

IMPACT SRC

Innovation in Mental and Physical Health and Clinical Treatment Strategic Research Centre

November 2013



SUCCESSFUL GRANTS AND FELLOWSHIPS

- Adrienne O'Neil, Julie Pasco, Paul Lewandowski, Lana Williams, Michael Berk, John Atherton, Aaron Fisher. Deakin University Faculty of Health CRGS. Does including depression in the Framingham Cardiovascular Risk Equation improve its predictive ability in women? \$25 000.
- Felice Jacka, Catherine Itsiopoulos, Adrienne O'Neil, Ewa Szymlek-Gay, Michael Berk. Diet and nutritional status of people with major depression. Meat and Livestock Australia (2013–14). \$252 900.
- Ajeet Singh. NSR neuroscience grant 2012 for 2013–2014.
- Sharon Brennan, Richard Osborne, Rachelle Buchbinder, Richard Page, Julie Pasco, Anita Wluka, Peter Everling. Social determinants of shoulder joint replacements 2007-12 nationwide. Arthritis Australia. \$10,000.
- Sharon Brennan, Richard Page. Victorian Orthopaedic Research Trust. Geographic distribution in the uptake of shoulder joint replacement. \$9 100.
- Lesley Berk. Alfred Deakin Post-doctoral Research Fellowship.
- Natalie Hyde was awarded an Australian Postgraduate Award and has commenced her PhD titled 'Gestational vitamin D levels in relation to offspring body composition during childhood'.

