – 2019	Digestive disease and infection	29	35	11
Dr Yolanda Surjan	2016 – 2019	Radiation Therapy treatment of OSCC/POSCC in horses	6	6	5
Dr Amanda Wilson	2016 – 2019	Media Doctor	22	31	8
Dr Kirsti Haracz	2017 - 2020	Multimodal program to address lifestyle behaviours associated with obesity and poorer health outcomes for people living with severe mental illnesses (SMI).	2	6	4
Dr Liz Holliday	2017 - 2020	Medical Statistics (biostatistics), epidemiology, and genetic epidemiology	25	80	12
Associate Professor Jay Horvat	2017 - 2020	Role of iron in respiratory disease	21	16	14
Dr Melinda Hutchesson	2017 - 2020	Development, delivery and evaluation of interventions (nutrition and physical activity) for young adults to prevent weight gain and reduce the risk of chronic disease risk factors	26	33	4
Dr Janet Wallace	2017 - 2020	Senior Smiles program	7	5	9

Post-Doctoral Fellows

Fellow	Period	Research Group	Project title	Outputs - Grant Funding and Publications (UON data to date)	Brawn Fellowship Payments ($ Rounded)
Dr Liz Holliday	2010	Information Based Medicine	Integrating genome-wide association, gene expression and DNA sequence data to identify risk variants for complex disease	$13,640,297 221 Publications	$75,000

Dr Bente Talseth-Palmer	2008-2010	Information Based Medicine	Genetics of Hereditary Nonpolyposis Colorectal Cancer (HNPCC)	$1,814,855 61 Publications	$160,000
Dr Larisa Bobrovskaya	2008-2010	Brain and Mental Health	Angiotensin regulation of catecholamine synthesis: a possible role in depression and cardiovascular disease	$77,486 21 Publications	$80,000
Dr Evan Doran	2008-2010	Gender, Health and Ageing	Pharmaco-epidemiological	$1,550,403 38 Publications	$180,000
Dr Nikola Bowden	2008	Information Based Medicine	Molecular Mechanisms of UV-light induced malignancies	$8,047,724 49 Publications	$180,000
Professor Lisa Wood	2007 – 2009	Vaccines, Immunity, Viruses & Asthma Research Program	A nutritional approach to managing asthma	$4,673,359 169 Publications	$160,000
Professor Kypros Kypri	2007 – 2008	Alcohol and Public Health Research Group	Reducing the burden of alcohol-related hard	$13,508,409 230 Publications	$190,000
Dr Carl Parsons	2005 – 2007	Brain & Mental Health	Brain plasticity in sensory cortex following trauma	$117,171 3 Publications	$185,000
Dr Eng Cheng Chan	2005	Mothers and Babies	Genomic approaches to identifying the genes that regulate human birth	$92,270 23 Publications	$100,000
Dr Margaret Wade	2005	Vaccines, Immunity, Viruses & Asthma Research Program	Investigation of the association between chlamydial infection and asthma.	Data not available 16 Publications	$65,000
Dr Petranel Ferrao	2002 – 2004	Cancer	Mechanisms of drug resistance in acute myeloid leukaemia	Data not available	$210,000
Dr Geoffrey Partington	2003 – 2004				

Dr Douglas Dorahay	2001 – 2004	Cancer	Gene mutations in colon cancer enhance tumor progression through MAP kinase signalling	Data not available 3 Publications	$257,000
Dr Pawel Zarzycki	2000 – 2002	Mothers and Babies	Chromatographic analysis of steroids in biological fluids during human pregnancy	Data not available	$150,000
Dr Parveen Rudra	2000 – 2001	Nutrition and Dietetics	Cell-signalling pathways in n-3 polyunsaturated fatty acid enriched procine myocytes	Data not available	$130,000
Dr Rick Thorne	2000 – 2001	Cancer	Interplay between cell adhesion molecules in melanoma	$6,974,433 98 Publications	$135,000
Dr Martin Cammarota	2000 – 2001	Neuroscience	Cross-talk between key signalling pathways in model neuronal cells	Data not available	$130,000
Dr Larisa Bobrovskaya	2001 – 2002				
Dr Christopher Katnik	1999 – 2001	Cardiovascular	Basis for cellular rhythmicity	Data not available	$130,000
Dr Diane O'Donnell	1998 – 2000	Clinical Pharmacology	Methodological developments in evidence-based practice and policy	Data not available	$261,000
Dr Nuzhat Ahmed	1998 – 2000	Cancer	Integrin-mediated regulation of colon cancer growth	Data not available	$90,000
Dr Vicki Clifton	1998 – 2000	Mothers and Babies	Effect of severe asthma on placental function and foetal outcome	$4,637,152 147 Publications	$68,000

Research Higher Degree Scholarships				
Candidate	**Year awarded**	**Supervisor(s)**	**Thesis title**	**Outcome**
Ms Susan Reid	2004	A/Professor Darren Rivett Dr Robin Callister	Are sustained natural apophyseal glides an effective treatment for cervicogenic dizziness?	Masters awarded in 2005
Ms Jacqueline Turton	2000	Professor Rodney Scott	Investigating the role of myobacterium avium subspecies paratuberculosis (MAP) in patients with Chron's Disease	PhD awarded in 2012. Student left studies due to illness and then re-enrolled in 2008
Ms Suvipa Kosumwatcharapoma	2000	Professor Richard Heller	Why has the contraceptive role among Thalaesseima couples been low?	Student did not complete studies
Ms Kelly Cunningham	1999	Dr Darren Shafren	Virus-cell Interactions	PhD awarded in 2003

Strategic Short-Term Fellowships		
Fellow	**Period**	**Fellowship purpose**
Professor Carolyn Mountford	2011/2012	Salary package support – partially funded for 2 years.
Professor Eugenie Lumbers	2009 (1 year Part-time)	To fund travel costs and incidentals for the Fellow. The Brawn Fund commitment is matched by the Mothers & Babies Research Group.
Associate Professor Julie Byles	2000 (1 year Full-time)	Fellowship to establish the Hunter Institute of Ageing Research
Associate Professor John Rostas	1999 (9 wks)	To investigate international models for organising multidisciplinary neuroscience research programs adaptable to Newcastle.

Visiting Fellowships			
Name	**Period**	**Research Group**	**Project title**
A/Professor Jessie Berlin, University of Pennsylvania	1999 3 months	Systematic Review Group	Methodological developments in applying meta-analysis to clinical and policy decision making

Gladys M Brawn Memorial Fellow Reports

Senior Fellows

Professor Amanda Baker
Professor Kypros Kypri
Professor Geoff Isbister
Professor Clare Collins
Professor Frances Kay-Lambkin
Professor Murray Cairns

Career Development Fellows

Dr Chenchen Jiang
Dr Vanessa Murphy
Dr Christopher Williams

Professor Amanda Baker

Senior Brawn Fellow
Commenced 2009

Research Area: Mental health and substance use

The poor physical health of people with severe mental health problems, such as schizophrenia, bipolar disorder and major depression, is second only to that of Indigenous people in Australia. People who experience disorders such as schizophrenia and bipolar disorder die of non-communicable diseases such as cardiovascular disease and cancer 20 years earlier than Australians without these mental disorders. Quality of life associated with chronic health problems and low socioeconomic status is also significantly lower. Poor quality of life and early mortality are associated with high rates of smoking, alcohol consumption, poor diet and low levels of physical activity.

The major focus of my research is on multiple health behaviour change among people with severe mental health problems. In the last few years I have extended my focus from addressing co-existing mental health and substance use problems (including smoking and alcohol consumption) to also focusing on diet and activity levels. Research among people without a history of mental health treatment has shown that multiple health behaviour change is possible. I am developing interventions that target multiple health behaviours among people with severe mental disorders, being the first internationally to address substance use, diet and activity together.

I am a clinical psychologist who has worked in multidisciplinary clinical and research settings, and I aim to further develop collaborations with others (clinical psychologists, dieticians, exercise physiologists) in Australia and overseas in order to develop and evaluate effective interventions among this challenging group. I am currently on my fourth NHMRC Research Fellowship. These fellowships are highly competitive and awarded to researchers considered to be within the top 10% internationally in their field. My randomised controlled trials have been highly cited and treatments have been widely disseminated.

I am a member of the Priority Research Centres for Cancer (80%) and Health Behaviour (20%).

Key Achievements
In the last year, my key achievements have been:

1. Success on 2 NHMRC project grants (CIB and CIC), total value: $3.83M
2. Invited presentations:
    - Invited keynote presentation: 5th Australian & New Zealand Addiction Conference, Gold Coast, 13-15 May 2019
    - Invited keynote presentation and invited workshop: Victorian Alcohol and Drug Association (VAADA) Conference, Pullman on the Park, Melbourne, 14-15 February 2019
3. Symposium discussant:
    - 9th World Congress of Behavioural and Cognitive Therapies, Berlin, Germany, 17-20 July 2019

HDR Supervision
I am currently the primary supervisor of 6 PhD candidates and 1 MClinPsychology student, and co-supervisor for 3 PhD candidates and 1 MClinPsychology student.

2018/2019 Completions: 3 PhD

Grants as Chief Investigator (Since last report)

- **2019-2020** Kelly, P.J., Beck, A., Larance, B., **Baker, A.**, Deane, F.P., Hides, L., Manning, V., Shakeshaft, A., and Argent, A. *Methamphetamine and mutual support: A mixed methods exploration of SMART Recovery participants' characteristics and opportunities for enhanced referral pathways*. National Centre for Clinical Research on Emerging Drugs Seed Funding Grants. $77,489
- **2019** Bonevski, B., Guillaumier, A., Skelton, E., Tzelepis, F., McCarter, K., Paul, C., **Baker, A.** FHEAM Equipment Grant. $51,930
- **2019** Beck, A., **Baker, A.** UoN FHEAM Visiting Fellow Grant - Prof Joanne Neale. $5,000
- **2019-2024** George, J., Magin, P., **Baker, A.**, Bonevski, B., Ward, S., Mahal, A., Versace, V., Bell, S., McNamara, K., O'Reilly, S. *Holistic Approach in Primary care for PreventIng Memory Impairment aNd Dementia (HAPPI MIND)*. NHMRC Boosting Dementia Research Grants APP1171851. $1,999,499.84
- **2019-2022** Bonevski, B., **Baker, A.**, Manning, V., Gartner, C., Walker, N., Segan, C., Bullen, C., Oldmeadow, C., Bauld, L., Dunlop, A. *A trial of vaporised nicotine products for smoking cessation following discharge from drug and alcohol residential withdrawal services*. NHMRC Project Grant. APP1160245. $1,833,513.20
- **2019** Hides, L., Walter, Z., Elphinston, R., Quinn, C., De Andrade, D., Dingle, G., Toombs, M., **Baker, A.,** Beck, A. *FullFix: A pilot randomised controlled trial of a telephone delivered transdiagnostic intervention for comorbid substance and mental health disorders in young people***.** Australian Rotary Health Mental Health Research Grant. $69,985
- **2019 Baker, A.** *Research assistant salary support***.** HCRA Infrastructure Funding 2018, Hunter Cancer Research Alliance (HCRA)**.** $26,232.60

Publications (since last report) (student names in italics)

1. *Stuart, A.,* **Baker, A.,** Denham, A., Lee, N.K., Hall, A., Oldmeadow, C., Dunlop, A., Bowman, J. (In press 2019). Psychological treatment for methamphetamine use and associated psychiatric symptom outcomes: A systematic review. *Journal of Substance Abuse Treatment*.
2. *Denham, A.,* **Baker, A.,** et al. (In press 2019). An online cross-sectional survey of the health risk behaviours among informal caregivers. *Health Promotion Journal of Australia.*
3. *Nasstasia, Y.,* **Baker, A.L**., Lewin, T.J., Halpin, S.A., Hides, L., Kelly, B.J., Callister, R. (Online 2019). Engaging youth with major depression in an exercise intervention with motivational interviewing. *Mental Health and Physical Activity.* doi:10.1016/j.mhpa.2019.100295
4. *Raftery, D.,* **Baker, A.,** et al. (In press 2019). With a little help from my friends: Cognitive-behavioural skill utilization, social networks, and psychological distress in SMART Recovery group attendees. *Journal of Substance Use.*
5. Lubman, D.I., Grigg, J., Manning, V., Hall, K., Volpe, I., Dias, S., **Baker, A.**, K Staiger, P., Reynolds, J., Harris, A., et al. (2019). A structured telephone-delivered intervention to reduce problem alcohol use (Ready2Change): study protocol for a parallel group randomised controlled trial. *Trials, 20*(1), 515. doi: 10.1186/s13063-019-3462-9
6. *Nasstasia, Y.,* **Baker, A.L**., Lewin, T.J., Halpin, S.A., Hides, L., Kelly, B.J., Callister, R. (In press 2019). Differential treatment effects of an integrated motivational interviewing and exercise intervention on depressive symptom profiles and associated factors: A randomised controlled cross-over trial among youth with major depression. *Journal of Affective Disorders.* doi:10.1016/j.jad.2019.08.035
7. *Denham, A.*, **Baker, A.**, Bonevski, B., et al. (In press 2019). YouTube as a resource for evaluating the unmet needs of caregivers of stroke survivors. *Health Informatics Journal.*

