TrueBlue project helps people with depression and chronic disease

A project conducted by the Greater Green Triangle University Department of Rural Health is revolutionising the way patients with chronic diseases and co-morbid depression are being managed in Australia.

Project Manager Dr Michael Coates said that under the TrueBlue project practice nurses take a proactive role in assessing the risk factors for depression among people with coronary heart disease and type 2 diabetes. ‘Rather than going to their GP for a standard consultation, the patients spend about 45 minutes in a pre-appointment session with the practice nurse where their risk factors for depression are assessed,’ he said.

The nurses screen, assess, collect data, refer, review and monitor the patients. People identified as having severe depression are immediately referred to the GP for an appropriate consultation.

Dr Coates said studies indicated about one-third of people with coronary heart disease or type 2 diabetes also suffered from depression. He said many people did not want to burden GPs by raising ‘their problems’ and felt comfortable talking with a nurse about depression and other concerns during their regular check-ups.

The study started in 2009 and is expected to be completed early in 2011. The results are showing positive signs. ‘We cannot make firm conclusions until all the data are collected and analysed but there do seem to be improvements for the patients,’ Dr Coates said. ‘There have been examples of people saying they didn’t realise that they had depression until they went through the assessment and completed the questionnaire. They say identifying the problem is a huge help to them.’

Thirteen general practices in Adelaide, south-west Victoria and the Northern Rivers area of New South Wales are participating in the TrueBlue study which compares clinical outcomes between usual care and nurse-led collaborative care. A training program has been implemented for GPs and practice nurses in screening, assessing and managing depression among people attending general practices for pre-existing diabetes or heart disease. The project is funded by beyondblue, the National Depression Initiative. Others on the research team from Flinders University are Professor James Dunbar, Professor Prasuna Reddy, Dr Mark Morgan, Ms Kate Schlicht, Mr Hamish Brown, Mr Bob Leahy, Professor Jeff Fuller and Professor Richard Reed.

The psychologists on the team, Kate Schlicht and Prasuna Reddy, also worked with beyondblue to produce a DVD on depression and diabetes that provides information and guidance for people with these conditions and health professionals. The DVD is available free of charge from beyondblue.

For further information, contact director.research@greaterhealth.org

Prasuna.Reddy@greaterhealth.org
Welcome to the last edition of Research Pulse for 2010, and we are pleased to launch the first issue of our ‘new look’ design in keeping with the new Flinders University branding. This revised format provides the opportunity to include full colour and will also provide a more user friendly on-line version.

The recent announcements from the National Health & Medical Research Council (NHMRC) and the Australian Research Council (ARC) include a number of successful outcomes for researchers from the Faculty of Health Sciences. In particular, I would like to congratulate Professor Keryn Williams for receiving another NHMRC Research Fellowship to support her research activities over the next five years, Professor Xin-Fu Zhou for receiving a one year extension to his current Fellowship and to Dr Neil Jones who has been awarded an NHMRC Translating Research Into Practice (TRIP) Fellowship. A number of our experienced researchers have been rewarded again with successful NHMRC Project Grants, including Professor Doug McEvoy who has been awarded close to $3M for a project associated with his ongoing research activities relating to obstructive sleep apnea. I am also very pleased to see the outstanding success of two of our early career researchers, Dr Shiwani Sharma and Dr Damien Keating, each winning NHMRC grants in excess of $400K. The Faculty has also achieved success with ARC Linkage Grants and ARC Discovery Projects and a more detailed summary of these recent funding announcements is provided later in this edition of Research Pulse.

In addition to these major funding rounds the Faculty can be particularly proud of the success of Professor Ann Roche from the National Centre for Education and Training on Addiction (NCETA) for winning a tender for the development of a national strategy to address the misuse of both over the counter and prescribed pharmaceuticals. This project will be funded through the Victorian Department of Health and the outcomes of this work will have important national significance. These activities continue to reflect the ongoing effort and commitment of the Faculty’s research endeavour and provide a solid foundation to continue building our research capacity into the future. We should all feel proud of another successful year and look forward to the opportunities ahead in 2011.