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PUBLICATIONS

- Pasco JA, Lane SE, Brennan SL, Timney EN, Bucki-Smith G, Dobbins AG, Nicholson GC, Kotowicz MA. Fracture risk among older men: osteopenia and osteoporosis defined using cut-points derived from female versus male reference data. *Osteoporos Int*. doi: 10.1007/s00198-013-2561-9
- Singh AB, Bousman CA, Ng CH, Byron K, Berk M. Psychomotor depressive symptoms may differentially respond to venlafaxine. *Int Clin Psychopharmacol*. 2013 28(3):121-6.
- Fitzgerald PB, Hoy KE, Singh A, Gunewardene R, Slack C, Ibrahim S, Hall PJ, Daskalakis ZJ. Equivalent beneficial effects of unilateral and bilateral prefrontal cortex transcranial magnetic stimulation in a large randomized trial in treatment-resistant major depression. *Int J Neuropsychopharmacol*. 2013 13:1-10.
- Singh A (2013). Do you take positive emotions into account while treating depressive patients? *Medicographia* 35:3:324.
- Ng C, Sarris J, Singh A et al (2013). Pharmacogenetic polymorphisms and response to escitalopram and venlafaxine over 8 weeks in major depression. *Hum. Psychopharmacol Clin Exp* 28: 516–522.
- Jacka FN, Ystrom E, Brantsaeter AL, Karevold E, Roth C, Haugen M, Meltzer HM, Schjølberg S, Berk M. Maternal and Early Postnatal Nutrition and Mental Health of Offspring by Age 5 Years: A Prospective Cohort Study *JAACAP* Oct;52(10):1038-47
- Jacka FN, Reavely N, Jorm A, Toumbourou J, Lewis A, Berk M. Prevention of common mental disorders: what can we learn from those who have gone before and where do we go next? *Aust NZ J Psychiatry* 2013 47(10) 920–929
- Berk M, Jacka FN, Williams LJ, O'Neil A, Pasco J, Moylan S, Allen N, Stuart A, Hayley A, Byrne M, Maes M. So depression is an inflammatory disease, but where does the inflammation come from? *BMC Medicine*. 11; 200.
- O'Neil A, Berk M, Davis J, Stafford L. Cardiac-self efficacy as a predictor of adverse outcomes in recently hospitalized Coronary Artery Disease (CAD) patients. *Health*. 6-14 DOI: 10.4236/health.2013.57A3002
- Wang Y, Zhao X, O'Neil A, Turner A, Liu X, Berk M. (2013). Altered cardiac autonomic nervous function in depression. *BMC Psychiatry*. 13:187
- Deckersbach T, Peters AT, Sylvia L, Urdahl A, Magalhães PV, Otto MW, Frank E, Miklowitz DJ, Berk M, Kinrys G, Nierenberg A. Do Comorbid Anxiety Disorders Moderate the Effects of Psychotherapy for Bipolar Disorder? Results From STEP-BD. *Am J Psychiatry*. 2013 Sep 30. doi: 10.1176/appi.ajp.2013.13020225.
- Pacchiarotti I, Bond DJ, Baldessarini RJ, Nolen WA, Grunze H, Licht RW, Post RM, Berk M, et al. The International Society for Bipolar Disorders (ISBD) Task Force Report on Antidepressant Use in Bipolar Disorders. *Am J Psychiatry*. 2013 Sep 13. doi: 10.1176/appi.ajp.2013.13020185.
- Morris G, Berk M, Galecki P, Maes M. The Emerging Role of Autoimmunity in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/cfs). *Mol Neurobiol*. 2013 Sep 26.
- Berk M, Singh A. Contextualising the biology of psychiatry within its social environment. *Aust N Z J Psychiatry*. 2013 Oct;47(10):889-90. doi: 10.1177/0004867413505955.
- Hosain MK, Kouzani AZ, Tye SJ, Abulseoud OA, Berk M. Design and analysis of an antenna for wireless energy harvesting in a head-mountable DBS device. *Conf Proc IEEE Eng Med Biol Soc*. 2013 Jul;2013:3078-81.
- Anderson RP, Henry MJ, Taylor R, Duncan EL, Cosat MJ, Tye-Din JA, Kotowicz MA, Pollock W, Nicholson GC, Toh BH, Brown MA, Pasco JA. A novel sero-genetic approach determines the community prevalence of genetically determined gluten-mediated disease – celiac disease, which informs and guides improved diagnostic pathways. *BMC Medicine* 2013;11:188. doi:10.1186/1741-7015-11-188.
- Pasco JA, Gould H, Brennan SL, Kotowicz MA. Musculoskeletal deterioration in men accompanies increases in body fat. *Obesity (Silver Spring)* 2013 Apr 27. doi: 10.1002/oby.20496. [Epub ahead of print]
- Brennan SL, Kotowicz MA, Sarah B, Leslie WD, Ebeling PR, Metge CJ, Dobbins AG, Pasco JA. Examining the impact of reimbursement on referral to bone density testing for older adults: Eight years of data from the Barwon Statistical Division, Australia. *Arch Osteoporos* 2013;8(1-2):152. doi: 10.1007/s11657-013-0152-1
- Brennan SL, Williams LJ, Berk M, Pasco JA. Socioeconomic status and quality of life in population-based Australian men. *A N Z J Public Health* 2013; 37(3): 226-232. doi: 10.1111/1753-6405.12063
- Cordina R, O'Meagher S, Gould H, Rae C, Kemp G, Pasco JA, Celermajer D. Skeletal muscle abnormalities and exercise capacity in adults with a Fontan circulation. *Heart* 2013;99(20):1530-4. doi: 10.1136/heartjnl-2013-304249.
- Holloway KL, Henneberg RJ, De Barros Lopes M, Staub K, Link K, Rühli F, Henneberg M. Secular Trends in Tuberculosis during the Second Epidemiological Transition: A Swiss Perspective. *Advances in Anthropology* 2013; 3(2):78-90.
- Holloway KL, Link K, Rühli F, and Henneberg M. 2013. Skeletal Lesions in Human Tuberculosis may sometimes heal: An aid to palaeopathological diagnoses. *PLOS ONE* 8(4): e62798. doi:10.1371/journal.pone.0062798
- Mezhov V, Cicuttini FM, Hanna F, Brennan SL, Wang Y, Urquhart D, Wluka AE. Does obesity affect knee cartilage? A systematic review of MRI data. *Ann Rheum Dis* [Epub ahead of print] doi: 10.1111/obr.12110
- Johansson H, Kanis JA, Odén A, McCloskey E, Chapurlat RD, Christiansen C, Cummings SR, Diez-Perez A, Eisman JA, Fujiwara S, Glüer CC, Goltzman D, Hans D, Khaw KT, Krieg MA, Kröger H, LaCroix AZ, Lau E, Leslie WD, Mellström D, Melton III LJ, O'Neill TW, Pasco JA, Prior JC, Reid DM, Rivadeneira F, van Staa T, Yoshimura N, Zillikens MC. A meta-analysis of the association of fracture risk and body mass index in women. *J Bone Miner Res* 2013 [Epub ahead of print]. doi: 10.1002/jbmr.2017
- Pasco JA, Brennan SL, Kotowicz MA. Morbid obesity in women on the rise: an observational, population-based study. *BMC Public Health* 2013; 13(1):290. doi:10.1186/1471-2458-13-290
- Jenkins N, Black M, Paul E, Pasco JA, Kotowicz MA, Schneider HG. Age-related reference intervals for bone turnover markers from an Australian reference population. *Bone* 2013;55(2):271-276. doi:pii: S8756-3282(13)00145-2. 10.1016/j.bone.2013.04.003