8. Hides, L., **Baker, A.**, Norberg, M., Copeland, J., Quinn, C., Walter, Z., Leung, J., Stoyanov, S.R., Kavanagh, D. (2019). Research protocol for a randomized controlled trial of Keep it Real, a web-based program for cannabis use and psychotic experiences in young people. *JMIR Preprints*. doi:10.2196/preprints.15803
9. Guillaumier, A., McCrabb, S., Spratt, N., Pollack, M., **Baker, A.L.**, Magin, P., Turner, A., Oldmeadow, C., Collins, C., Callister, R., Levi, C., Searles, A., Deeming, S., Wynne, O., Denham, A.M.J., Clancy, B., Bonevski, B. (In press 2019). An online intervention for improving stroke survivors' health related quality of life: study protocol for a randomised controlled trial. *Trials, 20*(1), 491. doi:10.1186/s13063-019-3604-0
10. Sweeney, R., Moodie, M., **Baker, A.L.**, Borland, R., Castle, D.J., Segan, C., Turner, A., Attia, J., Kelly, P.J., Brophy, L.M., Bonevski, B., Williams, J.M., Baird, D., White, S.L., McCarter, K. (2019). Protocol for an economic evaluation of the Quitlink randomised controlled trial for accessible smoking cessation support for people with severe mental illness. *Frontiers in Psychiatry.* doi:10.3389/fpsyt.2019.00618
11. *Beck, A.,* Forbes, E., **Baker, A.L**, Britton, B., Oldmeadow, C., Carter, G. (2019). Adapted motivational interviewing for brief healthcare consultations: Protocol for a systematic review and meta-analysis of treatment fidelity in real world evaluations of behaviour change counselling. *BMJ Open, 9*(7), e028417. doi:10.1136/bmjopen-2018-028417
12. *Raftery, D.,* Kelly, P., Deane, F.P., McKetin, R., **Baker, A.L.**, Turner, A., Dean, O.M. (2019). Measuring cognitive insight in people with problematic substance use: An exploration of the factor validity of the Beck Cognitive Insight Scale. *Drug and Alcohol Review*. doi:10.1111/dar.12966
13. Gray, R., Kelly, P., Beck, A., **Baker, A.**, Deane, F., Neale, J., Treloar, C., Hides, L., Manning, V., Shakeshaft, A., Kelly, J., Argent, A., McGlaughlin, R. (In press 2019). A qualitative exploration of SMART Recovery meetings in Australia and the role of a digital platform to support routine outcome monitoring. *Addictive Behaviors.*
14. Twyman, L., Cowles, C., Walsberger, S.C., **Baker, A.L**., Bonevski, B. (In press 2019). "They're going to smoke anyway": a qualitative study of community mental health staff and consumer perspectives on the role of social and living environments in tobacco use and cessation. *Frontiers in Psychiatry.*
15. *Denham, A*., Wynne, O., **Baker, A.L.,** Spratt, N.J., Bonevski, B. (Online 2019). The unmet needs and concerns of carers of stroke survivors: An evaluation of Google search results. *Health Informatics Journal.* doi:10.1177/1460458219852530
16. Kelly, P.J., **Baker, A.L.**, Townsend, C.J., Deane, F.P., Callister, R., Collins, C.E., Ingram, I., Keane, C., Beck, A.K. (2019). Healthy recovery: A pilot study of a smoking and other health behavious change intervention for people attending residential alcohol and other substance dependence treatment. *Journal of Dual Diagnosis, 15*(3) 1-10. doi:10.1080/15504263.2019.1612537
17. McKetin, R., Dean, O.M., Turner, A., Kelly, P.J., Quinn, B., Lubman, D.I., Carter, G., Higgs, P., **Baker, A.L**. (2019). A study protocol for the N-ICE trial: A randomized double-binded placebo-controlled study of the safety and efficacy of N-acetyl-cysteine (NAC) as a pharmacotherapy for methamphetamine ("ice") dependence. *Trials, 20*(1), 325. doi:10.1186/s13063-019-3450-0
18. Stain, H.J., **Baker, A.L.**, Jackson, C., Lenroot, R., Paulik, G., Attia, J., Wolfenden, L., Stoyanov, S.R., Devir, H., Hides, L. (2019). Study protocol: a randomized controlled trial of a telephone delivered social wellbeing and engaged living (SWEL) psychological intervention for disengaged youth. *BMC Psychiatry, 19*(1), 136. doi:10.1186/s12888-019-2116-5
19. *Denham, A.,* Wynne, O., **Baker, A.L.,** Spratt, N.J., Turner, A., Magin, P., Janssen, H., English, C., Loh, M., Bonevski, B. (2019). "This is our life now. Our new normal": A qualitative study of the unmet needs of carers of stroke survivors. PloS one, *14*(5), e0216682. doi:10.1371/journal.pone.0216682
20. Turner, A., McGrath, J.J., Dean, O.M., Dodd, S., **Baker, A.**, Cotton, S.M., Scott, J.G., Kavanagh, B.E., Ashton, M.M., Walker, A.J., et al. (2019). Protocol and rationale: A 24-week double-blind, randomized, placebo controlled trial of the efficacy of adjunctive garcinia mangostana Linn. (Mangosteen) pericarp for Schizophrenia. *Clinical Psychopharmacology and Neuroscience, 17*(2), 297-307. doi:10.9758/cpn.2019.17.2.297

21. **Baker, A.**, Borland, R., Bonevski, B., Segan, C., Turner, A., Brophy, L., McCarter, K., Kelly, P.J., Williams, J.M., Baird, D., Attia, J., Sweeney, R., White, S.L., Filia, S., Castle, D.J. (2019). 'Quitlink' - A randomised controlled trial of peer worker facilitated Quitline support for smokers receiving mental health services: study protocol. *Frontiers in Psychiatry.* doi:10.3389/fpsyt.2019.00124
22. *Bailey, K.*, **Baker, A.**, McElduff, P., Kay-Lambkin, F., Kavanagh, D.J. (2019). Do outcomes of cognitive-behaviour therapy for co-occurring alcohol misuse and depression differ for participants with symptoms of posttraumatic stress. *Journal of Mental Health,* 1-8. doi:10.1080/09638237.2019.1581354
23. *Denham, A.*, Guillaumier, A., McCrabb, S., Turner, A., **Baker, A.L.**, Spratt, N.J. Pollack, M., Magin, P., Oldmeadow, C., Collins, C., Callister, R., Wallis, M., Wynne, O., Bonevski, B. (2019). Development of an online secondary prevention program for stroke survivors: Prevent 2nd Stroke. *BMJ Innovations*. doi:10.1136/bmjinnov-2017-000257
24. *McCrabb, S.*, **Baker, A.L.**, Attia, J., Balogh, Z.J., Lott, N., Palazzi, K., Naylor, J., Harris, I.A., Doran, C.M., George, J., Wolfenden, L., Skelton, E., Bonevski, B. (2019). Comorbid tobacco and other substance use and symptoms of anxiety and depression among hospitalised orthopaedic trauma patients. *BMC Psychiatry, 19*(1)*,* 28*.* doi:10.1186/s12888-019-2021-y
25. Kable, A., **Baker, A.**, Pond, D., Southgate, E., Turner, A., Levi, C. (2019). Health professionals' perspectives on the discharge process and continuity of care for stroke survivors discharged home in regional Australia: a qualitative, descriptive study. *Nursing and Health Sciences*. doi:10.1111/nhs.12590
26. **Baker, A.L.**, Robson, D., Lawn, S., Steinber, M.L., Bucci, S., McNeill, A., Castle, D.J., Bonevski, B. (2018). Reducing smoking among people with schizophrenia: perspectives on priorities for advancing research. *Frontiers in Psychiatry, 9,* 711*.* doi:10.3389/fpsyt.2018.00711
27. McCarter, K., Fradgley, E.A., **Baker, A.L.**, Paul, C., Carlson, M. (2018). Distress management for patients with cancer - Why aren't we doing it? *Asia-Pacific Journal of Clinical Oncology, 14*, 11-12.
28. *Murray, R.*, **Baker, A.**, Halpin, S., Britton, B., McCarter, K., Palazzi, K., Beck, A. (2018). Therapeutic alliance between dietitians and patients with head and neck cancer: The effect of training in a health behavior change intervention. *Annals of Behavioral Medicine.* doi:10.1093/abm/kay083
29. McKetin, R., Voce, A., Burns, R., Ali, R., Lubman, D., **Baker, A.**, Castle, D. (2018). Latent psychotic symptom profiles amongst people who use methamphetamine: what do they tell us about existing diagnostic categories? *Frontiers in Psychiatry, section Addictive Disorders, 9,* 578*.* doi:10.3389/fpsyt.2018.00578

Conference Presentations

1. 9th World Congress of Behavioural and Cognitive Therapies, Berlin, Germany, 17-20 July 2019. **Symposium discussant: Baker, A.** *Transmechanistic CBT for substance use.* **Symposium presentation:** Pohlman, S. (presenting author), **Baker, A.** *Innovations in psychological treatment of addictive behaviours*
2. 3rd WADD World Congress and 6th International Congress on Dual Disorders (ICDD 2019), Madrid, Spain 19-22 June 2019. **Speaker: Baker, A.** *Healthy Lifestyles: A holistic, versatile motivational interviewing and cognitive behavioural intervention targeting substance use and mental and physical health*
3. 5th Australian & New Zealand Addiction Conference, Gold Coast, 13-15 May 2019. **Invited Keynote: Baker, A.** *Comorbidity between mental health and addiction.*
4. Society for Research on Nicotine and Tobacco Annual Meeting (SRNT), Hilton San Francisco, California, USA, 20-23 February 2019. **Symposium presentation:** McCarter, K. (presenting author), **Baker, A.** *Understanding smoking in patients with cancer: From prevalence to a placebo-controlled trial.* **Poster:** Baird, D. (presenting author), **Baker, A.** *What behaviour change techniques are used in practice to support people with severe mental illness.*
5. Victorian Alcohol and Drug Association (VAADA) Conference, Pullman on the Park, Melbourne, 14-15 February 2019. **Invited Keynote: Baker, A.** *Jack of all trades, master of one: Enhancing mastery across mental, physical and substance use domains.* **Invited workshop: Baker, A.**, Kelly, P. *Healthy lifestyles.*

Oral presentation: Segan, C. (presenting author), Baird, D., **Baker, A.**, Tse, D., O'Hara, T., Palmieri, M., Guillaumier, A., Bonevski, B. *Tailoring Quitline counselling for people with substance use disorders attending a smokefree residential withdrawal facility.*

6. 20th World Congress of Psycho-Oncology and Psychosocial Academy (IPOS 2018), Hong Kong, 29-30 October 2018. **Symposium:** Clover, K. (presenting author), Forbes, E., Carter, G., Wratten, C., Britton, B., Tieu, M., Kumar, M., Oultram, S., **Baker, A. L.**, McCarter, K. *Procedural anxiety during radiotherapy using a mask in patients with head and neck cancer: interim data as part of symposium: Patient experiences of anxiety during radiation therapy for head and neck cancer.* **Poster:** Forbes, E. (presenting author), Clover, K., Carter, G., Wratten, C., Britton, B., Tieu, M., Kumar, M., Oultram, S., **Baker, A.L.** McCarter, K. *Rates Of Procedural Anxiety During Radiotherapy Using A Mask In Patients With Head And Neck Cancer: Interim Data.*
7. Australian Association for Cognitive and Behaviour Therapy 38th National Conference, Royal on the Park, Brisbane, Australia, 25-27 October 2018. **Invited presentation:** Transdiagnostic treatment opportunities in addressing co-existing mental health and substance use problems. **Poster (plus rapid oral presentation):** McCarter, K. (presenting author), **Baker, A**., Borland, R., Bonevski, B., Williams, J., Segan, C., Kelly, P., Turner, A., Brophy, L., Sweeney, R., Castle, D. *Quitlink: Peer worker facilitated intervention for people receiving mental health services.* **Poster (plus rapid oral presentation):** Donita Baird, (presenting author) **Amanda Baker**, Cathy Segan, Kristen McCarter, and Ron Borland. *Quitlink: offering help to stop smoking for people with mental health conditions.* **Oral presentation:** Nasstasia, Y. (presenting author), **Baker, A.**, Lewin, T., Halpin, S., Hides, L., Kelly, B., Callister, R. *Depressive symptom changes in response to an integrated motivational interviewing and exercise intervention. What symptoms change and why that matters.*

Professor Kypros Kypri

Senior Brawn Fellow
Commenced 2013

Research Area: Epidemiology and prevention of alcohol-related injury and disease

I am a behavioural scientist studying patterns of harm due to alcohol consumption, and the effectiveness of interventions to reduce alcohol-related morbidity and mortality. I completed the final year of a National Health and Medical Research Council Senior Research Fellowship in December 2018 and have relied upon the Senior Brawn Research Fellowship for salary support since January 2019.

I lead a research programme of national and international collaborative studies whose findings influence public policy and scientific practice. I have a longstanding interest in research translation and have been active in encouraging the systematic use of science in the development of public policy, particularly in relation to the regulation of the night-time economy and the availability and promotion of alcohol. Increasingly my focus is on barriers to research translation, in particular alcohol industry strategies to thwart effective public policy.

I am a senior member of the PRC in Health Behaviour, and mentor students, early career researchers, and mid-career researchers.

Research activities since October 2018: We have had success in each of my programme's research streams: (1) Epidemiology of risky drinking, alcohol use disorder, and other addictive behaviour, (2) Evaluation of interventions, and (3) Barriers to translation.

Key achievements

- The commencement of two major competitive grant funded projects (details below)
- Publication of my work in the *BMJ*, one of the "Big 4" general medical journals
- One PhD award (Sharmin) on parental behaviour as determinants of adolescent drinking
- One PhD completion in the evaluation of risk-based liquor licensing (submission due October)
- Two PhDs commenced in studies of alcohol industry influence on public policy
- Appointment as scientific advisor on non-communicable disease to WHO South East Asia Region
- Invited to give the prestigious Maurice Bloch Annual Lecture, University of Glasgow, Nov 2019

Publications (list attached)

I published papers in leading medical, public health, and substance use journals, with findings directly relevant to current policy debate in Australia and other countries.

Major projects completed

Australian Research Council-funded project yielded important publications (#16 and #20 in ref list).

Foundation for Alcohol Research and Education–funded project: "Full economic costing of alcohol-related assault in the Sydney and Kings Cross entertainment precincts." A report of the findings is being prepared for submission to a scientific journal.

Major projects commenced

After grant success in 2017/2018, I have spent much of the last 12 months establishing new research, including the recruitment of staff and PhD students, for these two projects in particular:

Mattick R, **Kypri K,** Horwood J, Bruno R, McCambridge J, Peacock A, Wodalowski M, Najman J. *Parental supply of alcohol to children: Associations with early adult health –"binge" drinking, alcohol-related harms, aggression, and Alcohol Use Disorders*. NHMRC, APP1146634, 2018-2022, $1,127,690

Adams P, **Kypri K**, Swinburne B, McCambridge J, Collin J. *Shaping public policy: Mixed Methods Study of Alcohol, Tobacco, Gambling and Food Industry Points of Influence with Policy Makers*. Marsden Fund (Royal Society of New Zealand) Project (17-UOA-323), 2018-2020 $825,000

PhD completions

Doctor of Philosophy (Community Medicine & Clinical Epidemiology) thesis, Primary supervisor – Sonia Sharmin, University of Newcastle, from September 2014): *Parental supply of alcohol and adolescent risky drinking* (PhD awarded January 2019; graduate employed in post-doctoral position)

PhD submissions under examination or to be submitted in 2019

Doctor of Philosophy (Community Medicine & Clinical Epidemiology) thesis, Primary supervisor – Smriti Nepal, University of Newcastle, from October 2015: Effects of Risk-based licensing on rates of alcohol-related harm (graduate employed in post-doctoral position, USyd from July 2019)

Doctor of Philosophy thesis, Co-supervisor – Peter Malouf, James Cook University, from 2015: *Alcohol consumption and related harm among indigenous Australian university students.*

PhDs commenced

Doctor of Philosophy (Population Health), Co-supervisor – Kate Robaina, University of Auckland, Nov 2018: *Relationship building as a vector of commercial influence on alcohol and food policy*

Doctor of Philosophy (Population Health), Co-supervisor – Melissa-Jade Gregan, University of Auckland, from May 2019: *Commercial determinants of dangerous consumptions*

Translation

Appointed Technical Consultant to WHO Timor Leste for development of advice to Ministerial Council on new alcohol legislation, July 2019-

Appointed scientific advisor to the End Alcohol Advertising In Sport campaign www.endalcoholadvertisinginsport.org.au/, October 2018-

Continued as Chair of the Australian Health Policy Collaboration Working Group on Alcohol to assess Australia's progress against the WHO 25 x 25 targets.