Professor Michael Kidd AM
Executive Dean
Faculty of Health Sciences
Flinders University

Understanding the genome – from Oxford to Flinders

Two months into taking up my position as Senior Lecturer in Genetics and Molecular Medicine at Flinders, this sprawling, vibrant campus seems a long way from my previous position, as part of the historical and traditional world of Oxford University. My story has come full circle, as it was as an eager and enthusiastic undergraduate student at Flinders University 15 years ago that I decided to take my scientific career down the path of medical research.

After finishing my studies in Adelaide, I was fortunate enough to be awarded a Nuffield Medical Research Fellowship which enabled me to continue my research in Oxford. It was during the seven years I spent there that I really cemented my area of research interest, that of gene regulation and the genetic mechanisms of disease.

With the advent of genome-wide sequencing, now is the time, more than ever before, that we are overloaded with data about the human genome. The next important step is going to be to understand what this information is telling us. My research focuses on the regulation of gene expression, in order to make some biological sense of the substantial amount of DNA sequence information which is now available to us. The overall objective is to apply this information to clinical situations, such as breast cancer and chronic lymphoid leukaemia. My other interest is teaching, and my role in developing and expanding human genetics teaching at Flinders is one I am extremely excited about.

Karen will be lecturing in the Human Molecular Genetics topics in 2011. You can read about her latest research in the October 29 issue of Cell.

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Oxygen use overrated in end of life care

While millions of patients with advanced disease are given oxygen therapy to help them breathe more easily, an international study led by Flinders University’s Professor David Currow has found that roughly half of them don’t benefit from the intervention. Among those who do benefit, ordinary air and oxygen offer equal benefit to those whose levels of oxygen in the blood are normal.

The study of 240 patients in Australia, the UK and the USA found that while the practice of giving oxygen to ease breathing is widespread, it is not based on rigorous scientific evidence.

The results of this landmark research are published in the current edition of The Lancet.

Shortness of breath (also known as dyspnea) is a common symptom in very advanced stages of many diseases and disorders when every effort has been made to reverse underlying causes. This includes people with emphysema, heart failure, cancer and motor neurone disease.

Clinical guidelines recommend oxygen when blood oxygen levels fall so low that a patient becomes hypoxic – when there isn’t enough oxygen in the blood to keep vital functions going. But there are large numbers of patients whose oxygen levels haven’t fallen into the critical zone who still experience chronic difficulty breathing and feel they need help. These people are often given oxygen by health professionals at the request of family and friends.

Patients in the trial received either oxygen or medical air for one week to see if would help ease their breathing. The same percentage of patients in both groups reported the same degree of relief from each treatment, leading to the conclusion that supplemental oxygen isn’t any more beneficial than the delivery of air by the nose.

The results suggest that the same level of relief might be achieved by using something as simple as a small fan, a solution that would be less cumbersome for patients and less costly to the system.

‘So while having air blow across your face may be helpful, this study demonstrates that for most people it is not the oxygen itself that is making the difference,’ Professor Currow said.

‘Studies like this can help inform our decisions during palliative care, help in health service planning and ultimately enable us to give the patients that we serve the best care possible at a time when they need it most,’ he said.

Grant to aid Flinders eye research

Flinders University eye researcher Dr Kathryn Burdon has been awarded a $58,000 grant by the Ramaciotti Foundations to assist her in continuing her outstanding biomedical research.

Dr Burdon was one of 24 recipients to share more than $1.6 million presented at the Ramaciotti Foundations’ annual awards held in Sydney on November 4.

Research in the Department of Ophthalmology led by Professor Doug Coster is aimed at identifying genetic causes for eye diseases including glaucoma and blindness in patients with diabetes.

‘Receiving this grant will fund the purchase of equipment that enables us to assess multiple genes in thousands of patients simultaneously, vastly improving our ability to detect disease genes,’ Dr Burdon said.