AWARDS

- Haslinda Gould was a finalist in the Margie and Chris Nordin prize, Australia & New Zealand Bone & Mineral Society
- Amie Hayley was the recipient of a travel grant for the Chronobiology Society conference, Adelaide, and finalist for young investigator award, Australasian Sleep Association (ASA), Brisbane.
- Dr Sharon Brennan was awarded the American Society for Bone and Mineral Research (ASBMR) Annual President's Poster Award
- Dr Ajeet Singh won a travel award to attend the World Congress of Psychiatric Genetics, Boston, USA, October 2013
- Drs Adrienne O'Neil and Lana Williams have been shortlisted for the 2013 SMART Geelong Researcher of the Year Awards (in the Early Career Researcher and 'Living with a disability' categories, respectively)
- Dr Olivia Dean has been shortlisted for a Royce Abbey Postdoctoral Fellowship

NEW STAFF AND STUDENTS

- Welcome Sarah Hosking who has commenced her PhD (Supervisors Professor Julie Pasco and Dr Sharon Brennan)
- Dr Ajeet Singh was Appointed as a Research Fellow Aug 2013



Paivi Rauma (Left) and Lana Williams (Right)

- Welcome Paivi Rauma from University of Eastern Finland who is visiting us for several months. Her PhD is investigating depression and antidepressant use and their effects on bone in men. She will be working under the supervision of Dr Lana Williams.

STUDENT NEWS



- Congratulations to Dr Ajeet Singh for the successful passing of his Doctor of Medicine thesis entitled "Antidepressant Response Prediction - Role of Blood Brain Barrier Polymorphisms, Norepinephrine Transporter Polymorphisms, Psychomotor Signs and Child Abuse." He will graduate on Dec 19th 2013.

- Congratulations to one of our newer staff members, Dr Kara Holloway graduated with a Doctor of Philosophy on the 25th of September 2013. Her thesis was titled: "Tuberculosis is an evolving disease: Paleoepidemiological and historical evidence" and she is now working on investigating the risk factors for osteoporosis and fragility fracture.
- Shae Quirk has just returned from a study/conference visit to Denmark to pursue her PhD program of research focused on personality disorders and physical co-morbidities.
- Amie Hayley was short-listed for a Young Investigator award at the Australasian Sleep Association (ASA) conference

CONFERENCE NEWS (PRESENTATIONS)

Australian and New Zealand Bone and Mineral Society (ANZBMS), Melbourne, Australia, 8-11 September 2013