Continued role on the Executive Committee of the National Alcohol Action Alliance, and have been active in advocating for the adoption of an evidence-based National Alcohol Strategy.

Research covered in global (BBC, The Guardian, Washington Post), national (ABC, SMH/Age, News.com), and local news media (Newcastle Herald, 1233), on effects of parent supply of alcohol to children, alcohol outlet trading hours, and industry influence on policy decisions.

(See:https://www.google.com.au/search?q=kypros+kypri&source=lnms&tbm=nws&sa=X&ved=0ahUKEwiup_vX_tzdAhUDbbwKHdq3B8cQ_AUIECgD&biw=1680&bih=917)

Invited Presentations

Public policy-making as an opportunity to build the evidence base for better policy. *Institute of Health and Wellbeing, Maurice Bloch Annual Lecture*, Glasgow, Scotland, 27 November 2019

Plea for an Experimenting Society: Reflections on a decade of research and policy on alcohol trading hours. *Australasian Epidemiological Association conference: Epidemiology in the real world*. Brisbane, 23-25 October, 2019

Hazardous Drinking among Students over a Decade of University Policy Change. *Kettil Bruun Society Thematic Meeting on Campus-based Interventions*, Sherbrooke, Canada, 1-2 October 2019

Transnational corporate power and public health: Heineken in Timor Leste. *Centre for Addiction Research School of Population Health, University of Auckland*, 15 August 2019

Stream 1: Epidemiology of risky drinking and alcohol use disorder

1. **Kypri K** and Connor J (2018). A taxonomy of alcohol harm countermeasures. *Current Addiction Reports* 5(2) 297–302
2. **Kypri K**, Harrison S, and McCambridge J (revision requested). Ethanol content in Australian and New Zealand beer markets: Mixed methods study of official data 2000-2016 and market intelligence reports. *Journal of Studies on Alcohol and Drugs* [2.5]
3. Mattick R, Clare P, Aiken A, Wadolowski M, Hutchinson D, Najman J, Slade T, Bruno R, McBride N, **Kypri K**, Vogl L, Degenhardt L (2018). Association of parental supply of alcohol with adolescent drinking, harms, and alcohol use disorder symptoms: a prospective cohort study. *Lancet Public Health* 3(2) *e64–e71*
4. Sharmin S, **Kypri K** et al (2018). Parent characteristics associated with approval of their children drinking alcohol from ages 13 to 16 years: Prospective cohort study. *Australian & New Zealand Journal of Public Health* 42(4):347-353
5. Sharmin S, **Kypri K** et al (2019) Parent hazardous drinking and their children's alcohol use in early and mid-adolescence: Prospective cohort study. *European Journal of Public Health* [2.2]

Stream 2: Evaluation of alcohol harm countermeasures

6. Maclennan, B, **Kypri K**, Connor J (with editor). Do New Zealand communities have greater input to local alcohol policy? Population surveys before and after new legislation. *International Journal on Drug Policy*
7. Johnson NA, **Kypri K**, Saunders JB et al (2018). Electronic alcohol screening and brief intervention for hospital outpatients with hazardous or harmful drinking: Randomized clinical trial. *Drug & Alcohol Dependence 191:78-85*
8. **Kypri K**, Maclennan B, Cousins K, Connor J (2018). Hazardous drinking among students over a decade of university policy change: Controlled before-and-after evaluation. *International Journal of Environmental Research and Public Health* 15(10)pii: E2137.
9. Nepal S, **Kypri K**, Pursey K, Attia J, Chikritzhs T, Miller P (2018). Effectiveness of lockouts in reducing alcohol-related harm: Systematic review. *Drug and Alcohol Review* 37(4):527-536
10. Dekker R, Jongenelis M, Wakefield M, **Kypri K**, Hasking P, Pettigrew S (2018). A Longitudinal Examination of Protective Behavioral Strategies and Alcohol Consumption among Adult Drinkers. *Addictive Behaviors* 87:1-7
11. **Kypri K**, Bowe S, Karlsson N, McCambridge J (2019). Latency to enrol, attrition and intervention effect estimation: Individual participant data meta-analysis of four randomised behaviour change trials. *Journal of Clinical Epidemiology* [4.7]
12. **Kypri K**, Maclennan B, Brausch S, Wyeth E, Connor JL (2019). Did New Zealand's new alcohol legislation achieve its object of facilitating public input? Qualitative study of Māori communities. *Drug & Alcohol Review* 38(4):331-33 [2.8]
13. Nepal S, **Kypri K**, Attia J, Chikritzhs T, Miller P (2019). Indicators for the estimation of trends in alcohol-related assault: Evaluation using police data from Queensland, Australia. *Injury Prevention* [3.0]
14. Curtis A, Bowe S, Coomber K, Graham K, Chikritzhs T, **Kypri K**, Miller P (2019). Risk-based licensing of alcohol venues and emergency department injury presentations in two Australian states. *International Journal on Drug Policy,* 70:99-106 [4.5]
15. Curtis A, Miller P, Graham K, Hudson K, **Kypri K** (2019).Understanding the purpose of Risk Based Licensing schemes for alcohol outlets: A key informant perspectives. *Drug & Alcohol Review*

16. Coomber K, Zahnow R, Ferris J, Droste N, Mayshak R, Curtis A, **Kypri K** et al. (2018). Short-term changes in nightlife attendance and patron intoxication following policy change in alcohol restrictions in Queensland, Australia. *BMC Public Health* 18(1):1185.
17. Nepal S, **Kypri K**, Attia J, Chikritzhs T, Miller P, Bagade T, Hodder R, Beyene T (in press). Effects of extensions and restrictions in alcohol trading hours on the incidence of assault and unintentional injury: Systematic review. *Journal of Studies on Alcohol and Drugs*

Stream 3: Barriers to translation

18. **Kypri K**, McCambridge J, Robertson N, Martino F, Daube M, Adams P, Miller P (2019). "If someone donates $1000, they support you. If they donate $100,000, they've bought you." Mixed methods study of tobacco, alcohol and gambling industry donations to Australian political parties. *Drug & Alcohol Review* 38(3):226-233 [2.8] (Altmetric top 5% of all research outputs)
19. McCambridge J, **Kypri K**, Madden M, Babor T (2019). Advancing public health policy-making through research on the political strategies of alcohol industry actors. *Journal of Public Health*
20. **Kypri K** and McCambridge J (2018). Alcohol must be recognised as a drug. To strengthen policy responses to harms caused by addiction industries. *BMJ*; 362:k3944 doi: 10.1136/bmj.k3944
21. Connor J and **Kypri K** (2018). The alcohol industry, the government, and the alleged defamation of public health advocates: A New Zealand case study. *Drug & Alcohol Review* Aug 27. doi: 10.1111/dar.12857.
22. Robertson N, **Kypri K**, Stafford J et al (2018). Australian lobbyist registers are not serving the purposes they were designed for. *Drug and Alcohol Review* 37 Suppl 1:S218-S222
23. Jackson N and **Kypri K** (2018). A tentative win for the people of Auckland in New Zealand's liquor licensing court. *Drug & Alcohol Review* 37(2):159-161
24. **Kypri K**, Thorn M, Crozier J (2018). The National Alcohol Strategy 2018-2026 has to become a set of commitments. *Drug & Alcohol Review* 37(5):563-564
25. Ries N and **Kypri K** (2018). Government-Funded Health Research Contracts in Australia: A Critical Assessment of Transparency. *Sydney Law Review* 40:367-394

Professor Geoff Isbister

Senior Brawn Fellow
Commenced 2014

Research Area: Clinical Toxicology

I lead the Clinical Toxicology Research Group at the University of Newcastle, which is also a sub-group of the HMRI Cardiovascular Health Program. The group includes five staff including research administration and laboratory staff and four PhD students and one honours student. I also supervise 4 other PhD students off-site, one MPhil and three PhDs in Sri Lanka (University of Peradeniya). Ongoing major areas of research include: studies into the efficacy and effectiveness of treatments for envenomed patients, multicentre research into the effects of drugs in overdose, research into the effects of drugs on the heart, specifically those associated with fatal arrhythmias and development of risk assessment tools. I also undertake research in emergency medicine, principally on sedating aggressive patients.

I am principal investigator on a number of observational and interventional studies on snake envenoming, including the Australian Snakebite Project (ASP) and studies in Sri Lanka on snake bite. ASP has changed the treatment of snake bite in Australia and the way that antivenom is used. We have published 10 years of snakebite in Australia. ASP continues to investigate other treatments for snake bite, including acute kidney injury, antivenom for red-bellied black snake bites, phospholipase A2 assays and interventions for myotoxicity. It is funded by an NHMRC Centre for Research Excellence. I have undertaken two randomised controls of fresh frozen plasma in snakebite coagulopathy, one in Australia and one in Sri Lanka. In November 2015 I was the CIA on a successful NHMRC Centre for Research Excellence – Translational Venom and Antivenom CRE. Over the last two years I have published editorials in the Lancet and Medical Journal of Australia.

I continue work on the treatment of redback spider bite following the Redback Spider Antivenom Evaluation (RAVE II) Study that found antivenom did not improve outcomes in redback spider bites. This was a controversial finding that challenges the current use of antivenom and was featured on Catalyst in February 2015. We are now focussing on novel analgesics for the pain of redback spider bite, including ketamine, which was published in the British Journal of Clinical Pharmacology this year, lignocaine and pregabalin.

I am the principal investigator on a long term ongoing multicentre project investigating the time course and effects of drugs in overdose, using patient blood samples and clinical data. This is a collaboration with Prof Stephen Duffull at the University of Otago. The study aims to develop clinical guidelines for treatment using novel drug modelling techniques. These studies have rationalised the treatment for particular drug overdoses, streamlining the care of patients. This includes research into the effects of drugs on the heart and associated fatal heart arrhythmias. My research group has also developed a risk assessment tool (QT nomogram) that is a more accurate measurement technique for detecting an abnormal heart rhythm in patients.

Other current projects include prospective studies of overdose patients with NHMRC Program Grant funding. This has become the Australian Toxicology Monitoring (ATOM) study and includes studies on paracetamol, digoxin, beta-blockers, metformin, valproate and anticoagulants. In addition, we have reported a number of single cases of novel and new drugs and chemicals causing human poisoning,

including phenibut in adolescents and triclopyr this year. The funding also supports the Hunter Area Toxicology Service database which is a large cohort of poisoned patients used to investigate the toxicity of drugs in overdose – the new tablet-based database system has just been published.

I became a Senior Editor of the British Journal of Clinical Pharmacology in September 2015 and have played an active role in the ongoing development of the journal, including producing an issue on Therapeutics in Clinical Toxicology in March 2016. I am also an Associate Editor for PLoS Neglected Tropical Diseases. I was elected to the Board of the Asia Pacific Association of Medical Toxicology this year.

Publications, Seminars (since June 2018)
Since June 2018 I have co-authored 23 original research papers and 2 reviews, and have been an invited speaker at 5 seminars.

Refereed Journal Articles

1. Chan B, **Isbister G,** Page C, Isoardi K, Chiew A, Kirby KA, Buckley NA. Clinical Outcomes from early use of digoxin specific antibodies versus observation in chronic digoxin poisoning. (ATOM-4). **Clin Toxicol (Phila).** 2018 Dec 26:1-6. doi: 10.1080/15563650.2018.1546010.
2. Silva A, Sedgwick EM, Siribaddana S, **Isbister GK**. Sub-clinical neuromuscular dysfunction after envenoming by Merrem's hump-nosed pit viper (Hypnale hypnale). **Toxicology Communications**. 2019 Feb; 3(1):23-28.
3. Waiddyanatha S, Silva A, Siribaddana S, **Isbister GK.** Long-term Effects of Snake Envenoming. **Toxins (Basel).** 2019 Mar 31;11(4). pii: E193.
4. Kakumanu R, Kuruppu S, Rash LD, **Isbister GK,** Hodgson WC, Kemp-Harper BK. D. russelii Venom Mediates Vasodilatation of Resistance Like Arteries via Activation of Kv and KCa Channels. **Toxins (Basel).** 2019 Apr 1;11(4). pii: E197.
5. Kumara H, Seneviratne N, Jayaratne DS, Siribaddana S, **Isbister GK**, Silva A. Severe coagulopathy in Merrem's hump-nosed pit viper (Hypnale hypnale) envenoming unresponsive to fresh frozen plasma: A case report. **Toxicon.** 2019 May;163:19-22.
6. van Helden D, Dosen P, O'Leary M, **Isbister GK**. Two pathways for venom toxin entry consequent to injection of an Australian elapid snake venom. **Sci Rep.** Jun 13;9(1):8595.
7. Egan H, **Isbister GK**, Robinson J, Downes M, Chan B, Vecellio E, Chiew A. Retrospective Evaluation of Repeated Supratherapeutic Ingestion (RSTI) of Paracetamol. **Clin Toxicol (Phila).** 2019 Jul;57(7):638-643.
8. Ratnayake I, Mohamed F, Buckley NA, Gawarammana IB, Dissanayake DM, Chathuranga U, Munasinghe M, Maduwage K, Jayamanne S, Endre ZH, **Isbister GK.** Early identification of acute kidney injury in Russell's viper (Daboia russelii) envenoming using renal biomarkers. **PLoS Negl Trop Dis**. 2019 Jul 1;13(7):e0007486. doi: 10.1371/journal.pntd.0007486
9. Noutsos T, Currie BJ, **Isbister GK**. Snakebite associated thrombotic microangiopathy: a protocol for the systematic review of clinical features, outcomes, and role of interventions. **Syst Rev.** 2019 Aug 22;8(1):212.
10. Cairns R, Brown JA, Wylie CE, Dawson AH, **Isbister GK**, Buckley NA. Paracetamol poisoning-related hospital admissions and deaths in Australia, 2004-2017. **Med J Aust.** 2019 Sep;211(5):218-223.
11. Brett J, Wylie CE, Raubenheimer J, **Isbister GK**, Buckley NA. The relative lethal toxicity of pharmaceutical and illicit substances; A 16-year study of the Greater Newcastle Hunter Area, Australia. **Br J Clin Pharmacol.** 2019 Sep;85(9):2098-2107.
12. Ooi QX, Wright DFB, **Isbister GK**, Duffull SB. Evaluation of Assumptions Underpinning Pharmacometric Models. **AAPS J**. 2019 Aug 5;21(5):97.