‘Through identifying these genes we can better understand the causes of these diseases, as well as the influence of environmental factors, allowing us to develop predictive tests and new treatments to improve patient outcomes.’

Adapted from an original article in Flinders News

Dr Kathryn Burdon
Krista Mosel has a nursing background in Critical Care: emergency, high dependency and intensive care. She is currently a full time doctoral candidate and part time research assistant at Flinders School of Nursing & Midwifery and has been awarded an Australian Postgraduate Award Scholarship to complete her PhD, which is within the area of mental health nursing. Krista retains strong ties with the University of South Australia (where she completed her Bachelor of Nursing) and has tutored Indigenous nursing students in all nursing subjects, while she participated in the Indigenous Tutorial Assistance Scheme. She is also a referee for both the Journal of Psychiatric and Mental Health Nursing and International Journal of Mental Health Nursing.

Her current research is in psychiatric risk assessment and management, and is investigating the decision making and perceptions of health professionals of ‘risky’ behaviours by consumers. The overall aims are to provide an understanding of the issues facing health professionals in undertaking risk assessment and management; and to apply this to patient absconding from acute care mental health settings. To meet these aims, risk theory from a social constructionist perspective is utilised and a hybrid method employed. The impetus behind this research is to create an understanding of how adverse events and risk are understood, as this has the ability to inform risk assessment and management practices in mental health care. The findings of this research will aid in the development of clinical competencies that underpin decision making practices, provide a platform towards the development of evidence-based nursing interventions, and ensure that therapeutically meaningful care is achieved.

Sandra Bradley has been pursuing research into advance directive decision-making by Baby Boomers as a part-time Masters of Science by Research candidate in the School of Nursing & Midwifery at Flinders. Her focus is specifically on this group because of their unique historical perspective in defining personal autonomy as evidenced by the sexual, feminist, financial, and educational revolutions, just to name a few, that have occurred during the maturation of the Boomers. Now, just when their generation is beginning to enter the retirement phase of life, debate is intensifying about what demands they will make on healthcare as they enter old age. At the same time, governments worldwide are investigating how best to provide healthcare resources for ever increasing numbers of people, including the Boomers, who will need these services.

Using a purposive sample of South Australian Boomers and classical grounded theory methodology, the originality of this research rests in data specific to this generation in South Australia for understanding what factors influence people to discuss their future healthcare needs and make advance directive decisions.

Advance directives are formal instruments which indicate preferred healthcare treatment options during a time when a person is incapacitated or unable to voice these decisions themselves. These instruments can also appoint substitute decision-makers to act for a person during these times. Since 2007, Sandra Bradley has been pursuing research into advance directive decision-making by Baby Boomers as a part-time Masters of Science by Research candidate in the School of Nursing & Midwifery at Flinders. Her focus is specifically on this group because of their unique historical perspective in defining personal autonomy as evidenced by the sexual, feminist, financial, and educational revolutions, just to name a few, that have occurred during the maturation of the Boomers. Now, just when their generation is beginning to enter the retirement phase of life, debate is intensifying about what demands they will make on healthcare as they enter old age. At the same time, governments worldwide are investigating how best to provide healthcare resources for ever increasing numbers of people, including the Boomers, who will need these services.

Using a purposive sample of South Australian Boomers and classical grounded theory methodology, the originality of this research rests in data specific to this generation in South Australia for understanding what factors influence people to discuss their future healthcare needs and make advance directive decisions.

Sandra.Bradley@flinders.edu.au
The inaugural Southgate Institute for Health, Society & Equity Policy Club on 27 October 2010 attracted an audience of over 70 people to the Flinders in the City venue. Policy makers and practitioners in the education, health and welfare sectors comprised at least half of the audience, and many took advantage of the Q & A format to question and debate with an expert panel the topic Redesigning services for health and wellbeing equity. All three South Australian universities were represented, across disciplines of public policy, education, social work, medicine and public health, and several non-government organisations were also present.