- Brennan SL, Toomey L, Kotowicz MA, Henry MJ, Griffiths H, Pasco JA. Rheumatoid arthritis and incident fracture in women: a prospective study. POSTER
- Dobbins AG, Williams LJ, Pasco JA, Sarah B, Kotowicz MA, Brennan SL. Sex-differences in bone mineral density (BMD) t-scores in older adults referred for DXA: Data from the Barwon region. POSTER
- Gould H, Brennan SL, MacInnis RJ, Kotowicz MA, Nicholson GC, Pasco JA. Fracture and utilisation of residential aged care in Australia (Finalist for the Christopher & Margie Nordin Young Investigator Poster Award)
- Hodge JM, Fraher D, Collier FM, McMillan J, Kennedy RL, Ellis M, Walder K, Dodd S, Berk M, Pasco JA, Ashley D, Williams LJ, Gibert Y. Selective serotonin reuptake inhibitors (SSRIs) inhibit human osteoblastogenesis and decrease bone development and mineralization in zebrafish.
- Hyde N. Parental socioeconomic status and childhood fractures: Data from the Geelong Osteoporosis Study Fracture Grid. PLENARY POSTER
- Pasco JA, Brennan SL, Timney EN, Bucki-Smith G, Lane S, Dobbins AG, Zhang Y, Maloney D, Kotowicz MA. Fracture epidemiology from cradle to grave. POSTER
- Stuart A, Williams LJ, Brennan SL, Kotowicz MA, Pasco JA. Comparison of self-reported diagnosis and bone mineral density results in the identification of osteoporosis. POSTER
- Torpy AM, Hodge JM, Collier FM, Pasco JA, Berk M, Williams LJ. Antipsychotics inhibit human osteoclast formation and function.
- Williams LJ, Berk M, Hodge JM, Kotowicz MA, Collier FM, Pasco JA. Selective serotonin reuptake inhibitors (SSRIs) decrease serum markers of bone turnover: Geelong Osteoporosis Study.
- Zhang Y, Kotowicz MA, Pasco JA, Sanders KM. Do Osteoporosis Related Quality of Life affect death in people aged 50 years and older: Geelong Osteoporosis Study (GOS). Finalist for the Christopher & Margie Nordin Young Investigator Poster Award

Australasian Chronobiology Society, Adelaide, Australia, 13 September 2013.

- Hayley A., Williams LJ, Kennedy GA, Berk M, Brennan SL, Pasco JA. Excessive daytime sleepiness and body composition: examination of a population-based sample. ORAL
- Public Health Association of Australia (PHAA), Melbourne, Australia, 16-18 September 2013.
- Brennan SL, Moloney D, Kotowicz MA, Pasco JA. Association between occupation and treatment qualification for fracture

probability in men: Data from the Geelong Osteoporosis Study. POSTER

- Brennan SL, Toomey L, Kotowicz MA, Henry MJ, Griffiths H, Pasco JA. Rheumatoid arthritis and incident fracture in women: A case-control study. ORAL
- Dobbins AG, Brennan SL, Williams LJ, Pasco JA. Adult fracture and quality of life: a population-based study of Australian men. POSTER
- Hyde NK, Moloney D, Brennan SL, Wark JD, Pasco JA. Does dietary calcium intake during pregnancy meet national recommendations? ORAL
- Moloney D, Pasco JA, Brennan SL. Association between smoking and physical activity in three domains, involving Australian men. POSTER
- Pasco JA, Lane SE, Brennan SL, Timney EN, Bucki-Smith G, Dobbins AG, Kotowicz MA. The burden of fractures in older men arises from those without osteoporosis: Geelong Osteoporosis Study. POSTER
- Williams LJ, Jacka FN, Pasco JA, Coulson CE, Berk M. Prevalence of mood and anxiety disorders in Australian men: Geelong Osteoporosis Study. POSTER
- Williams LJ, Stuart A, Sanna L, Pasco JA, Kotowicz MA, Giradi P, Berk M. Suicidal ideation and physical illness: Does the link lie with depression? ORAL

International Society for the Study of Personality Disorders (ISSPD), Copenhagen, Denmark, 17-19 September 2013

- Quirk SE, El-Gabalawy R, Brennan SL, Bolton J, Sareen J, Pasco JA, Berk M, Chanan A, Williams LJ. Association between DSM-IV personality disorder clusters and physical conditions in US adults.
- Quirk SE, El-Gabalawy R, Brennan SL, Bolton J, Sareen J, Pasco JA, Berk M, Chanan A, Williams LJ. Personality disorders and physical conditions: National Epidemiological Survey on Alcohol and Related Conditions (NESARC).