13. Murray EG, **Isbister GK**, McCrabb S, Halpin SA, Bonevski B. An examination of factors associated with tobacco smoking amongst patients presenting with deliberate self-poisoning. **J Affect Disord.** 2019 Sep 12;260:544-549.
14. Ryan N, James R, Downes MA, **Isbister GK.** Low dose ketamine provides poor analgesia for pain in redback spider envenoming. **Br J Clin Pharmacol.** 2019 Oct;85(10):2423-2427.
15. Isoardi KZ, Kulawickrama S, **Isbister GK.** Severe phenibut poisoning: An adolescent case cluster. **J Paediatr Child Health.** 2019 Aug 29. doi: 10.1111/jpc.14605.

Editorials/Letters

1. Chiew AL, Wright DFB, Roberts MS, Isbister GK. Response to Commentary on Massive metformin overdose. Br J Clin Pharmacol. 2018 Dec;84(12):2940-2941.
2. Enjeti AK, Lincz LF, Seldon M, Isbister GK. Microangiopathy in snake bites-bubble trouble: Response to commentary. Res Pract Thromb Haemost. 2019 Feb 15;3(2):298-299

Invited Seminars

1. PCPA Advanced Trainee Invited talk Sydney 2019 “Snake Bite: Everything a Haematologist needs to know
2. International Conference of Emergency Medicine 2019, Korea. Two invited talks: Snakebite and anticoagulant overdose.
3. North American Congress on Clinical Toxicology (NACCT) Meeting, Nashville, 2019: APAMT symposium: “Charcoal”
4. Summer Symposium on Emergency Medicine, Hunter Valley, 2019: Plenary Speaker: Antivenoms

Current Grants

- **NHMRC Senior Research Fellowship (B).** “Multicentre studies of interventions in clinical toxicology and envenoming, including antivenoms, antidotes and decontamination” **Isbister G.** $739,515
- **NHMRC Clinical Centre for Research Excellence.** “Translational Venom and Antivenom Research.” **Isbister G**, Buckley NA, de Silva HJ, Brown SGA, Hodgson WC, Lalloo DG, de Silva A, Gawarammana I, Dawson AH, Graudins A. $2,499,702

Awards

1. Order of Australia, Member 2019

Research Higher Degree Graduates

Primary Supervisor: primary supervisor for 10 current PhD candidates and one MPhil.

Professor Clare Collins

Senior Brawn Fellow
Commenced 2016

Research Area: Medical nutrition therapy to improve diet related health outcomes: Evidence, Interventions and Translation

Poor diet accounts for the greatest burden of disease in Australia and internationally. My research is developing novel, technology based methods to individually tailor nutrition advice, provide personalised feedback and give health professionals access to nutrition tools and data in real-time, that they can use to help people eat better. It has not been possible to do this before as we did not have the technological capacity to provide feedback in a temporal and efficient way. Enabling technologies mean that - now we do!

I am seeking to transform the field of personalised medical nutrition therapy. My vision is to evaluate novel, targeted and tailored approaches that translate nutrition evidence into practical strategies to improve nutritional status. I am bridging the evidence-to-action gap using tailored technology components to motivate and support people to optimise eating patterns and diet quality. This will address equity, improve quality of life while reducing diet-related morbidity, mortality and health costs.

In 2019 I had 7 weeks of study leave and was able to visit numerous international research centres internationally and able to extend collaborations in UK and Europe. I am further extending my interdisciplinary leadership and national and international collaborations with health professionals, health sector, government and industry to evaluate nutrition assessment technology at specific life stages and chronic conditions, such as diabetes and cardiovascular disease. In addition I have increased my mentoring and support of early and mid-career researchers both within and outside my discipline. I have continued to ensure I have a strong voice in public communication of nutrition science and see this as making a valuable impact in terms of research translation.

Director of Research School of Health Sciences; Deputy Director PRC in Physical Activity and Nutrition; HMRI CVD group

Key Achievements and Measures of Output (since last report)

Grants – Total >$320,000

Grant Period	Granting Body	Chief Investigators	Title	Amount
2019-2020	ARC DP190101723	Kerr, Collins, Mullan, Rollo, Dhaliwal, Delp Norman, Boushey	Accuracy and cost-effectiveness of technology-assisted dietary assessment	$230,000
2019-2020	Hunter New England and Central Coast Primary Health Network	Collins, Haslam, Ashton	Improving Diet Quality to Promote Healthy Weight – Linking people in HNECC with personalised feedback on eating habits using The Healthy Eating Quiz	$49,432

2019	Challenge Community Services	Shrewsbury, Collins, Bucher, Asher, Innes	Nutrition project with young people with intellectual disability	$5000
2019	Karolinska Institutet	Collins, Shrewsbury, Ashton, Duncanson, Burrows	Science and technology in childhood obesity policy (STOP)	$4200

HDR Supervision

PhD Candidates (Awarded or submitted since last report)
Principle Supervisor

1. **2015-2019 Katherine Brain** Nutrition in Chronic Pain Management
2. **2016-2019. Hannah Brown.** Examining impact of supportive tools including food labels and an augmented reality application on food and nutrition knowledge and portion size selection in pregnant women**.**

Co-Supervisor

3. **2014-2018 Rachel Taylor** Nutrition and cognition in children
4. **2015- 2019 Li Kheng Chai** Ehealth Childhood Obesity treatment (submitted)

Publications

Reports

1. Ndanuko R, Marklund M, Zheng M, **Collins C**, Raubenheimer D, and Wu JH. Animal sourced protein (meat and poultry) and heart health: an Evidence Check rapid review brokered by the Sax Institute (www.saxinstitute.org.au) for the National Heart Foundation of Australia, 2018.
2. Hollis, J, **Collins CE**, DeClerck F, McColl K, Demaio A. Defining healthy diets for children and adolescent; A Rapid Evidence Review for UNICEF. EAT Foundation, Oslo, Norway October 2018

Innovative Works

1. Massive Online Open Course (MOOC); the Science of Weight Loss – Dispelling Diet Myths, Version 4 launched 4/9/19, >4000 enrolled from >100 countries https://www.edx.org/course/science-weight-loss-dispelling-diet-newcastlex-swl101x
2. Two episodes of ABC TC "Ask the Doctor" on food and fad diets, aired 25th June and July 2nd 2019. https://iview.abc.net.au/show/ask-the-doctor

Science Media Translation and Communication

1. The Conversation, 14 articles and 1 podcast https://theconversation.com/profiles/clare-collins-7316/articles
2. 2 Invited (Oct 2018 and Feb 2019) Guest on TripleJ Science Hour with Dr Karl and Linda; ShirtLoads of Science podcasts
3. Fortnightly Interviews on 2NUR and frequent media interviews

Peer Reviewed Journal Articles Accepted/Published since last report (Current Scopus H-Index = 54)

1. Taylor R, Shrewsbury V, Vincze L, Campbell L, Callister R, Park F, Schumacher T**, Collins C**, Hutchesson M. Be Healthe for your Heart: Protocol for a pilot randomised controlled trial evaluating a web-based behavioural intervention to improve the cardiovascular health of women with a history of preeclampsia. Frontiers in Cardiovascular Medicine, section Cardiovascular Epidemiology and Prevention. Manuscript ID: 480883. Accepted 5th Sept 2019.
2. Lavelle F, Bucher T, Dean M, Brown HM, Rollo ME, **Collins CE**. Diet quality is more strongly related to food skills rather than cooking skills confidence: Results from a national cross-sectional survey. Accepted In press August 20, 2019: Nutrition & Dietetics
3. Chai LK, **Collins CE,** May C, Holder C, Burrows TL. Parent proxy reported child anthropometrics in comparison with objectively measured data. Accepted Aug 3rd 2019. Journal of Medical Internet Research

4. Follong B, Prieto-Rodriguez E, Miller A, **Collins C**, Bucher T, 'An Exploratory Survey on Teaching Practices Integrating Nutrition and Mathematics in Australian Primary Schools', International Journal of Research in Education and Science, 6 14-33 (2020)
5. Olstad DL, **Collins CE**. Smaller dishware to reduce energy intake: Fact or fiction? International Journal of Behavioral Nutrition and Physical Activity. 2019: 16;73. ***Invited Editorial*** https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-019-0831-4
6. Guillaumier A, McCrabb S, Spratt NJ, Pollack M, Baker AL, Magin P, Turner A, Oldmeadow C, **Collins C**, Callister R, Levi C, Searles A, Deeming S, Wynne O, Denham AMJ, Clancy B, Bonevski B. An online intervention for improving stroke survivors' health related quality of life: study protocol for a randomised controlled trial. Trials TRLS-D-19-00104R1
7. Pursey K, Contreras-Rodriguez O, **Collins CE**, Stanwell P, Burrows TL. Food Addiction Symptoms and Amygdala Response in Fasted and Fed States *Nutrients* 2019**,** *11*(6), 1285; https://doi.org/10.3390/nu11061285
8. Heydarian H, Adam M, Burrows T, **Collins C**, Rollo M. Assessing Eating Behaviour Using Upper Limb Mounted Motion Sensors: A Systematic Review. *Nutrients* 2019**,** *11*(5), 1168. https://doi.org/10.3390/nu11051168
9. Williams LT, **Collins CE**, Morgan PJ, Hollis JL, 'Maintaining the outcomes of a successful weight gain prevention intervention in mid-age women: Two year results from the 40-something randomized control trial', Nutrients, 11 1-15 (2019)
10. Burrows T, **Collins C**, Adam M, Duncanson K, Rollo M. Dietary Assessment of Shared Plate Eating: a Missing link. *Nutrients* 2019**,** *11*(4), 789; https://doi.org/10.3390/nu11040789
11. Kelly PJ, Baker A, Townsend C, Deane FP, Callister R, **Collins C**, Ingram I, Keane C, Beck A. Healthy Recovery: A pilot study of a smoking and other health behaviour change intervention for people attending residential alcohol and other substance dependence treatment. Journal of Dual Diagnosis. 1-10 April 2019.
12. Ashton LM, Sharkey T, Whatnall MC, Williams RL, Bezzina A, Aguiar EJ, **Collins CE**, Hutchesson MJ. Effectiveness of interventions and behaviour change techniques for improving dietary intake in young adults: A systematic review and meta-analysis of RCT's. *Nutrients* 2019**,** *11*(4), 825; https://doi.org/10.3390/nu11040825
13. Taylor RM, Haslam RL, Burrows TL, Duncanson KR, Ashton LM, Rollo ME, Shrewsbury VA, Schumacher TL, **Collins CE**. Issues in Measuring and Interpreting Diet and Its Contribution to Obesity. Curr Obes Rep, (2019) First Online 15 March 2019 https://doi.org/10.1007/s13679-019-00336-2
14. Andela S, Burrows TL, Baur LA, Coyle DH, **Collins CE**, Gow ML. Efficacy of very low-energy diet programs for weight loss: A systematic review with meta-analysis of intervention studies in children and adolescents with obesity. Obesity Reviews, First published: 7 February 2019. https://doi.org/10.1111/obr.12830
15. Shoneye CL, Dhaliwal SS, Pollard CM, Boushey CJ, Delp EJ, Harray AJ, Howat PA, Hutchesson MJ, Rollo ME, Zhu F, Wright JL, Pratt IS, Jancey J, Halse RE, Scott JA, Mullan B, **Collins CE**, Kerr DA. Image-Based Dietary Assessment and Tailored Feedback Using Mobile Technology: Mediating Behavior Change in Young Adults. Nutrients 2019, *11*(2), 435; https://doi.org/10.3390/nu11020435
16. Young M, Okely A, **Collins C**, Lubans D, Callister R, Lloyd A, Plotnikoff R, Burrows T, Barnes A, Pollock E, Fletcher R, Miller A, Morgan P. Twelve-month outcomes of a father-child lifestyle intervention delivered by trained local facilitators in under-served communities: The Healthy Dads Healthy Kids dissemination trial. Translational Behavioral Medicine. In Press, TBMP-D-18-00203R2 6th Feb 2019
17. Denham A, Guillaumier A; McCrabb S, Turner A, Baker A, Spratt N, Pollack M, Magin P, Oldmeadow C, **Collins C**, Callister R, Wallis M, Wynne O, Bonevski B. Development of an online secondary prevention program for stroke survivors: Prevent 2nd Stroke. Accepted BMJ Innovations 30th Jan 2019
18. Brain K, Burrows TL, Rollo ME, Hayes C, Hodson FJ. **Collins CE**. The Effect of a Pilot Dietary Intervention on Pain Outcomes in Patients Attending a Tertiary Pain Service. *Nutrients* **2019**, *11*, 181.
19. Taylor RM, Smith R, **Collins CE**, Evans TJ, Hure AJ. Dietary intake and food sources of one-carbon metabolism nutrients in preschool aged children. Eur J Clin Nutr. 2018 Dec 11.
20. Schumacher TL, Weatherall L, Keogh L, Sutherland K, **Collins CE**, Pringle KG, Rae KM. Reprint of characterizing gestational weight gain in a cohort of indigenous Australian women. Midwifery. 2018 Dec 14. pii: S0266-6138(18)30334-6. doi: 10.1016/j.midw.2018.11.004