The panel for the evening consisted of Professor Ron Labonté (Institute of Population Health, University of Ottawa), Ms Kim O’Donnell (Department of Health Management and Doctor of Public Health student, Flinders University), Dr Miranda Roe (SA Community Health Research Unit, Flinders University), Ms Sarah Schulman (The Australian Centre for Social Innovation) and Mr David Waterford (SA Department of Families and Communities). The Director of the Southgate Institute for Health Society and Equity, Professor Fran Baum chaired the meeting.

Professor Michael Barber, Vice Chancellor, Flinders University opens Inaugural Southgate Policy Club

Waterford (SA Department of Families and Communities). The Director of the Southgate Institute for Health Society and Equity, Professor Fran Baum chaired the meeting.

Professor Michael Barber, Flinders University’s Vice-Chancellor, opened the event. He stressed the importance to the University’s research agenda of not only conducting excellent research, but also engaging policy makers. He welcomed the Southgate Institute’s work in this regard.

Professor Fran Baum and each of the panel members made some brief opening remarks about the nature of equity, and the evening’s debate began immediately with questions from the floor.

Some of the issues covered included the various roles that government agencies and grass roots community organisations play in developing and managing services, the limiting impacts of high workloads, and the pressure on workers to maintain professional distance from their clients. In response to audience questions, David Waterford and Sarah Schulman spoke of current redesign work within the South Australian public sector; Ron Labonté discussed the benefits of universal rather than targeted services for equity of outcomes; Kim O’Donnell spoke of the highly complex funding structures and other limitations challenging some Aboriginal community controlled health services; and Miranda Roe talked about ways to overcome unequal power relationships in provision of social services. One consistent theme which emerged from the discussion was the need for ‘joined-up’ social services, with the funding and flexibility to develop and implement services and community development programs over a sustained period.

Questions and comments from the audience were varied and thoughtful, and the Q & A format enabled a wide range of issues to be considered and different perspectives offered. Following on from the success of this inaugural event, the Southgate Institute is planning to conduct at least two Southgate Policy Clubs in 2011. If you are interested in receiving information about these events please contact Pamela Wright, Research Development Manager, Southgate Institute.

http://www.flinders.edu.au/medicine/sites/southgate/southgate_home.cfm

Pamela.Wright@flinders.edu.au
Celebrating Success in the Faculty

The faculty of Health Sciences congratulates members who have recently received research grants, awards or honours. The following list shows Chief Investigators who received grants from 1/9/10 to 22/11/10, as advised by the Research Services Office.

**Australian Organ and Tissue Donation and Transplantation Authority**

Keryn Williams: Australian Corneal Graft Register, $152,918.

**Australian Primary Health Care Research Institute**

Sharon Lawn, Linda Sweet, Malcolm Battersby: Inter-disciplinary & cross boundary clinical info sharing in primary health care, $152,334.

**ARC Discovery Projects**

Damien Keating, Xin-Fu Zhou: Huntingtin-associated protein 1 controls cell communication, $260,000.

Jo Shapter, John Miners, Sally McArthur: Nanoscale characterization of the dynamics of artificial lipid membranes-model systems for drug binding studies, $340,000.

Mike Bull, David Gordon: Parasite transmission through social networks in the pygmy bluetongue lizard, $455,000.

Kenneth Pope, John Willoughby, David Powers, Trent Lewis: Enhanced brain and muscle signal separation verified by electrical scalp recordings from paralysed awake humans, $225,000.

**ARC Linkage Projects**

Eileen Willis, Claire Drummond, Siva Vemuri, Simone Tur: Mapping the health promoting capacity of Art Centres on the Anangu Pitjanjatjara Yankunytjatjara Lands, $90,000.

Carlene Wilson, Paul Ward, John Covenee: Intergenerational transmission of dietary behaviour, $213,000.


**The Channel 7 Children’s Research Foundation of South Australia**

Jonathan Gleadle: Profiling lymphocyte populations and lymphocytic microRNAs in children with nephrotic syndrome, $60,000.