Australasian Society for Bipolar and Depressive Disorders (ASBD), Melbourne, Australia, 3-5 October 2013

- Stuart AL, Quirk SE, Berk M, Pasco JA, Jacka FN and Williams LJ. Bipolar disorder and bone mineral density in adult women: A nested case-control study.
- Williams LJ, Pasco JA, Jacka FN, Hodge JM and Berk M. Bone health and the use of selective serotonin reuptake inhibitors (SSRI) in adult men
- Associate Professor Felice Jacka chaired and presented in a symposium leading the program
- American Society for Bone and Mineral Research (ASBMR), Maryland, USA, 4-7 October 2013
- Brennan SL, Leslie WD, Lix LM, Johansson H, Oden A, McCloskey E, Kanis J. Is lower income associated with an increased likelihood of qualification for treatment for osteoporosis in Canadian women? POSTER
- Brennan SL, Leslie WD, Lix LM, Johansson H, Oden A, McCloskey E, Kanis J. The performance of FRAX according to different levels of socioeconomic adversity POSTER
- Levinger I, Scott D, Nicholson GC, Duque G, McCorquodale T, Stuart AL, Ebeling PR, Sanders KM. Osteocalcin and Musculoskeletal Health in Older Women. POSTER
- Pasco JA, Lane SE, Brennan SL, Timney EN, Bucki-Smith G, Dobbins AG, Kotowicz MA. Fracture Burden For Men, In Relation To Osteopenia And Osteoporosis Defined By Male And Female

Reference Data For Areal Bone Mineral Density. POSTER

- Scott D, Nicholson GC, Stuart AL, Ebeling PR, Sanders KM. Investigating the predictive ability of gait speed and knee extensor strength for incident falls in community-dwelling older women at high risk of fracture. ORAL
- Zhang Y, Pasco JA, Sanders KM, Kotowicz MA. Construction validity of the ICECAP-O index amongst people with non-traditional/no classical low trauma fractures POSTER
- Australasian Sleep Association (ASA), Brisbane, Australia, 17-19 Oct 2013.
- Hayley AC, Williams LJ, Kennedy GA, Berk M, Brennan SL, Pasco JA. Excessive daytime sleepiness and body composition: a population-based study of women. Finalist for Young Investigator award. ORAL

Australian and New Zealand Obesity Society (ANZOS), Melbourne, Australia, 17-19 Oct 2013

- Harding JL, Peeters A, Shaw JE, Magliano DJ, on behalf of the Australian and New Zealand Diabetes and Cancer Collaborating (ANZDCC) group. Anthropometrics and risk of cancer in Australia and New Zealand. ORAL
- Pasco JA, Gould H, Holloway KL, Dobbins AG, Kotowicz MA, Williams LJ, Brennan SL. Prevalence of obesity using the body mass index and equivalent age- and sex-specific thresholds for percentage body fat mass. POSTER

International Congress of Psychosomatic Medicine in Lisbon, Portugal

- Associate Professor Felice Jacka presented in an invited symposium with collaborators from Japan and Spain. She also presented an invited Keynote in Madrid, Spain, organised by the University of Valencia.
- RANZCP Congress, Sydney, Australia, 2013
- Singh, A. NET polymorphism and Childhood Trauma – antidepressant efficacy and gene environment effects.
- Singh, A. The importance of Positive Affect in Managing Depression

World Congress of Psychiatric Genetics, Boston, October 2013

- Singh, A. ABCB1 polymorphism predicts escitalopram dose needed for remission in major depression.
- European College of Neuropsychopharmacology (ECN) Barcelona, Spain, October 2013.
- Berk, M. Negative symptoms in schizophrenia and mixed states in bipolar disorder.

OTHER MEETINGS

- A/Professor Felice Jacka attended the National Mental Health Service Planning Framework meeting in Canberra
- Dr Ajeet Singh has joined as a member of the working party for the RANZCP Clinical Practice Guidelines – Mood Disorder. He is also a member of the Deakin Medical School student admissions panel (2013)
- Drs Adrienne O'Neil & Olivia Dean attended the Emerging Leaders Workshop in Melbourne on October 9.
- Dr Lana Williams was supported by Deakin University to attend a NHMRC assessment panel meeting in Canberra