21. Brown HM, Bucher T, Collins CE, Rollo ME, 'A review of pregnancy apps freely available in the Google Play Store.', Health Promot J Austr, (2019)
22. Vincze L, Rollo M, Hutchesson M, Hauck Y, MacDonald-Wicks L, Wood L, Callister R, **Collins CE**. Interventions including a nutrition component aimed at managing gestational weight gain or postpartum weight retention: a systematic review and meta-analysis. BISRIR-2017-003593R2 Accepted The Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports. 17 297-364 (2019)
23. Brown HM, Bucher T, **Collins CE**, Rollo ME. A review of pregnancy iPhone apps assessing their quality, inclusion of behaviour change techniques and nutrition information. Matern Child Nutr. 2018 Dec 19:e12768. doi: 10.1111/mcn.12768.
24. Saronga N, Burrows T, **Collins CE**, Rollo ME. mHealth interventions of improving nutrient intake of pregnant women in low and lower-middle income countries: systematic review. Maternal & Child Nutrition Matern Child Nutr. 2019 Jan 4:e12777. doi: 10.1111/mcn.12777.
25. de Vlieger N, Riley N, Miller A, **Collins CE**, Bucher T, 'Nutrition education in the Australian New South Wales primary school curriculum: An exploration of time allocation, translation and attitudes in a sample of teachers', Health Promotion Journal of Australia, 30 94-101 (2019)
26. Marshall S, Van Der Meij B, Milte R, **Collins CE**, de van der Schueren MAE, Banbury M, Warner M; Isenring E. Family in Rehabilitation, EmpowERing carers for improved malnutrition outcomes: Study protocol for the FREER Pilot Study. JMIR Research Protocols (JRP) 10.2196/preprints.12647
27. Pringle KG, Lee YQ, Weatherall L, Keogh L, Diehm C, Roberts CT, Eades S, Brown A, Smith R, Lumbers ER, Brown LJ, **Collins CE**, Rae KM. Influence of maternal adiposity, preterm birth and birth weight centiles on early childhood obesity in an Indigenous Australian pregnancy-through-to-early-childhood cohort study. Journal of Developmental Origins of Health and Disease 2019 10 39-47.
28. Ashton L, Williams R, Wood L, Schumacher T, Burrows T, Rollo M, Pezdirc K, Callister R, **Collins CE**. The comparative validity of a brief diet screening tool for adults: The Fruit And Vegetable VAriety index (FAVVA). Clinical Nutrition ESPEN, 29 189-197 (2019)
29. Harbury C, Callister R, **Collins CE**. Diet quality is lower among adults with a BMI ≥40 kg.m-2 or a history of weight loss surgery. Accepted In press Obesity research and Clinical Practice 22nd October, 2018.
30. Chai LK, **Collins CE**, May C, Brain K, Wong See D, Burrows TL. The effectiveness of weight management interventions for families with overweight children: an Umbrella Review. In Press The Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports. JBISRIR-2017-003695R5 October 21st 2018
31. Lee YQ, **Collins CE**, Gordon A, Rae KM, Pringle KG. The Relationship between Maternal Obesity and Diabetes during Pregnancy on Offspring Kidney Structure and Function in Humans: A Systematic Review. Journal of Developmental Origins of Health and Disease Published online: 09 November 2018. https://doi.org/10.1017/S2040174418000867
32. Chai LK, May C, **Collins CE**, Burrows TL. Development of text messages with a focus on healthy eating that target both mothers and fathers. Accepted Journal of Human Nutrition and Dietetics 3/10/2018. JHND-18-06-0192-OR.

Selected Invited Conference and Seminar Presentations

International

1. **2019 International Society for Behavioral Nutrition and Physical Activity** (ISBNPA), Invited presenter in ECR workshop; Managing Up; A guide for early Career researchers

National

2. **2019 Dietitians Association of Australia** (DAA) National Conference, Invited Keynote 14th August, Gold Coast; Making an IMPACT in Nutrition MEDIA
3. **2019 DAA** Conference, Invited media workshop 13th August, Gold Coast; Building a research profile The value add for media impact

Professor Frances Kay-Lambkin
Senior Brawn Fellow
Commenced 2016

Research Area: Mental and physical health comorbidities

People with mental illness lose 1 day of life in every 4 compared to the general population, not due to mental illness, but to the same lifestyle mediated chronic health conditions that affect the general population. This gap in life expectancy is worse than for other disadvantaged groups, including Indigenous populations. Efforts to reduce excess mortality in mental illness have largely focussed on prevention and risk reduction for suicide and related issues. Whilst important in reducing the excess non-accidental mortality in mental illness, comparatively little attention has been paid to reducing the risk of physical conditions, which account for 80% of excess deaths. Tobacco, alcohol misuse, illicit drug use, physical inactivity, poor nutrition and sleep-wake disturbance are the key risk factors for physical health problems and are disproportionately higher in mental health populations than in the general population. These areas have traditionally been approached in isolation, or not at all, meaning virtually no inroads have been made towards 'closing the gap' for people with mental and physical health comorbidities.

These risk factors are compounded by a significant level of unmet need for mental health treatment. Despite an annual investment in mental health of $4.2 billion, fewer than 1/4 of people access treatment. eHealth interventions have the potential to increase mental health treatment access and deliver interventions that integrate mental health with the key risk factors for physical health problems.

My vision is to build a highly innovative program of eHealth interventions for mental health populations, which address the key risk factors for physical health comorbidities. It is my aim to bring high quality, evidence-based treatment for multiple health problems to the point-of-care for people experiencing mental health and addictive disorders to ensure that the right person receives the right intervention at the right time.

I am the Deputy Director, Mental Health Hub, Priority Research Centre for Brain and Mental Health and a member, Brain and Mental Health Program, Hunter Medical Research Institute.

Key Achievements (2018-2019)

1. Appointed Acting Pro-Vice Chancellor, Research and Innovation, University of Newcastle (October 2019)
2. Promoted to Professor (Level E), January 2019.
3. Invited international presentation at the World Psychiatric Congress (Melbourne), invited national keynotes at the La Trobe University (Melbourne), and one international research presentation, Society for Behavioral Medicine (New Orleans, USA).
4. Appointed to the Advisory Panel for the Million Minds Mission for the Medical Research Futures Fund.
5. Awarded the 2018 Vice Chancellor's Award for Research Supervision Excellence.

6. Submission of 2 NHMRC project grants as CIA. Awarded 1 NHMRC project grant as CID to commence in 2018.
7. Submission of 1 NHMRC partnership grant application as CIA, with $150,000 support from BeyondBlue to commence in 2019.
8. Submission of 1 major philanthropic grant application (CIC) to the Paul Ramsey Foundation. Awarded, to commence in 2018.
9. Submission of 1 NHMRC Centre for Research Excellence application as CID. Awarded, to commence in 2018.
10. Submission of 1 Expression of Interest to the Suicide Prevention Research Fund as CIA. One of 9 (out of 52 applications) selected to provide a second stage application. Outcome unknown.
11. Awarded $426,728 to further develop and evaluate the Families and Friends Support Program for people supporting a loved one using crystal methamphetamine.
12. Awarded $485,087 to develop and evaluate a new online program for families and friends supporting a loved one using alcohol/other drugs.
13. Established a new research collaboration with Smiling Mind to evaluate the mindfulness-based app among Australian adults. Funded by NIB Foundation, commencing 2018.
14. Established a new research collaboration with Telethon Kids, to examine the alcohol risk behaviours in University students, commencing 2018.
15. Established the Callaghan Community Drug Action Team at the University of Newcastle to develop strategies to reduce risk associated with alcohol/other drug use amongst this community. Appointed as Chair of the Team, commencing 2018.
16. Appointed as the President for the Society for Mental Health Research, the peak Australian and New Zealand body representing mental health, psychiatric, psychological research).
17. Appointed as Associate Editor, Journal of Clinical Medicine (journal).
18. Attracted 5 new PhD students, commencing in 2018, four with competitive scholarships (Australian Rotary Health, Suicide Prevention Research Fund, Defence Health Scholarship, Everymind PhD Scholarship).
19. Developed new online intervention: vSHADE for ex-serving Defence Force personnel with mood and alcohol use problems.

Community Contributions (2018-2019).

- Invited speaker, How and Why should we treat comorbid depression and alcohol/other drug use problems in young veterans? CREMS, Webinar.
- Invited speaker, Cracks in the Ice, R U OK Week, Hunter Water Board, Newcastle.
- Invited speaker, Alcohol and Mining: Prevalence, social factors and cultural determinants, NSW Mining Health, Safety, Environment and Community Conference, Crowne Plaza, Hunter Valley, Newcastle.
- Interviewee, Podcast interview, APSAD ECR Group, Webinar.
- Panellist, “Let’s talk Mental Health” Seminar, Public seminar, Wests, New Lambton.
- Panellist, iGen: Understanding the Connected Generation, Public seminar/UNSW, Sydney Opera House.

Boards and Committees

- President, Executive Committee, Society for Mental Health Research (2017-present).
- Program Convenor, International Society for Research on Internet Interventions Conference 2020
- Chair, Research Committee, The Black Dog Institute, University of New South Wales (2017-present).
- Member, Research Strategy Committee, Orygen: The National Centre of Excellence in Youth Mental Health, University of Melbourne (2017-present).
- Academic Member, Human Research Ethics Committee, The University of Newcastle (2017-present).
- Board Director, Orygen: the National Centre for Excellence in Youth Mental Health (2019-present).
- Chair, Research Strategy Committee, Orygen, the National Centre for Excellence in Youth Mental Health (2019-present).
- Chair, Research Review Committee, Orygen: The National Centre of Excellence in Youth Mental Health, University of Melbourne (2015-present).

- Scientific Program Chair, International Society for Research on Internet Interventions - ISRII (2019-present).

Publications (2018-2019)

2019

FKL1. Young, C.L., Campolonghi, S., Ponsonby, S., Dawson, S., O'Neil, A., Kay-Lambkin, F., McNaughton, S.A., Berk, M., Jacka, F. Supporting engagement, adherence and behaviour change in online dietary interventions: a systematic review. Journal of Nutrition Education and Behavior. DOI: 10.1016/j.jneb.2019.03.006

FKL2. Heinsch, M., Sampson, D., Agllias, K., Cootes, H., Wells, H., Tickner, C., Kay-Lambkin, F. (2019) 'Speaking with them, not about them': Engaging undergraduate social work students in research with young people. Social Work Education. DOI: 10.1080/02615479.2019.1648409

FKL3. Brunette, M.F., Achtyes, E., Pratt, S., Stilwell, K., Opperman, M., Guarino, S., Kay-Lambkin, F. (2019) Use of Smartphones, Computers and Social Media Among People with SMI: Opportunity for Intervention. Community Mental Health Journal, 1-6. DOI: 10.1007/s10597-019-00431-7

FKL4. Bailey, K, Baker, AL, McElduff, P, Kay-Lambkin, FJ, Kavanagh, DJ. (2019). Do outcomes of cognitive-behaviour therapy for co-occurring alcohol misuse and depression differ for participants with symptoms of posttraumatic stress? Journal of Mental Health, Mar 12:1-8. DOI: 10.1080/09638237.2019.1581354

FKL5. Batterham PJ, Calear AL, Sunderland M, Kay-Lambkin F, Farrer L, Gulliver A. (2019). A brief intervention to increase uptake and adherence of an online program for depression and anxiety: Protocol for the Enhancing Engagement with Psychosocial Interventions (EEPI) Randomized Controlled Trial. Contemporary Clinical Trials, Mar; 78:107-115. DOI: 10.1016/j.cct.2019.01.015

FKL6. Mewton, L., Champion, K., Kay-Lambkin, F., Sunderland, M., Thornton, L., Teesson, M. (2018) Lifestyle risk indices in adolescence and their relationships to adolescent disease burden: Findings from an Australian national survey. BMC Public Health, Jan 14;19(1):60. DOI: 10.1186/s12889-019-6396-y

2018

FKL7. Killackey, E., Allott, K., Jackson, H.J., Scutella, R., Tseng, Y., Borland, J., Proffitt, T., Hunt, S., Kay-Lambkin, F., Chinnery, G., Baksheev, G., Alvarez-Jimenez, M., McGorry, P., Cotton, S. (2018) Individual placement and support for vocational recovery in first-episode psychosis: randomised controlled trial. The British Journal of Psychiatry, 2018: 1-7. DOI: 10.1192/bjp.2018.191

FKL8. Birrell, L., Deen, H., Champion, K.E., Newton, N.C., Stapinski, L., Kay-Lambkin, F.J., Teesson, M., Chapman , C. (2018) A Mobile App to Provide Evidence-Based Information About Crystal Methamphetamine (Ice) to the Community (Cracks in the Ice): Co-Design and Beta Testing. JMIR mHealth and uHealth, 6 (12) e11107. DOI: 10.2196/11107

FKL9. Champion, K. E., Chapman, C., Newton, N. C., Brierley, M. E., Stapinski, L., Kay-Lambkin, F., Nagle, J. & Teesson, M. (2018). A Web-Based Toolkit to Provide Evidence-Based Resources About Crystal Methamphetamine for the Australian Community: Collaborative Development of Cracks in the Ice. JMIR Mental Health, 5(1)e21 DOI: 10.2196/mental.8891

FKL10. Young, C. L., Trapani, K., Dawson, S., O'Neil, A., Kay-Lambkin, F., Berk, M., & Jacka, F. N. (2018). Efficacy of online lifestyle interventions targeting lifestyle behaviour change in depressed populations: A systematic review. The Australian and New Zealand Journal of Psychiatry, 52(9), 834-846. DOI: 10.1177/0004867418788659

FKL11. Chapman, C., Champion, K. E., Birrell, L., Deen, H., Brierley, M. E., Stapinski, L. A., Kay-Lambkin, F.J., Newton, N.C., Teesson, M. (2018). Smartphone Apps About Crystal Methamphetamine (" Ice"): Systematic Search in App Stores and Assessment of Composition and Quality. JMIR mHealth and uHealth, 6(11), e10442-e10442. DOI: 10.2196/10442

FKL12. Thornton, L., Kay-Lambkin, F., Tebbutt, B., Hanstock, T. L., & Baker, A. L. (2018). A Mobile Phone–Based Healthy Lifestyle Monitoring Tool for People with Mental Health Problems (MyHealthPA): Development and Pilot Testing. JMIR Cardio, 2(2), e10228. DOI: 10.2196/10228

FKL13. Cunningham, J., Hendershot, C., Kay-Lambkin, F., Griffiths, K., Bennett, K., Bennett, A., Godinho, A., Schell, C. (2018) Does providing a brief Internet intervention for hazardous alcohol use to

people seeking online help for depression reduce both alcohol use and depression symptoms among participants with these co-occurring disorders? Randomized controlled trial. BMJ Open, 8 (7). DOI: 10.1136/bmjopen-2018-022412.