Billy Tao: Can controlled consumption of non-allergic nuts benefit children with nut allergy? A randomised controlled study, $17,500.

**The Clive and Vera Ramaciotti Foundation**

Doug Coster, Kathryn Burdon: Taqman OpenArray Genotyping System for medium to high throughput genotyping of single nucleotide polymorphisms, $58,000.

**Department of Health and Ageing**

Mark Sheppard: Aboriginal & Torres Strait Islander Diabetes Management Improvement Project, $3,202,314.

**FMC Lyn Wrigley Breast Cancer Research**

Peter MacKenzie: Regulating the impact of sex hormones in breast cancer, $27,000.

Jonathan Gleadle: Effects of hypoxia on exosome production by breast cancer cells, $12,000.

Michael Michael: Exosomal involvement in stroma-epithelial cell interactions, $20,000.

Karen Lower: Screening for mono-allelic expression of BRCA1 and BRCA2 in mutation-negative familial breast cancer samples, $24,000.

**The Ian Potter Foundation**

Mayumi Kako: Travel and Conference to attend and present at the International Perspectives in the History of Nursing Conference, $2,000.

**Motor Neurone Disease Research Institute**

Mary-Louise Rogers, Robert Rush: Targeted down regulation of SOD1G93A in MND mice, $89,736.

**NHMRC Projects**

David Currow, Christine McDonald, Amy Abernethy, Simon Eckermann, Katherine Clark, Dimitar Sajkov: A study into the use of sertraline for relieving breathlessness, $585,000.

Lloyd Einsiedel, Kim Wilson, Dale McPhee: Chronic lung disease and infection with the Human T-lymphotropic virus 1 among Indigenous Australians, $820,933.

**NHMRC Research Fellowships**


Ying Hu, Graeme Young, Geoffrey Margison, Richard Le Leu: Use of dietary factors to prevent damage to genes important for bowel cancer, $610,486.

Damien Keating: RCAN1 in diabetes, $431,023.


Shiwni Sharma, Kathryn Burdon, Jamie Craig, David Mackey, Robb de longh, Nick Di Girolamo: EphA2 signalling in vision impairing cataract, $571,732.


Graeme Young, Steve Cole, Carlene Wilson, Michael Michael, Susanne Pedersen: Establishing a blood test for bowel cancer screening, $742,826.

Katherine Clark, David Currow, Nicholas Talley, Philip Dinning, Lawrence Lam, Patricia Davidson, Meera Agar, Tania Shelby-James, Jane Phillips: A multisite randomised controlled trial comparing the severity of constipation symptoms experienced by palliative care patients receiving care compared to those diagnosed and managed according to the underlying pathophysiology, $481,469.

**NHMRC Research Fellowships**


Lauren Thurgood, a research scholar and PhD candidate in the Department of Immunology, has just won the Philip Alper’s prize for Best Basic Science Presentation at the 2010 Annual Scientific Meeting of the SA Branch of the Australian Rheumatology Association. In addition, Dr Ju Ann Tan, also from the Department of Immunology, won the prize for Best Clinical Presentation. These prizes highlight the importance of their work and will increase their chances of gaining future funding and better understanding of autoimmune disease.

Ms Thurgood’s area of research is in autoimmunity, where the immune system produces antibodies against ‘self’ proteins in healthy tissues. Her work is to examine one of these, targeted against a protein called Ro60, which is present in the blood of most patients with primary Sjogrens Syndrome and systemic lupus erythematosus.

Dr Tan’s research focus is in idiopathic inflammatory myopathies – a group of autoimmune skeletal muscle disorders. She has found an increase of these conditions over the past 30 years in South Australia, particularly inclusion body myositis which affects patients over 50 years of age.