MEDIA HIGHLIGHTS

- Professor Julie Pasco's research team's recent publication in BMC Medicine: 'A novel serogenetic approach determines the community prevalence of celiac disease and informs improved diagnostic pathways' was featured in Deakin Research Showcase, 1/10/13, Geelong Advertiser, 4/10/13 'Coeliac detection coup' MDLinx 5/7/13
- Professor Julie Pasco promoted the launch of the BUPA-funded research project titled 'Vitamin D in Pregnancy and Childhood Growth' in the article "Healthy baby study suits mums to a D". Geelong Advertiser, 13 Sept 2013
- Amie Hayley's research "Sleepy women are heavier" was featured in the Australasian Sleep Association newsletter.
- Pulse radio interview with Professor Julie Pasco "Vitamin D in pregnancy and growth in the offspring". 23 Sept 2013
- MDLinx 27 September 2013 featured Dr Sharon Brennan's recent publication: 'Examining the impact of reimbursement on referral to bone density testing for older adults: 8 years of data from the Barwon Statistical Division, Australia'
- Dr Ajeet Singh has made critical breakthroughs in understanding the "blood brain barrier", which was featured in the Geelong Advertiser: www.geelongadvertiser.com.au/article/2013/01/18/357574_news.html



World Osteoporosis Day comes to Geelong

Junk food fuels fears

Mandy Squires | August 21st, 2013



Eating junk food while pregnant may damage child's mental h... <http://www.news.com.au/lifestyle/parenting/behaviour-issues-...>

News.com.au (<http://www.news.com.au>)

Pregnancy (*/lifestyle/parenting*)

Eating junk food while pregnant may damage child's mental health

- From: AAP
- August 21, 2013 12:14AM



- Associate Professor Felice Jacka and Professor Michael Berk published an overview and commentary on the importance of prevention in mental health research and policy which was picked up by MJA InSight.

www.mja.com.au/insight/2013/40/mental-health-vital-all-health

- The "Fabulous Dr Felice Jacka" was featured in Michelle Bridge's Sunday Life column this weekend
- www.theage.com.au/lifestyle/michelle-bridges-20131015-2vkip.html

OTHER NEWS AND EVENTS

- Public forum – Translating clinical research into practice – as part of the Smart Geelong Research and Innovations Expo 2013. The forum will be held at the Teaching Training and Research Building, Deakin Clinical School Nov 14 at 5:30pm.
- Deakin-Barwon Research Seminar – "Competitive Grants Peer Review Seminar". The purpose is to present your idea(s) for a new/ revisited funding proposal to an audience of your research peers as well as health consumers in order to gain constructive feedback about your funding application. It is scheduled for WEDNESDAY November 20 (9am-12pm), the Swanston Centre, Geelong. RSVP to Dr Adrienne O'Neil at AONEIL@barwonhealth.org.au.
- World Osteoporosis Day comes to Geelong- The Geelong Osteoporosis Study engaged with the local community groups (East Geelong Men's Shed and residents of the Multicultural Aged Care Services, North Geelong) to create an oversized jigsaw puzzle to help promote healthy lifestyle behaviours for strong bones. The puzzle was unveiled at a free public event that coincided with World Osteoporosis Day, on Sunday 20 October. The successful event, 'Strong Bones: Piecing Together Key Health Messages' took place at The Carousel on the Geelong Waterfront. The public health education session was designed to promote lifestyle behaviours recommended for the primary prevention of osteoporosis. Dr Sharon Brennan led the team (Amelia Dobbins, Sarah Hosking and Professor Julie Pasco) which was generously supported by epidemiology staff who volunteered on the day. More information: www.deakin.edu.au/research/stories/2013/10/29/an-oversized-jigsaw.

IMPACT SRC Contact Details

IMPACT SRC
School of Medicine
Deakin University
Geelong Warrn Ponds Campus
Locked Bag 20000, Geelong
Victoria 3220

Telephone +61 3 4215 3330
berkoffice@barwonhealth.org.au
[deakin.edu.au/health/medicine/
research/src/impact](http://deakin.edu.au/health/medicine/research/src/impact)
Cricos Provider Code: 00113B

About us

IMPACT is an integrated research facility that aims to increase knowledge and inform the development of new treatments for people suffering from major psychiatric disorders.