FKL14. Burrows, T., Dayas, C., Pursey, K., Stanwell, P., Gearhardt, A., Kay-Lambkin, F. (2018). Food addiction and associations with mental health: A systematic review with meta-analysis. Journal of Human Nutrition and Dietetic. DOI: 10.1111/jhn.12532

FKL15. Glasner, S., Kay-Lambkin, F., Budney, A. J., Gitlin, M., Kagan, B., Garneau, H. C., & Venegas, A. (2018). Preliminary outcomes of a computerized CBT/MET intervention for depressed cannabis users in psychiatry care. Cannabis (Research Society on Marijuana), 1(2), 36-47. 10.26828/cannabis.2018.02.004

FKL16. Champion, K. E., Mather, M., Spring, B., Kay-Lambkin, F., Teesson, M., & Newton, N. C. (2018). Clustering of multiple risk behaviors among a sample of 18-year-old Australians and associations with mental health outcomes: a latent class analysis. Frontiers in public health, 6, e135-e135.

FKL17. Mewton, L., Visontay, R., Chapman, C., Newton, N., Slade, T., Kay-Lambkin, F.J., & Teesson, M. (2018). Universal prevention of alcohol and drug use: An overview of reviews in an Australian context. Drug and Alcohol Review. DOI: 10.1111/dar.12694

FKL18. Beck, A., Baker, A., Jones, S., Lobban, F., Kay-Lambkin, F.J., Attia, J., Banfield, M. (2018). Exploring the Feasibility and Acceptability of a Recovery-focused Group Therapy Intervention for Adults with Bipolar Disorder: Trial Protocol. BMJ Open, 8 (1) DOI: 10.1136/bmjopen-2017-019203

FKL19. Thornton, L.K., Kay-Lambkin, F.J. (2018). Specific features of current and emerging mobile health apps: User views of people with and without mental health problems. Journal of Mental Health, 4:56. DOI: 10.21037/mhealth.2018.11.04

Grants as Chief Investigator (2018-19)

1. Batterham, P., Sunderland, M., Calear, A., Kay-Lambkin, F. Increasing engagement with online psychosocial programs to improve mental health in the community, National Health and Medical Research Council project grant (APP1138713). 2018-2020 $352,316.70
2. Kay-Lambkin, F., Chapman, C., Hunt, S., Geddes, J., Teesson, M. Family/Friends Support Program Expansion: An online intervention and support package for families/friends supporting loved ones using alcohol/other drugs. The Australian Government Department of Health. 2018-2020, $497,738.
3. Kay-Lambkin, F., Velleman, R., Chapman, C., Hunt, S., Geddes, J., Teesson, M. Checkmate: An online intervention and support package for families/friends supporting loved ones using methamphetamine; Phase 4 Expansion. The Australian Government Department of Health. 2018-2019, $486,399.
4. f) Teesson, Newton, Kay-Lambkin, Champion, Chapman, Thornton, Slade, Mills, Sunderland, Bauer, Parmenter, Spring, Lubans, Allsop, Hides, McBride, Barrett, Stapinksi, Mewton, Birrell, Quinn. The Health Lifestyles Program: An innovative online primary and secondary prevention intervention. The Paul Ramsay Foundation (2018-2022). $6,230,000.
5. Professor Frances Kay-Lambkin, Doctor Milena Heinsch, Associate Professor Jamie Carlson, Professor Maree Teesson, Ms Catherine Mihalopoulos, Matthew Sunderland, Dr Matt Sunderland, Professor Helen Christensen, Professor Paul Haber, Kirsten Morley, Andrew Baillie. The eCliPSE Project: implementing evidence-based eHealth interventions for comorbid mental health and alcohol/other drug use problems into health and community settings. NHMRC (National Health & Medical Research Council) (2019-2021), $196,974
6. Professor Frances Kay-Lambkin, Dr Nadine Ezard. Feasibility and efficacy of the S-Check App: A harm reduction and early intervention smartphone application for methamphetamine use. St Vincent's Hospital Sydney Ltd (2019-2020), $76,000.
7. Professor Frances Kay-Lambkin, Ms Katrina Streatfeild. Psychological and Behavioural features of Children of Australian Defence Force Veterans diagnosed with Post-traumatic Stress Disorder. Australian Rotary Health (2019), $17,000
8. Professor Frances Kay-Lambkin. Vice-Chancellor's Award for Research Supervision Excellence. University of Newcastle (2019), $2,000.

9. Professor Frances Kay-Lambkin, Doctor Milena Heinsch. Cracks in the Ice – Community Ice Toolkit - Activity 3 & 4 – Family and Friends Support Program (FFSP) Sustainability & Expansion – Development of an online intervention and support package for f. Department of Health (2018-2020), $911,835.
10. Professor Maree Teesson, Professor Pat McGorry, Professor Helen Christensen, Professor Frances Kay-Lambkin, Associate Professor Nicola Newton, Dr Katherine Mills, Ms Catherine Mihalopoulos, Dr Timothy Slade, Dr Catherine Chapman, Associate Professor Andrew Baillie. PRevention & Early intervention in Mental Illness and Substance usE (PREMISE CRE). NHMRC (National Health & Medical Research Council), (2018-2022), $224,076.
11. Professor Frances Kay-Lambkin, Professor Sally Chan, Professor Brian Kelly, Professor David Perkins, Doctor Tonelle Handley, Doctor Hazel Dalton, Dr Matt Sunderland. Prevention and early intervention for people aged 18 and over with, or at risk of, mild to moderate depression and anxiety. The Sax Institute (2018), $25,000.

HDR Supervision (2018-2019)

1. Brian Hill (UON, primary, commenced 2018): Artificial Intelligence as an enabling technology in HealthCare- AOD Sector analysis+ digital capability development.
2. Katrina Streatfeild (UON, primary, PhD Defence Industry HDR Scholarship, commenced 2018): Psychological and behavioural features of children of Australian Defence Force Veterans diagnosed with Post-traumatic stress disorder.
3. Hannah Wells (UON, secondary, PhD Defence Industry HDR Scholarship, commenced 2018): Exploring the experiences of the children of Australian Veterans.
4. Olivia Loughnan (UON, primary, commenced 2018): Health anxiety, safety behaviours and the impact on the patient-psychologist relationship.
5. Katherine McGill (UON, primary, commenced 2017): Using sentinel unit data to inform clinical practice for hospital-presenting deliberate self-harm
6. Tanya Hanstock (UON, primary, commenced 2017, part time). Online healthy lifestyles treatment in people with Bipolar Disorder.
7. Mary Jean Carmen (UON, primary, commenced 2017, full time). Intimate Partner Violence and Recovery Paradigms.
8. Rebecca McKenna (UON, secondary, Defence PhD Scholarship, commenced 2017, full time). Healthy eating in Defence Force Personnel.
9. Claire Young (Deakin, secondary, commenced 2017, full time). An online dietary intervention for people with depression.
10. Jake Jubelin (UON, secondary, Defence PhD Scholarship, commenced 2017). The SHADE online intervention in Contemporary Veterans.
11. Jennifer Peprah (UON, primary, UON scholarship, commenced 2017, full time): Adolescent suicide bereavement in families: Exploring the grieving process and post-intervention among families in Ghana.

Awards (2018-2019)

2018

University of Newcastle
Vice-Chancellor's Award for Research Supervision Excellence

Australian Rotary Health
Australian Rotary Health Knowledge Dissemination Award
eCliPSE digital gateway

Professor Murray Cairns

Senior Brawn Fellow
Commenced 2017

Research Area: Psychiatric genetics, behavioural neuroepigenomics, systems biology and personalised genomics. The neurobiology of synaptic function and plasticity, and the influence of stress and neuroinflammation. RNA metabolism and post transcriptional gene regulation. Schizophrenia and post-traumatic stress disorder.

My research is directed towards understanding the molecular systems that regulate neural development, circuitry and plasticity. These mechanisms provide the biological foundation for learning and cognition but are also sensitive to genetic and environmental challenges that can lead to neurocognitive and neuropsychiatric disorders, such as schizophrenia. By investigating the molecular neurobiology of these complex systems and the syndromes that arise from their disruption, we have the potential to better understand human brain development and function. These steps also provide a strong basis for developing genetic and epigenetic biomarkers of brain disease and novel therapeutic strategies to defeat the most devastating neurocognitive disorders.

The research has been highly productive in the current reporting period with several publications in high impact journals including: *Science, Cell, Nature Genetics, Molecular Psychiatry, Biological Psychiatry and Nucleic Acids Research.*

I am a member of the PRC Brain and Mental Health Research

Key Achievements
I am an executive editor of *Genetics Research* and an editorial board member of *Epigenomics*, Scientific Reports, *American Journal of Medical Genetics*, *MicroRNA, Frontiers in Non-Coding RNA, Journal of RNAi and Gene Silencing, Open Journal of Genomics, Genomics, Proteomics & Bioinformatics* and *Recent Patents on Anti-Infective Drug Discovery.*

I have over 130 career publications including many in the highest-ranking journals in this field, with major publications in *Nature*, Science, Cell, *Nature Biotechnology, Nature Genetics, Nature Neuroscience, JAMA Psychiatry, American Journal of Psychiatry, EMBO Reports, Biological Psychiatry, Molecular Psychiatry, Schizophrenia Bulletin, Journal of Biological Chemistry*, *Human Molecular Genetics, American Journal of Pathology,* and *Pharmacology Reviews*. Collectively these have attracted more than 8615 citations (H-index=42, i10=89) with the top 10 papers having more than 4288 citations. I have 11 publications >200 citations, 24 with >100 citations and 37 with >50 citations. These high-impact studies are highlighted by recent work in psychiatry where I am a leading authority on genomics, systems biology, epigenomics and non-coding RNA.

During 2018/19 the group made further progress in developing a framework for precision medicine using personalised common variant systems biology. In this approach, the group use genome-wide association data for complex trait disorders as a scaffold for the pharmacological annotation of individual variant profiles captured by polygenic risk. This research project is supported by an NHMRC grant "*Complete genomics for mechanistic insight and precision treatments of schizophrenia"* ($1,149,208), which enabled

the group to explore this approach in participants from the Australian Schizophrenia Research Bank. A manuscript from this work has recently been published in *Molecular Psychiatry* and the methodology is currently under review. This research has provided an opportunity for involvement in several global collaborations in brain and behavioural genomics, including the genetics working group of the ENIGMA consortium for brain imaging; the CHARGE (Cohorts for Heart and Aging Research in Genomic Epidemiology) consortium and the schizophrenia and PTSD working groups of the Psychiatric Genomic Consortium. My group is also participating in the establishment of a new global consortium for machine learning in psychiatry and the Medical Genome Reference Bank. This work has already led to several high-profile publications in *Science, Nature Genetics, Nature Neuroscience* and *Biological Psychiatry*. In support of ongoing work, I was awarded a further $647,345 from the NHMRC to investigate transcriptomic biomarkers of acute stress, resilience and PTSD. Since 2017 I have been supported by an NHMRC Senior Research Fellowship. Further refinement in the group's understanding of the function of non-coding variants is being achieved through the development of isogenic cell lines produced through RNA-guided genome editing using the CRISPR/Cas9 approach. This initiative in high-resolution functional genomics was established with a grant from the US based Brain and Behavioural Research Foundation, Independent Investigator Grant.

Competitive Grants and Fellowships:

- NHMRC Senior Research Fellowship: Cairns MJ. Personalised genomics in precision medicine of psychotic illness. (APP1121474) **$631,370** (2017-2021).
- NHMRC Project Grant: Cairns MJ, Green MJ, Carr V. Complete genomics for mechanistic insight and precision treatments of schizophrenia. (APP1147644) **$1,149,208** (2018-2020).
- NHMRC Project Grant: Dayas C, Balleine B, Corbit L, Smith D, Cairns MJ, Kenny P, Chieng B. Cognitive inflexibility and the development of pathological habits in brain diseases. (APP1147207) **$871,742** (2018-2020).
- NHMRC Project Grant: Cairns MJ, Glatt S. Network biomarkers of traumatic stress resilience and sensitivity. (APP1147894) **$647,345** (2018-2020).
- NHMRC Equipment Grant: Lim R, Cairns MJ, Brichta A, Zhang XD, Dastoor P, Neilan. B. Multi-Channel Systems: Multi-Electrode Array (MEA) System: MEA2100-60-System-E. NHMRC Equipment Grant **$65,761** (2018).

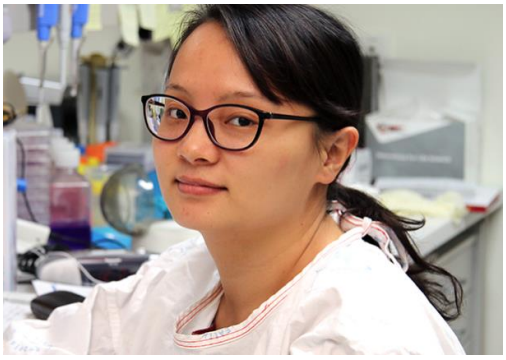
Publications:

1. Reay WR, Cairns MJ. (2019) The role of the retinoids in schizophrenia: genomic and clinical perspectives. ***Mol Psychiatry***. In Press.
2. Hess JL, et al. (2019) A polygenic resilience score moderates the genetic risk for schizophrenia. ***Mol Psychiatry***. In Press.
3. Nakamura JP, Schroeder A, Hudson M, Jones N, Gillespie B, Du X, Notaras M, Swaminathan V, Reay WR, Atkins JR, Green MJ, Carr VJ, Cairns MJ, Sundram S, Hill RA. (2019) The maternal immune activation model uncovers a role for the Arx gene in GABAergic dysfunction in schizophrenia. ***Brain Behav Immun.*** 81:161-171.
4. Hess JL, Tylee DS, Barve R, de Jong S, Ophoff RA, Kumarasinghe N, Tooney P, Schall U, Gardiner E, Beveridge NJ, Scott RJ, Yasawardene S, Perera A, Mendis J, Carr V, Kelly B, Cairns M; Neurobehavioural Genetics Unit, Tsuang MT, Glatt SJ. (2019) Transcriptomic abnormalities in peripheral blood in bipolar disorder, and discrimination of the major psychoses. ***Schizophr Res.*** In press.
5. Richards AL, et al. (2019) The Relationship Between Polygenic Risk Scores and Cognition in Schizophrenia. ***Schizophr Bull.*** In Press.
6. Pouget JG et al. (2019) Cross-disorder analysis of schizophrenia and 19 immune-mediated diseases identifies shared genetic risk. ***Hum Mol Genet***. In press.