Quoting Professor Gordon, Academic Head of Immunology at Flinders University: ‘It illustrates the breadth of research, both basic and clinical, that is possible in the unique academic environment at the Flinders Medical Centre, where the close proximity of research areas, diagnostic laboratories and patient services enables an integration of basic and clinical research. The founding fathers of the School of Medicine developed this special environment to facilitate the type of translational medical research exemplified by these awards. Their vision has led to thirty years of continuous NHMRC funding for research on human autoimmunity at Flinders, an area representing the greatest health burden after heart disease and cancer.’

Tom.Gordon@flinders.edu.au

Anita J. Gordon, Professor Tom Gordon

Nurses’ Memorial Foundation of SA
Paul Arbon, Lynette Cusack, Alison Hutton, Mayumi Kako, Linda Starr: Exploring nursing students understanding of being regulated, $28,000.

The Ophthalmic Research Institute of Australia
Kathryn Burdon: Genetic causes of childhood blindness in Sri Lanka and Cambodia, 48,000.

Doug Coster: Do transplants of corneal endothelium undergo rejection? $48,000.

Jamie Craig, Jwu Jin Khong: A national registry of thyroid eye disease for genomic and transcriptomic studies, $44,000.

Shiwani Sharma: To understand the cause of a blinding corneal disease: Fuchs’ endothelial dystrophy, $40,000.

Perpetual Philanthropic
Celia Chen: Optimizing outcomes in retinal artery occlusion, $10,000.

Prostate Cancer Foundation of Australia
Pam Sykes: Whole body low dose X-radiation treatment to delay or prevent the progression of prostate cancer to advanced stage disease, $243,367.

Safework SA
Barbara Sanderson, Fiona Young, Jani Matisons: Characterisation of the health hazard associated with exposure to synthetic nanoparticles in the workplace, $49,970.

St John Ambulance Australia Inc
Alison Hutton: Understanding and identifying potential risks for young people at music festivals, $8,684.

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Communication the key to Adolescent Health within a rapidly urbanizing China

In August 2010 Drs Alison Hutton and Julian Grant from the School of Nursing & Midwifery were invited by the School of Nursing from Shandong University to be part of an urbanization project in Shandong province, China. The aim was to improve the capacity of community health nurses in Linyi rural and urban areas to work with adolescents. As a city with a population of 33 million people, Linyi has undergone rapid urbanization in recent years as a result of targeted government redevelopment. As Linyi is an historic Chinese revolutionary base area, China attaches much importance in maintaining its cultural history and developing its socioeconomic potential. Rapid acceleration of urbanisation has resulted in many health and development issues for adolescents who are grappling with new and conflicting pressures on the formation of their identity. This poses a challenge for health professionals and teachers who recognise that they have limited skills in addressing the health needs of this group.

In China, Community Health Nursing (CHN) is one of the key areas identified for national action. Larger cities like Beijing and Shanghai have a well established primary care role for community nurses, and are working towards expanding this role to include health promotion, prevention and early intervention. Other areas are just beginning to develop CHN roles. In 2009, with the support of WHO, the China Ministry of Health initiated a CHN strengthening project, where 10 pilot sites were selected across the country; Linyi is one of these sites.

While they were in Linyi, Drs Hutton and Grant gave lectures and held workshops on primary health care and adolescent growth and development to community and school health nurses, doctors and teachers. The key issue for these workers was how to communicate with increasingly Westernised adolescents. The most concerning issues emerging were internet use and abuse, alcohol use and abuse, managing relationships and sexuality, physical violence, stressors relating to academic achievement and conflict with parents. While many of these are similar to health issues for Australian adolescents, the cultural histories of China that shape Chinese parenting and the urgency for economic redevelopment add unfamiliar dimensions to these challenges.

With the help of international programs officer Mr Paul Saeki, Drs Hutton and Grant are developing a collaborative program of education and building on the relationships established during this scoping visit. This project has the potential to not only contribute to enhancing adolescent growth and development in China, and developing capacity for health professionals who work with adolescents, it also paves the way for the development of strong partnerships between Flinders University and Shandong University.

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Dr Julian Grant & Dr Alison Hutton