7. Rammos A et al. (2019) The role of polygenic risk score gene-set analysis in the context of the omnigenic model of schizophrenia. ***Neuropsychopharmacology***. 44:1562-1569.
8. Geaghan PM, Atkins JR, Brichta AM, Tooney PA, Scott JR, Carr VJ, Cairns MJ. (2019) Alteration of miRNA-mRNA interactions in lymphocytes of individuals with schizophrenia. ***J. Psych. Res.*** 112: 89–98.
9. Mahmoudi E, Fitzsimmons C, Geaghan PM, Shannon Weickert C, Atkins JR, Wang X, Cairns MJ. (2019) Circular RNA biogenesis is decreased in postmortem cortical grey matter in schizophrenia and may alter the bioavailability of associated miRNA. ***Neuropsychopharmacology*** 44:1043-1054.
10. Mahmoudi E, Cairns MJ (2019) Circular RNAs are temporospatially regulated throughout development and ageing in the rat. ***Scientific Reports*** 22:2564.
11. Kiltschewskij D, Cairns MJ. 2019 Temporospatial guidance of activity-dependent gene expression by microRNA: mechanisms and functional implications for neural plasticity. ***Nucleic Acids Res***. 47:533-545.
12. Cairns MJ. 2019 Small RNA regulators of social behaviour in eutherian mammals. ***EMBO Rep.*** 20 pii: e47663.
13. van Erp TGM, et al (2019) Reply to: New Meta- and Mega-analyses of Magnetic Resonance Imaging Findings in Schizophrenia: Do They Really Increase Our Knowledge About the Nature of the Disease Process? ***Biol Psychiatry***. 85:e35-39.
14. Reay WR, Atkins JR, Quidé Y, Carr VJ, Green MJ, Cairns MJ. 2019 Polygenic disruption of retinoid signalling in schizophrenia and a severe cognitive deficit subtype. ***Mol Psychiatry***. In press.
15. van Erp TGM, et al 2018 Cortical Brain Abnormalities in 4474 Individuals With Schizophrenia and 5098 Control Subjects via the Enhancing Neuro Imaging Genetics Through Meta Analysis (ENIGMA) Consortium. ***Biol Psychiatry***. 84:644-654.
16. Anttila V. et al (2018) Analysis of shared heritability in common disorders of the brain. ***Science***. 360(6395)
17. Ruderfer DM et al. (2018) Genomic Dissection of Bipolar Disorder and Schizophrenia, Including 28 Subphenotypes. ***Cell.*** 173:1705-1715.
18. Fullerton JM, Klauser P, Lenroot RK, Shaw AD, Overs B, Heath A, Cairns MJ, Atkins J, Scott R; Australian Schizophrenia Research Bank, Schofield PR, Weickert CS, Pantelis C, Fornito A, Whitford TJ, Weickert TW, Zalesky A. (2018) Differential effect of disease-associated ST8SIA2 haplotype on cerebral white matter diffusion properties in schizophrenia and healthy controls. ***Transl Psychiatry***. 8:21.
19. Li W, Fan CC, Mäki-Marttunen T, Thompson WK, Schork AJ, Bettella F; Schizophrenia Working Group of the Psychiatric Genomics Consortium, Djurovic S, Dale AM, Andreassen OA, Wang Y. (2018) A molecule-based genetic association approach implicates a range of voltage-gated calcium channels associated with schizophrenia. ***Am J Med Genet B Neuropsychiatr Genet.*** 177:454-467.
20. LeBlanc M, Zuber V, Thompson WK, Andreassen OA, Schizophrenia and Bipolar Disorder Working Groups of the Psychiatric Genomics Consortium, Frigessi A, Andreassen BK. (2018) A correction for sample overlap in genome-wide association studies in a polygenic pleiotropy-informed framework. ***BMC Genomics.*** 19:494.
21. Quinn RK, James MH, Hawkins GE, Brown AL, Heathcote A, Smith DW, Cairns MJ, Dayas CV. (2018) Temporally specific miRNA expression patterns in the dorsal and ventral striatum of addiction-prone rats. ***Addict Biol.*** 23:631-642
22. Quidé Y, Matosin N, Atkins JR, Fitzsimmons C, Cairns MJ, Carr VJ; Australian Schizophrenia Research Bank (ASRB), Green MJ. (2018) Common variation in ZNF804A (rs1344706) is not associated with brain morphometry in schizophrenia or healthy participants. Prog ***Neuropsychopharmacol Biol Psychiatry.*** 82:12-20.

Research Higher Degree Supervision

I have supervised 14 PhD students to completion and am currently supervising 9 PhD students.



Dr Chenchen Jiang

Career Development Brawn Fellow
Commenced 2015

Research Area: Cancer Cell Biology

Within tumours, cells are bombarded with factors which challenge their survival. In particular, disruptions to protein folding within the endoplasmic reticulum (ER) causes significant stress. Cells respond with adaptive mechanisms designed to restore ER protein folding. However, if theses adaptive responses fail, cell death ensues. Evidence continues to accumulate, that ER stress plays a crucial role in the pathogenesis of many diseases - cancer in particular. Our program of work has revealed the adaptive mechanisms of cancer cells to ER stress. By manipulating ER stress responses, cancer cells not only avoid death, but also become resistance to anti-cancer treatment.

Nerve signalling is also emerging as a regulator of tumour progression. Cancer cells induce nerves to extend and infiltrate tumours, where nerve signalling becomes much more potent. However, the effect of tumour ER stress on nerve infiltration is almost completely unknown.

One further ramification is unfolding; numerous anti-cancer drugs are being shown to induce ER stress in cancer cells. This indicates that whilst many current treatments initially kill cancer cells; ER stress responses will confer a survival advantage in those that remain. In fact, these anti-cancer therapies may be indirectly promoting tumour nerve infiltration, whereby the growth and dissemination of tumours is stimulated. These seriously questions the long-term efficacy of our current anti-cancer treatments.

To address this gap of knowledge, we have developed unique cellular and mouse models that will be used to explain this phenomenon. By understanding the precise mechanisms by which ER stress can be transmitted to neuronal cells, novel targets for therapeutic attack will be uncovered. Ideally, the targets discovered in this project will be used to bolster the long-term effectiveness of current and future anti-cancer therapies.

Nerves have been found in many cancer types. However, what determines the tumour cell's effect to seize control of neuronal cells within the tumour microenvironment, and the whole nervous system remains unknown. This research program will demonstrate that tumour ER stress, the common phenomena during cancer development, is transmissible through tumour cells and can control nerves by directing their infiltration into the tumour, thus facilitating tumour progression. This study will reveal and detail the mechanisms responsible for the transmission of cancer ER stress signals to nerve cells, and how this promotes tumour aggression. The manipulation of ER stress responses is recognised as a major oncogenic transition; it facilitates the sustained growth and enhances treatment resistance in many cancer types. Currently considered separate to ER stress, nerves are emerging as regulators of tumour progression. This study will uncover the specific interplay between these two entities.

The precise involvement of ER stress in nerve infiltration will be revealed by unique cellular and mouse models, together with a range of innovative proteomics, next-generation sequencing techniques. This is of particular significance, as a number of chemotherapeutic reagents have been reported to induce ER stress while passing its toxicity to cancer cells. An enhanced ER stress signal caused by those anti-cancer agents promotes nerve infiltration, which in turn fosters cancer growth and dissemination. Therefore, this study will

significantly advance our understanding of the appropriate oncological management, allowing for more precise cancer treatments. Moreover, this study will be further validated by human cancer samples.

Deciphering how tumour ER stress promotes nerve infiltration will provide important insights into the development and growth of cancer, and suggest novel targets for its detection, prevention, and treatment. Successful completion of the proposed study may also fuel the development of new molecular tools and biological probes as previously unrecognised nerve-cancer relationships are uncovered. As such, this study will open new avenues for academic and industry collaborations. We aim to open up therapeutic development opportunities by targeting tumour ER stress to block tumour growth and control nerve infiltration and cancer pain simultaneously. Therefore, cancer treatment can be managed in a more preventative way.

Links/membership to a PRC and/or HMRI research program

My research program is integrated into the research strategy of the Priority Research Centre (PRC) for Cancer of UoN and that of the Cancer Research Program (CRP) of the Hunter Medical Research Institute (HMRI). This not only facilitates collaborations between my research team and other local cancer researchers, but also enables me to contribute my research expertise broadly to other cancer research programs in Newcastle.

Key Achievements and Measures of outputs

Publications

1. Faulkner S., Jobling P., March B., **Jiang C. C.**, Hondermarck H. Tumor Neurobiology and the War of Nerves in Cancer. *Cancer Discov*. 2019 Apr 3. doi: 10.1158/2159-8290.CD-18-1398. [Epub ahead of print] Review.
2. Zhang Y. Y., Tabataba H., Liu X. Y., Wang J. Y., Yan X. G., Farrelly M., **Jiang C. C.**, Guo S. T., Liu T., Kao H-Y., Thorne R. F., Zhang X. D., Jin L. ACTN4 regulates the stability of RIPK1 in melanoma. *Oncogene*. 2018 Apr 30. doi: 10.1038/s41388-018-0260-x. [Epub ahead of print]) (IF: 6.854)

Grants

- Hubert Hondermarck, **Chen Chen Jiang,** Sam Faulkner, Phillip Jobling. *Targeting the Neuron-cancer cell crosstalk in Glioblastoma.* Mark Hughes Foundation Brain Cancer Innovation project grant 2019 $149,414.41, 2019 Mark Hughes Foundation
- **Chen Chen Jiang**, Hubert Hondermarck. *Tumour ER stress is a significant driver of nerve infiltration and cancer related neuropathic pain.* HMRI project grant 2018. $25,000, 2018, HMRI
- **Chen Chen Jiang**, Hubert Hondermarck, Lei Jin. *Tumour ER stress is a significant driver of nerve infiltration and cancer related neuropathic pain.* Faculty of Health and Medicine 2017 Strategic Pilot Grant. **$10,000**, 2018, University of Newcastle.

Conference Attendance

- **Jiang C. C.** Cooperativity of HOXA5 and STAT3 is Essential for Transcriptional Activation of PD-L1, 2nd International Conference and Exhibition of Cancer & Therapeutics, San Diego, USA, 26th-28th, Nov, 2018. (**Keynote Speaker; Organising committee member**)
- Zhang YY, Yari H, La T, Feng YC, Tabataba H, Yan XG, Farrelly M, Sherwin S, **Jiang CC**, Jin L, Zhang XD. Long noncoding RNA OVAAL promotes melanoma cell proliferation through translational suppression of p27. AACR Annual Meeting 2018, 14th -18th April, 2018. Chicago, USA.
- La T, Farrelly M, Yan XG, Zhang YY, Yari H, Feng YC, Sherwin S, Tabatabaee H, **Jiang CC,** Liu T, Jin L, Zhang XD. A genomic editing approach for purification of viable quiescent cancer cells. AACR Annual Meeting 2018, 14th -18th April, 2018. Chicago, USA.
- Wang YF, Liu F, Sherwin S, Farrelly F, Yan XG, Croft A, Liu T, Jin L, Zhang XD, **Jiang CC.** Cooperativity of HOXA5 and STAT3 is critical for HDAC8 inhibition-mediated transcriptional activation of PD-L1 in human melanoma cells. AACR Annual Meeting 2018, 14th -18th April, 2018. Chicago, USA.

Dr Vanessa Murphy

Career Development Brawn Fellow
Commenced 2016

Research Area: Asthma during pregnancy

My research is focussed on asthma during pregnancy, which affects 12% of pregnant women in Australia. Exacerbations are a key clinical problem in this group, with at least one third of women having an exacerbation requiring medical intervention in pregnancy. My research investigates the characteristics, risk factors and mechanisms of exacerbations, and the consequences for maternal, perinatal and childhood health. I am involved in conducting randomised controlled trials to test interventions involving inflammation-based management of asthma, which have been shown to significantly reduce the exacerbation rate in pregnancy. My current NHMRC-funded multi-centre RCT (the Breathing for Life Trial) is testing whether this novel management strategy also reduces adverse perinatal outcomes among women with asthma. For this trial, 1200 pregnant women with asthma have been recruited from 6 hospitals in Newcastle, Brisbane, Sydney and Canberra. The last baby is expected to be born in December 2019, allowing the trial outcomes to be determined early in 2020. Follow-up of the resulting birth cohort is focussed on determining the long-term potential of inflammation-based management during pregnancy as a primary prevention strategy for childhood asthma. In addition, we are investigating cognitive development in infancy, and the effects of diet and nutrition on growth in early childhood, among this cohort.

My research goal is to generate the evidence required to improve clinical practice in the area of asthma management during pregnancy. My research is already informing practice by its inclusion in information papers and guideline documents, such as the Australian Asthma Handbook (2014, National Asthma Council of Australia), where 9 of my publications were cited in the section on pregnancy (asthma advice, asthma care and flare-ups).

I am one of the 12 key researchers in the University of Newcastle's Priority Research Centre GrowUpWell™ (2016-2020) and a member of the HMRI VIVA Program.

Key Achievements and Measures of Output
Invited presentations:

1. Centre for Allergy, Karolinska Institutet, Stockholm Sweden (3rd October 2019) – Personalised biomarker-driven management of asthma in pregnancy and its influence on childhood respiratory health.
2. American Academy of Allergy, Asthma and Immunologists (AAAAI) Annual Meeting, Philadelphia USA (March 2020) Workshop on Asthma Biologics During Pregnancy: Safety and Use - Asthma Biomarkers During Pregnancy

2019 Publications:

1. McLaughlin K, Jensen ME, Foureur M, Gibson PG, **Murphy VE**. Fractional exhaled Nitric Oxide (FeNO) – based asthma management: The feasibility of its implementation into antenatal care in New South Wales, Australia. Aust NZ J Obtset Gynecol. Accepted 12/8/2019.

2. Robijn AL, Jensen ME, McLaughlin K, Gibson PG, **Murphy VE**. Inhaled Corticosteroid Use during Pregnancy among Women with Asthma: a Systematic Review and Meta-Analysis. Accepted by Clinical Experimental Allergy 25/7/2019.
3. **Murphy VE**, Jensen ME, Robijn AL, Wright TK, Mattes J, Collison A, Gibson PG. How maternal BMI modifies the impact of personalised asthma management in pregnancy. Accepted by JACI In Practice 21/6/2019. *Selected to be highlighted in the "Latest Research" section of the American Academy of Allergy, Asthma and Immunology website*
4. Whalen O, Campbell LE, **Murphy VE**, Lane AE, Gibson PG, Mattes J, Collison A, Mallise CA, Woolard A, Karayanidis F. Observational study of mental health in asthmatic women during the prenatal and postnatal periods. J Asthma, accepted 18/5/2019.
5. McLaughlin K, Foureur M, Jensen ME, **Murphy VE**. Antenatal asthma management by midwives in Australia: self-reported knowledge, confidence and guideline use. Women and Birth. Accepted for publication 16/4/2019.
6. Robijn AL, **Murphy VE**, Gibson PG. Recent developments in asthma in pregnancy. Current Opinion in Pulmonary Medicine. 2019. 25(1):11-17.
7. Murphy VE, Jensen ME, Campbell LE, Gibson PG. Asthma – interrelationships with pregnancy. In: "Asthma, Allergic and Immunologic Diseases during Pregnancy: A Guide to Management" (edited by Jennifer Namazy, Michael Schatz). Springer Nature Switzerland AG. 2019.

2019 Grants:

1. Society of Obstetric Medicine of Australia and New Zealand Research Grant 2019. Blood biomarker predictors of exacerbations of asthma during pregnancy, and their relationship to adverse perinatal outcomes. Vanessa Murphy. ($10,000).
2. University of Newcastle Faculty of Health and Medicine Strategic Research Pilot Grants 2019. Early life development of obesity and respiratory health in high risk children. Megan Jensen, Vanessa Murphy, Peter Gibson, Liz Holliday. ($9750).
3. University of Newcastle Faculty of Health and Medicine Strategic Research Pilot Grants 2019. Investigating the role of maternal iron status in the pathogenesis of lung disease in pregnant mothers and their offspring. Jay Horvat, Rebecca Vanders, Vanessa Murphy, Liz Milward ($5000).
4. University of Newcastle Priority Research Centre GrowUpWell Pilot Grant 2019. An effectiveness-implementation hybrid trial for personalized biomarker-driven asthma management in pregnancy in the antenatal clinic setting. Vanessa Murphy ($14566).
5. Hunter New England Local Health District, Health Research and Translation Centre 2018. Health Research Economics for the Breathing for Life Trial. Peter Gibson, Vanessa Murphy ($5000).
6. Ramaciotti Foundation Health Investment Grant 2019-2020. Implementation of an asthma management strategy utilizing measurement of airway inflammation in a hospital-based antenatal clinic setting. Vanessa Murphy, Peter Gibson ($99,255).

2019 HDR Supervision:

1. **Karen McLaughlin – PhD (Medicine)** at University of Newcastle, commenced 2/7/2015. Primary Supervisor (50%), with co-supervisors Prof Kirsten McCaffery (University of Sydney, 30%), Prof Maralyn Foureur (University of Newcastle, 10%) and Dr Megan Jensen (University of Newcastle, 10%). *Assessing acceptability of a novel antenatal asthma management approach for pregnant women.*
2. **Patricia De Gouveia Belinelo – PhD (Paediatrics)** at University of Newcastle, commenced in March 2016. Co-supervisor (30%) with Prof Joerg Mattes (primary supervisor), Dr Adam Collison. *Risk factors for impaired lung function and the onset of respiratory disease in early life*

3. **Nisreen Al-Saedi – PhD (Medicine)** at University of Newcastle, commenced November 2016. Principal supervisor (45%), with Dr Katie Baines (45%) and Dr Megan Jensen (10%). *Inflammatory gene expression profiling during pregnancy to predict future asthma exacerbations and poor maternal and neonatal outcomes.*

4. **Carly Mallise – PhD (Psychology – Science)** at University of Newcastle, commenced supervision March 2017. Co-supervisor (10%) with A/Prof Alison Lane, Dr Linda Campbell, A/Prof Frini Karayanidis. *An investigation of infant temperament and maternal parenting stress as early markers for risk of autism spectrum disorder at one year of age.*

5. **Annelies Robijn – PhD (Medicine)** at University of Newcastle, commenced supervision June 2017. Primary supervisor (60%) with Dr Megan Jensen (40%). *Attitudes and adherence to asthma medication during pregnancy.*

6. **Soriah Harvey – PhD (Medicine)** at University of Newcastle, commenced supervision Nov 2017. Co-supervisor (40%) with Dr Megan Jensen (50%, primary supervisor) and Prof Peter Gibson (10%). *Maternal and early life nutritional status and respiratory health outcomes of the offspring.*

7. **Olivia Whalen – PhD (Psychology)** at University of Newcastle. Commenced supervision February 2017. Co-supervisor (20%) with Prof Frini Karayanidis, Dr Linda Campbell and A/Prof Alison Lane. *Breathe Easy, Think Clearly: the relationships between maternal asthma, maternal mental health and infant development.* Thesis submitted 24/6/2019.

8. **Ediane De Queiroz Andrade – PhD (Paediatrics)** at University of Newcastle. Commenced supervision June 2018. Co-supervisor (20%) with Prof Joerg Mattes (20%), A/Prof Gillian Gould (20%), Dr Adam Collison (20%), A/Prof Paul Robinson (20%). *Smoking cessation treatment in pregnant women and its impact on their offspring's lung function.*

Dr Christopher Williams

Career Development Brawn Fellow
Commenced 2018

Research area: Musculoskeletal health, chronic disease prevention, implementation science and health services research

My work focuses on improving the coordination of population health and clinical services to optimise prevention and management of health risk factors associated with non-communicable disease and musculoskeletal conditions in adults and adolescents. This work is applied through studies that test: i) the clinical effectiveness of clinical and public health interventions to improve health outcomes; and ii) the effectiveness of strategies to improve the adoption and sustained use of recommended practice in community and clinical settings.

Up to 90% of the population experience musculoskeletal disorders, such as low back or neck pain or osteoarthritis of the hip or knee, in their lifetime. Patients with musculoskeletal conditions have higher rates of comorbid health risks such as obesity, inactivity and substance use behaviours (tobacco and alcohol). Unfortunately few people with musculoskeletal conditions receive recommended care, including support to manage health behaviour risks.

My research in this area up to 2019 has involved implementation of a co-ordinated care model to facilitate the management of health behavioural risks in patents with musculoskeletal pain. The work includes a longitudinal cohort study to monitor patient health over time, two randomised controlled trials to test the effectiveness of the co-ordinated care to reduce weight in patients with back and knee pain. In 2019, we will complete an NHRMC project grant of a lifestyle intervention (n=346). The new study is current being extended to other settings (e.g. primary care) to implement a more comprehensive care model targeting multiple risk factors, earlier in patient care. This was recently funded as part of my successful NHRMC Investigator Grant.

I am a member of the PRC in Health Behaviour. I am linked with the HMRI program in Public Health.

Key Achievements:
To date my work has involved local, as well as state, national and international agencies including; WHO, RACGP, NPS Medicine Wise, and NSW Government. I have authored 100 journal papers, with publications in leading general medical journals such as *Lancet*, *British Medical Journal*, PLoS Medicine, *JAMA Internal Medicine*, and BMC Medicine.

In 2019, I was Associate Editor of *Trials*. I was appointed to the leadership committee for the Australia Clinical Trials Alliance Reference group for embedding clinical trials in practice. I was invited, based on my clinical trials expertise, to the working committee for the NSW Health Clinical Trials Strategy. In 2019, I have been invited speaker for 7 international and national conferences, and was plenary speaker at a further 2 international conferences. In 2019, I published 13 peer reviewed papers, and my citations h-index reached 18. I was also awarded a highly competitive NHRMC Investigator Grants ($AU1.5 million over 5 years).

Publications since last report:

1. Robson E, Hodder RK, Kamper SK, O'Brien KM, Williams A, Lee H, Wolfenden L, Yoong S, Wigger J, Barnett C, **Williams CM**. Effectiveness of weight loss interventions for reducing pain and disability in people with common musculoskeletal disorders: a systematic review with meta-analysis. Journal of Orthopaedic Sport and Physical Therapy. Accepted September 2019.
2. Schreijenberg M, Lin CWC, McLachlan AJ, **Williams CM,** Kamper SJ, Koes BW, Maher CG, Billot L. Paracetamol is ineffective for acute low back pain even for patients who comply with treatment: Complier Average Causal Effect Analysis of a Randomized Controlled Trial. PAIN, Accepted June 2019.
3. Cashin AG, Lee H, Lamb SE, Hopewell S, Mansell G, **Williams CM**, Kamper SJ, Henschke N, McAuley JH. An overview of systematic reviews found suboptimal reporting and methodological quality of mediation studies investigating causal mechanisms. Clinical Journal of Epidemiology. Accepted March 2019**.**
4. Robson E Kamper SJ…**Williams CM**. Healthy Lifestyle Program for low back pain (HeLP): Protocol for a randomised controlled trial. BMJ Open. Accepted March 2019
5. Williams A, Lee H, Kamper SJ, O'Brien KM, Wiggers J, Wolfenden L,… **Williams CM**. Causal mechanisms of a healthy lifestyle intervention for patients with musculoskeletal pain who are overweight or obese. Clinical Rehabilitation. 2019 33(6):1088-1097 doi: 10.1177/0269215519831419
6. Wolfenden L, Nathan N, Reilly K, Delaney T, Janssen L, Reynolds R, Sutherland R, Hollis J, Lecathelinais C, **Williams CM**, Wyse R, Wiggers J, Yoong S. Two year follow-up of schools in randomised trial to assess the sustainability of an intervention to improve the implementation of a school-based nutrition policy. Health Promotion Journal of Australia. 2019. doi:10.1002/hpja.238
7. Williams A, van Dongen JM, Kamper SJ, O'Brien KM, Wolfenden L, Yoong SL, Hodder RK, Lee H, Robson EK, Haskins R, Rissel C, Wiggers J, **Williams CM.** Economic evaluation of a healthy lifestyle intervention for chronic low back pain: a randomised controlled trial. European Journal of Pain. 2019. 23(3):621-634.
8. Wolfenden L, Reilly K, Kingsland M, Grady A, **Williams CM**, Nathan N, Sutherland R, Wiggers J, Jones J, Hodder R, Finch M, McFayden T, Bauman A, Rissel C, Milat A, Swindle T, Yoong SL. Identifying opportunities to develop the science of implementation for community-based non-communicable disease prevention: A review of implementation trials. Preventive Medicine. 2019;118: 279-285. doi:1016/j.ypmed.2018.11.014
9. Dario AB, Kamper SJ, O'Keeffe M, Zadro J, Lee H, Wolfenden L, **Williams CM.** 'Family history of pain and risk of musculoskeletal pain in children and adolescents: a systematic review and meta-analysis.', Pain, 2019; Epub doi: 10.1097/j.pain.0000000000001639
10. Hodder R, Lee H, Kamper S, Wiggers J, **Williams CM.** Effectiveness of a universal school-based resilience intervention in reducing pain in adolescents: A cluster-randomised controlled trial. International Journal of Behavioral Medicine, 2018; 25,supp1:S105.
11. Saragiotto BT, Kamper SJ,, Hodder R, Silva PV, Wolfenden L, Lee H1,3,6, Oliveira VC, Robson E, Wiggers J, Williams CM. Interventions Targeting Smoking Cessation for Patients with Chronic Pain: An Evidence synthesis. Nicotine and Tobacco Research. 2018; Epub Nov 23.
12. O'Brien KM, van Dongen JM, Williams A, Kamper SJ,, Wiggers J, Hodder RK, Campbell E, Robson EK, Haskins R, Rissel C, **Williams CM**. Economic evaluation of telephone-based weight loss support for patients with knee osteoarthritis: a randomised controlled trial. BMC Public Health. 2018;18(1):1408 doi: 10.1186/s12889-018-6300-1
13. O'Brien KM, Hodder RK, Wiggers J, Williams A, Campbell E, Wolfenden L, Yoong SL, Tzelepis F, Kamper SJ, Williams CM. Effectiveness of telephone-based interventions for managing osteoarthritis and spinal pain: a systematic review and meta-analysis. PeerJ. 2018;6: e5846 dio:10.7717/peerj.5846

HDR Supervision:

- Doctor of Philosophy, Amanda Williams, University of Newcastle (conferred 2019)
- Doctor of Philosophy, Kate O'Brien, University of Newcastle (conferred 2019)
- Doctor of Philosophy, Nicola McLaren, University of Newcastle (2015 -)
- Doctor of Philosophy, Emma Robson, University of Newcastle (2017 -)
- Doctor of Philosophy, Priscilla Da Silva University of Newcastle (2018 -)

- Doctor of Philosophy, Simon Davidson, University of Newcastle (2018 -)
- Master of Philosophy, Karen Grainey, University of Sydney (2018 -)
- Master of Philsophy, Connor Gleadhill University of Sydney (2018 -)
- Doctor of Philosophy, Laura Montgomery, University of Sydney (2019 -)

Prizes/Awards:
NHMRC Investigator Grant (EL2)

Gladys M Brawn Bequest
Financial Report

Gladys M Brawn Bequest Brawn Financial Report

As at 31st December 2019

Opening Balance 1/1/19	$10,686,468.00
Interest Available for Expenditure (2019)	**$329,628.00**
Total Expenditure 31/12/19	**$329,628.00**
Opening Balance 1/1/20	**$10,768,006.00**
Interest Available for expenditure (2020)	**$245,456.97**

Gladys M Brawn Gravesite

Gladys M Brawn Gravesite

In keeping with the Deed's request, annual site visits occur to ensure that Gladys Brawn's gravesite is in good upkeep and any necessary maintenance is organised. The gravesite is located in Kurri Kurri Cemetery. The last visit occurred on the 31st October 2019.

Glossary of Terms

CI – Chief Investigator

Grant Funding – total grant amount awarded over its lifetime.

HERDC - Higher Education Research Data Collection.

IF – Impact Factor of the Journal where publication has been published. The Impact Factor is a measure reflecting the average number of citations to recent articles published in the journal. It is frequently used as a proxy for the relative importance of a journal within its field, with journals with high impact factors deemed to be more important than those with lower ones.

Indicative Research Earnings - income the University earns from grants awarded, papers published and Higher Degree Research (HDR) completions, notionally allocated to the researcher.

Research Income – HERDC reportable research income.